ENSOLUM

January 14, 2025

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

Re: Remediation Work Plan
Casamigos Frac Line
Incident Number nAPP2425757674
API: 30-015-48608
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Mewbourne Oil Company (Mewbourne), has prepared this *Remediation Work Plan (Work Plan)* to document assessment and soil sampling activities completed to date and propose actions to address residual impacted soil identified at the Casamigos Frac Line (Site), located at the Casamigos 2 W1OB State Com #001H, following a produced water release. The following *Work Plan* proposes installation of a depth to water boring, a cave and karst survey, and excavation of impacted soil identified at the Site.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P Section 2, Township 26 South, Range 29 East, in Eddy County, New Mexico (32.06646°, -103.94944°) and is associated with oil and gas exploration and production operations on State Trust Land (STL) managed by the New Mexico State Land Office (NMSLO).

On August 30, 2024, failure of a frac line resulted in the release of approximately 392 barrels (bbls) of produced water onto the well pad and into the pasture. No free-standing fluids were recovered. The frac line was subsequently repaired to prevent further release. Mewbourne reported the release to the New Mexico Oil Conservation Division (NMOCD) on a *Release Notification Form C-141* (Form C-141) on September 13, 2024. The release was assigned Incident Number nAPP2425757674.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized for applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization are summarized below and detailed in the NMOCD permitting portal Form C-141 Site Characterization section.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-04755 POD 3, located approximately 0.7 miles southeast of the Site. The groundwater well was drilled to a total depth of 103 feet bgs and no groundwater was encountered. All wells used for depth to groundwater determination are presented 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 dry wash, located approximately 1,321 feet south 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 underlain by unstable geology (medium potential karst designation area). Potential Site receptors are identified in Figure 1.

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

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

CULTURAL PROPERTIES PROTECTION RULE

A portion of the release occurred in a previously undisturbed pasture area; therefore, the Cultural Properties Protection Rule (CPP) was followed prior to disturbing the surface with mechanical equipment. An Archaeological Records Management System (ARMS) review and pedestrian survey were completed at the Site. No cultural resources were identified within or around the release extent. A Cultural Resources Cover Sheet is attached as Appendix B.

BIOLOGICAL COMPLIANCE AND REPORTING

Ensolum personnel conducted a desktop review to establish if the Site is within an area of possible threatened, endangered, and sensitive wildlife and plant species, environmentally sensitive areas, surface waters, and sensitive soils. Below is a summary of the desktop findings:

- The Site is not located within an area of possible threatened, endangered, and sensitive wildlife and plant species.
- No environmentally sensitive receptors were located near the Site as mentioned in the Site Characterization.
- The soil type is classified as Upton-Simona complex according to the Web Soil Survey. Upton-Simona complex is not considered a sensitive soil by the NMSLO definition.

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On November 12, 2024, Ensolum personnel conducted a Site visit to evaluate the release extent based on information provided on the C-141 and visual observations. Ensolum personnel collected 30 assessment soil samples (SS01 through SS30) within and around the release extent from a depth of 0.5 feet bgs to assess the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix C.

The soil samples were placed into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and placed on ice. The soil samples were transported under 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-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

On November 21, 2024 and December 19, 2024, delineation potholes PH01 through PH08 were advanced within the release to assess the vertical extent of the release. The delineation potholes were advanced via backhoe to maximum depths ranging from 2 feet to 4 feet bgs. Discrete soil samples were collected from each pothole at depths ranging from 1-foot to 4 feet bgs. Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations were logged on lithologic soil sampling logs, which are included in Appendix D. Two delineation soil samples from each pothole, at depths ranging from 1 foot to 4 feet bgs were collected, handled and analyzed as described above at Cardinal in Hobbs, New Mexico. The pothole soil sample locations are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix C.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the assessment soil samples SS01 through SS07 and SS10 indicated chloride concentrations exceeded the Closure Criteria within the release extent at the ground surface level. Laboratory analytical results for the assessment soil samples SS08, SS09, and SS11 through SS30 indicated all COCs were compliant with the Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for delineation soil samples collected from pothole PH03 indicated all COCs were compliant with the Closure Criteria. Laboratory analytical results for delineation soil samples collected from potholes PH01, PH02, and PH04 through PH08 indicated that chloride concentrations exceeded the Closure Criteria at depths ranging from 1-foot to 3 feet bgs. The terminal depth sample from each delineation pothole, collected at depths ranging from 2 feet to 4 feet bgs, indicated all COCs were compliant with the Closure Criteria and successfully defined the vertical extent of the release. Laboratory Analytical Reports & Chain-of-Custody Documentation are presented in Appendix E.

PROPOSED REMEDIATION WORK PLAN

The assessment and delineation soil sampling results indicate soil containing elevated and/or waste-containing chloride concentrations exists across an approximate 110,415 square foot area and extends to a maximum depth of 4 feet bgs. Mewbourne proposes to complete the following remediation activities:

- Conduct a Karst survey to document and assess the karst features within and around the release extent.
    - If the area is known to contain prominent karst formations, Mewbourne will proceed with remediation activities utilizing the most stringent Closure Criteria.
        - Excavation of chloride impacted soil to a maximum depth of 4 feet bgs. Excavation will proceed laterally until sidewall samples confirm all COC concentrations are compliant with the Closure Criteria.
        - An estimated 8,200 cubic yards of chloride impacted soil will be excavated, if accessible. The excavated soil will be transferred to a New Mexico approved landfill facility for disposal.
        - The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by

thoroughly mixing. The excavation floor samples will be analyzed for all COC concentrations.

- The excavation will be backfilled and recontoured to match pre-existing conditions. The disturbed pasture area will be re-seeded with an approved NMSLO Loamy sites seed mixture.

o If the survey concludes that the karst potential in the area is low, rather than medium, as initially anticipated, the following remedial activities will be conducted:

- In order to confirm depth to groundwater is greater than 100 feet bgs at the Site, Mewbourne proposed to advance a soil boring to a depth of 105 feet bgs. The soil boring will be located within 0.5 miles of the Site and a field geologist will log and describe soils continuously.
- Based on delineation soil samples analytical results, excavation will be completed in the vicinity of SS10/PH08. Excavation will proceed laterally and vertically until sidewall and floor samples indicate COC concentrations are compliant with the reclamation requirement in the top 4 feet or the Site Closure Criteria at depths greater than 4 feet bgs.
- An estimated 44 cubic yards of chloride impacted soil will be excavated. The excavated soil will be transferred to a New Mexico approved landfill facility for disposal. The excavation will be backfilled and recontoured to match pre-existing conditions. The area will be re-seeded with an approved NMSLO Loamy sites seed mixture.

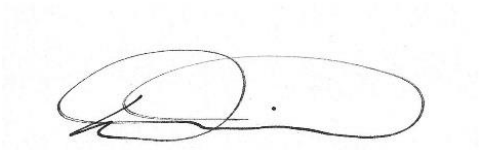
- Due to the estimated 110,415 square foot size of the release, Mewbourne requests a variance for frequency of confirmation soil samples. Mewbourne proposes the frequency of confirmation sampling for the 96,160 square foot release and/or excavation floor on the active well pad to be decreased from every 200 square feet (approximately 481 samples) to every 400 square feet (approximately 240 samples). Each 5-point composite floor sample will represent a 400 square foot area. Confirmation sampling for the release and/or excavation in the 14,255 square foot pasture area floor and all sidewalls will be collected at a frequency of 200 square feet.
- A *Reclamation Work Plan* will be developed and included with the *Closure* or *Deferral Request* report once remedial actions are completed and an understanding of resources and efforts to reclaim the off-pad area is realized.

Mewbourne will proceed with the remediation activities within 90 days of approval of this *Work Plan* by the NMOCD. Mewbourne believes the scope of work described above will meet requirements set forth in 19.15.29.13 NMAC and are protective of human health, the environment, and groundwater. As such, Mewbourne respectfully requests approval of this *Work Plan* from NMOCD.

If you have any questions or comments, please contact Mr. Daniel R. Moir at (303) 887-2946 or dmoir@ensolum.com.

Sincerely,
Ensolum, LLC

Hadlie Green
Project Geologist



Daniel R. Moir, PG (licensed in WY & TX)
Senior Managing Geologist

Cc: Connor Walker, Mewbourne Oil Company
Cc: NMSLO
Appendices:

Figure 1	Site Receptor Map
Figure 2	Assessment Soil Sample Locations
Appendix A	Referenced Well Records
Appendix B	NMSLO Cultural Resources Cover Sheet
Appendix C	Photographic Log
Appendix D	Lithologic Soil Sampling Logs
Appendix E	Laboratory Analytical Reports & Chain of Custody Documentation

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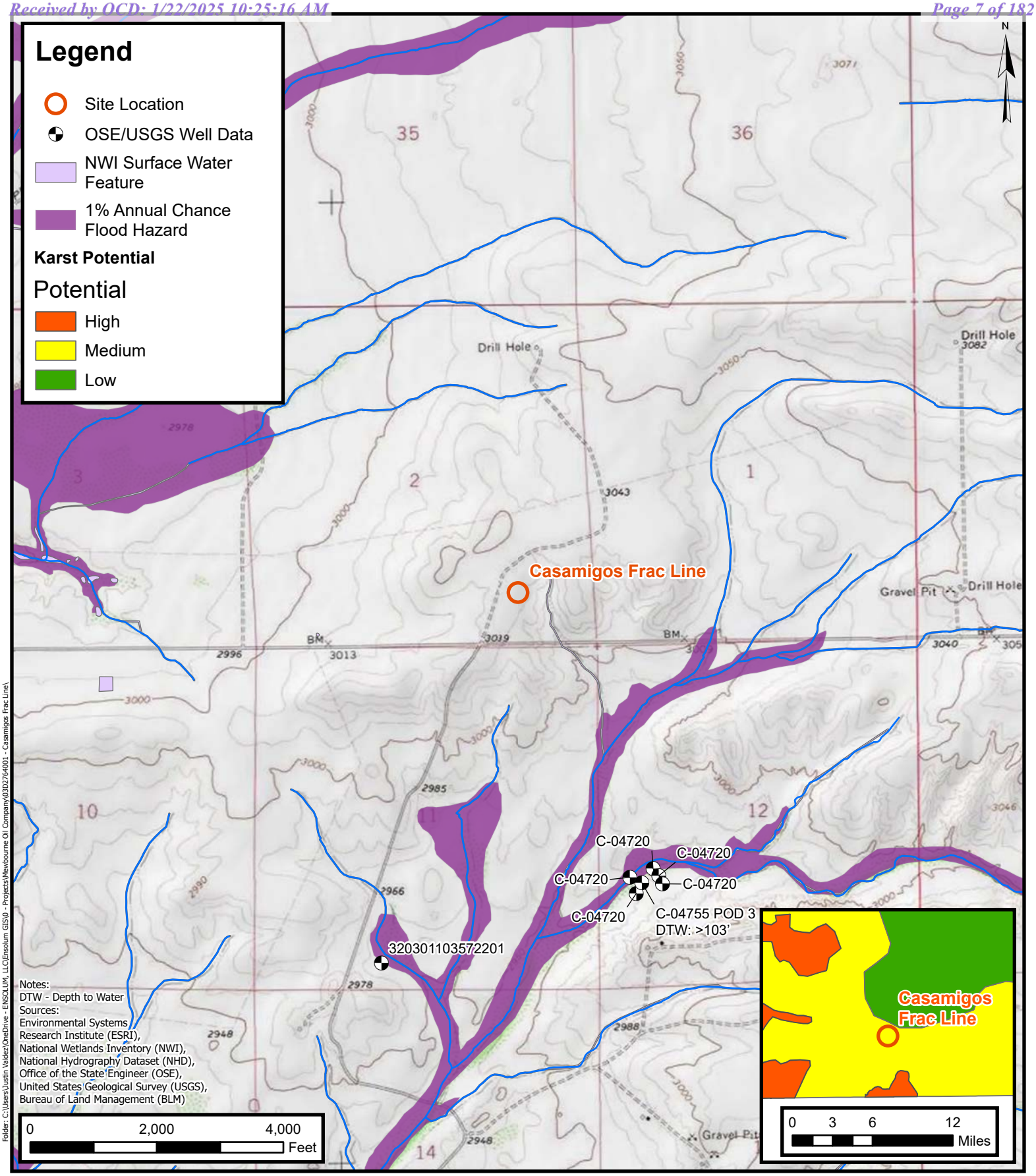
FIGURES



