APPROVED

ENSOLUM

April 26, 2023

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

Re: Closure Request
Windward Federal 004H
Incident Number NAPP2218850477
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, excavation, and soil sampling activities performed at the Windward Federal 004H (Site). The purpose of Site assessment, excavation, and soil sampling activities was to address impacted soil resulting from a crude oil and produced water release at the Site. Based on excavation activities and laboratory analytical results from the soil sampling events, COG is submitting this *Closure Request*, describing remediation that has occurred and requesting no further action for Incident Number NAPP2218850477.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit B, Section 30, Township 24 South, Range 32 East, in Lea County, New Mexico (32.194444°, -103.711667°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On July 2, 2022, internal corrosion on a flow line resulted in the release of approximately 9.33 barrels (bbls) of crude oil and 14 bbls of produced water into the adjacent pasture. No released fluids were recovered. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 (Form C-141) on July 7, 2022. The release was assigned Incident Number NAPP2218850477.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. On September 15, 2022, borehole BH01 (New Mexico Office of the State Engineer (NMOSE) file number C-04665) was advanced to a depth of 120 feet bgs via air rotary drill rig. The borehole was located approximately 0.08 miles northwest of the Site and is

depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Appendix A. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period, groundwater was not observed and it was confirmed groundwater beneath the Site is greater than 120 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. 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 freshwater emergent wetland, located approximately 1.60 miles east 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
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On July 11, 2022, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven preliminary assessment soil samples (SS01 through SS07) were collected within and around the release extent at a depth of approximately 0.5 feet bgs. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary 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. Soil samples delivered to the laboratory the same day they are collected may not have equilibrated to the 6 degrees Celcius required for shipment and long-term storage, but are considered to have been received in acceptable condition.

Laboratory analytical results for preliminary soil samples SS01 through SS04, collected outside of the release extent, 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 SS05

through SS07, collected within the release extent, indicated BTEX, TPH, and/or chloride concentrations exceeded the Site Closure Criteria and/or reclamation requirement and additional remediation activities were warranted.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On February 7, 2023, Ensolum personnel were at the Site to oversee excavation activities. Impacted soil was excavated as indicated by visible staining and laboratory analytical results for the preliminary soil samples SS05 through SS07. Excavation activities were performed using a backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride.

Following removal of impacted soil, 5-point composite excavation confirmation soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. 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. Confirmation soil samples FS01 through FS07 were collected from the floor of the excavation at depths ranging from 6 feet to 7 feet bgs. Confirmation soil samples SW01 through SW09 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 7 feet bgs. The excavation confirmation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3. Photographic documentation of the excavation is included in Appendix B.

Laboratory analytical results for soil samples FS01 through FS07 and SW01 through SW09 indicated all COC concentrations were compliant with the Site Closure Criteria and were compliant with the reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation measured approximately 1,308 square feet in areal extent. A total of approximately 340 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the July 2, 2022, release of crude oil and produced water into the adjacent pasture. Laboratory analytical results for the confirmation soil samples, collected from the final excavation extent, indicated concentrations of all COCs were compliant with the Site Closure Criteria and were compliant with the reclamation requirement. Based on the laboratory analytical results, no further remediation appears warranted. COG will backfill the excavation with material purchased locally, recontour the Site to match pre-existing site conditions and re-seed the disturbed area with appropriate BLM seed mixture during the next possible growing season for optimal vegetation growth.

Excavation of impacted soil has mitigated adverse conditions at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes these remedial actions are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2218850477. The Form C-141 is included as Appendix D.

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 Geologist

Kalei Jennings
Senior Scientist

cc: Jacob Laird, ConocoPhillips Company
Bureau of Land Management

Appendices:

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

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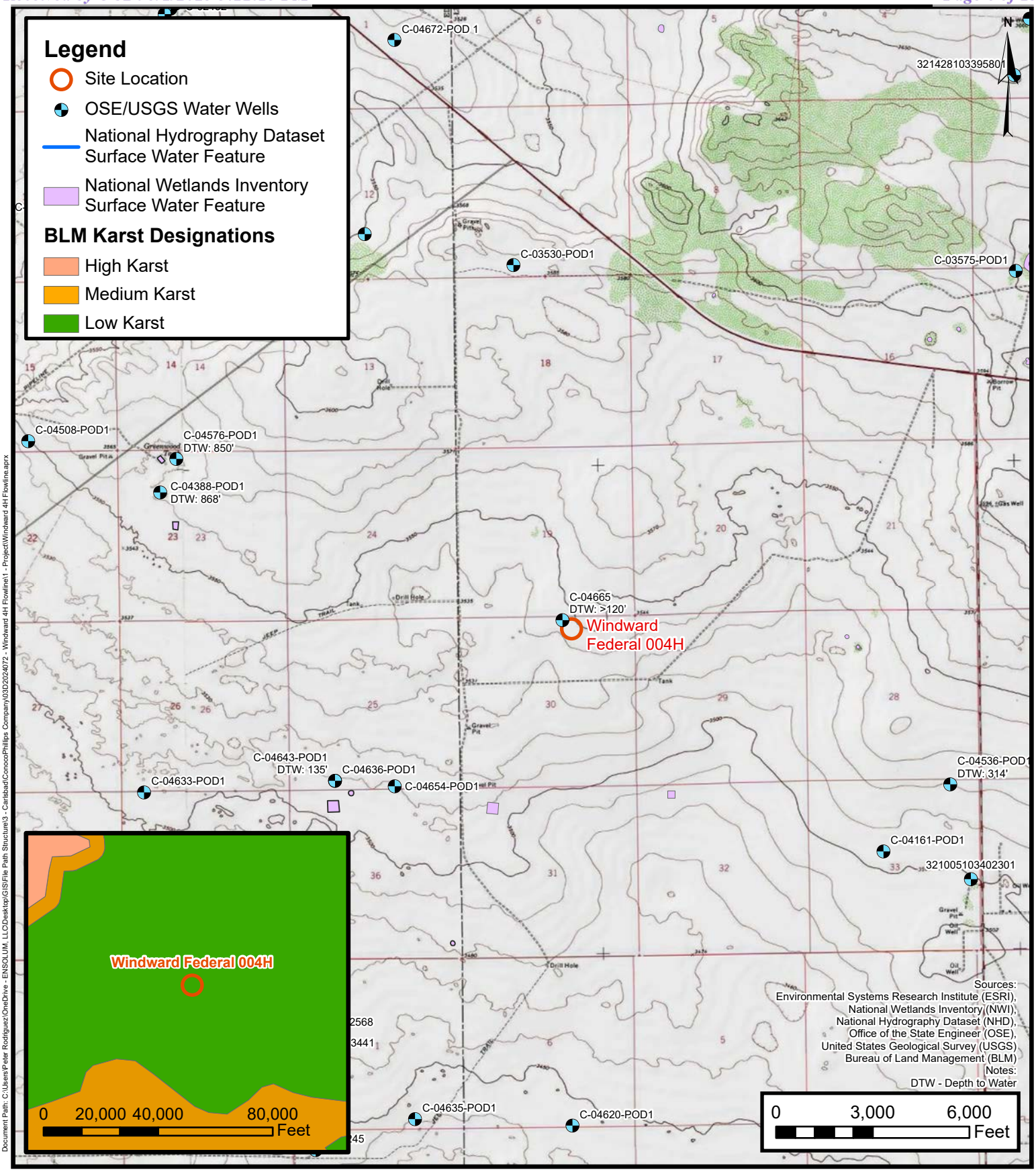
FIGURES



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Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

COG Operating, LLC

Windward Federal 004H

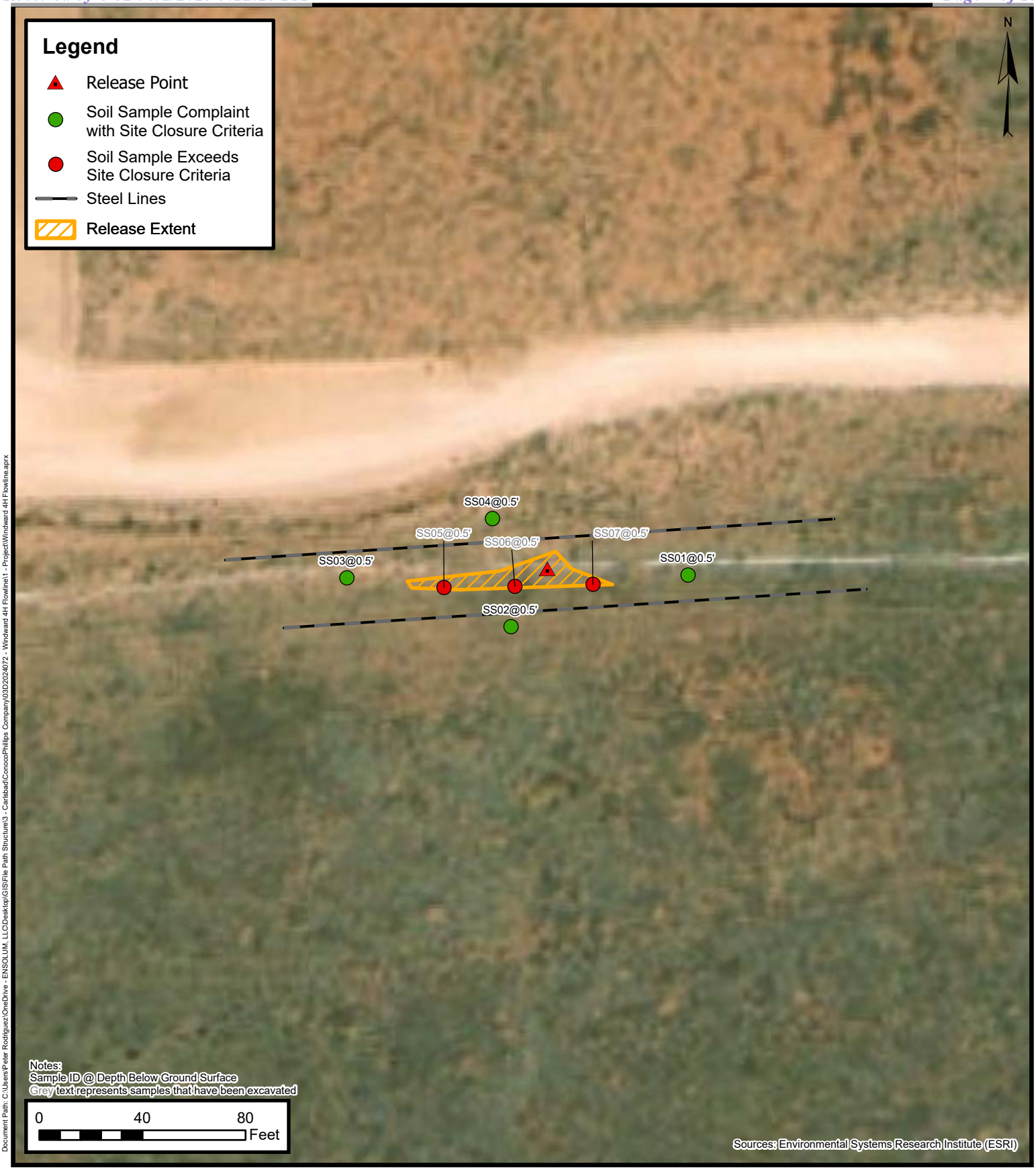
Incident Number: NAPP2218850477

Unit B, Sec 30, T24S, R32E

Lea County, New Mexico

FIGURE

1



Document Path: C:\Users\Peter Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\GIS\File Path Structure\3 - Carlsbad\ConocoPhillips Company\03D2024072 - Windward 4H Flowline\1 - Project\Windward 4H Flowline.aprx