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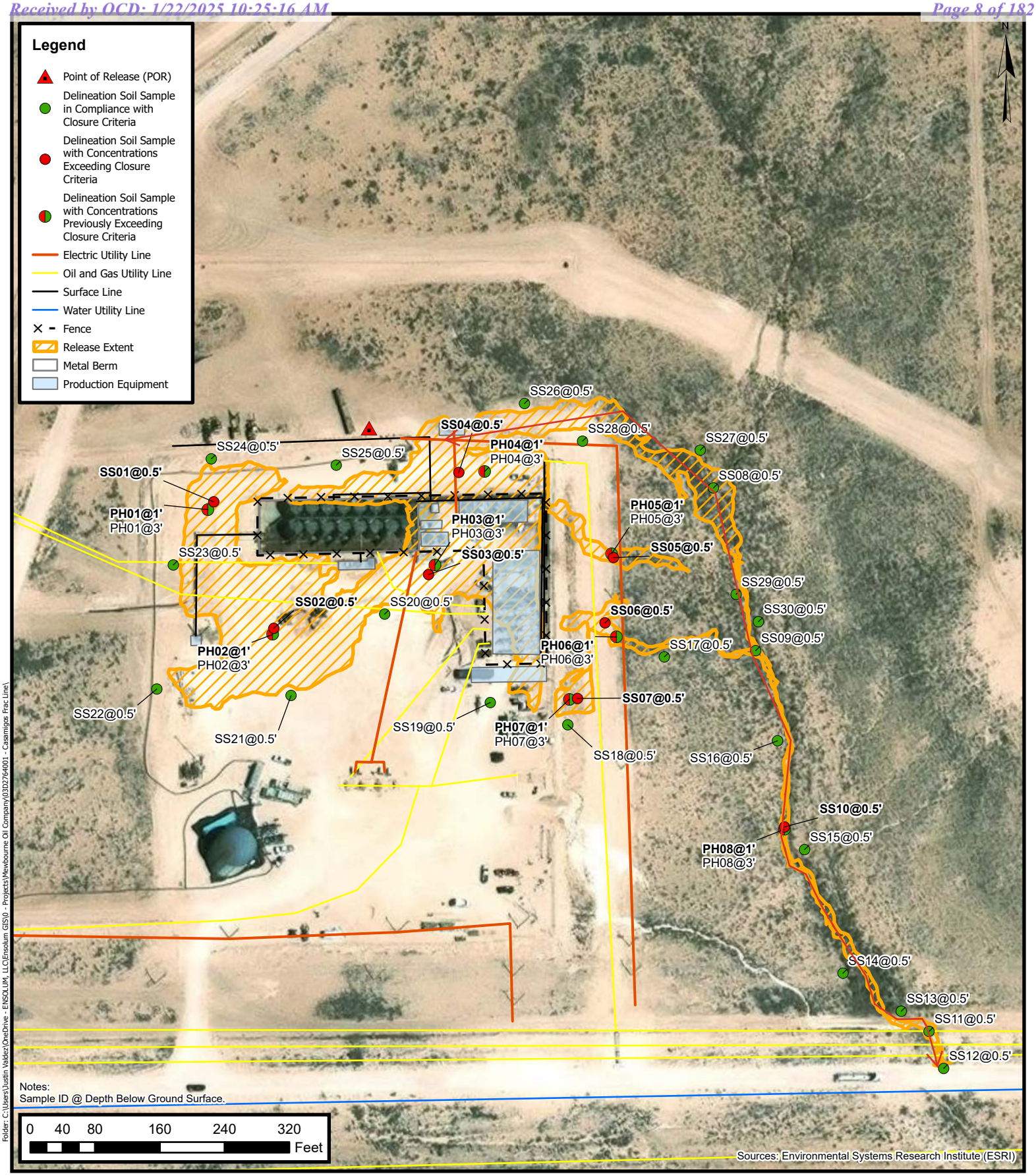
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Mewbourne Oil Company
Casamigos Frac Line
Incident Number: NAPP2425757674
Unit P, Sec 02, T26S, R29E
Eddy County, New Mexico

FIGURE 1



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Assessment Soil Sample Locations

Mewbourne Oil Company
Casamigos Frac Line
Incident Number: NAPP2425757674
Unit P, Sec 02, T26S, R29E
Eddy County, New Mexico

FIGURE 2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Casamigos Frac Line
Mewbourne Oil Company
Eddy 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**	**NE**	**100**	**600**
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Assessment Soil Samples										
SS01	11/12/2024	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	**9,300**
SS02	11/12/2024	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	**2,910**
SS03	11/12/2024	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**2,390**
SS04	11/12/2024	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	**4,260**
SS05	11/12/2024	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	**6,630**
SS06	11/12/2024	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	**4,700**
SS07	11/12/2024	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	**6,740**
SS08*	11/12/2024	0.5	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	26.1
SS09*	11/12/2024	0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	565
SS10*	11/12/2024	0.5	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	**877**
SS11*	11/12/2024	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	516
SS12*	11/12/2024	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	311
SS13*	11/12/2024	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	19.4
SS14*	11/12/2024	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0
SS15*	11/12/2024	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	12.9
SS16*	11/12/2024	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	38.8
SS17*	11/12/2024	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	14.1
SS18	11/12/2024	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	162
SS19	11/12/2024	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	115
SS20	11/12/2024	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	250

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TABLE 1
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Eddy 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**	**NE**	**100**	**600**
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
SS21	11/12/2024	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	183
SS22	11/12/2024	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	54.9
SS23	11/12/2024	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	145
SS24	11/12/2024	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	273
SS25	11/12/2024	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	333
SS26*	11/12/2024	0.5	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	15.6
SS27*	11/12/2024	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	<10.1
SS28	11/12/2024	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	23.8
SS29*	11/12/2024	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	77.7
SS30*	11/12/2024	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	38.2
Delineation Soil Samples										
PH01	12/19/2024	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	**2,720**
PH01	12/19/2024	3	<0.00200	<0.00401	<49.7	<49.7	<49.7	<49.7	<49.7	302
PH02	11/21/2024	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**1,850**
PH02	11/21/2024	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	452
PH03	12/19/2024	1	<0.00200	<0.00399	<49.6	<49.6	<49.6	<49.6	<49.6	196
PH03	12/19/2024	2	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	188
PH04	12/19/2024	1	<0.00200	<0.00401	<49.8	65.1	<49.8	65.1	65.1	**1,720**
PH04	12/19/2024	2	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	399
PH04	12/19/2024	3	<0.00200	<0.00399	<50.3	<50.3	<50.3	<50.3	<50.3	77.1
PH05	11/21/2024	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**5,440**
PH05	11/21/2024	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	424
PH06	11/21/2024	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	**5,490**

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TABLE 1
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Casamigos Frac Line
Mewbourne Oil Company
Eddy 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**	**NE**	**100**	**600**
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
PH06	11/21/2024	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	45.5
PH07	11/21/2024	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	**1,180**
PH07	11/21/2024	2	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	429
PH08*	12/19/2024	1	<0.00201	<0.00402	<50.5	<50.5	<50.5	<50.5	<50.5	**1,070**
PH08*	12/19/2024	3	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	186

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.*
** indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard in the top 4 feet is 600 mg/kg for chloride and 100 mg/kg for TPH.*

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APPENDIX A

Referenced Well Records

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).
POD3 (BH20)		C-04755

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Devon Energy Corporation	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
5315 Buena Vista Dr.	Carlsbad	NM	88220

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	3	12.87	N
	LONGITUDE	-103	56	36.17	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

854R3334+CJ

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
NM-1800	Jarod M Michalsky	Talon/LPE, Ltd.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7/25/23	7/25/23	N/A	103	N/A

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

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

DATE STATIC MEASURED: N/A

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

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)
-	-	-	-	-	-	-	-

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 *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	103	6	3/8" Hydrated Bentonite Chips	20.22	Tremie

OSE DII OCT 16 2023 PM 1:25

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4795	POD NO. 3	TRN NO. 748966	
LOCATION 26S.29E.12 4 1 3		WELL TAG ID NO. NA	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	6	6	SAND, dry, brown, poorly graded, v fine-fine, trace silt, no stain/odor.	Y ✓ N	
6	12	6	SAND, dry, tan-lt brn, poor grade w/silt, v fine-fine, no stain/odor.	Y ✓ N	
12	14	2	CLAY,dry, red-brn, med plast, cohesive, laminations, y/o mottling, no stain/odor	Y ✓ N	
14	18	4	CLAYEY SAND, dry, light brown, poorly graded, v fine-fine, no stain/odor.	Y ✓ N	
18	20	2	CLAY, dry, reddish brown, med plast, cohesive, laminations, no stain/odor.	Y ✓ N	
20	22	2	CLAYEY SAND, dry, lt brn-y/o, poor grade, v fine-fine, laminations, no stain/od	Y ✓ N	
22	24	2	SAND, dry, tan, poorly graded, v fine-fine, y/o mottling, no stain/odor.	Y ✓ N	
24	28	4	CLAY, dry, red brn-dk brn, med plast, cohesive, laminations, no stain/odor.	Y ✓ N	
28	30	2	SAND, dry, tan, poorly graded with silt, very fine to fine, no stain/odor.	Y ✓ N	
30	33	3	CLAYEY SAND, dry, tan-lt brn, poor grade, v fine-fine, no stain/odor.	Y ✓ N	
33	34	1	SAND, dry, tan, poorly graded, very fine to fine grain, no stain, no odor.	Y ✓ N	
34	35	1	CLAYEY SAND, dry, tan-lt brn, poor grade, y/o mottling, fine, no stain/odor.	Y ✓ N	
35	43	8	CLAY, dry, tan-lt brn, med plast, cohesive, abundant laminations, no stain/odor.	Y ✓ N	
43	45	2	SAND, dry, tan, poor grade with silt, v fine-fine, inclusions, no stain/odor.	Y ✓ N	
45	47	2	CLAY, dry, grey-tan, med plast, cohesive, laminations, inclusions, no stain/odor.	Y ✓ N	
47	51	4	CLAYEY SAND, dry, lt red brn, poor grade, fine, y/o laminations, no stain/odor	Y ✓ N	
51	62	11	CLAY, dry, red brn-brn, med plast, cohesive, laminations, inclusions, no stain/od	Y ✓ N	
62	67	5	CLAY, dry, lt grey-grey, med plast, cohesive, laminations, inclusions, no stain/o	Y ✓ N	
67	68	1	GYPSUM, dry, lt grey-grey, crystalline features, consolidation, no stain/odor.	Y ✓ N	
68	72	4	SAND, dry, light brown, poorly graded with silt, very fine-fine, no stain/odor.	Y ✓ N	
72	103	31	CLAY, dry, light grey to grey, med plast, cohesive, laminations, no stain/odor.	Y ✓ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

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: See previously submitted WD-11 Plugging Record

OSE DII OCT 16 2023 PM1:25

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

Joshua A Williams

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jarod M Michalsky — Digitally signed by Jarod M Michalsky DN: cn=Jarod M Michalsky, o=Talon/LPE, Ltd., ou, email=jmichalsky@talonlpe.com, c=US Date: 2023.10.13 09:43:40 -05'00'

Jarod M Michalsky — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

10/13/2023 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	C-4755	POD NO.	3	TRN NO.	748966
LOCATION	26S. 29E. 12 4 1 3			WELL TAG ID NO.	NA

PAGE 2 OF 2

eTECH Environmental & Safety Solutions, Inc.

	Sample Name: BH20	Date: 7/25/2023
	Site Name: North Brushy PW Line	
	Incident Number: nAPP2231126594, nAPP2312845934	
	Job Number: 18128	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Sonic
Coordinates: 32.0535751, -103.9433828	Hole Diameter: 6"	Total Depth: 103'
Comments:		

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
						0	SP	(0-6') SAND, dry, brown, poorly graded, very fine to fine grain, trace silt, no stain, no odor.
								(6-12') SAND, dry, tan to light brown, poorly graded with silt, very fine to fine grain, trace coarse to small subround multi-colored gravel, trace brown laminations (<1mm), no stain, no odor.
						5		
							SP-SM	@ 10', Trace interbedded reddish brown clay laminations(1-5mm) and white crsytalline gympsum inclusions.
								(12-14') CLAY,dry, reddish brown, medium plasticity, cohesive, abundant laminations (<1mm), abundant white crystalline gypsum inclusions, interbedded tan to light brown sand laminations(1-5mm), yellow orange mottling, no stain, no odor.
						10		
							CL	
							SC	(14-18') CLAYEY SAND, dry, light brown, poorly graded, very fine to fine grain, trace white crytalline gypsum inclusions, no stain, no odor.
						15		
								(18-20') CLAY, dry, reddish brown, medium plasticity, cohesive, abundant laminations (1-3mm), white crystalline gypsum inclusions, abundant interbedded tan sand laminations (1-5mm), no stain, no odor.
							CL	
						20		
							SC	(20-22') CLAYEY SAND, dry, light brown to yellow orange, poorly graded, very fine to fine grain, trace white crytalline gypsum inclusions, some interbedded reddish brown clay laminations (1-5mm), no stain, no odor.
							SP	
							CL	(22-24') SAND, dry, tan, poorly graded, very fine to fine grain, yellow orange mottling, no stain, no odor.
						25		
								@ 23', Grain size change to fine grain.
							SP-SM	(24-28') CLAY, dry, reddish brown to dark brown, medium plasticity, cohesive, white crystalline gypsum inclusions, abundant laminations (<1mm), some interbedded tan sand laminations (1mm), no stain, no odor.
						30		
							SC	
							SP	@ 26', Color change to tan with yellow orange mottling.

eTECH Environmental & Safety Solutions, Inc.

	Sample Name: BH20	Date: 7/25/2023
	Site Name: North Brushy PW Line	
	Incident Number: nAPP2231126594, nAPP2312845934	
	Job Number: 18128	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Sonic
Coordinates: 32.0535751, -103.9433828	Hole Diameter: 6"	Total Depth: 103'
Comments:		

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
						35	SC	(28-30') SAND, dry, tan, poorly graded with silt, very fine to fine grain, trace interbedded brown clay laminations (1-5mm), no stain, no odor.
							CL	(30-33') CLAYEY SAND, dry, tan to light brown, poorly graded, very fine to fine, some yellow orange mottling, white crystalline gypsum inclusions, no stain, no odor.
						40		@31', Color change to tan with abundant brown laminations, abundant interbedded tan to light brown clay laminations (1-3 mm).
							SP-SM	(33-34') SAND, dry, tan, poorly graded, very fine to fine grain, no stain, no odor.
						45	CL	(34-35') CLAYEY SAND, dry, tan to light brown, poorly graded, yellow orange mottling, fine grain, trace interbedded clay laminations (1-3mm), no stain, no odor.
							SC	(35-43') CLAY, dry, tan to light brown, medium plasticity, cohesive, abundant laminations (<1mm), abundant yellow orange silty sand laminations (1-2mm), no stain, no odor.
						50	CL	@37', Increase in silt content.
								@40', Color change to grey to tan with yellow orange and reddish pink mottling.
						55		(43-45') SAND, dry, tan, poorly graded with silt, very fine to fine grain, some yellow orange laminations (1mm), white crystalline gypsum inclusions, no stain, no odor.
								(45-47') CLAY, dry, grey to tan, medium plasticity, cohesive, abundant laminations (<1mm), some interbedded yellow orange sand laminations (1-2mm), white crystalline gypsum inclusions, no stain, no odor.
						60	CL	(47-51') CLAYEY SAND, dry, light reddish brown, poorly graded, fine grain, abundant yellow orange laminations (1mm), some white crystalline gypsum inclusions, no stain, no odor.
						65		

eTECH Environmental & Safety Solutions, Inc.

Sample Name: BH20	Date: 7/25/2023	
Site Name: North Brushy PW Line		
Incident Number: nAPP2231126594, nAPP2312845934		
Job Number: 18128		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Sonic
Coordinates: 32.0535751, -103.9433828	Hole Diameter: 6"	Total Depth: 103'
Comments:		

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
						70	GYP	(51-62') CLAY, dry, reddish brown to brown, medium plasticity, cohesive, abundant laminations (<1mm), some interbedded yellow orange to brown sand laminations (<1mm), large white crystalline gypsum inclusions (1-10mm), no stain, no odor.
							SP-SM	@55', Abundant grey mottling, increased size of interbedded brown sand laminations (1-2mm)
						75	CL	@56', Decreased size of interbedded brown sand laminations (1mm). (62-67') CLAY, dry, light grey to grey, medium plasticity, cohesive, abundant laminations (<1mm), some darker grey mottling, white crystalline gypsum inlusions, no stain, no odor.
						80		(67-68') GYPSUM, dry, light grey to grey, large platy like crystalline features, moderate consolidation, no stain, no odor. (68-72') SAND, dry, light brown, poorly graded with silt, very fine to fine grain, no stain, no odor.
						85		(72-103') CLAY, dry, light grey to grey, medium plasticity, cohesive, abundant laminations (<1mm), some interbedded dark grey crystalline gypsum laminations (1-2 mm), trace interbedded light brown sand laminations (1mm), no stain, no odor.
						90		@74', Abundant interbedded white crystalline gypsum laminations (1mm) and inclusions (1-2cm). @81-83', Increased gypsum content, decreased consolidation.
						100		@84', Decreased gypsum content, increased consolidation. @89', Increased gypsum content, decreased consolidation. @92', Increased plasticity and cohesiveness. @102', Grey anhydrite boulder, moderate consolidation with conchoidal-like fracturing.
							TD	Total Depth @ 103' bgs

ENSOLUM

APPENDIX B

NMSLO Cultural Resources Cover Sheet

Stephanie Garcia Richard, Commissioner of Public Lands
State of New Mexico

NMSLO Cultural Resources Cover Sheet Exhibit

NMCRIS Activity Number:
(if applicable)

Exhibit Type (select one)

ARMS Inspection/Review - Summarize the results (select one):

(A) The entire area of potential effect or project area has been previously surveyed to current standards and **no cultural properties** were found within the survey area.
(B) The entire area of potential effect or project area has been previously surveyed to current standards and **cultural properties were found** within the survey area.
(C) The entire area of potential effect or project area has **not** been previously surveyed or **has not been surveyed** to current standards. A complete archaeological survey will be conducted and submitted for review.

Archaeological Survey

Findings:

Negative - No further archaeological review is required.

Positive - Have avoidance and protection measures been devised? Select one:

Comments:

Project Details:

NMSLO Lease Number (if available):

Cultural Resources Consultant:

Project Proponent (Applicant):

Project Title/Description:

Project Location:

County(ies):

PLSS/Section/Township/Range):

For NMSLO Agency Use Only:

NMSLO Lease Number: Acknowledgment-Only:

Lease Analyst:

Date Exhibit Routed to Cultural Resources Office:

No person may alter the wording of the questions or layout of the cover sheet. The completion of this cover sheet by itself does not authorize anyone to engage in new surface disturbing activity before the review and approvals required by the Cultural Properties Protections Rule.