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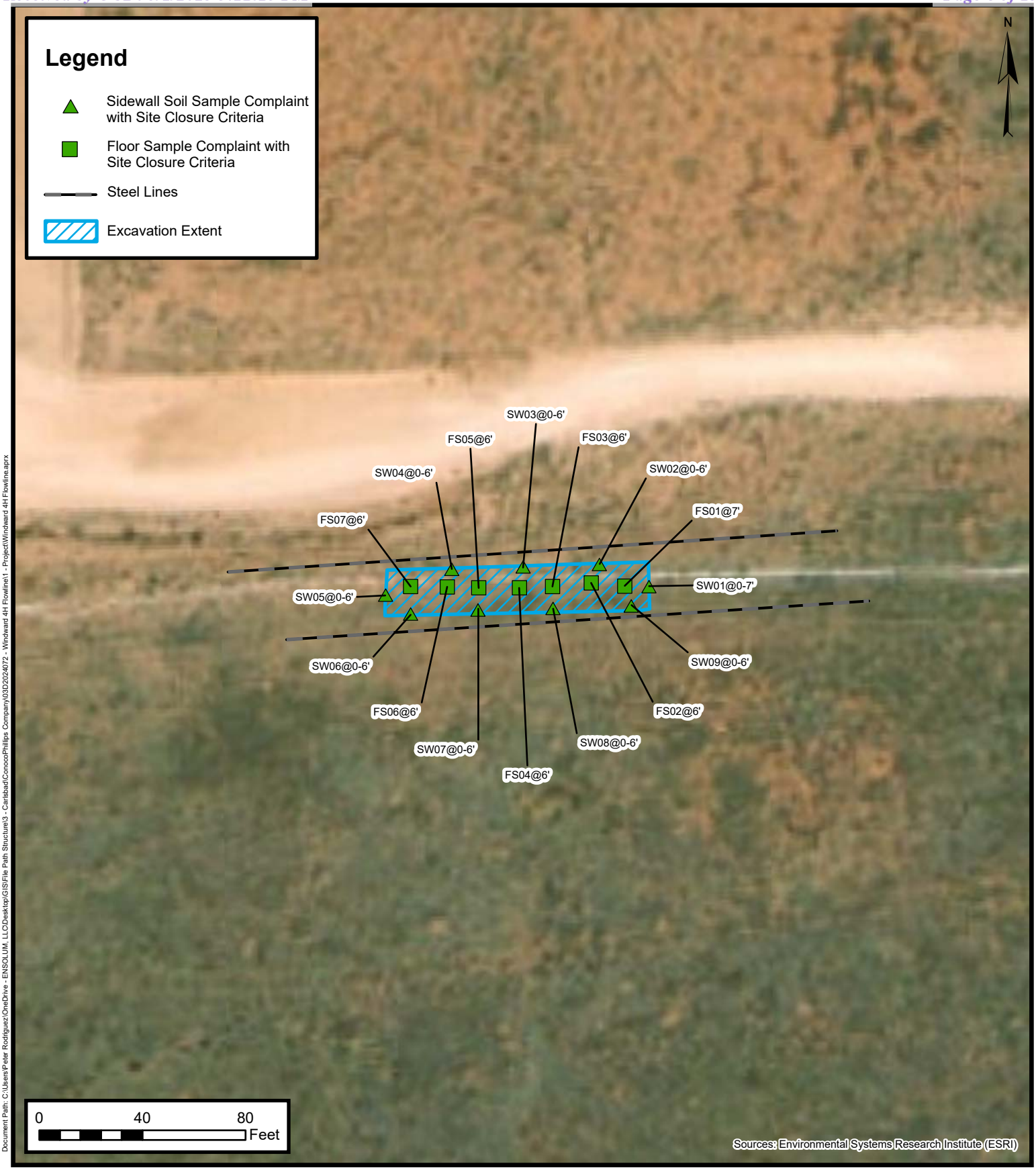
Preliminary Soil Sample Locations

COG Operating, LLC
Windward Federal 004H
Incident Number: NAPP2218850477
Unit B, Sec 30, T24S, R32E
Lea County, New Mexico

FIGURE
2



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Excavation Soil Sample Locations

COG Operating, LLC
Windward Federal 004H
Incident Number: NAPP2218850477
Unit B, Sec 30, T24S, R32E
Lea County, New Mexico

FIGURE
3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Windward Federal 004H
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**
Preliminary Assessment Soil Samples										
SS01	07/11/2022	0.5	<0.00201	0.0641	<49.9	<49.9	<49.9	<49.9	<49.9	40.4*
SS02	07/11/2022	0.5	<0.00202	0.0346	<49.8	<49.8	<49.8	<49.8	<49.8	5.47*
SS03	07/11/2022	0.5	<0.00200	0.0116	<50.0	<50.0	<50.0	<50.0	<50.0	7.27*
SS04	07/11/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	64.2*
SS05	07/11/2022	0.5	<0.200	20.1	1,130	4,470	<250	**5,600**	**5,600**	**3,400***
SS06	07/11/2022	0.5	<0.200	39.7	1,450	3,270	<250	**4,720**	**4,720**	**3,150***
SS07	07/11/2022	0.5	<0.199	68.1	4,770	4,520	<250	**9,290**	**9,290**	**3,930***
Excavation Floor Soil Samples										
FS01	02/07/2023	7	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	12.0
FS02	02/07/2023	6	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	30.1
FS03	02/07/2023	6	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	25.4
FS04	02/07/2023	6	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	17.5
FS05	02/07/2023	6	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	33.4
FS06	02/07/2023	6	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	21.0
FS07	02/07/2023	6	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	26.5

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Windward Federal 004H
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**
Excavation Sidewall Soil Samples										
SW01	02/07/2023	0 - 7	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	63.8*
SW02	02/07/2023	0 - 6	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	208*
SW03	02/07/2023	0 - 6	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	132*
SW04	02/07/2023	0 - 6	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	137*
SW05	02/07/2023	0 - 6	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	80.8*
SW06	02/07/2023	0 - 6	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00*
SW07	02/07/2023	0 - 6	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	7.55*
SW08	02/07/2023	0 - 6	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	14.3*
SW09	02/07/2023	0 - 6	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	79.0*

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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

Grey text represents samples that have been excavated

** indicates sample was collected in area to be reclaimed after remediation is complete;*

reclamation standard for chloride in the top 4 feet is 600 mg/kg

reclamation standard for TPH in the top 4 feet is 100 mg/kg

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APPENDIX A

Referenced Well Records

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
20E37	C 04536 POD1	1	2	2	33	24S	32E	625019	3561244

Driller License: 1706 **Driller Company:** ELITE DRILLERS CORPORATION

Driller Name: BRYCE WALLACE

Drill Start Date: 06/09/2021 **Drill Finish Date:** 06/10/2021 **Plug Date:**

Log File Date: 06/21/2021 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 4 GPM

Casing Size: 4.30 **Depth Well:** 500 feet **Depth Water:** 314 feet

Water Bearing Stratifications:	Top	Bottom	Description
	235	480	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	300	500

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
C-04665 POD 1		C-04665

WELL OWNER NAME(S)	PHONE (OPTIONAL)
COG OPERATING LLC	575-988-2043

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
2208 W MAIN ST	ARTESIA	NM	88210

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	11	42.72	N
	LONGITUDE	-103	42	45.30	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

KING TUT FEDERAL 001H

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1184	RUSSELL SOUTHERLAND	WEST TEXAS WATER WELL SERVICE

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
9/15/2022	09/15/2022	120		

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
			NO CASING IN HOLE				

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3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
			N/A		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.	C-04666	POD NO.	1	TRN NO.	732879
LOCATION	24S. 32E. 30 112			WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1		CALICHIE PAD	Y ✔ N	
1	3		SANDY TOPSOIL	Y ✔ N	
3	25		CALICHIE	Y ✔ N	
25	27		RED SAND	Y ✔ N	
27	120		RED SANDY CLAY	Y ✔ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☑ OTHER – SPECIFY: DRY HOLE

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

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PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

RUSSELL SOUTHERLAND

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

RUSSELL SOUTHERLAND — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

09/15/2022 — DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. C-04665	POD NO. 1	TRN NO. 732879	
LOCATION 24S. 32E. 30 112		WELL TAG ID NO.	PAGE 2 OF 2

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 732879
File Nbr: C 04665
Well File Nbr: C 04665

Oct. 04, 2022

KALEI JENNINGS
ENSOLUM
601 N MARIENFIELD ST SUITE 400
MIDLAND, TX 79701

Greetings:

The above numbered permit was issued in your name on 08/26/2022.

The Well Record was received in this office on 09/26/2022, stating that it had been completed on 09/15/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 08/26/2023.

If you have any questions, please feel free to contact us.

Sincerely,

Vanessa Clements

Vanessa Clements
(575)622-6521

drywell

National Water Information System: Web Interface

USGS Water Resources

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

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

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

site_no list =

- 321005103402301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

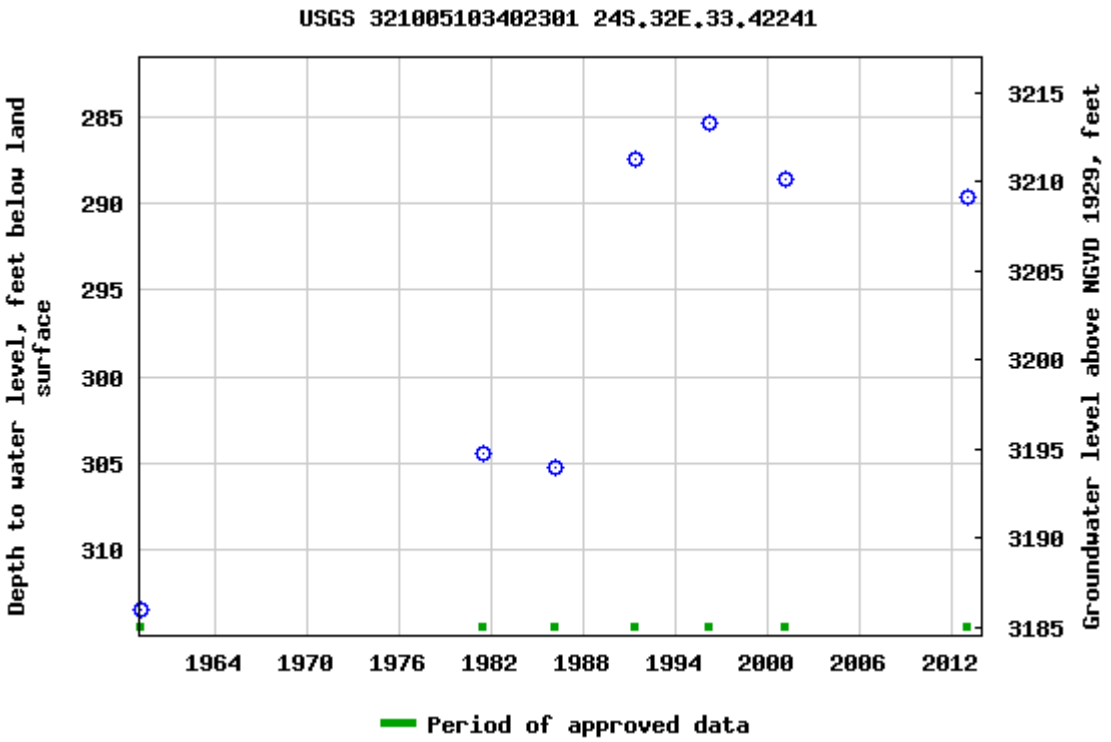
USGS 321005103402301 24S.32E.33.42241

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070001
Latitude 32°10'21.6", Longitude 103°40'18.9" NAD83
Land-surface elevation 3,499.00 feet above NGVD29
The depth of the well is 367 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

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

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: 2022-07-07 14:49:49 EDT
0.69 0.48 nadww01

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Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321005103402301

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

USGS 321005103402301 24S.32E.33.42241

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

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1959-02-18		D	62610		3185.60	NGVD29	1	Z		
1959-02-18		D	62611		3187.32	NAVD88	1	Z		
1959-02-18		D	72019	313.40			1	Z		
1981-06-12		D	62610		3194.60	NGVD29	1	Z		
1981-06-12		D	62611		3196.32	NAVD88	1	Z		
1981-06-12		D	72019	304.40			1	Z		
1986-03-11		D	62610		3193.79	NGVD29	1	Z		
1986-03-11		D	62611		3195.51	NAVD88	1	Z		
1986-03-11		D	72019	305.21			1	Z		
1991-05-29		D	62610		3211.55	NGVD29	1	Z		
1991-05-29		D	62611		3213.27	NAVD88	1	Z		
1991-05-29		D	72019	287.45			1	Z		
1996-03-14		D	62610		3213.60	NGVD29	1	S		
1996-03-14		D	62611		3215.32	NAVD88	1	S		
1996-03-14		D	72019	285.40			1	S		
2001-02-27		D	62610		3210.32	NGVD29	1	S		

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 measu
2001-02-27		D	62611		3212.04	NAVD88	1	S		
2001-02-27		D	72019	288.68			1	S		
2013-01-17	16:30 UTC	m	62610		3209.31	NGVD29	1	S	USGS	
2013-01-17	16:30 UTC	m	62611		3211.03	NAVD88	1	S	USGS	
2013-01-17	16:30 UTC	m	72019	289.69			1	S	USGS	

Explanation

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

ENSOLUM

APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
COG Operating, LLC
Windward Federal 004H
Incident Number NAPP2218850477

Photograph: 1 Date: 7/2/2022
Description: Soil staining in release extent
View: West

Photograph: 2 Date: 7/2/2022
Description: Soil staining in release extent
View: Southwest

Photograph: 3 Date: 2/7/2023
Description: Excavation activities
View: East

Photograph: 4 Date: 2/7/2023
Description: Excavation activities
View: West

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/16/2023 10:40:06 AM Revision 1

JOB DESCRIPTION

Windward 4H Flowline
SDG NUMBER 03D2024072

JOB NUMBER

890-2538-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

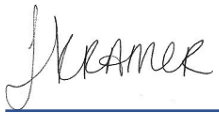
See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

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

Authorization



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3/16/2023 10:40:06 AM
Revision 1

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

Client: Ensolum
Project/Site: Windward 4H Flowline

Laboratory Job ID: 890-2538-1
SDG: 03D2024072

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Job ID: 890-2538-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2538-1

REVISION

The report being provided is a revision of the original report sent on 7/21/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID changes.