Form Revised 12 22

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
Mewbourne Oil Company
Casamigos Frac Line
Incident Number nAPP2425757674

Photograph: 1 Date: 11/12/2024
Description: Lease Sign/Initial
View: North

Photograph: 2 Date: 11/12/2024
Description: Initial/Overview
View: Northeast

Photograph: 3 Date: 11/12/2024
Description: Initial/Overview
View: Northeast

Photograph: 4 Date: 11/12/2024
Description: Initial/Overview
View: Northwest

ENSOLUM

Photographic Log
Mewbourne Oil Company
Casamigos Frac Line
Incident Number nAPP2425757674

Photograph: 5 Date: 11/21/2024
Description: Vertical Delineation
View: Southwest

Photograph: 6 Date: 11/21/2024
Description: Vertical Delineation
View: Southwest

Photograph: 7 Date: 11/21/2024
Description: Vertical Delineation
View: Southwest

Photograph: 8 Date: 11/21/2024
Description: Vertical Delineation
View: Southwest

ENSOLUM

Photographic Log
Mewbourne Oil Company
Casamigos Frac Line
Incident Number nAPP2425757674

Photograph: 9 Date: 12/19/2024
Description: Vertical Delineation
View: North

Photograph: 10 Date: 12/19/2024
Description: Vertical Delineation
View: Northwest

Photograph: 11 Date: 12/19/2024
Description: Vertical Delineation
View: Northwest

Photograph: 12 Date: 12/19/2024
Description: Vertical Delineation
View: Southwest

ENSOLUM

APPENDIX D

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: PH01	Date: 12/19/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Backhoe
Coordinates: 32.06646, -103.94944	Hole Diameter: 2'	Total Depth: 3 ft bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	3,397	0.2	N	PH01	1	1	CCHE	Caliche with consolidated sandstone, small gravel, fine, dark tan.
D	1,265	0.4	N			2	SWS	Consolidated sandstone, small gravel, fine, dark tan.
D	274	0.4	N	PH01	3	3	CCHE	Caliche, hard, tan, fine.
								Total depth @ 3 ft bgs

ENSOLUM

	Sample Name: PH02	Date: 11/21/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Backhoe
Coordinates: 32.065768, -103.949841	Hole Diameter: 2'	Total Depth: 4 ft bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	2,469	0.3	N			1		
D	2,469	0.3	N	PH02	2	2	CCHE	Caliche, light tan, very fine, medium gravel present
D	1,366	0.1	N			3		
D	464	0.1	N	PH02	4	4		
Total depth @ 4 ft bgs								

ENSOLUM

	Sample Name: PH03	Date: 12/19/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Backhoe
Coordinates: 32.06646, -103.94944	Hole Diameter: 2'	2'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<162	0.1	N	PH03	1	1	CCHE	Caliche with brown topsoil, non-cohesive, non-plastic.
D	<162	0.1	N	PH03	2	2	CCHE	Caliche, very fine, tan, hard, non-cohesive, non-plastic
Total Depth @ 2 ft bgs								

ENSOLUM

	Sample Name: PH04	Date: 12/19/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Backhoe
Coordinates: 32.06646, -103.94944	Hole Diameter: 2'	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,842	40.0	N	PH04	1	1	CCHE	Soil, caliche, dark brown, fine, non-cohesive, strong odor.
D	319	0.3	N	PH04	2	2	CCHE	Caliche, hard rock, fine, medium chunks.
D	<162	0.0	N	PH04	3	3	CCHE	Caliche, very fine, soft.
D	<162	0.0	N			4		

Total Depth @ 4 ft bgs

ENSOLUM

	Sample Name: PH05	Date: 11/21/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Backhoe
Coordinates: 32.066032, -103.948488	Hole Diameter: 2'	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	6,260	0.0	N	PH05	1	1	CCHE	Soil, caliche, dark brown, fine, non-cohesive, strong odor.
D	4,088	0.0	N			2	CCHE	Caliche, hard rock, fine, medium chunks.
D	996	0.0	N			3	CCHE	Caliche, very fine, soft.
D	464	0.0	N	PH05	4	4		

Total Depth @ 4 ft bgs

ENSOLUM

	Sample Name: PH06	Date: 11/21/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Backhoe
Coordinates: 32.065751, -103.948469	Hole Diameter: 2'	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	4,877	0.0	N	PH06	1	1	CCHE	Soil, caliche, dark brown, fine, non-cohesive, strong odor.
D	2,133	0.0	N			2	CCHE	Caliche, hard rock, fine, medium chunks.
D	4,088	0.0	N			3	CCHE	Caliche, very fine, soft.
D	<168	0.0	N	PH06	4	4		

Total Depth @ 4 ft bgs

ENSOLUM

	Sample Name: PH07	Date: 11/21/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Backhoe
Coordinates: 32.065537, -103.948658	Hole Diameter: 2'	Total Depth: 2'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	918	0.1	N	PH07	1	1	CCHE	Caliche with brown topsoil, non-cohesive, non-plastic.
D	464	0.1	N	PH07	2	2	CCHE	Caliche, very fine, tan, hard, non-cohesive, non-plastic
Total Depth @ 2 ft bgs								

ENSOLUM

	Sample Name: PH08	Date: 12/19/2024
	Site Name: Casamigos Frac Line	
	Incident Number: nAPP2425757674	
	Job Number: 03D2764001	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mario Sarkis	Method: Hand Auger
Coordinates: 32.06646, -103.94944	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	996	0.1	N	PH08	1	1	CLS	Clayey sand, dark brown, fine, small gravel, cohesive, non-plastic.
D	918	0.1	N			2	MLS	Silty sand, light brown to tan, very fine, small to large gravel, cohesive.
D	<162	0.1	N	PH08	3	3	MLS	Silty sand, light brown to tan, very fine, small to large gravel, cohesive, non-plastic.
D	364	0.1	N			4		

Total Depth @ 4 ft bgs

ENSOLUM

APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/18/2024 10:06:03 AM

JOB DESCRIPTION

Casamigos Frac Line
03D2764001

JOB NUMBER

890-7379-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

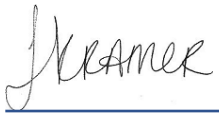
Eurofins Carlsbad

Job Notes

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

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

Authorization



Generated
11/18/2024 10:06:03 AM

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

Client: Ensolum
Project/Site: Casamigos Frac Line

Laboratory Job ID: 890-7379-1
SDG: 03D2764001

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Qualifiers

GC 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.

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

Glossary

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

Case Narrative

Client: Ensolum Job ID: 890-7379-1
Project: Casamigos Frac Line

Job ID: 890-7379-1 Eurofins Carlsbad

Job Narrative
890-7379-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/13/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.4°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS 19 (890-7379-1), SS 03 (890-7379-2), SS 20 (890-7379-3), SS 21 (890-7379-4), SS 22 (890-7379-5), SS 02 (890-7379-6), SS 23 (890-7379-7), SS 01 (890-7379-8), SS 24 (890-7379-9), SS 25 (890-7379-10), SS 04 (890-7379-11), SS 26 (890-7379-12), SS 28 (890-7379-13), SS 27 (890-7379-14), SS 08 (890-7379-15), SS 05 (890-7379-16), SS 06 (890-7379-17), SS 07 (890-7379-18), SS 18 (890-7379-19), SS 29 (890-7379-20), SS 17 (890-7379-21), SS 09 (890-7379-22), SS 30 (890-7379-23), SS 16 (890-7379-24), SS 10 (890-7379-25), SS 15 (890-7379-26), SS 14 (890-7379-27), SS 13 (890-7379-28), SS 11 (890-7379-29) and SS 12 (890-7379-30).

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

Diesel Range Organics
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-95669 and analytical batch 880-95719 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: The method blank for preparation batch 880-95669 and analytical batch 880-95719 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-95667 and analytical batch 880-95721 was outside the upper control limits.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (MB 880-95667/1-A). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (LCSD 880-95667/3-A). Percent recoveries are based on the amount spiked.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-95683 and analytical batch 880-95694 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.

The associated samples are: SS 19 (890-7379-1), SS 03 (890-7379-2), SS 20 (890-7379-3), SS 21 (890-7379-4), SS 22 (890-7379-5), SS 02 (890-7379-6), SS 23 (890-7379-7), SS 01 (890-7379-8), SS 24 (890-7379-9), SS 25 (890-7379-10), (890-7379-A-1-E MS) and (890-7379-A-1-F MSD).

Eurofins Carlsbad

Case Narrative

Client: Ensolum Job ID: 890-7379-1
Project: Casamigos Frac Line

Job ID: 890-7379-1 (Continued) Eurofins Carlsbad

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-95683 and analytical batch 880-95694 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.

The associated samples are: SS 04 (890-7379-11), SS 26 (890-7379-12), SS 28 (890-7379-13), SS 27 (890-7379-14), SS 08 (890-7379-15), SS 05 (890-7379-16), SS 06 (890-7379-17), SS 07 (890-7379-18), SS 18 (890-7379-19), SS 29 (890-7379-20), (890-7379-A-11-C MS) and (890-7379-A-11-D MSD).

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: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 19

Lab Sample ID: 890-7379-1
Matrix: Solid
Date Collected: 11/12/24 13:46
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 11:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 11:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 11:37	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/14/24 08:37	11/14/24 11:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 11:37	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/14/24 08:37	11/14/24 11:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 11:37*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 11:37*	*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			11/14/24 11:37	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			11/14/24 12:37	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		11/13/24 19:08	11/14/24 12:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 12:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/13/24 19:08*	*11/14/24 12:37*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/13/24 19:08*	*11/14/24 12:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**115**	**F1**	9.90		mg/Kg			11/14/24 11:46	1

Client Sample ID: SS 03

Lab Sample ID: 890-7379-2
Matrix: Solid
Date Collected: 11/12/24 10:30
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 11:57	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 11:57	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 11:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 11:57	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 11:57	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 11:57*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 03

Lab Sample ID: 890-7379-2
Matrix: Solid
Date Collected: 11/12/24 10:30
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/14/24 08:37*	*11/14/24 11:57*	*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			11/14/24 11:57	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			11/14/24 13:26	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		11/13/24 19:08	11/14/24 13:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/13/24 19:08	11/14/24 13:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/13/24 19:08	11/14/24 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*11/13/24 19:08*	*11/14/24 13:26*	*1*
o-Terphenyl	*87*		*70 - 130*	*11/13/24 19:08*	*11/14/24 13:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2390**		50.1	mg/Kg			11/14/24 12:02	5

Client Sample ID: SS 20

Lab Sample ID: 890-7379-3
Matrix: Solid
Date Collected: 11/12/24 10:35
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 12:18	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 12:18	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 12:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/14/24 08:37	11/14/24 12:18	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 12:18	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/14/24 08:37	11/14/24 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*11/14/24 08:37*	*11/14/24 12:18*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*11/14/24 08:37*	*11/14/24 12:18*	*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			11/14/24 12:18	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			11/14/24 14:17	1

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 20

Lab Sample ID: 890-7379-3
Matrix: Solid
Date Collected: 11/12/24 10:35
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 14:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 14:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/13/24 19:08*	*11/14/24 14:17*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/13/24 19:08*	*11/14/24 14:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		10.1		mg/Kg			11/14/24 12:07	1

Client Sample ID: SS 21

Lab Sample ID: 890-7379-4
Matrix: Solid
Date Collected: 11/12/24 10:40
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 14:00	11/14/24 18:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 14:00	11/14/24 18:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 14:00	11/14/24 18:29	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/14/24 14:00	11/14/24 18:29	1
o-Xylene	**0.00226**		0.00200		mg/Kg		11/14/24 14:00	11/14/24 18:29	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/14/24 14:00	11/14/24 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*11/14/24 14:00*	*11/14/24 18:29*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 14:00*	*11/14/24 18:29*	*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			11/14/24 18:29	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			11/14/24 14:34	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		11/13/24 19:08	11/14/24 14:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 14:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*11/13/24 19:08*	*11/14/24 14:34*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/13/24 19:08*	*11/14/24 14:34*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 21

Lab Sample ID: 890-7379-4
Matrix: Solid
Date Collected: 11/12/24 10:40
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	183		10.0		mg/Kg			11/14/24 13:15	1

Client Sample ID: SS 22

Lab Sample ID: 890-7379-5
Matrix: Solid
Date Collected: 11/12/24 12:51
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 13:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 13:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 13:22	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/14/24 08:37	11/14/24 13:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 13:22	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/14/24 08:37	11/14/24 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 13:22*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*11/14/24 08:37*	*11/14/24 13:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/14/24 13:22	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			11/14/24 14:50	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		11/13/24 19:08	11/14/24 14:50	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/13/24 19:08	11/14/24 14:50	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/13/24 19:08	11/14/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/13/24 19:08*	*11/14/24 14:50*	*1*
o-Terphenyl	*103*		*70 - 130*	*11/13/24 19:08*	*11/14/24 14:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.9		10.1		mg/Kg			11/14/24 13:20	1

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 02

Lab Sample ID: 890-7379-6
Matrix: Solid
Date Collected: 11/12/24 10:50
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 13:42	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 13:42	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 13:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 13:42	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 13:42	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*11/14/24 08:37*	*11/14/24 13:42*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*11/14/24 08:37*	*11/14/24 13:42*	*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			11/14/24 13:42	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			11/14/24 15:06	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		11/13/24 19:08	11/14/24 15:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 15:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:06*	*1*
o-Terphenyl	*111*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2910**		49.8		mg/Kg			11/15/24 09:57	5

Client Sample ID: SS 23

Lab Sample ID: 890-7379-7
Matrix: Solid
Date Collected: 11/12/24 10:55
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 14:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 14:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 14:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/24 08:37	11/14/24 14:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 14:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/24 08:37	11/14/24 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*11/14/24 08:37*	*11/14/24 14:03*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 23

Lab Sample ID: 890-7379-7
Matrix: Solid
Date Collected: 11/12/24 10:55
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 14:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/14/24 14:03	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			11/14/24 15:22	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		11/13/24 19:08	11/14/24 15:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/13/24 19:08	11/14/24 15:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/13/24 19:08	11/14/24 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:22*	*1*
o-Terphenyl	*102*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**145**		9.92	mg/Kg			11/15/24 10:03	1

Client Sample ID: SS 01

Lab Sample ID: 890-7379-8
Matrix: Solid
Date Collected: 11/12/24 11:00
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 14:24	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 14:24	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 14:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/14/24 08:37	11/14/24 14:24	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 14:24	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/14/24 08:37	11/14/24 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*11/14/24 08:37*	*11/14/24 14:24*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/14/24 08:37*	*11/14/24 14:24*	*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			11/14/24 14:24	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			11/14/24 15:38	1

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 01

Lab Sample ID: 890-7379-8
Matrix: Solid
Date Collected: 11/12/24 11:00
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/13/24 19:08	11/14/24 15:38	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/13/24 19:08	11/14/24 15:38	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/13/24 19:08	11/14/24 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:38*	*1*
o-Terphenyl	*98*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9300**		202		mg/Kg			11/15/24 10:08	20

Client Sample ID: SS 24

Lab Sample ID: 890-7379-9
Matrix: Solid
Date Collected: 11/12/24 11:05
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 14:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 14:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 14:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/14/24 08:37	11/14/24 14:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 14:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/14/24 08:37	11/14/24 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 14:44*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*11/14/24 08:37*	*11/14/24 14:44*	*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			11/14/24 14:44	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			11/14/24 15:54	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		11/13/24 19:08	11/14/24 15:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 15:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:54*	*1*
o-Terphenyl	*97*		*70 - 130*	*11/13/24 19:08*	*11/14/24 15:54*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 24

Lab Sample ID: 890-7379-9
Matrix: Solid
Date Collected: 11/12/24 11:05
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	273		10.0		mg/Kg			11/15/24 10:13	1

Client Sample ID: SS 25

Lab Sample ID: 890-7379-10
Matrix: Solid
Date Collected: 11/12/24 12:46
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:37	11/14/24 15:05	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:37	11/14/24 15:05	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:37	11/14/24 15:05	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/14/24 08:37	11/14/24 15:05	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:37	11/14/24 15:05	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/14/24 08:37	11/14/24 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*11/14/24 08:37*	*11/14/24 15:05*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*11/14/24 08:37*	*11/14/24 15:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/14/24 15:05	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			11/14/24 16:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 16:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 16:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*11/13/24 19:08*	*11/14/24 16:11*	*1*
o-Terphenyl	*114*		*70 - 130*	*11/13/24 19:08*	*11/14/24 16:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	333		9.94		mg/Kg			11/15/24 10:19	1

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 04

Date Collected: 11/12/24 11:15
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Lab Sample ID: 890-7379-11
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		11/14/24 08:37	11/14/24 17:10	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 17:10	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 17:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 17:10	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 17:10	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 17:10*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 17:10*	*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			11/14/24 17:10	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			11/14/24 16:43	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		11/13/24 19:08	11/14/24 16:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 16:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*11/13/24 19:08*	*11/14/24 16:43*	*1*
o-Terphenyl	*100*		*70 - 130*	*11/13/24 19:08*	*11/14/24 16:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4260**	**F1**	49.6		mg/Kg			11/15/24 10:24	5

Client Sample ID: SS 26

Date Collected: 11/12/24 11:20
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Lab Sample ID: 890-7379-12
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		11/14/24 08:37	11/14/24 17:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 17:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 17:30	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/14/24 08:37	11/14/24 17:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 17:30	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/14/24 08:37	11/14/24 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*11/14/24 08:37*	*11/14/24 17:30*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 26

Lab Sample ID: 890-7379-12
Matrix: Solid
Date Collected: 11/12/24 11:20
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 17:30*	*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			11/14/24 17:30	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			11/14/24 16:59	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		11/13/24 19:08	11/14/24 16:59	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/13/24 19:08	11/14/24 16:59	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/13/24 19:08	11/14/24 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*111*		*70 - 130*	*11/13/24 19:08*	*11/14/24 16:59*	*1*
o-Terphenyl	*102*		*70 - 130*	*11/13/24 19:08*	*11/14/24 16:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.6**		10.1	mg/Kg			11/15/24 10:40	1

Client Sample ID: SS 28

Lab Sample ID: 890-7379-13
Matrix: Solid
Date Collected: 11/12/24 11:25
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 17:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 17:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 17:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/14/24 08:37	11/14/24 17:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 17:51	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/14/24 08:37	11/14/24 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*11/14/24 08:37*	*11/14/24 17:51*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/14/24 08:37*	*11/14/24 17:51*	*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			11/14/24 17:51	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			11/14/24 17:15	1

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 28

Lab Sample ID: 890-7379-13
Matrix: Solid
Date Collected: 11/12/24 11:25
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 17:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 17:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*11/13/24 19:08*	*11/14/24 17:15*	*1*
o-Terphenyl	*107*		*70 - 130*	*11/13/24 19:08*	*11/14/24 17:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.8**		9.98		mg/Kg			11/15/24 10:45	1

Client Sample ID: SS 27

Lab Sample ID: 890-7379-14
Matrix: Solid
Date Collected: 11/12/24 11:36
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/24 08:37	11/14/24 18:11	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:11	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/24 08:37	11/14/24 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*11/14/24 08:37*	*11/14/24 18:11*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*11/14/24 08:37*	*11/14/24 18:11*	*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			11/14/24 18:11	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			11/14/24 17:33	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		11/13/24 19:08	11/14/24 17:33	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/13/24 19:08	11/14/24 17:33	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/13/24 19:08	11/14/24 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/13/24 19:08*	*11/14/24 17:33*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/13/24 19:08*	*11/14/24 17:33*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 27

Lab Sample ID: 890-7379-14
Matrix: Solid
Date Collected: 11/12/24 11:36
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.1	U	10.1		mg/Kg			11/15/24 11:01	1

Client Sample ID: SS 08

Lab Sample ID: 890-7379-15
Matrix: Solid
Date Collected: 11/12/24 11:38
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/24 08:37	11/14/24 18:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:37	11/14/24 18:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/24 08:37	11/14/24 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*11/14/24 08:37*	*11/14/24 18:32*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/14/24 08:37*	*11/14/24 18:32*	*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			11/14/24 18:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			11/14/24 17:49	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	<49.7	U	49.7		mg/Kg		11/13/24 19:08	11/14/24 17:49	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/13/24 19:08	11/14/24 17:49	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		11/13/24 19:08	11/14/24 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*11/13/24 19:08*	*11/14/24 17:49*	*1*
o-Terphenyl	*98*		*70 - 130*	*11/13/24 19:08*	*11/14/24 17:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.1**		9.94		mg/Kg			11/15/24 11:06	1

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 05

Lab Sample ID: 890-7379-16
Matrix: Solid
Date Collected: 11/12/24 11:40
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 18:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 18:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 18:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/14/24 08:37	11/14/24 18:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 18:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/14/24 08:37	11/14/24 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*11/14/24 08:37*	*11/14/24 18:53*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*11/14/24 08:37*	*11/14/24 18:53*	*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			11/14/24 18:53	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			11/14/24 18:05	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		11/13/24 19:08	11/14/24 18:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 18:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:05*	*1*
o-Terphenyl	*109*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6630**		99.6		mg/Kg			11/15/24 11:12	10

Client Sample ID: SS 06

Lab Sample ID: 890-7379-17
Matrix: Solid
Date Collected: 11/12/24 11:45
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 19:13	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 19:13	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 19:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 19:13	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:37	11/14/24 19:13	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/14/24 08:37	11/14/24 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*11/14/24 08:37*	*11/14/24 19:13*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 06

Lab Sample ID: 890-7379-17
Matrix: Solid
Date Collected: 11/12/24 11:45
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/14/24 08:37*	*11/14/24 19:13*	*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			11/14/24 19:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/14/24 18:22	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		11/13/24 19:08	11/14/24 18:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/13/24 19:08	11/14/24 18:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/13/24 19:08	11/14/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:22*	*1*
o-Terphenyl	*101*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4700**		50.3	mg/Kg			11/15/24 11:17	5

Client Sample ID: SS 07

Lab Sample ID: 890-7379-18
Matrix: Solid
Date Collected: 11/12/24 11:49
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 19:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 19:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 19:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/14/24 08:37	11/14/24 19:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/14/24 08:37	11/14/24 19:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/14/24 08:37	11/14/24 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*11/14/24 08:37*	*11/14/24 19:34*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*11/14/24 08:37*	*11/14/24 19:34*	*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			11/14/24 19:34	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			11/14/24 18:38	1