Report revision history

Receipt
The samples were received on 7/11/2022 4:15 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 15.0°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-29817 and analytical batch 880-30096 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample 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.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS05 (890-2538-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-29672 and analytical batch 880-29692 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance 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: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Client Sample ID: SS05

Date Collected: 07/11/22 12:55
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2538-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.200	U	0.200		mg/Kg		07/15/22 09:11	07/20/22 20:55	100
Toluene	**0.273**		0.200		mg/Kg		07/15/22 09:11	07/20/22 20:55	100
Ethylbenzene	**2.52**		0.200		mg/Kg		07/15/22 09:11	07/20/22 20:55	100
m-Xylene & p-Xylene	**11.7**		0.401		mg/Kg		07/15/22 09:11	07/20/22 20:55	100
o-Xylene	**5.58**		0.200		mg/Kg		07/15/22 09:11	07/20/22 20:55	100
Xylenes, Total	**17.3**		0.401		mg/Kg		07/15/22 09:11	07/20/22 20:55	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*07/15/22 09:11*	*07/20/22 20:55*	*100*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*07/15/22 09:11*	*07/20/22 20:55*	*100*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**20.1**		0.401		mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**5600**		250		mg/Kg			07/14/22 15:52	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	**1130**		250		mg/Kg		07/13/22 15:06	07/14/22 14:50	5
Diesel Range Organics (Over C10-C28)	**4470**		250		mg/Kg		07/13/22 15:06	07/14/22 14:50	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		07/13/22 15:06	07/14/22 14:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*145*	*S1+*	*70 - 130*	*07/13/22 15:06*	*07/14/22 14:50*	*5*
o-Terphenyl	*226*	*S1+*	*70 - 130*	*07/13/22 15:06*	*07/14/22 14:50*	*5*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3400**		24.8		mg/Kg			07/16/22 12:53	5

Client Sample ID: SS06

Date Collected: 07/11/22 13:00
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2538-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.200	U	0.200		mg/Kg		07/15/22 09:11	07/20/22 21:15	100
Toluene	**0.472**		0.200		mg/Kg		07/15/22 09:11	07/20/22 21:15	100
Ethylbenzene	**2.91**		0.200		mg/Kg		07/15/22 09:11	07/20/22 21:15	100
m-Xylene & p-Xylene	**25.7**		0.399		mg/Kg		07/15/22 09:11	07/20/22 21:15	100
o-Xylene	**10.6**		0.200		mg/Kg		07/15/22 09:11	07/20/22 21:15	100
Xylenes, Total	**36.3**		0.399		mg/Kg		07/15/22 09:11	07/20/22 21:15	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*07/15/22 09:11*	*07/20/22 21:15*	*100*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Client Sample ID: SS06

Date Collected: 07/11/22 13:00
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2538-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*07/15/22 09:11*	*07/20/22 21:15*	*100*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**39.7**		0.399	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**4720**		250	mg/Kg			07/14/22 15:52	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	**1450**		250	mg/Kg		07/13/22 15:06	07/14/22 15:57	5
Diesel Range Organics (Over C10-C28)	**3270**		250	mg/Kg		07/13/22 15:06	07/14/22 15:57	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		07/13/22 15:06	07/14/22 15:57	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*07/13/22 15:06*	*07/14/22 15:57*	*5*
o-Terphenyl	*83*		*70 - 130*	*07/13/22 15:06*	*07/14/22 15:57*	*5*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3150**		25.0	mg/Kg			07/16/22 13:02	5

Client Sample ID: SS07

Date Collected: 07/11/22 13:05
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2538-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U	0.199	mg/Kg		07/15/22 09:11	07/20/22 21:36	100
Toluene	**1.54**		0.199	mg/Kg		07/15/22 09:11	07/20/22 21:36	100
Ethylbenzene	**3.49**		0.199	mg/Kg		07/15/22 09:11	07/20/22 21:36	100
m-Xylene & p-Xylene	**43.6**		0.398	mg/Kg		07/15/22 09:11	07/20/22 21:36	100
o-Xylene	**19.5**		0.199	mg/Kg		07/15/22 09:11	07/20/22 21:36	100
Xylenes, Total	**63.1**		0.398	mg/Kg		07/15/22 09:11	07/20/22 21:36	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*07/15/22 09:11*	*07/20/22 21:36*	*100*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*07/15/22 09:11*	*07/20/22 21:36*	*100*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**68.1**		0.398	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**9290**		250	mg/Kg			07/14/22 15:52	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Client Sample ID: SS07

Date Collected: 07/11/22 13:05
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2538-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	4770		250		mg/Kg		07/13/22 15:06	07/14/22 16:19	5
Diesel Range Organics (Over C10-C28)	4520		250		mg/Kg		07/13/22 15:06	07/14/22 16:19	5
OII Range Organics (Over C28-C36)	<250	U	250		mg/Kg		07/13/22 15:06	07/14/22 16:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*247*	*S1+*	*70 - 130*	*07/13/22 15:06*	*07/14/22 16:19*	*5*
o-Terphenyl	*228*	*S1+*	*70 - 130*	*07/13/22 15:06*	*07/14/22 16:19*	*5*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3930		25.2		mg/Kg			07/16/22 13:30	5

Surrogate Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

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)
890-2538-1	SS05	97	77
890-2538-2	SS06	108	87
890-2538-3	SS07	112	84
890-2539-A-1-E MS	Matrix Spike	90	95
890-2539-A-1-F MSD	Matrix Spike Duplicate	106	89
LCS 880-29817/1-A	Lab Control Sample	109	97
LCSD 880-29817/2-A	Lab Control Sample Dup	101	95
MB 880-29817/5-A	Method Blank	98	96

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)
890-2538-1	SS05	145 S1+	226 S1+
890-2538-2	SS06	78	83
890-2538-3	SS07	247 S1+	228 S1+
890-2547-A-50-D MS	Matrix Spike	86	89
890-2547-A-50-E MSD	Matrix Spike Duplicate	72	76
LCS 880-29672/2-A	Lab Control Sample	97	110
LCSD 880-29672/3-A	Lab Control Sample Dup	113	126
MB 880-29672/1-A	Method Blank	88	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29817/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29817

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*

Lab Sample ID: LCS 880-29817/1-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1048		mg/Kg		105	70 - 130		
Toluene			0.100	0.1037		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1069		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2278		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-29817/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09444		mg/Kg		94	70 - 130	10	35
Toluene			0.100	0.09316		mg/Kg		93	70 - 130	11	35
Ethylbenzene			0.100	0.09138		mg/Kg		91	70 - 130	16	35
m-Xylene & p-Xylene			0.200	0.1945		mg/Kg		97	70 - 130	16	35
o-Xylene			0.100	0.1025		mg/Kg		103	70 - 130	16	35

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

Lab Sample ID: 890-2539-A-1-E MS
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.0998	0.02974	F1	mg/Kg		29	70 - 130		
Toluene	0.0164	F1	0.0998	0.03203	F1	mg/Kg		16	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

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

Lab Sample ID: 890-2539-A-1-E MS
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.0194	F1	0.0998	0.03403	F1	mg/Kg		15	70 - 130
m-Xylene & p-Xylene	0.0239	F1	0.200	0.06705	F1	mg/Kg		22	70 - 130
o-Xylene	0.00435	F1	0.0998	0.03828	F1	mg/Kg		34	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-2539-A-1-F MSD
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.100	0.02922	F1	mg/Kg		29	70 - 130	2	35
Toluene	0.0164	F1	0.100	0.03409	F1	mg/Kg		18	70 - 130	6	35
Ethylbenzene	0.0194	F1	0.100	0.03490	F1	mg/Kg		15	70 - 130	3	35
m-Xylene & p-Xylene	0.0239	F1	0.201	0.07730	F1	mg/Kg		27	70 - 130	14	35
o-Xylene	0.00435	F1	0.100	0.04542	F1	mg/Kg		41	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

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

Lab Sample ID: MB 880-29672/1-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29672

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		07/13/22 15:06	07/14/22 09:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/13/22 15:06	07/14/22 09:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/13/22 15:06	07/14/22 09:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*07/13/22 15:06*	*07/14/22 09:52*	*1*
o-Terphenyl	*102*		*70 - 130*	*07/13/22 15:06*	*07/14/22 09:52*	*1*

Lab Sample ID: LCS 880-29672/2-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	989.6		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	1000	865.7		mg/Kg		87	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

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

Lab Sample ID: LCS 880-29672/2-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29672

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: LCSD 880-29672/3-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29672

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1004		mg/Kg		100	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1051		mg/Kg		105	70 - 130	19	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: 890-2547-A-50-D MS
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29672

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	1081		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	1000	749.4		mg/Kg		75	70 - 130		

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

Lab Sample ID: 890-2547-A-50-E MSD
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 29672

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1289		mg/Kg		125	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	999	641.8	F1	mg/Kg		64	70 - 130	15	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	72		70 - 130
o-Terphenyl	76		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29659/1-A
Matrix: Solid
Analysis Batch: 29860

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			07/16/22 09:49	1

Lab Sample ID: LCS 880-29659/2-A
Matrix: Solid
Analysis Batch: 29860

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	263.5		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-29659/3-A
Matrix: Solid
Analysis Batch: 29860

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	263.3		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-2537-A-4-B MS
Matrix: Solid
Analysis Batch: 29860

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	21.2		250	294.6		mg/Kg		109	90 - 110		

Lab Sample ID: 890-2537-A-4-C MSD
Matrix: Solid
Analysis Batch: 29860

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	21.2		250	295.1		mg/Kg		110	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

GC VOA

Prep Batch: 29817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Total/NA	Solid	5035	
890-2538-2	SS06	Total/NA	Solid	5035	
890-2538-3	SS07	Total/NA	Solid	5035	
MB 880-29817/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29817/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29817/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2539-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2539-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 30096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Total/NA	Solid	8021B	29817
890-2538-2	SS06	Total/NA	Solid	8021B	29817
890-2538-3	SS07	Total/NA	Solid	8021B	29817
MB 880-29817/5-A	Method Blank	Total/NA	Solid	8021B	29817
LCS 880-29817/1-A	Lab Control Sample	Total/NA	Solid	8021B	29817
LCSD 880-29817/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29817
890-2539-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	29817
890-2539-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29817

Analysis Batch: 30199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Total/NA	Solid	Total BTEX	
890-2538-2	SS06	Total/NA	Solid	Total BTEX	
890-2538-3	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 29672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Total/NA	Solid	8015NM Prep	
890-2538-2	SS06	Total/NA	Solid	8015NM Prep	
890-2538-3	SS07	Total/NA	Solid	8015NM Prep	
MB 880-29672/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29672/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29672/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2547-A-50-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2547-A-50-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Total/NA	Solid	8015B NM	29672
890-2538-2	SS06	Total/NA	Solid	8015B NM	29672
890-2538-3	SS07	Total/NA	Solid	8015B NM	29672
MB 880-29672/1-A	Method Blank	Total/NA	Solid	8015B NM	29672
LCS 880-29672/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29672
LCSD 880-29672/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29672
890-2547-A-50-D MS	Matrix Spike	Total/NA	Solid	8015B NM	29672
890-2547-A-50-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29672

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

GC Semi VOA

Analysis Batch: 29766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Total/NA	Solid	8015 NM	
890-2538-2	SS06	Total/NA	Solid	8015 NM	
890-2538-3	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Soluble	Solid	DI Leach	
890-2538-2	SS06	Soluble	Solid	DI Leach	
890-2538-3	SS07	Soluble	Solid	DI Leach	
MB 880-29659/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29659/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29659/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2537-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2537-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 29860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2538-1	SS05	Soluble	Solid	300.0	29659
890-2538-2	SS06	Soluble	Solid	300.0	29659
890-2538-3	SS07	Soluble	Solid	300.0	29659
MB 880-29659/1-A	Method Blank	Soluble	Solid	300.0	29659
LCS 880-29659/2-A	Lab Control Sample	Soluble	Solid	300.0	29659
LCSD 880-29659/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29659
890-2537-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	29659
890-2537-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29659

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Client Sample ID: SS05
Date Collected: 07/11/22 12:55
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2538-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	29817	07/15/22 09:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	30096	07/20/22 20:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			30199	07/21/22 08:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			29766	07/14/22 15:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29672	07/13/22 15:06	DM	EET MID
Total/NA	Analysis	8015B NM		5			29692	07/14/22 14:50	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29659	07/13/22 12:36	SMC	EET MID
Soluble	Analysis	300.0		5			29860	07/16/22 12:53	CH	EET MID

Client Sample ID: SS06
Date Collected: 07/11/22 13:00
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2538-2
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			5.01 g	5 mL	29817	07/15/22 09:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	30096	07/20/22 21:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			30199	07/21/22 08:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			29766	07/14/22 15:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29672	07/13/22 15:06	DM	EET MID
Total/NA	Analysis	8015B NM		5			29692	07/14/22 15:57	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29659	07/13/22 12:36	SMC	EET MID
Soluble	Analysis	300.0		5			29860	07/16/22 13:02	CH	EET MID