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 07

Lab Sample ID: 890-7379-18
Matrix: Solid
Date Collected: 11/12/24 11:49
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 18:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 18:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:38*	*1*
o-Terphenyl	*107*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6740**		100		mg/Kg			11/15/24 11:22	10

Client Sample ID: SS 18

Lab Sample ID: 890-7379-19
Matrix: Solid
Date Collected: 11/12/24 11:51
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 14:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 14:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 14:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/14/24 08:28	11/14/24 14:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 14:18	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/14/24 08:28	11/14/24 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/14/24 08:28*	*11/14/24 14:18*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/14/24 08:28*	*11/14/24 14:18*	*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			11/14/24 14:18	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			11/14/24 18:55	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		11/13/24 19:08	11/14/24 18:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 18:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:08	11/14/24 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:55*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/13/24 19:08*	*11/14/24 18:55*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 18

Lab Sample ID: 890-7379-19
Matrix: Solid
Date Collected: 11/12/24 11:51
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	162		50.1		mg/Kg			11/15/24 11:27	5

Client Sample ID: SS 29

Lab Sample ID: 890-7379-20
Matrix: Solid
Date Collected: 11/12/24 11:56
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:28	11/14/24 14:38	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:28	11/14/24 14:38	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:28	11/14/24 14:38	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/14/24 08:28	11/14/24 14:38	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/14/24 08:28	11/14/24 14:38	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/14/24 08:28	11/14/24 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*11/14/24 08:28*	*11/14/24 14:38*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/14/24 08:28*	*11/14/24 14:38*	*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			11/14/24 14:38	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			11/14/24 19:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 19:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 19:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/13/24 19:08	11/14/24 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/13/24 19:08*	*11/14/24 19:11*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/13/24 19:08*	*11/14/24 19:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77.7		9.90		mg/Kg			11/15/24 11:33	1

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 17

Lab Sample ID: 890-7379-21
Matrix: Solid
Date Collected: 11/12/24 12:00
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/14/24 08:28	11/14/24 16:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/14/24 08:28	11/14/24 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*11/14/24 08:28*	*11/14/24 16:12*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/14/24 08:28*	*11/14/24 16:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			11/14/24 16:12	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			11/14/24 21:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 21:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1	50.0		mg/Kg		11/13/24 19:10	11/14/24 21:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*11/13/24 19:10*	*11/14/24 21:20*	*1*
o-Terphenyl	*74*		*70 - 130*	*11/13/24 19:10*	*11/14/24 21:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.1**		10.0		mg/Kg			11/14/24 15:44	1

Client Sample ID: SS 09

Lab Sample ID: 890-7379-22
Matrix: Solid
Date Collected: 11/12/24 12:02
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/14/24 08:28	11/14/24 16:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 16:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/14/24 08:28	11/14/24 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*11/14/24 08:28*	*11/14/24 16:33*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 09

Lab Sample ID: 890-7379-22
Matrix: Solid
Date Collected: 11/12/24 12:02
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/14/24 08:28*	*11/14/24 16:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			11/14/24 16:33	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			11/14/24 22:08	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		11/13/24 19:10	11/14/24 22:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/13/24 19:10	11/14/24 22:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/13/24 19:10	11/14/24 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:08*	*1*
o-Terphenyl	*75*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**565**		10.1	mg/Kg			11/14/24 15:51	1

Client Sample ID: SS 30

Lab Sample ID: 890-7379-23
Matrix: Solid
Date Collected: 11/12/24 12:05
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/14/24 08:28	11/14/24 16:53	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/14/24 08:28	11/14/24 16:53	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/14/24 08:28	11/14/24 16:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/14/24 08:28	11/14/24 16:53	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/14/24 08:28	11/14/24 16:53	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/14/24 08:28	11/14/24 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/14/24 08:28*	*11/14/24 16:53*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/14/24 08:28*	*11/14/24 16:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/14/24 16:53	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			11/14/24 22:24	1

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 30

Lab Sample ID: 890-7379-23
Matrix: Solid
Date Collected: 11/12/24 12:05
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 22:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 22:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:24*	*1*
o-Terphenyl	*78*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**38.2**		10.0		mg/Kg			11/14/24 15:57	1

Client Sample ID: SS 16

Lab Sample ID: 890-7379-24
Matrix: Solid
Date Collected: 11/12/24 12:07
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:14	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/14/24 08:28	11/14/24 17:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:14	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/14/24 08:28	11/14/24 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*11/14/24 08:28*	*11/14/24 17:14*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/14/24 08:28*	*11/14/24 17:14*	*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			11/14/24 17:14	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			11/14/24 22:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/13/24 19:10	11/14/24 22:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/13/24 19:10	11/14/24 22:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/13/24 19:10	11/14/24 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:40*	*1*
o-Terphenyl	*80*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:40*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 16

Lab Sample ID: 890-7379-24
Matrix: Solid
Date Collected: 11/12/24 12:07
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38.8		10.1		mg/Kg			11/14/24 16:04	1

Client Sample ID: SS 10

Lab Sample ID: 890-7379-25
Matrix: Solid
Date Collected: 11/12/24 12:10
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/14/24 08:28	11/14/24 17:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 17:34	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/14/24 08:28	11/14/24 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*11/14/24 08:28*	*11/14/24 17:34*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/14/24 08:28*	*11/14/24 17:34*	*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			11/14/24 17:34	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			11/14/24 22:56	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		11/13/24 19:10	11/14/24 22:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/14/24 22:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/14/24 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:56*	*1*
o-Terphenyl	*82*		*70 - 130*	*11/13/24 19:10*	*11/14/24 22:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	877		9.96		mg/Kg			11/14/24 16:24	1

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 15

Lab Sample ID: 890-7379-26
Matrix: Solid
Date Collected: 11/12/24 12:12
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 17:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 17:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 17:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/24 08:28	11/14/24 17:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 17:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/24 08:28	11/14/24 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/14/24 08:28*	*11/14/24 17:54*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/14/24 08:28*	*11/14/24 17:54*	*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			11/14/24 17:54	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			11/14/24 23:12	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		11/13/24 19:10	11/14/24 23:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 23:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/13/24 19:10*	*11/14/24 23:12*	*1*
o-Terphenyl	*83*		*70 - 130*	*11/13/24 19:10*	*11/14/24 23:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.9**		10.1		mg/Kg			11/14/24 16:31	1

Client Sample ID: SS 14

Lab Sample ID: 890-7379-27
Matrix: Solid
Date Collected: 11/12/24 12:14
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 18:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 18:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 18:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/24 08:28	11/14/24 18:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/24 08:28	11/14/24 18:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/24 08:28	11/14/24 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*11/14/24 08:28*	*11/14/24 18:15*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 14

Lab Sample ID: 890-7379-27
Matrix: Solid
Date Collected: 11/12/24 12:14
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/14/24 08:28*	*11/14/24 18:15*	*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			11/14/24 18:15	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			11/14/24 23:28	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		11/13/24 19:10	11/14/24 23:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/13/24 19:10	11/14/24 23:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/13/24 19:10	11/14/24 23:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*11/13/24 19:10*	*11/14/24 23:28*	*1*
o-Terphenyl	*82*		*70 - 130*	*11/13/24 19:10*	*11/14/24 23:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			11/14/24 16:37	1

Client Sample ID: SS 13

Lab Sample ID: 890-7379-28
Matrix: Solid
Date Collected: 11/12/24 12:17
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:28	11/14/24 18:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:28	11/14/24 18:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:28	11/14/24 18:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/14/24 08:28	11/14/24 18:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:28	11/14/24 18:35	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/14/24 08:28	11/14/24 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*11/14/24 08:28*	*11/14/24 18:35*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/14/24 08:28*	*11/14/24 18:35*	*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			11/14/24 18:35	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			11/14/24 23:46	1

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Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 13

Lab Sample ID: 890-7379-28
Matrix: Solid
Date Collected: 11/12/24 12:17
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/14/24 23:46	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/14/24 23:46	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/14/24 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*11/13/24 19:10*	*11/14/24 23:46*	*1*
o-Terphenyl	*73*		*70 - 130*	*11/13/24 19:10*	*11/14/24 23:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.4**		10.0		mg/Kg			11/14/24 16:44	1

Client Sample ID: SS 11

Lab Sample ID: 890-7379-29
Matrix: Solid
Date Collected: 11/12/24 12:18
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:28	11/14/24 18:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:28	11/14/24 18:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:28	11/14/24 18:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/14/24 08:28	11/14/24 18:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/14/24 08:28	11/14/24 18:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/14/24 08:28	11/14/24 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*11/14/24 08:28*	*11/14/24 18:56*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/14/24 08:28*	*11/14/24 18:56*	*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			11/14/24 18:56	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			11/15/24 00:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/15/24 00:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/15/24 00:01	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/13/24 19:10	11/15/24 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*11/13/24 19:10*	*11/15/24 00:01*	*1*
o-Terphenyl	*78*		*70 - 130*	*11/13/24 19:10*	*11/15/24 00:01*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 11

Lab Sample ID: 890-7379-29
Matrix: Solid
Date Collected: 11/12/24 12:18
Date Received: 11/13/24 08:00
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	516		9.96		mg/Kg			11/14/24 16:51	1

Client Sample ID: SS 12

Lab Sample ID: 890-7379-30
Matrix: Solid
Date Collected: 11/12/24 12:19
Date Received: 11/13/24 08:00
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 16:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 16:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 16:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/15/24 08:22	11/15/24 16:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 16:25	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/15/24 08:22	11/15/24 16:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*11/15/24 08:22*	*11/15/24 16:25*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/15/24 08:22*	*11/15/24 16:25*	*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			11/15/24 16:25	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			11/15/24 00:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/13/24 19:10	11/15/24 00:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/13/24 19:10	11/15/24 00:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/13/24 19:10	11/15/24 00:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*11/13/24 19:10*	*11/15/24 00:18*	*1*
o-Terphenyl	*75*		*70 - 130*	*11/13/24 19:10*	*11/15/24 00:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	311		9.94		mg/Kg			11/14/24 16:57	1

Surrogate Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-50704-A-8-C MB	Method Blank	93	84
880-50704-A-31-A MB	Method Blank	116	93
880-51051-A-1-F MS	Matrix Spike	110	104
880-51051-A-1-G MSD	Matrix Spike Duplicate	131 S1+	108
880-51052-A-1-H MS	Matrix Spike	112	120
880-51052-A-1-I MSD	Matrix Spike Duplicate	106	120
890-7379-1	SS 19	89	89
890-7379-1 MS	SS 19	109	106
890-7379-1 MSD	SS 19	107	103
890-7379-2	SS 03	89	90
890-7379-3	SS 20	90	88
890-7379-4	SS 21	104	89
890-7379-5	SS 22	89	88
890-7379-6	SS 02	96	77
890-7379-7	SS 23	88	89
890-7379-8	SS 01	87	90
890-7379-9	SS 24	89	88
890-7379-10	SS 25	87	86
890-7379-11	SS 04	89	89
890-7379-12	SS 26	85	89
890-7379-13	SS 28	86	89
890-7379-14	SS 27	96	88
890-7379-15	SS 08	88	84
890-7379-16	SS 05	92	88
890-7379-17	SS 06	90	90
890-7379-18	SS 07	87	92
890-7379-19	SS 18	98	99
890-7379-20	SS 29	104	100
890-7379-21	SS 17	97	99
890-7379-22	SS 09	97	98
890-7379-23	SS 30	93	100
890-7379-24	SS 16	94	100
890-7379-25	SS 10	90	99
890-7379-26	SS 15	99	99
890-7379-27	SS 14	94	103
890-7379-28	SS 13	94	102
890-7379-29	SS 11	92	102
890-7379-30	SS 12	113	93
890-7391-A-1-A MS	Matrix Spike	96	99
890-7391-A-1-B MSD	Matrix Spike Duplicate	97	99
LCS 880-95688/1-A	Lab Control Sample	106	100
LCS 880-95689/1-A	Lab Control Sample	105	98
LCS 880-95691/1-A	Lab Control Sample	87	106
LCS 880-95773/1-A	Lab Control Sample	96	100
LCSD 880-95688/2-A	Lab Control Sample Dup	99	99
LCSD 880-95689/2-A	Lab Control Sample Dup	101	97
LCSD 880-95691/2-A	Lab Control Sample Dup	93	106
LCSD 880-95773/2-A	Lab Control Sample Dup	100	102
MB 880-95688/5-A	Method Blank	96	97

Surrogate Summary

Client: Ensolum Job ID: 890-7379-1
Project/Site: Casamigos Frac Line SDG: 03D2764001

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

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) BFB1 (70-130)	DFBZ1 (70-130)
MB 880-95689/5-A	Method Blank	81	87
MB 880-95691/5-A	Method Blank	110	91
MB 880-95773/5-A	Method Blank	111	84

Surrogate Legend

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

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

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) 1CO1 (70-130)	OTPH1 (70-130)
890-7379-1	SS 19	113	105
890-7379-1 MS	SS 19	111	110
890-7379-1 MSD	SS 19	108	108
890-7379-2	SS 03	95	87
890-7379-3	SS 20	113	104
890-7379-4	SS 21	115	106
890-7379-5	SS 22	113	103
890-7379-6	SS 02	120	111
890-7379-7	SS 23	111	102
890-7379-8	SS 01	105	98
890-7379-9	SS 24	105	97
890-7379-10	SS 25	124	114
890-7379-11	SS 04	107	100
890-7379-12	SS 26	111	102
890-7379-13	SS 28	115	107
890-7379-14	SS 27	113	104
890-7379-15	SS 08	105	98
890-7379-16	SS 05	116	109
890-7379-17	SS 06	108	101
890-7379-18	SS 07	116	107
890-7379-19	SS 18	114	106
890-7379-20	SS 29	113	104
890-7379-21	SS 17	94	74
890-7379-21 MS	SS 17	94	80
890-7379-21 MSD	SS 17	94	81
890-7379-22	SS 09	95	75
890-7379-23	SS 30	98	78
890-7379-24	SS 16	103	80
890-7379-25	SS 10	104	82
890-7379-26	SS 15	106	83
890-7379-27	SS 14	107	82
890-7379-28	SS 13	94	73
890-7379-29	SS 11	97	78
890-7379-30	SS 12	94	75
LCS 880-95667/2-A	Lab Control Sample	127	130
LCS 880-95669/2-A	Lab Control Sample	106	92
LCSD 880-95667/3-A	Lab Control Sample Dup	133 S1+	136 S1+

Surrogate Summary

Client: Ensolum Job ID: 890-7379-1
Project/Site: Casamigos Frac Line SDG: 03D2764001

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCSD 880-95669/3-A	Lab Control Sample Dup	107	92								
MB 880-95667/1-A	Method Blank	100	182 S1+								
MB 880-95669/1-A	Method Blank	121	97								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-95688/5-A
Matrix: Solid
Analysis Batch: 95686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95688

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 11:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 11:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 11:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/14/24 08:28	11/14/24 11:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:28	11/14/24 11:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/14/24 08:28	11/14/24 11:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*11/14/24 08:28*	*11/14/24 11:13*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*11/14/24 08:28*	*11/14/24 11:13*	*1*

Lab Sample ID: LCS 880-95688/1-A
Matrix: Solid
Analysis Batch: 95686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95688

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1106		mg/Kg		111	70 - 130		
Toluene			0.100	0.1082		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1146		mg/Kg		115	70 - 130		
m-Xylene & p-Xylene			0.200	0.2209		mg/Kg		110	70 - 130		
o-Xylene			0.100	0.1242		mg/Kg		124	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-95688/2-A
Matrix: Solid
Analysis Batch: 95686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95688

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1075		mg/Kg		107	70 - 130	3	35
Toluene			0.100	0.1059		mg/Kg		106	70 - 130	2	35
Ethylbenzene			0.100	0.1100		mg/Kg		110	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2138		mg/Kg		107	70 - 130	3	35
o-Xylene			0.100	0.1205		mg/Kg		120	70 - 130	3	35

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

Lab Sample ID: 880-51051-A-1-F MS
Matrix: Solid
Analysis Batch: 95686

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 95688

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	0.00332		0.100	0.09935		mg/Kg		96	70 - 130		
Toluene	0.0188	F1	0.100	0.09195		mg/Kg		73	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: 880-51051-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95686 — **Prep Batch: 95688**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.0368	F1	0.100	0.09317	F1	mg/Kg		56	70 - 130
m-Xylene & p-Xylene	0.0641	F1	0.200	0.1899	F1	mg/Kg		63	70 - 130
o-Xylene	0.0331	F1	0.100	0.09890	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-51051-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95686 — **Prep Batch: 95688**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.00332		0.100	0.09681		mg/Kg		93	70 - 130	3	35
Toluene	0.0188	F1	0.100	0.08678	F1	mg/Kg		68	70 - 130	6	35
Ethylbenzene	0.0368	F1	0.100	0.09010	F1	mg/Kg		53	70 - 130	3	35
m-Xylene & p-Xylene	0.0641	F1	0.200	0.1967	F1	mg/Kg		66	70 - 130	4	35
o-Xylene	0.0331	F1	0.100	0.09101	F1	mg/Kg		58	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 880-50704-A-8-C MB — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95588 — **Prep Batch: 95689**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 16:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 16:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 16:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/14/24 08:37	11/14/24 16:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 16:29	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/14/24 08:37	11/14/24 16:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/14/24 08:37*	*11/14/24 16:29*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/14/24 08:37*	*11/14/24 16:29*	*1*

Lab Sample ID: MB 880-95689/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95588 — **Prep Batch: 95689**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 11:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 11:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/14/24 08:37	11/14/24 11:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/14/24 08:37	11/14/24 11:15	1

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: MB 880-95689/5-A
Matrix: Solid
Analysis Batch: 95588

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95689

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:37	11/14/24 11:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/14/24 08:37	11/14/24 11:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*11/14/24 08:37*	*11/14/24 11:15*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*11/14/24 08:37*	*11/14/24 11:15*	*1*

Lab Sample ID: LCS 880-95689/1-A
Matrix: Solid
Analysis Batch: 95588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95689

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09491		mg/Kg		95	70 - 130		
Toluene			0.100	0.1033		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1058		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.2069		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.09877		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-95689/2-A
Matrix: Solid
Analysis Batch: 95588

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95689

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08769		mg/Kg		88	70 - 130	8	35
Toluene			0.100	0.09505		mg/Kg		95	70 - 130	8	35
Ethylbenzene			0.100	0.09907		mg/Kg		99	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1943		mg/Kg		97	70 - 130	6	35
o-Xylene			0.100	0.09302		mg/Kg		93	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-7379-1 MS
Matrix: Solid
Analysis Batch: 95588

Client Sample ID: SS 19
Prep Type: Total/NA
Prep Batch: 95689

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.08762		mg/Kg		88	70 - 130		
Toluene	<0.00200	U	0.100	0.09425		mg/Kg		94	70 - 130		
Ethylbenzene	<0.00200	U	0.100	0.1004		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1928		mg/Kg		96	70 - 130		
o-Xylene	<0.00200	U	0.100	0.09247		mg/Kg		92	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: 890-7379-1 MS
Matrix: Solid
Analysis Batch: 95588

Client Sample ID: SS 19
Prep Type: Total/NA
Prep Batch: 95689

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 890-7379-1 MSD
Matrix: Solid
Analysis Batch: 95588

Client Sample ID: SS 19
Prep Type: Total/NA
Prep Batch: 95689

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.08654		mg/Kg		87	70 - 130	1	35
Toluene	<0.00200	U	0.100	0.09237		mg/Kg		92	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.100	0.09727		mg/Kg		97	70 - 130	3	35
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1885		mg/Kg		94	70 - 130	2	35
o-Xylene	<0.00200	U	0.100	0.09024		mg/Kg		90	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: MB 880-95691/5-A
Matrix: Solid
Analysis Batch: 95584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95691

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:49	11/14/24 11:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:49	11/14/24 11:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:49	11/14/24 11:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/14/24 08:49	11/14/24 11:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/24 08:49	11/14/24 11:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/14/24 08:49	11/14/24 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	11/14/24 08:49	11/14/24 11:17	1
1,4-Difluorobenzene (Surr)	91		70 - 130	11/14/24 08:49	11/14/24 11:17	1

Lab Sample ID: LCS 880-95691/1-A
Matrix: Solid
Analysis Batch: 95584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95691

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1141		mg/Kg		114	70 - 130		
Toluene			0.100	0.1027		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1045		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2056		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.1039		mg/Kg		104	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: LCS 880-95691/1-A
Matrix: Solid
Analysis Batch: 95584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95691

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

Lab Sample ID: LCSD 880-95691/2-A
Matrix: Solid
Analysis Batch: 95584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95691

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1093		mg/Kg		109	70 - 130	4	35
Toluene			0.100	0.09773		mg/Kg		98	70 - 130	5	35
Ethylbenzene			0.100	0.09901		mg/Kg		99	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1961		mg/Kg		98	70 - 130	5	35
o-Xylene			0.100	0.1003		mg/Kg		100	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-51052-A-1-H MS
Matrix: Solid
Analysis Batch: 95584

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 95691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1226		mg/Kg		123	70 - 130
Toluene	<0.00200	U	0.100	0.1019		mg/Kg		102	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.09757		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1897		mg/Kg		95	70 - 130
o-Xylene	<0.00200	U	0.100	0.09977		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: 880-51052-A-1-I MSD
Matrix: Solid
Analysis Batch: 95584