Client Sample ID: SS07
Date Collected: 07/11/22 13:05
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2538-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29817	07/15/22 09:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	30096	07/20/22 21:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			30199	07/21/22 08:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			29766	07/14/22 15:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29672	07/13/22 15:06	DM	EET MID
Total/NA	Analysis	8015B NM		5			29692	07/14/22 16:19	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29659	07/13/22 12:36	SMC	EET MID
Soluble	Analysis	300.0		5			29860	07/16/22 13:30	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: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

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	12-19-22

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: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

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: Windward 4H Flowline

Job ID: 890-2538-1
SDG: 03D2024072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2538-1	SS05	Solid	07/11/22 12:55	07/11/22 16:15	0.5'
890-2538-2	SS06	Solid	07/11/22 13:00	07/11/22 16:15	0.5'
890-2538-3	SS07	Solid	07/11/22 13:05	07/11/22 16:15	0.5'

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Chain of Custody

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

Work Order No: ______

CIP - cooling in Process

Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:	3122 Natl. Parks Hwy	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	817 683 2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	Windward 4H Flowline	Turn Around	
Project Number:	03D2024072	☑ Routine	☐ Rush
Project Location:	Eddy County NM	Due Date:	5 day tat
Sampler's Name:	Liz Cheli	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	N/A		

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:	15.2
Total Containers:		Corrected Temperature:	15.0

ANALYSIS REQUEST — Parameters / Pres. Code

890-2538 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	BTEX	TPH	Chloride	Sample Comments
FS01	S	7/11/22	1255	0.5'	C	1	↓	↓	↓	
FS02	↓	↓	1300	↓	↓	↓	↓	↓	↓	
FS03	↓	↓	1305	↓	↓	↓	↓	↓	↓	

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 [signature]	[signature]	7/11/22 1615	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-837 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2538-1
Address: 1211 W Florida Ave	Due Date Requested: 7/15/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Eindward 4H Flawline	Project #: 89000094			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS01 (890-2538-1)	7/11/22	12 55 Mountain		Solid			X	X	X	X	X	1	
FS02 (890-2538-2)	7/11/22	13 00 Mountain		Solid			X	X	X	X	X	1	
FS03 (890-2538-3)	7/11/22	13 05 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II, III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Clue			JKramer	7/13/22 1100	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2538-1
SDG Number: 03D2024072

Login Number: 2538
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2538-1
SDG Number: 03D2024072

Login Number: 2538
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 07/13/22 11:52 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2539-1
Laboratory Sample Delivery Group: 03102024072
Client Project/Site: Windward 4H Flowline

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/21/2022 8:03:00 AM

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

Client: Ensolum
Project/Site: Windward 4H Flowline

Laboratory Job ID: 890-2539-1
SDG: 03102024072

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, 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: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Job ID: 890-2539-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2539-1

Receipt
The samples were received on 7/11/2022 4:15 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 15.0°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-29817 and analytical batch 880-30096 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample 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.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Client Sample ID: SS01

Lab Sample ID: 890-2539-1
Matrix: Solid
Date Collected: 07/11/22 13:25
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F1	0.00201		mg/Kg		07/15/22 09:11	07/20/22 13:15	1
Toluene	**0.0164**	**F1**	0.00201		mg/Kg		07/15/22 09:11	07/20/22 13:15	1
Ethylbenzene	**0.0194**	**F1**	0.00201		mg/Kg		07/15/22 09:11	07/20/22 13:15	1
m-Xylene & p-Xylene	**0.0239**	**F1**	0.00402		mg/Kg		07/15/22 09:11	07/20/22 13:15	1
o-Xylene	**0.00435**	**F1**	0.00201		mg/Kg		07/15/22 09:11	07/20/22 13:15	1
Xylenes, Total	**0.0283**	**F1**	0.00402		mg/Kg		07/15/22 09:11	07/20/22 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*07/15/22 09:11*	*07/20/22 13:15*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*07/15/22 09:11*	*07/20/22 13:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0641**		0.00402		mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/15/22 10:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/13/22 15:06	07/14/22 16:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/13/22 15:06	07/14/22 16:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/13/22 15:06	07/14/22 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*07/13/22 15:06*	*07/14/22 16:40*	*1*
o-Terphenyl	*81*		*70 - 130*	*07/13/22 15:06*	*07/14/22 16:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.4**		4.98		mg/Kg			07/16/22 13:39	1

Client Sample ID: SS02

Lab Sample ID: 890-2539-2
Matrix: Solid
Date Collected: 07/11/22 13:30
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/15/22 09:11	07/20/22 13:35	1
Toluene	**0.00674**		0.00202		mg/Kg		07/15/22 09:11	07/20/22 13:35	1
Ethylbenzene	**0.00296**		0.00202		mg/Kg		07/15/22 09:11	07/20/22 13:35	1
m-Xylene & p-Xylene	**0.0186**		0.00404		mg/Kg		07/15/22 09:11	07/20/22 13:35	1
o-Xylene	**0.00634**		0.00202		mg/Kg		07/15/22 09:11	07/20/22 13:35	1
Xylenes, Total	**0.0249**		0.00404		mg/Kg		07/15/22 09:11	07/20/22 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*07/15/22 09:11*	*07/20/22 13:35*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Client Sample ID: SS02

Lab Sample ID: 890-2539-2
Matrix: Solid
Date Collected: 07/11/22 13:30
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 13:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0346**		0.00404	mg/Kg			07/21/22 08:55	1

Method: 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			07/15/22 10:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		07/13/22 15:06	07/14/22 17:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/13/22 15:06	07/14/22 17:01	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/13/22 15:06	07/14/22 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*07/13/22 15:06*	*07/14/22 17:01*	*1*
o-Terphenyl	*80*		*70 - 130*	*07/13/22 15:06*	*07/14/22 17:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.47**		4.95	mg/Kg			07/16/22 13:48	1

Client Sample ID: SS03

Lab Sample ID: 890-2539-3
Matrix: Solid
Date Collected: 07/11/22 13:35
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/15/22 09:11	07/20/22 13:56	1
Toluene	**0.00439**		0.00200	mg/Kg		07/15/22 09:11	07/20/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/15/22 09:11	07/20/22 13:56	1
m-Xylene & p-Xylene	**0.00721**		0.00399	mg/Kg		07/15/22 09:11	07/20/22 13:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/15/22 09:11	07/20/22 13:56	1
Xylenes, Total	**0.00721**		0.00399	mg/Kg		07/15/22 09:11	07/20/22 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*07/15/22 09:11*	*07/20/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*07/15/22 09:11*	*07/20/22 13:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0116**		0.00399	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/15/22 10:13	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Client Sample ID: SS03

Lab Sample ID: 890-2539-3
Matrix: Solid
Date Collected: 07/11/22 13:35
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/13/22 15:06	07/14/22 17:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/13/22 15:06	07/14/22 17:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/13/22 15:06	07/14/22 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*07/13/22 15:06*	*07/14/22 17:22*	*1*
o-Terphenyl	*78*		*70 - 130*	*07/13/22 15:06*	*07/14/22 17:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.27**		4.95		mg/Kg			07/16/22 13:58	1

Client Sample ID: SS04

Lab Sample ID: 890-2539-4
Matrix: Solid
Date Collected: 07/11/22 13:40
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/15/22 09:11	07/20/22 14:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/15/22 09:11	07/20/22 14:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/15/22 09:11	07/20/22 14:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/15/22 09:11	07/20/22 14:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/15/22 09:11	07/20/22 14:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/15/22 09:11	07/20/22 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*07/15/22 09:11*	*07/20/22 14:16*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*07/15/22 09:11*	*07/20/22 14:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/15/22 10:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/13/22 15:06	07/14/22 17:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/13/22 15:06	07/14/22 17:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/13/22 15:06	07/14/22 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*07/13/22 15:06*	*07/14/22 17:43*	*1*
o-Terphenyl	*93*		*70 - 130*	*07/13/22 15:06*	*07/14/22 17:43*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Client Sample ID: SS04
Date Collected: 07/11/22 13:40
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2539-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64.2		5.01		mg/Kg			07/16/22 14:07	1

Surrogate Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

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)
890-2539-1	SS01	78	100
890-2539-1 MS	SS01	90	95
890-2539-1 MSD	SS01	106	89
890-2539-2	SS02	90	96
890-2539-3	SS03	108	95
890-2539-4	SS04	106	92
LCS 880-29817/1-A	Lab Control Sample	109	97
LCSD 880-29817/2-A	Lab Control Sample Dup	101	95
MB 880-29817/5-A	Method Blank	98	96

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)
890-2539-1	SS01	71	81
890-2539-2	SS02	68 S1-	80
890-2539-3	SS03	69 S1-	78
890-2539-4	SS04	86	93
890-2547-A-50-D MS	Matrix Spike	86	89
890-2547-A-50-E MSD	Matrix Spike Duplicate	72	76
LCS 880-29672/2-A	Lab Control Sample	97	110
LCSD 880-29672/3-A	Lab Control Sample Dup	113	126
MB 880-29672/1-A	Method Blank	88	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29817/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29817

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/15/22 09:11	07/20/22 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*

Lab Sample ID: LCS 880-29817/1-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1048		mg/Kg		105	70 - 130		
Toluene			0.100	0.1037		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1069		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2278		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-29817/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09444		mg/Kg		94	70 - 130	10	35
Toluene			0.100	0.09316		mg/Kg		93	70 - 130	11	35
Ethylbenzene			0.100	0.09138		mg/Kg		91	70 - 130	16	35
m-Xylene & p-Xylene			0.200	0.1945		mg/Kg		97	70 - 130	16	35
o-Xylene			0.100	0.1025		mg/Kg		103	70 - 130	16	35

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

Lab Sample ID: 890-2539-1 MS
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.0998	0.02974	F1	mg/Kg		29	70 - 130		
Toluene	0.0164	F1	0.0998	0.03203	F1	mg/Kg		16	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

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

Lab Sample ID: 890-2539-1 MS
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.0194	F1	0.0998	0.03403	F1	mg/Kg		15	70 - 130
m-Xylene & p-Xylene	0.0239	F1	0.200	0.06705	F1	mg/Kg		22	70 - 130
o-Xylene	0.00435	F1	0.0998	0.03828	F1	mg/Kg		34	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-2539-1 MSD
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.100	0.02922	F1	mg/Kg		29	70 - 130	2	35
Toluene	0.0164	F1	0.100	0.03409	F1	mg/Kg		18	70 - 130	6	35
Ethylbenzene	0.0194	F1	0.100	0.03490	F1	mg/Kg		15	70 - 130	3	35
m-Xylene & p-Xylene	0.0239	F1	0.201	0.07730	F1	mg/Kg		27	70 - 130	14	35
o-Xylene	0.00435	F1	0.100	0.04542	F1	mg/Kg		41	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

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

Lab Sample ID: MB 880-29672/1-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29672

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		07/13/22 15:06	07/14/22 09:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/13/22 15:06	07/14/22 09:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/13/22 15:06	07/14/22 09:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*07/13/22 15:06*	*07/14/22 09:52*	*1*
o-Terphenyl	*102*		*70 - 130*	*07/13/22 15:06*	*07/14/22 09:52*	*1*

Lab Sample ID: LCS 880-29672/2-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29672

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	989.6		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)			1000	865.7		mg/Kg		87	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

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

Lab Sample ID: LCS 880-29672/2-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29672

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: LCSD 880-29672/3-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29672

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1004		mg/Kg		100	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1051		mg/Kg		105	70 - 130	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: 890-2547-A-50-D MS
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29672

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	1081		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1	1000	749.4		mg/Kg		75	70 - 130

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

Lab Sample ID: 890-2547-A-50-E MSD
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 29672

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1289		mg/Kg		125	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	999	641.8	F1	mg/Kg		64	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*72*		*70 - 130*
o-Terphenyl	*76*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29659/1-A
Matrix: Solid
Analysis Batch: 29860

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			07/16/22 09:49	1

Lab Sample ID: LCS 880-29659/2-A
Matrix: Solid
Analysis Batch: 29860

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	263.5		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-29659/3-A
Matrix: Solid
Analysis Batch: 29860

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	263.3		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-2537-A-4-B MS
Matrix: Solid
Analysis Batch: 29860

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	21.2		250	294.6		mg/Kg		109	90 - 110		

Lab Sample ID: 890-2537-A-4-C MSD
Matrix: Solid
Analysis Batch: 29860

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	21.2		250	295.1		mg/Kg		110	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

GC VOA

Prep Batch: 29817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Total/NA	Solid	5035	
890-2539-2	SS02	Total/NA	Solid	5035	
890-2539-3	SS03	Total/NA	Solid	5035	
890-2539-4	SS04	Total/NA	Solid	5035	
MB 880-29817/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29817/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29817/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2539-1 MS	SS01	Total/NA	Solid	5035	
890-2539-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 30096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Total/NA	Solid	8021B	29817
890-2539-2	SS02	Total/NA	Solid	8021B	29817
890-2539-3	SS03	Total/NA	Solid	8021B	29817
890-2539-4	SS04	Total/NA	Solid	8021B	29817
MB 880-29817/5-A	Method Blank	Total/NA	Solid	8021B	29817
LCS 880-29817/1-A	Lab Control Sample	Total/NA	Solid	8021B	29817
LCSD 880-29817/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29817
890-2539-1 MS	SS01	Total/NA	Solid	8021B	29817
890-2539-1 MSD	SS01	Total/NA	Solid	8021B	29817

Analysis Batch: 30195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Total/NA	Solid	Total BTEX	
890-2539-2	SS02	Total/NA	Solid	Total BTEX	
890-2539-3	SS03	Total/NA	Solid	Total BTEX	
890-2539-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 29672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Total/NA	Solid	8015NM Prep	
890-2539-2	SS02	Total/NA	Solid	8015NM Prep	
890-2539-3	SS03	Total/NA	Solid	8015NM Prep	
890-2539-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-29672/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29672/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29672/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2547-A-50-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2547-A-50-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Total/NA	Solid	8015B NM	29672
890-2539-2	SS02	Total/NA	Solid	8015B NM	29672
890-2539-3	SS03	Total/NA	Solid	8015B NM	29672
890-2539-4	SS04	Total/NA	Solid	8015B NM	29672
MB 880-29672/1-A	Method Blank	Total/NA	Solid	8015B NM	29672
LCS 880-29672/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29672

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

GC Semi VOA (Continued)

Analysis Batch: 29692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-29672/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29672
890-2547-A-50-D MS	Matrix Spike	Total/NA	Solid	8015B NM	29672
890-2547-A-50-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29672

Analysis Batch: 29830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Total/NA	Solid	8015 NM	
890-2539-2	SS02	Total/NA	Solid	8015 NM	
890-2539-3	SS03	Total/NA	Solid	8015 NM	
890-2539-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Soluble	Solid	DI Leach	
890-2539-2	SS02	Soluble	Solid	DI Leach	
890-2539-3	SS03	Soluble	Solid	DI Leach	
890-2539-4	SS04	Soluble	Solid	DI Leach	
MB 880-29659/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29659/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29659/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2537-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2537-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 29860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2539-1	SS01	Soluble	Solid	300.0	29659
890-2539-2	SS02	Soluble	Solid	300.0	29659
890-2539-3	SS03	Soluble	Solid	300.0	29659
890-2539-4	SS04	Soluble	Solid	300.0	29659
MB 880-29659/1-A	Method Blank	Soluble	Solid	300.0	29659
LCS 880-29659/2-A	Lab Control Sample	Soluble	Solid	300.0	29659
LCSD 880-29659/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29659
890-2537-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	29659
890-2537-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29659

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Client Sample ID: SS01

Date Collected: 07/11/22 13:25
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2539-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 13:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30195	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29830	07/15/22 10:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29672	07/13/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29692	07/14/22 16:40	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 13:39	CH	XEN MID

Client Sample ID: SS02

Date Collected: 07/11/22 13:30
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2539-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 13:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30195	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29830	07/15/22 10:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	29672	07/13/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29692	07/14/22 17:01	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 13:48	CH	XEN MID

Client Sample ID: SS03

Date Collected: 07/11/22 13:35
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2539-3
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			5.01 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 13:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30195	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29830	07/15/22 10:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29672	07/13/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29692	07/14/22 17:22	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 13:58	CH	XEN MID

Client Sample ID: SS04

Date Collected: 07/11/22 13:40
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2539-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 14:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30195	07/21/22 08:55	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Client Sample ID: SS04

Date Collected: 07/11/22 13:40
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2539-4

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			29830	07/15/22 10:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29672	07/13/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29692	07/14/22 17:43	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 14:07	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-2539-1
SDG: 03102024072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2539-1	SS01	Solid	07/11/22 13:25	07/11/22 16:15	0.5'
890-2539-2	SS02	Solid	07/11/22 13:30	07/11/22 16:15	0.5'
890-2539-3	SS03	Solid	07/11/22 13:35	07/11/22 16:15	0.5'
890-2539-4	SS04	Solid	07/11/22 13:40	07/11/22 16:15	0.5'

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Chain of Custody

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

Work Order No: _____

GLP - cooling in Process www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:	322 Nath. Park Hwy	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	817 6832503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	Windward 4H Flaring	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024072	Due Date:	5 day tat
Project Location:	Eddy County NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Liz Chen		
PO #:	N/A		

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#07
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	15.2
Total Containers:		Corrected Temperature:	15.0

ANALYSIS REQUEST

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	Parameters: tph	btex	chloride	Sample Comments
SS01	S	7/11/22	1325	0.5'	C	1				
SS02			1330							
SS03			1335							
SS04			1340							

890-2539 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 Stuff	7/11/22 1615			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-837 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2539-1
Address: 1211 W Florida Ave	Due Date Requested: 7/15/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Windward 4H Flamline	Project #: 89000094			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SS01 (890-2539-1)	7/11/22	13 25 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-2539-2)	7/11/22	13 30 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-2539-3)	7/11/22	13 35 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-2539-4)	7/11/22	13 40 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: Cle			Received by: JKramer	7/13/22 1100	
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2539-1
SDG Number: 03102024072

Login Number: 2539
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2539-1
SDG Number: 03102024072

Login Number: 2539
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 07/13/22 11:52 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/16/2023 10:36:20 AM Revision 1

JOB DESCRIPTION

Windward 4H Flowline
SDG NUMBER 03D2024072

JOB NUMBER

890-4067-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

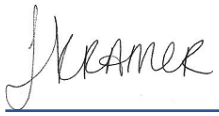
See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

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

Authorization



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3/16/2023 10:36:20 AM
Revision 1

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

Client: Ensolum
Project/Site: Windward 4H Flowline

Laboratory Job ID: 890-4067-1
SDG: 03D2024072

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, 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: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Job ID: 890-4067-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4067-1

REVISION

The report being provided is a revision of the original report sent on 2/15/2023. The report (revision 1) is being revised due to Per client email, requesting sample ID changes.

Report revision history

Receipt
The samples were received on 2/8/2023 2:56 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS07 (890-4067-1), SW01 (890-4067-2), SW02 (890-4067-3), SW03 (890-4067-4), SW04 (890-4067-5), SW05 (890-4067-6), SW06 (890-4067-7), SW07 (890-4067-8), SW08 (890-4067-9), SW09 (890-4067-10), FS01 (890-4067-11), FS02 (890-4067-12), FS03 (890-4067-13), FS04 (890-4067-14), FS05 (890-4067-15) and FS06 (890-4067-16).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SW02 (890-4067-3), SW04 (890-4067-5), SW06 (890-4067-7) and SW07 (890-4067-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-46021 and analytical batch 880-46072 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.

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46199 and analytical batch 880-46269 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.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS05 (890-4067-15) and FS06 (890-4067-16). 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: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS07
Date Collected: 02/07/23 10:40
Date Received: 02/08/23 14:56
Sample Depth: 0-7'

Lab Sample ID: 890-4067-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 15:38	1
Toluene	<0.00201	U F1 F2	0.00201		mg/Kg		02/10/23 15:07	02/12/23 15:38	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 15:38	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 15:38	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 15:38	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*02/10/23 15:07*	*02/12/23 15:38*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/10/23 15:07*	*02/12/23 15:38*	*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			02/13/23 19:57	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			02/15/23 09:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	49.9		mg/Kg		02/13/23 16:56	02/14/23 11:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		02/13/23 16:56	02/14/23 11:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*02/13/23 16:56*	*02/14/23 11:42*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/13/23 16:56*	*02/14/23 11:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.5**		4.99		mg/Kg			02/14/23 02:09	1

Client Sample ID: SW01
Date Collected: 02/07/23 10:50
Date Received: 02/08/23 14:56
Sample Depth: 0-7'

Lab Sample ID: 890-4067-2
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		02/10/23 15:07	02/12/23 16:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 16:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 16:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 16:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 16:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/10/23 15:07*	*02/12/23 16:04*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW01

Date Collected: 02/07/23 10:50
Date Received: 02/08/23 14:56
Sample Depth: 0-7'

Lab Sample ID: 890-4067-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*02/10/23 15:07*	*02/12/23 16:04*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 12:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/13/23 16:56	02/14/23 12:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/13/23 16:56	02/14/23 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*02/13/23 16:56*	*02/14/23 12:48*	*1*
o-Terphenyl	*76*		*70 - 130*	*02/13/23 16:56*	*02/14/23 12:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.8**		5.01	mg/Kg			02/14/23 02:23	1

Client Sample ID: SW02

Date Collected: 02/07/23 11:00
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-3
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		02/10/23 15:07	02/12/23 16:30	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 16:30	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 16:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 15:07	02/12/23 16:30	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 16:30	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 15:07	02/12/23 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*142*	*S1+*	*70 - 130*	*02/10/23 15:07*	*02/12/23 16:30*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*02/10/23 15:07*	*02/12/23 16:30*	*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			02/13/23 19:57	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			02/15/23 09:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW02

Date Collected: 02/07/23 11:00
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 13:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 13:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/13/23 16:56*	*02/14/23 13:10*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/13/23 16:56*	*02/14/23 13:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**208**		5.00		mg/Kg			02/14/23 02:28	1

Client Sample ID: SW03

Date Collected: 02/07/23 12:10
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-4
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		02/10/23 15:07	02/12/23 16:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 16:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 16:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/10/23 15:07	02/12/23 16:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 16:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/10/23 15:07	02/12/23 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/10/23 15:07*	*02/12/23 16:55*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/10/23 15:07*	*02/12/23 16:55*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 13:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 13:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*02/13/23 16:56*	*02/14/23 13:31*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/13/23 16:56*	*02/14/23 13:31*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW03

Date Collected: 02/07/23 12:10
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	132		5.02		mg/Kg			02/14/23 02:32	1

Client Sample ID: SW04

Date Collected: 02/07/23 12:45
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 17:22	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 17:22	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 17:22	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 17:22	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 17:22	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*02/10/23 15:07*	*02/12/23 17:22*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*02/10/23 15:07*	*02/12/23 17:22*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 13:53	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/13/23 16:56	02/14/23 13:53	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/13/23 16:56	02/14/23 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/13/23 16:56*	*02/14/23 13:53*	*1*
o-Terphenyl	*81*		*70 - 130*	*02/13/23 16:56*	*02/14/23 13:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	137		5.01		mg/Kg			02/14/23 02:37	1

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW05

Date Collected: 02/07/23 12:50
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-6

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		02/10/23 15:07	02/12/23 17:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 17:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 17:47	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/10/23 15:07	02/12/23 17:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 17:47	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/10/23 15:07	02/12/23 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/10/23 15:07*	*02/12/23 17:47*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/10/23 15:07*	*02/12/23 17:47*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 14:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 14:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*02/13/23 16:56*	*02/14/23 14:15*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/13/23 16:56*	*02/14/23 14:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.8**		5.00		mg/Kg			02/14/23 02:42	1

Client Sample ID: SW06

Date Collected: 02/07/23 13:05
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-7

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		02/10/23 15:07	02/12/23 18:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 18:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 18:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 18:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 18:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*02/10/23 15:07*	*02/12/23 18:14*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW06

Date Collected: 02/07/23 13:05
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/10/23 15:07*	*02/12/23 18:14*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 14:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/13/23 16:56	02/14/23 14:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/13/23 16:56	02/14/23 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*02/13/23 16:56*	*02/14/23 14:38*	*1*
o-Terphenyl	*73*		*70 - 130*	*02/13/23 16:56*	*02/14/23 14:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/14/23 02:46	1

Client Sample ID: SW07

Date Collected: 02/07/23 13:10
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-8
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		02/10/23 15:07	02/12/23 18:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 18:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 18:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 15:07	02/12/23 18:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 18:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 15:07	02/12/23 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*151*	*S1+*	*70 - 130*	*02/10/23 15:07*	*02/12/23 18:40*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/10/23 15:07*	*02/12/23 18:40*	*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			02/13/23 19:57	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			02/15/23 09:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW07
Date Collected: 02/07/23 13:10
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 15:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 15:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*02/13/23 16:56*	*02/14/23 15:00*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/13/23 16:56*	*02/14/23 15:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.55**		5.02		mg/Kg			02/14/23 03:00	1

Client Sample ID: SW08
Date Collected: 02/07/23 13:30
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-9
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		02/10/23 15:07	02/12/23 19:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 19:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 19:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/10/23 15:07	02/12/23 19:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 19:07	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/10/23 15:07	02/12/23 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/10/23 15:07*	*02/12/23 19:07*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/10/23 15:07*	*02/12/23 19:07*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 15:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 15:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/13/23 16:56*	*02/14/23 15:22*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/13/23 16:56*	*02/14/23 15:22*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW08
Date Collected: 02/07/23 13:30
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-9
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.3		5.00		mg/Kg			02/14/23 03:05	1

Client Sample ID: SW09
Date Collected: 02/07/23 13:35
Date Received: 02/08/23 14:56
Sample Depth: 0-6'

Lab Sample ID: 890-4067-10
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		02/10/23 15:07	02/12/23 19:34	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/10/23 15:07	02/12/23 19:34	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/10/23 15:07	02/12/23 19:34	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/10/23 15:07	02/12/23 19:34	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/10/23 15:07	02/12/23 19:34	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/10/23 15:07	02/12/23 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/10/23 15:07*	*02/12/23 19:34*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/10/23 15:07*	*02/12/23 19:34*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 15:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 15:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/13/23 16:56*	*02/14/23 15:44*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/13/23 16:56*	*02/14/23 15:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.0		4.98		mg/Kg			02/14/23 03:19	1

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS01
Date Collected: 02/07/23 10:30
Date Received: 02/08/23 14:56
Sample Depth: 7'

Lab Sample ID: 890-4067-11
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		02/10/23 15:07	02/12/23 21:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 21:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 21:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 21:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 21:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*02/10/23 15:07*	*02/12/23 21:21*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/10/23 15:07*	*02/12/23 21:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 16:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 16:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*02/13/23 16:56*	*02/14/23 16:31*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/13/23 16:56*	*02/14/23 16:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.0**		4.95		mg/Kg			02/14/23 03:23	1

Client Sample ID: FS02
Date Collected: 02/07/23 10:55
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-12
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 21:48	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 21:48	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 21:48	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 21:48	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 21:48	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/10/23 15:07*	*02/12/23 21:48*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS02
Date Collected: 02/07/23 10:55
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-12
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*02/10/23 15:07*	*02/12/23 21:48*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 16:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/13/23 16:56	02/14/23 16:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/13/23 16:56	02/14/23 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/13/23 16:56*	*02/14/23 16:53*	*1*
o-Terphenyl	*81*		*70 - 130*	*02/13/23 16:56*	*02/14/23 16:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.1**		5.00	mg/Kg			02/14/23 03:28	1

Client Sample ID: FS03
Date Collected: 02/07/23 12:05
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-13
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		02/10/23 15:07	02/12/23 22:14	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 22:14	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 22:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 15:07	02/12/23 22:14	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 15:07	02/12/23 22:14	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 15:07	02/12/23 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/10/23 15:07*	*02/12/23 22:14*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*02/10/23 15:07*	*02/12/23 22:14*	*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			02/13/23 19:57	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			02/15/23 09:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS03
Date Collected: 02/07/23 12:05
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/13/23 16:56	02/14/23 17:15	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/13/23 16:56	02/14/23 17:15	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/13/23 16:56	02/14/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/13/23 16:56*	*02/14/23 17:15*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/13/23 16:56*	*02/14/23 17:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.4**		4.99		mg/Kg			02/14/23 03:33	1

Client Sample ID: FS04
Date Collected: 02/07/23 12:40
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-14
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		02/10/23 15:07	02/12/23 22:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 22:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 22:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 22:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/10/23 15:07	02/12/23 22:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/10/23 15:07	02/12/23 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*02/10/23 15:07*	*02/12/23 22:40*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/10/23 15:07*	*02/12/23 22:40*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 17:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 17:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/13/23 16:56*	*02/14/23 17:37*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/13/23 16:56*	*02/14/23 17:37*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS04
Date Collected: 02/07/23 12:40
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-14
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.5		5.01		mg/Kg			02/14/23 03:37	1

Client Sample ID: FS05
Date Collected: 02/07/23 13:00
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-15
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		02/10/23 15:07	02/12/23 23:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 23:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 23:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/10/23 15:07	02/12/23 23:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 23:07	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/10/23 15:07	02/12/23 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*02/10/23 15:07*	*02/12/23 23:07*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*02/10/23 15:07*	*02/12/23 23:07*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 17:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 17:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/13/23 16:56*	*02/14/23 17:59*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/13/23 16:56*	*02/14/23 17:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.4		4.97		mg/Kg			02/14/23 03:42	1

Client Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS06

Date Collected: 02/07/23 13:25
Date Received: 02/08/23 14:56
Sample Depth: 6'

Lab Sample ID: 890-4067-16

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 23:34	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 23:34	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 23:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 23:34	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/10/23 15:07	02/12/23 23:34	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/10/23 15:07	02/12/23 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*02/10/23 15:07*	*02/12/23 23:34*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*02/10/23 15:07*	*02/12/23 23:34*	*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			02/13/23 19:57	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			02/15/23 09:48	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		02/13/23 16:56	02/14/23 18:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 18:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 16:56	02/14/23 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/13/23 16:56*	*02/14/23 18:22*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/13/23 16:56*	*02/14/23 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.0**		4.98		mg/Kg			02/14/23 03:47	1

Surrogate Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

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)
890-4067-1	FS07	129	83
890-4067-1 MS	FS07	122	85
890-4067-1 MSD	FS07	100	84
890-4067-2	SW01	123	78
890-4067-3	SW02	142 S1+	91
890-4067-4	SW03	111	83
890-4067-5	SW04	137 S1+	82
890-4067-6	SW05	116	86
890-4067-7	SW06	144 S1+	94
890-4067-8	SW07	151 S1+	95
890-4067-9	SW08	118	86
890-4067-10	SW09	132 S1+	88
890-4067-11	FS01	129	86
890-4067-12	FS02	108	76
890-4067-13	FS03	111	85
890-4067-14	FS04	112	86
890-4067-15	FS05	125	85
890-4067-16	FS06	127	87
LCS 880-46021/1-A	Lab Control Sample	124	97
LCSD 880-46021/2-A	Lab Control Sample Dup	118	96
MB 880-46021/5-A	Method Blank	84	81

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4067-1	FS07	82	82
890-4067-1 MS	FS07	78	74
890-4067-1 MSD	FS07	78	76
890-4067-2	SW01	78	76
890-4067-3	SW02	72	72
890-4067-4	SW03	82	80
890-4067-5	SW04	83	81
890-4067-6	SW05	86	84
890-4067-7	SW06	74	73
890-4067-8	SW07	84	82
890-4067-9	SW08	83	80
890-4067-10	SW09	72	72
890-4067-11	FS01	71	70
890-4067-12	FS02	83	81
890-4067-13	FS03	87	84
890-4067-14	FS04	70	70
890-4067-15	FS05	68 S1-	68 S1-
890-4067-16	FS06	69 S1-	70

Surrogate Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
LCS 880-46199/2-A	Lab Control Sample	108	91								
LCSD 880-46199/3-A	Lab Control Sample Dup	94	90								
MB 880-46199/1-A	Method Blank	95	96								

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46021/5-A
Matrix: Solid
Analysis Batch: 46072

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46021

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 15:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 15:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 15:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/10/23 15:07	02/12/23 15:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 15:07	02/12/23 15:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/10/23 15:07	02/12/23 15:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/10/23 15:07*	*02/12/23 15:12*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*02/10/23 15:07*	*02/12/23 15:12*	*1*

Lab Sample ID: LCS 880-46021/1-A
Matrix: Solid
Analysis Batch: 46072

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46021

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1183		mg/Kg		118	70 - 130		
Toluene			0.100	0.1212		mg/Kg		121	70 - 130		
Ethylbenzene			0.100	0.1188		mg/Kg		119	70 - 130		
m-Xylene & p-Xylene			0.200	0.2376		mg/Kg		119	70 - 130		
o-Xylene			0.100	0.1211		mg/Kg		121	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-46021/2-A
Matrix: Solid
Analysis Batch: 46072

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46021

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1072		mg/Kg		107	70 - 130	10	35
Toluene			0.100	0.1118		mg/Kg		112	70 - 130	8	35
Ethylbenzene			0.100	0.1110		mg/Kg		111	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.2259		mg/Kg		113	70 - 130	5	35
o-Xylene			0.100	0.1117		mg/Kg		112	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-4067-1 MS
Matrix: Solid
Analysis Batch: 46072

Client Sample ID: FS07
Prep Type: Total/NA
Prep Batch: 46021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09807		mg/Kg		98	70 - 130		
Toluene	<0.00201	U F1 F2	0.100	0.09915		mg/Kg		99	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

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

Lab Sample ID: 890-4067-1 MS
Matrix: Solid
Analysis Batch: 46072

Client Sample ID: FS07
Prep Type: Total/NA
Prep Batch: 46021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09841		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.2009		mg/Kg		99	70 - 130
o-Xylene	<0.00201	U	0.100	0.1004		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 890-4067-1 MSD
Matrix: Solid
Analysis Batch: 46072

Client Sample ID: FS07
Prep Type: Total/NA
Prep Batch: 46021

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	0.08116		mg/Kg		82	70 - 130	19	35
Toluene	<0.00201	U F1 F2	0.0990	0.008855	F1 F2	mg/Kg		9	70 - 130	167	35
Ethylbenzene	<0.00201	U	0.0990	0.08781		mg/Kg		89	70 - 130	11	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1731		mg/Kg		87	70 - 130	15	35
o-Xylene	<0.00201	U	0.0990	0.08067		mg/Kg		81	70 - 130	22	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

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

Lab Sample ID: MB 880-46199/1-A
Matrix: Solid
Analysis Batch: 46269

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46199

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		02/13/23 16:56	02/14/23 09:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 09:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/23 16:56	02/14/23 09:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/13/23 16:56*	*02/14/23 09:07*	*1*
o-Terphenyl	*96*		*70 - 130*	*02/13/23 16:56*	*02/14/23 09:07*	*1*

Lab Sample ID: LCS 880-46199/2-A
Matrix: Solid
Analysis Batch: 46269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46199

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	875.0		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	920.4		mg/Kg		92	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

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

Lab Sample ID: LCS 880-46199/2-A
Matrix: Solid
Analysis Batch: 46269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46199

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: LCSD 880-46199/3-A
Matrix: Solid
Analysis Batch: 46269

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46199

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	838.2		mg/Kg		84	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	903.2		mg/Kg		90	70 - 130	2	20

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

Lab Sample ID: 890-4067-1 MS
Matrix: Solid
Analysis Batch: 46269

Client Sample ID: FS07
Prep Type: Total/NA
Prep Batch: 46199

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	999	318.0	F1	mg/Kg		30	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	273.5	F1	mg/Kg		25	70 - 130

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

Lab Sample ID: 890-4067-1 MSD
Matrix: Solid
Analysis Batch: 46269

Client Sample ID: FS07
Prep Type: Total/NA
Prep Batch: 46199

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	346.2	F1	mg/Kg		32	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	277.3	F1	mg/Kg		26	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	76		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46037/1-A
Matrix: Solid
Analysis Batch: 46194

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			02/14/23 01:27	1

Lab Sample ID: LCS 880-46037/2-A
Matrix: Solid
Analysis Batch: 46194

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.2		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-46037/3-A
Matrix: Solid
Analysis Batch: 46194

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	243.3		mg/Kg		97	90 - 110	2	20

Lab Sample ID: 890-4067-7 MS
Matrix: Solid
Analysis Batch: 46194

Client Sample ID: SW06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<5.00	U	250	250.7		mg/Kg		99	90 - 110		

Lab Sample ID: 890-4067-7 MSD
Matrix: Solid
Analysis Batch: 46194

Client Sample ID: SW06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.00	U	250	244.4		mg/Kg		96	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

GC VOA

Prep Batch: 46021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Total/NA	Solid	5035	
890-4067-2	SW01	Total/NA	Solid	5035	
890-4067-3	SW02	Total/NA	Solid	5035	
890-4067-4	SW03	Total/NA	Solid	5035	
890-4067-5	SW04	Total/NA	Solid	5035	
890-4067-6	SW05	Total/NA	Solid	5035	
890-4067-7	SW06	Total/NA	Solid	5035	
890-4067-8	SW07	Total/NA	Solid	5035	
890-4067-9	SW08	Total/NA	Solid	5035	
890-4067-10	SW09	Total/NA	Solid	5035	
890-4067-11	FS01	Total/NA	Solid	5035	
890-4067-12	FS02	Total/NA	Solid	5035	
890-4067-13	FS03	Total/NA	Solid	5035	
890-4067-14	FS04	Total/NA	Solid	5035	
890-4067-15	FS05	Total/NA	Solid	5035	
890-4067-16	FS06	Total/NA	Solid	5035	
MB 880-46021/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46021/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46021/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4067-1 MS	FS07	Total/NA	Solid	5035	
890-4067-1 MSD	FS07	Total/NA	Solid	5035	

Analysis Batch: 46072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Total/NA	Solid	8021B	46021
890-4067-2	SW01	Total/NA	Solid	8021B	46021
890-4067-3	SW02	Total/NA	Solid	8021B	46021
890-4067-4	SW03	Total/NA	Solid	8021B	46021
890-4067-5	SW04	Total/NA	Solid	8021B	46021
890-4067-6	SW05	Total/NA	Solid	8021B	46021
890-4067-7	SW06	Total/NA	Solid	8021B	46021
890-4067-8	SW07	Total/NA	Solid	8021B	46021
890-4067-9	SW08	Total/NA	Solid	8021B	46021
890-4067-10	SW09	Total/NA	Solid	8021B	46021
890-4067-11	FS01	Total/NA	Solid	8021B	46021
890-4067-12	FS02	Total/NA	Solid	8021B	46021
890-4067-13	FS03	Total/NA	Solid	8021B	46021
890-4067-14	FS04	Total/NA	Solid	8021B	46021
890-4067-15	FS05	Total/NA	Solid	8021B	46021
890-4067-16	FS06	Total/NA	Solid	8021B	46021
MB 880-46021/5-A	Method Blank	Total/NA	Solid	8021B	46021
LCS 880-46021/1-A	Lab Control Sample	Total/NA	Solid	8021B	46021
LCSD 880-46021/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46021
890-4067-1 MS	FS07	Total/NA	Solid	8021B	46021
890-4067-1 MSD	FS07	Total/NA	Solid	8021B	46021

Analysis Batch: 46250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Total/NA	Solid	Total BTEX	
890-4067-2	SW01	Total/NA	Solid	Total BTEX	
890-4067-3	SW02	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

GC VOA (Continued)

Analysis Batch: 46250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-4	SW03	Total/NA	Solid	Total BTEX	
890-4067-5	SW04	Total/NA	Solid	Total BTEX	
890-4067-6	SW05	Total/NA	Solid	Total BTEX	
890-4067-7	SW06	Total/NA	Solid	Total BTEX	
890-4067-8	SW07	Total/NA	Solid	Total BTEX	
890-4067-9	SW08	Total/NA	Solid	Total BTEX	
890-4067-10	SW09	Total/NA	Solid	Total BTEX	
890-4067-11	FS01	Total/NA	Solid	Total BTEX	
890-4067-12	FS02	Total/NA	Solid	Total BTEX	
890-4067-13	FS03	Total/NA	Solid	Total BTEX	
890-4067-14	FS04	Total/NA	Solid	Total BTEX	
890-4067-15	FS05	Total/NA	Solid	Total BTEX	
890-4067-16	FS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Total/NA	Solid	8015NM Prep	
890-4067-2	SW01	Total/NA	Solid	8015NM Prep	
890-4067-3	SW02	Total/NA	Solid	8015NM Prep	
890-4067-4	SW03	Total/NA	Solid	8015NM Prep	
890-4067-5	SW04	Total/NA	Solid	8015NM Prep	
890-4067-6	SW05	Total/NA	Solid	8015NM Prep	
890-4067-7	SW06	Total/NA	Solid	8015NM Prep	
890-4067-8	SW07	Total/NA	Solid	8015NM Prep	
890-4067-9	SW08	Total/NA	Solid	8015NM Prep	
890-4067-10	SW09	Total/NA	Solid	8015NM Prep	
890-4067-11	FS01	Total/NA	Solid	8015NM Prep	
890-4067-12	FS02	Total/NA	Solid	8015NM Prep	
890-4067-13	FS03	Total/NA	Solid	8015NM Prep	
890-4067-14	FS04	Total/NA	Solid	8015NM Prep	
890-4067-15	FS05	Total/NA	Solid	8015NM Prep	
890-4067-16	FS06	Total/NA	Solid	8015NM Prep	
MB 880-46199/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46199/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46199/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4067-1 MS	FS07	Total/NA	Solid	8015NM Prep	
890-4067-1 MSD	FS07	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Total/NA	Solid	8015B NM	46199
890-4067-2	SW01	Total/NA	Solid	8015B NM	46199
890-4067-3	SW02	Total/NA	Solid	8015B NM	46199
890-4067-4	SW03	Total/NA	Solid	8015B NM	46199
890-4067-5	SW04	Total/NA	Solid	8015B NM	46199
890-4067-6	SW05	Total/NA	Solid	8015B NM	46199
890-4067-7	SW06	Total/NA	Solid	8015B NM	46199
890-4067-8	SW07	Total/NA	Solid	8015B NM	46199
890-4067-9	SW08	Total/NA	Solid	8015B NM	46199

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

GC Semi VOA (Continued)

Analysis Batch: 46269 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-10	SW09	Total/NA	Solid	8015B NM	46199
890-4067-11	FS01	Total/NA	Solid	8015B NM	46199
890-4067-12	FS02	Total/NA	Solid	8015B NM	46199
890-4067-13	FS03	Total/NA	Solid	8015B NM	46199
890-4067-14	FS04	Total/NA	Solid	8015B NM	46199
890-4067-15	FS05	Total/NA	Solid	8015B NM	46199
890-4067-16	FS06	Total/NA	Solid	8015B NM	46199
MB 880-46199/1-A	Method Blank	Total/NA	Solid	8015B NM	46199
LCS 880-46199/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46199
LCSD 880-46199/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46199
890-4067-1 MS	FS07	Total/NA	Solid	8015B NM	46199
890-4067-1 MSD	FS07	Total/NA	Solid	8015B NM	46199

Analysis Batch: 46379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Total/NA	Solid	8015 NM	
890-4067-2	SW01	Total/NA	Solid	8015 NM	
890-4067-3	SW02	Total/NA	Solid	8015 NM	
890-4067-4	SW03	Total/NA	Solid	8015 NM	
890-4067-5	SW04	Total/NA	Solid	8015 NM	
890-4067-6	SW05	Total/NA	Solid	8015 NM	
890-4067-7	SW06	Total/NA	Solid	8015 NM	
890-4067-8	SW07	Total/NA	Solid	8015 NM	
890-4067-9	SW08	Total/NA	Solid	8015 NM	
890-4067-10	SW09	Total/NA	Solid	8015 NM	
890-4067-11	FS01	Total/NA	Solid	8015 NM	
890-4067-12	FS02	Total/NA	Solid	8015 NM	
890-4067-13	FS03	Total/NA	Solid	8015 NM	
890-4067-14	FS04	Total/NA	Solid	8015 NM	
890-4067-15	FS05	Total/NA	Solid	8015 NM	
890-4067-16	FS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Soluble	Solid	DI Leach	
890-4067-2	SW01	Soluble	Solid	DI Leach	
890-4067-3	SW02	Soluble	Solid	DI Leach	
890-4067-4	SW03	Soluble	Solid	DI Leach	
890-4067-5	SW04	Soluble	Solid	DI Leach	
890-4067-6	SW05	Soluble	Solid	DI Leach	
890-4067-7	SW06	Soluble	Solid	DI Leach	
890-4067-8	SW07	Soluble	Solid	DI Leach	
890-4067-9	SW08	Soluble	Solid	DI Leach	
890-4067-10	SW09	Soluble	Solid	DI Leach	
890-4067-11	FS01	Soluble	Solid	DI Leach	
890-4067-12	FS02	Soluble	Solid	DI Leach	
890-4067-13	FS03	Soluble	Solid	DI Leach	
890-4067-14	FS04	Soluble	Solid	DI Leach	
890-4067-15	FS05	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

HPLC/IC (Continued)

Leach Batch: 46037 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-16	FS06	Soluble	Solid	DI Leach	
MB 880-46037/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46037/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46037/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4067-7 MS	SW06	Soluble	Solid	DI Leach	
890-4067-7 MSD	SW06	Soluble	Solid	DI Leach	

Analysis Batch: 46194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4067-1	FS07	Soluble	Solid	300.0	46037
890-4067-2	SW01	Soluble	Solid	300.0	46037
890-4067-3	SW02	Soluble	Solid	300.0	46037
890-4067-4	SW03	Soluble	Solid	300.0	46037
890-4067-5	SW04	Soluble	Solid	300.0	46037
890-4067-6	SW05	Soluble	Solid	300.0	46037
890-4067-7	SW06	Soluble	Solid	300.0	46037
890-4067-8	SW07	Soluble	Solid	300.0	46037
890-4067-9	SW08	Soluble	Solid	300.0	46037
890-4067-10	SW09	Soluble	Solid	300.0	46037
890-4067-11	FS01	Soluble	Solid	300.0	46037
890-4067-12	FS02	Soluble	Solid	300.0	46037
890-4067-13	FS03	Soluble	Solid	300.0	46037
890-4067-14	FS04	Soluble	Solid	300.0	46037
890-4067-15	FS05	Soluble	Solid	300.0	46037
890-4067-16	FS06	Soluble	Solid	300.0	46037
MB 880-46037/1-A	Method Blank	Soluble	Solid	300.0	46037
LCS 880-46037/2-A	Lab Control Sample	Soluble	Solid	300.0	46037
LCSD 880-46037/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46037
890-4067-7 MS	SW06	Soluble	Solid	300.0	46037
890-4067-7 MSD	SW06	Soluble	Solid	300.0	46037

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS07
Date Collected: 02/07/23 10:40
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 15:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 11:42	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 02:09	CH	EET MID

Client Sample ID: SW01
Date Collected: 02/07/23 10:50
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-2
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 16:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 12:48	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 02:23	CH	EET MID

Client Sample ID: SW02
Date Collected: 02/07/23 11:00
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 16:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 13:10	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 02:28	CH	EET MID

Client Sample ID: SW03
Date Collected: 02/07/23 12:10
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-4
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 16:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW03
Date Collected: 02/07/23 12:10
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-4
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			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 13:31	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 02:32	CH	EET MID

Client Sample ID: SW04
Date Collected: 02/07/23 12:45
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-5
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			4.98 g	5 mL	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 17:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 13:53	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 02:37	CH	EET MID

Client Sample ID: SW05
Date Collected: 02/07/23 12:50
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-6
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 17:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 14:15	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 02:42	CH	EET MID

Client Sample ID: SW06
Date Collected: 02/07/23 13:05
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-7
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 18:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 14:38	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: SW06
Date Collected: 02/07/23 13:05
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 02:46	CH	EET MID

Client Sample ID: SW07
Date Collected: 02/07/23 13:10
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 18:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 15:00	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:00	CH	EET MID

Client Sample ID: SW08
Date Collected: 02/07/23 13:30
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-9
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 19:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 15:22	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:05	CH	EET MID

Client Sample ID: SW09
Date Collected: 02/07/23 13:35
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-10
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 19:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 15:44	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:19	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS01
Date Collected: 02/07/23 10:30
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-11
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 21:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 16:31	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:23	CH	EET MID

Client Sample ID: FS02
Date Collected: 02/07/23 10:55
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 21:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 16:53	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:28	CH	EET MID

Client Sample ID: FS03
Date Collected: 02/07/23 12:05
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-13
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 22:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 17:15	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:33	CH	EET MID

Client Sample ID: FS04
Date Collected: 02/07/23 12:40
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-14
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 22:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Client Sample ID: FS04
Date Collected: 02/07/23 12:40
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-14
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			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 17:37	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:37	CH	EET MID

Client Sample ID: FS05
Date Collected: 02/07/23 13:00
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-15
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 23:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 17:59	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:42	CH	EET MID

Client Sample ID: FS06
Date Collected: 02/07/23 13:25
Date Received: 02/08/23 14:56

Lab Sample ID: 890-4067-16
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	46021	02/10/23 15:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46072	02/12/23 23:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46250	02/13/23 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			46379	02/15/23 09:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46199	02/13/23 16:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46269	02/14/23 18:22	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46037	02/10/23 16:45	KS	EET MID
Soluble	Analysis	300.0		1			46194	02/14/23 03:47	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: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

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: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

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: Windward 4H Flowline

Job ID: 890-4067-1
SDG: 03D2024072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4067-1	FS07	Solid	02/07/23 10:40	02/08/23 14:56	0-7'
890-4067-2	SW01	Solid	02/07/23 10:50	02/08/23 14:56	0-7'
890-4067-3	SW02	Solid	02/07/23 11:00	02/08/23 14:56	0-6'
890-4067-4	SW03	Solid	02/07/23 12:10	02/08/23 14:56	0-6'
890-4067-5	SW04	Solid	02/07/23 12:45	02/08/23 14:56	0-6'
890-4067-6	SW05	Solid	02/07/23 12:50	02/08/23 14:56	0-6'
890-4067-7	SW06	Solid	02/07/23 13:05	02/08/23 14:56	0-6'
890-4067-8	SW07	Solid	02/07/23 13:10	02/08/23 14:56	0-6'
890-4067-9	SW08	Solid	02/07/23 13:30	02/08/23 14:56	0-6'
890-4067-10	SW09	Solid	02/07/23 13:35	02/08/23 14:56	0-6'
890-4067-11	FS01	Solid	02/07/23 10:30	02/08/23 14:56	7'
890-4067-12	FS02	Solid	02/07/23 10:55	02/08/23 14:56	6'
890-4067-13	FS03	Solid	02/07/23 12:05	02/08/23 14:56	6'
890-4067-14	FS04	Solid	02/07/23 12:40	02/08/23 14:56	6'
890-4067-15	FS05	Solid	02/07/23 13:00	02/08/23 14:56	6'
890-4067-16	FS06	Solid	02/07/23 13:25	02/08/23 14:56	6'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joe Gable	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:	903-386-8073	Email:	kjennings@ensolum.com, jgable@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:

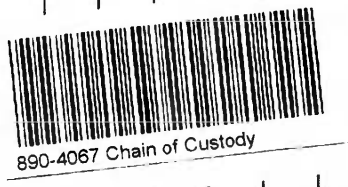
Project Name:	Windward 4H Flowline	Turn Around	
Project Number:	03D2024072	☑ Routine ☐ Rush	
Project Location:	Lea	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TAM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	4.4
Total Containers:		Corrected Temperature:	4.2

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SW05	Soil	2/7/2023	1040	0'-7'	Comp	1		x	x	x	
SW06	Soil	2/7/2023	1050	0'-7'	Comp	1		x	x	x	
SW07	Soil	2/7/2023	1100	0'-6'	Comp	1		x	x	x	
SW08	Soil	2/7/2023	1210	0'-6'	Comp	1		x	x	x	
SW09	Soil	2/7/2023	1245	0'-6'	Comp	1		x	x	x	
SW10	Soil	2/7/2023	1250	0'-6'	Comp	1		x	x	x	
SW11	Soil	2/7/2023	1305	0'-6'	Comp	1		x	x	x	
~~SW12~~	~~Soil~~	~~2/7/2023~~	~~1310~~	~~0'-6'~~	~~Comp~~	~~1~~		x	x	x	
SW13	Soil	2/7/2023	1330	0'-6'	Comp	1		x	x	x	
SW14	Soil	2/7/2023	1335	0'-6'	Comp	1		x	x	x	



ANALYSIS REQUEST

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Peter Van Patten	Amanda Stiff	2-8-23 1456			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Joe Gable	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:	903-386-8073	Email:	kjennings@ensolum.com, jgable@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:	Windward 4H Flowline	Turn Around	
Project Number:	03D2024072	☑ Routine ☐ Rush	
Project Location:	Lea	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS04	Soil	2/7/2023	1030	7'	Comp	1		x	x	x	
FS05	Soil	2/7/2023	1055	6'	Comp	1		x	x	x	
FS06	Soil	2/7/2023	1205	6'	Comp	1		x	x	x	
FS07	Soil	2/7/2023	1240	6'	Comp	1		x	x	x	
FS08	Soil	2/7/2023	1300	6'	Comp	1		x	x	x	
FS09	Soil	2/7/2023	1325	6'	Comp	1		x	x	x	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Peter Van Patten	Amanda Stafford	2-8-23 1458	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4067-1
SDG Number: 03D2024072

Login Number: 4067
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: 890-4067-1
SDG Number: 03D2024072

Login Number: 4067
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/10/23 11:50 AM

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

ENSOLUM

APPENDIX D

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	NAPP2218850477
District RP	
Facility ID	fAPP2132638253
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@ConocoPhillip.com	Incident # *(assigned by OCD)*	NAPP2218850477
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.194444 Longitude -103.711667
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Windward Federal 004H	Site Type	Flowline
Date Release Discovered	July 2, 2022	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
B	30	24S	32E	Lea

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

Nature and Volume of Release

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

■ Crude Oil	Volume Released (bbls) 9.33	Volume Recovered (bbls) 0
■ Produced Water	Volume Released (bbls) 14	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	■ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a pinhole in the flowline due to corrosion. This release occurred off pad. A vacuum truck was dispatched to remove all freestanding fluids. Evaluation will be made at the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218850477
District RP	
Facility ID	fAPP2132638253
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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 7/7/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 07/07/2022

L48 Spill Volume Estimate Form

NAPP2218850477

Facility Name & Number:	WINDWARD 4H FLOWLINE
Asset Area:	DBEN
Release Discovery Date & Time:	7/2/2022
Release Type:	Oil Mixture
Provide any known details about the event:	PINHOLE IN FLOWLINE

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	30.0	8.0	8.00	4	240.000	0.167	7.120	0.008	7.179	40.00%	2.872	4.308
Rectangle B	60.0	9.0	8.00	4	540.000	0.167	16.020	0.008	16.154	40.00%	6.461	9.692
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
								Total Volume Release:	23.333		9.333	14.000

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: 123536
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	7/7/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218850477
District RP	
Facility ID	fAPP2132638253
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	NAPP2218850477
District RP	
Facility ID	fAPP2132638253
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: 04/26/2023

email: Jacob.Laird@conocophillips.com Telephone: 575-703-5482

OCD Only

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218850477
District RP	
Facility ID	fAPP2132638253
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: 04/26/2023

email: Jacob.Laird@conocophillips.com Telephone: 575-703-5482

OCD Only

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

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

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

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Nobui, Jennifer, EMNRD
To: Kalei Jennings
Cc: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] COP- Sampling Notification (Week of 09/05/22-09/09/22)
Date: Tuesday, September 6, 2022 11:14:09 AM
Attachments: image001.png
image002.png
image003.png
image004.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.

Thanks
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Tuesday, September 6, 2022 9:06 AM
To: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: Fw: [EXTERNAL] COP- Sampling Notification (Week of 09/05/22-09/09/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Friday, September 2, 2022 1:10 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Subject: [EXTERNAL] COP- Sampling Notification (Week of 09/05/22-09/09/22)

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

All,

COP plans to complete final sampling activities at the following sites the week of September 5, 2022.

Monday:

- Holiday

Tuesday:

- Zia Hills 1A/B BTF / NAPP2216037138

Wednesday:

- Zia Hills 1A/B BTF / NAPP2216037138
-

Thursday:

- West Pearl 36 State CTB / NAPP2216438339

Friday:

- West Pearl 36 State CTB / NAPP2216438339
- Windward 2H CTB / NAPP2222347897
- Windward 2H CTB-Flare / NAPP2222347897
- Windward 4H Flowline / NAPP2218850477

Thank you,

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

From: Nobui, Jennifer, EMNRD
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] COP- Sampling Notification (Week of 09/19/22-09/23/22)
Date: Tuesday, September 20, 2022 10:26:49 AM
Attachments: image001.png
image002.png
image003.png
image004.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.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Tuesday, September 20, 2022 8:02 AM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] COP- Sampling Notification (Week of 09/19/22-09/23/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Monday, September 19, 2022 8:28 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] COP- Sampling Notification (Week of 09/19/22-09/23/22)

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

All,

COP plans to complete final sampling activities at the following sites the week of September 19, 2022.

Tuesday (9/20/2022)

- Federal 9 Com/ NAPP2218848721
- Windward 4H Flowline/NAPP2218850477
- Windward 2H CTB Flare Fire/NAPP2222347897

Wednesday (9/21/2022)

- -Federal 9 Com/ NAPP2218848721
- Windward 4H Flowline/NAPP2218850477
- Windward 2H CTB Flare Fire/NAPP2222347897

Thursday (9/22/2022)

- Corvo Federal 4/ NAPP2217430297

Thank you,

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

From: Nobui, Jennifer, EMNRD
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] COP- Sampling Notification (Week of 09/26/22-09/30/22)
Date: Thursday, September 22, 2022 3:13:44 PM
Attachments: image001.png
image002.png
image003.png
image004.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.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Thursday, September 22, 2022 2:08 PM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] COP- Sampling Notification (Week of 09/26/22-09/30/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, September 22, 2022 2:07 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] COP- Sampling Notification (Week of 09/26/22-09/30/22)

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

All,

COP plans to complete final sampling activities at the following sites the week of September 26, 2022.

Monday:

- Windward 4H Flowline / NAPP2218850477

Tuesday:

Wednesday:

- Zia Hills 1A/B BTF / NAPP2216037138
- Eata Fajita / NAPP2220244157

Thursday:

- Zia Hills 1A/B BTF / NAPP2216037138

Friday:

Thank you,

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

From: Beauvais, Charles R
To: Kalei Jennings
Subject: FW: [EXTERNAL] COG- Extension Request- Windward Federal 004H (Incident Number NAPP2218850477)
Date: Wednesday, September 28, 2022 12:07:54 PM
Attachments: image001.png

[**EXTERNAL EMAIL**]

FYI

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Sent: Wednesday, September 28, 2022 11:01 AM
To: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: FW: [EXTERNAL] COG- Extension Request- Windward Federal 004H (Incident Number NAPP2218850477)

CAUTION:This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Charles

OCD approves your request for a 90-day extension to December 30, 2022 to submit a closure report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Wednesday, September 28, 2022 9:46 AM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] COG- Extension Request- Windward Federal 004H (Incident Number NAPP2218850477)

From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Sent: Wednesday, September 28, 2022 9:45 AM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>
Cc: Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>
Subject: [EXTERNAL] COG- Extension Request- Windward Federal 004H (Incident Number NAPP2218850477)

To Whom It May Concern,

Windward Federal 004H (Incident Number NAPP2218850477)

COG Operating is requesting an extension for the current deadline of September 30, 2022 for submitting a closure report required in 19.15.29.12.B.(1) NMAC at the Windward Federal 004H (Incident Number NAPP2218850477). The release occurred on July 2, 2022. Remediation of the release could not be completed due to ongoing operations and pipeline maintenance. Site excavation activities are currently ongoing. COG anticipates completing delineation of the release by the end of next week. COG is requesting a 90-day extension to complete delineation and excavation of the impacted soil. In order to complete the field activities and submit a closure report, COG requests an extension until December 29, 2022.

Respectfully,

Charles R. Beauvais **II**
Senior Environmental Engineer **|** Environmental Operations **| ConocoPhillips**
(M) 575-988-2043
Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.

From: Nobui, Jennifer, EMNRD
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] COP- Sampling Notification (Week of 10/10/22-10/14/22)
Date: Wednesday, October 12, 2022 12:16:31 PM
Attachments: image001.png
image002.png
image003.png
image004.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.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Wednesday, October 12, 2022 8:29 AM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] COP- Sampling Notification (Week of 10/10/22-10/14/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Sunday, October 9, 2022 1:31 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] COP- Sampling Notification (Week of 10/10/22-10/14/22)

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

All,

COP plans to complete final sampling activities at the following sites the week of October 10, 2022.

Monday:

Tuesday:

- Windward 4H Flowline / NAPP2218850477

Wednesday:

- Windward 4H Flowline / NAPP2218850477

Thursday:

- Windward 4H Flowline / NAPP2218850477

Friday:

- Windward 4H Flowline / NAPP2218850477

Thank you,

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

From: Beauvais, Charles R
To: Kalei Jennings
Subject: FW: [EXTERNAL](Extension Denied) COG - Windward Federal 004H (Incident Number NAPP2218850477)
Date: Thursday, December 29, 2022 2:10:43 PM
Attachments: image002.jpg
image003.png

[**EXTERNAL EMAIL**]

Denial

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Thursday, December 29, 2022 10:44 AM
To: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Cc: Esparza, Brittany <Brittany.Esparza@conocophillips.com>; Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL](Extension Denied) COG - Windward Federal 004H (Incident Number NAPP2218850477)

CAUTION:This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

RE: Incident #**NAPP2218850477**

Charles,

An extension for this release has already been granted. Your request for another extension is **denied**. Include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>

Sent: Wednesday, December 28, 2022 12:39 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>
Cc: Esparza, Brittany <Brittany.Esparza@conocophillips.com>; Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>
Subject: [EXTERNAL] COG- Final Extension Request- Windward Federal 004H (Incident Number NAPP2218850477)

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

To Whom It May Concern,

Windward Federal 004H (Incident Number NAPP2218850477)

COPC, COG Operating is requesting an extension for the current deadline of December 29, 2022 for submitting a closure report required in 19.15.29.12.B.(1) NMAC at the Windward Federal 004H (Incident Number NAPP2218850477). The release occurred on July 2, 2022. Remediation of the release was originally delayed due to ongoing operations and pipeline maintenance. Site excavation activities began on September 8, 2022 and are currently ongoing. Based on the volume of soil remaining to be excavated and additional delineation sampling planned, COG anticipates completing excavation of soils impacted by the release by the end of January. COG is requesting a 90-day extension to complete on-site work, laboratory analysis, and final reporting. In order to complete the field activities and submit a closure report, COPC/COG requests an extension until March 30, 2023.

Respectfully,

Charles R. Beauvais **II**
Senior Environmental Engineer **|** Environmental Operations **| ConocoPhillips**
(M) 575-988-2043
Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Cc: Nobui, Jennifer, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 01/30/2023)
Date: Monday, January 30, 2023 9:22:17 AM
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: Thursday, January 26, 2023 8:11 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Josh Adams <jadams@ensolum.com>
Subject: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 01/30/2023)

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 January 30, 2023.

- Wild Cobra/ NAPP2233946889
- Gold Coast/ NAPP2234636400
- Zia Hills 19-1/ NAPP2216037138

- Windward Flowline/ NAPP2218850477
- Battle Axe CTB / NAPP2300341479

Thank you,

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

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Cc: Nobui, Jennifer, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 02/06/2023)
Date: Thursday, February 2, 2023 9:51:30 AM
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 1, 2023 7:41 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Josh Adams <jadams@ensolum.com>; Hadlie Green <hgreen@ensolum.com>
Subject: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 02/06/2023)

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 6, 2023.

- Windward Flowline/ NAPP2218850477
- Wilder CTB/ NAPP2300343271

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 212320

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 212320
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

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