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 95691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1264		mg/Kg		126	70 - 130	3	35
Toluene	<0.00200	U	0.100	0.1051		mg/Kg		105	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.100	0.1007		mg/Kg		101	70 - 130	3	35
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1957		mg/Kg		98	70 - 130	3	35
o-Xylene	<0.00200	U	0.100	0.1030		mg/Kg		103	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: 880-50704-A-31-A MB
Matrix: Solid
Analysis Batch: 95762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95773

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 15:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 15:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 15:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/15/24 08:22	11/15/24 15:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 15:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/15/24 08:22	11/15/24 15:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/15/24 08:22*	*11/15/24 15:44*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/15/24 08:22*	*11/15/24 15:44*	*1*

Lab Sample ID: MB 880-95773/5-A
Matrix: Solid
Analysis Batch: 95762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95773

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 10:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 10:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 10:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/15/24 08:22	11/15/24 10:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/15/24 08:22	11/15/24 10:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/15/24 08:22	11/15/24 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*11/15/24 08:22*	*11/15/24 10:55*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/15/24 08:22*	*11/15/24 10:55*	*1*

Lab Sample ID: LCS 880-95773/1-A
Matrix: Solid
Analysis Batch: 95762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95773

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1119		mg/Kg		112	70 - 130		
Toluene			0.100	0.1051		mg/Kg		105	70 - 130		
Ethylbenzene			0.100	0.1081		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2160		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1101		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-95773/2-A
Matrix: Solid
Analysis Batch: 95762

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95773

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1126		mg/Kg		113	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: LCSD 880-95773/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95762 — **Prep Batch: 95773**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1062		mg/Kg		106	70 - 130	1	35
Ethylbenzene			0.100	0.1095		mg/Kg		110	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2177		mg/Kg		109	70 - 130	1	35
o-Xylene			0.100	0.1118		mg/Kg		112	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-7391-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95762 — **Prep Batch: 95773**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1093		mg/Kg		109	70 - 130
Toluene	<0.00200	U	0.100	0.1002		mg/Kg		100	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.1004		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1974		mg/Kg		99	70 - 130
o-Xylene	<0.00200	U	0.100	0.1009		mg/Kg		101	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-7391-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95762 — **Prep Batch: 95773**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1082		mg/Kg		108	70 - 130	1	35
Toluene	<0.00200	U	0.100	0.09994		mg/Kg		100	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.100	0.09959		mg/Kg		100	70 - 130	1	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1948		mg/Kg		97	70 - 130	1	35
o-Xylene	<0.00200	U	0.100	0.1004		mg/Kg		100	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 880-95667/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 95721 — **Prep Batch: 95667**

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		11/13/24 19:07	11/14/24 09:54	1

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QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: MB 880-95667/1-A
Matrix: Solid
Analysis Batch: 95721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95667

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:07	11/14/24 09:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:07	11/14/24 09:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*11/13/24 19:07*	*11/14/24 09:54*	*1*
o-Terphenyl	*182*	*S1+*	*70 - 130*	*11/13/24 19:07*	*11/14/24 09:54*	*1*

Lab Sample ID: LCS 880-95667/2-A
Matrix: Solid
Analysis Batch: 95721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95667

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	978.9		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	923.0		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*127*		*70 - 130*
o-Terphenyl	*130*		*70 - 130*

Lab Sample ID: LCSD 880-95667/3-A
Matrix: Solid
Analysis Batch: 95721

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95667

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1005		mg/Kg		101	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	950.2		mg/Kg		95	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*133*	*S1+*	*70 - 130*
o-Terphenyl	*136*	*S1+*	*70 - 130*

Lab Sample ID: 890-7379-1 MS
Matrix: Solid
Analysis Batch: 95721

Client Sample ID: SS 19
Prep Type: Total/NA
Prep Batch: 95667

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	815.6		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	814.9		mg/Kg		82	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: 890-7379-1 MSD
Matrix: Solid
Analysis Batch: 95721

Client Sample ID: SS 19
Prep Type: Total/NA
Prep Batch: 95667

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	792.5		mg/Kg		79	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	779.7		mg/Kg		78	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: MB 880-95669/1-A
Matrix: Solid
Analysis Batch: 95719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95669

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		11/13/24 19:10	11/14/24 20:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 20:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/13/24 19:10	11/14/24 20:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*11/13/24 19:10*	*11/14/24 20:31*	*1*
o-Terphenyl	*97*		*70 - 130*	*11/13/24 19:10*	*11/14/24 20:31*	*1*

Lab Sample ID: LCS 880-95669/2-A
Matrix: Solid
Analysis Batch: 95719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95669

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1027		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	806.7		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: LCSD 880-95669/3-A
Matrix: Solid
Analysis Batch: 95719

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95669

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1031		mg/Kg		103	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	804.7		mg/Kg		80	70 - 130	0	20

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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

Lab Sample ID: LCSD 880-95669/3-A
Matrix: Solid
Analysis Batch: 95719

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95669

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: 890-7379-21 MS
Matrix: Solid
Analysis Batch: 95719

Client Sample ID: SS 17
Prep Type: Total/NA
Prep Batch: 95669

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	997	758.9		mg/Kg		76	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	997	661.0	F1	mg/Kg		66	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: 890-7379-21 MSD
Matrix: Solid
Analysis Batch: 95719

Client Sample ID: SS 17
Prep Type: Total/NA
Prep Batch: 95669

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	997	751.3		mg/Kg		75	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	997	677.2	F1	mg/Kg		68	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	81		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-95683/1-A
Matrix: Solid
Analysis Batch: 95694

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			11/14/24 11:30	1

Lab Sample ID: LCS 880-95683/2-A
Matrix: Solid
Analysis Batch: 95694

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	261.9		mg/Kg		105	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-95683/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95694

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	256.8		mg/Kg		103	90 - 110	2	20

Lab Sample ID: 890-7379-1 MS — **Client Sample ID: SS 19**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95694

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	115	F1	248	394.0	F1	mg/Kg		113	90 - 110

Lab Sample ID: 890-7379-1 MSD — **Client Sample ID: SS 19**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95694

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	115	F1	248	394.3	F1	mg/Kg		113	90 - 110	0	20

Lab Sample ID: 890-7379-11 MS — **Client Sample ID: SS 04**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95694

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	4260	F1	1240	5815	F1	mg/Kg		126	90 - 110

Lab Sample ID: 890-7379-11 MSD — **Client Sample ID: SS 04**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95694

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4260	F1	1240	5767	F1	mg/Kg		122	90 - 110	1	20

Lab Sample ID: MB 880-95684/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95703

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			11/14/24 15:04	1

Lab Sample ID: LCS 880-95684/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95703

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	245.5		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-95684/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 95703

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	247.8		mg/Kg		99	90 - 110	1	20

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QC Sample Results

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-7379-30 MS
Matrix: Solid
Analysis Batch: 95703

Client Sample ID: SS 12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	311		249	544.7		mg/Kg		94	90 - 110		

Lab Sample ID: 890-7379-30 MSD
Matrix: Solid
Analysis Batch: 95703

Client Sample ID: SS 12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	311		249	549.9		mg/Kg		96	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

GC VOA

Analysis Batch: 95584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-4	SS 21	Total/NA	Solid	8021B	95691
MB 880-95691/5-A	Method Blank	Total/NA	Solid	8021B	95691
LCS 880-95691/1-A	Lab Control Sample	Total/NA	Solid	8021B	95691
LCSD 880-95691/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	95691
880-51052-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	95691
880-51052-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	95691

Analysis Batch: 95588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Total/NA	Solid	8021B	95689
890-7379-2	SS 03	Total/NA	Solid	8021B	95689
890-7379-3	SS 20	Total/NA	Solid	8021B	95689
890-7379-5	SS 22	Total/NA	Solid	8021B	95689
890-7379-6	SS 02	Total/NA	Solid	8021B	95689
890-7379-7	SS 23	Total/NA	Solid	8021B	95689
890-7379-8	SS 01	Total/NA	Solid	8021B	95689
890-7379-9	SS 24	Total/NA	Solid	8021B	95689
890-7379-10	SS 25	Total/NA	Solid	8021B	95689
890-7379-11	SS 04	Total/NA	Solid	8021B	95689
890-7379-12	SS 26	Total/NA	Solid	8021B	95689
890-7379-13	SS 28	Total/NA	Solid	8021B	95689
890-7379-14	SS 27	Total/NA	Solid	8021B	95689
890-7379-15	SS 08	Total/NA	Solid	8021B	95689
890-7379-16	SS 05	Total/NA	Solid	8021B	95689
890-7379-17	SS 06	Total/NA	Solid	8021B	95689
890-7379-18	SS 07	Total/NA	Solid	8021B	95689
880-50704-A-8-C MB	Method Blank	Total/NA	Solid	8021B	95689
MB 880-95689/5-A	Method Blank	Total/NA	Solid	8021B	95689
LCS 880-95689/1-A	Lab Control Sample	Total/NA	Solid	8021B	95689
LCSD 880-95689/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	95689
890-7379-1 MS	SS 19	Total/NA	Solid	8021B	95689
890-7379-1 MSD	SS 19	Total/NA	Solid	8021B	95689

Analysis Batch: 95686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-19	SS 18	Total/NA	Solid	8021B	95688
890-7379-20	SS 29	Total/NA	Solid	8021B	95688
890-7379-21	SS 17	Total/NA	Solid	8021B	95688
890-7379-22	SS 09	Total/NA	Solid	8021B	95688
890-7379-23	SS 30	Total/NA	Solid	8021B	95688
890-7379-24	SS 16	Total/NA	Solid	8021B	95688
890-7379-25	SS 10	Total/NA	Solid	8021B	95688
890-7379-26	SS 15	Total/NA	Solid	8021B	95688
890-7379-27	SS 14	Total/NA	Solid	8021B	95688
890-7379-28	SS 13	Total/NA	Solid	8021B	95688
890-7379-29	SS 11	Total/NA	Solid	8021B	95688
MB 880-95688/5-A	Method Blank	Total/NA	Solid	8021B	95688
LCS 880-95688/1-A	Lab Control Sample	Total/NA	Solid	8021B	95688
LCSD 880-95688/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	95688
880-51051-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	95688
880-51051-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	95688

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

GC VOA

Prep Batch: 95688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-19	SS 18	Total/NA	Solid	5035	
890-7379-20	SS 29	Total/NA	Solid	5035	
890-7379-21	SS 17	Total/NA	Solid	5035	
890-7379-22	SS 09	Total/NA	Solid	5035	
890-7379-23	SS 30	Total/NA	Solid	5035	
890-7379-24	SS 16	Total/NA	Solid	5035	
890-7379-25	SS 10	Total/NA	Solid	5035	
890-7379-26	SS 15	Total/NA	Solid	5035	
890-7379-27	SS 14	Total/NA	Solid	5035	
890-7379-28	SS 13	Total/NA	Solid	5035	
890-7379-29	SS 11	Total/NA	Solid	5035	
MB 880-95688/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-95688/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-95688/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-51051-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
880-51051-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 95689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Total/NA	Solid	5035	
890-7379-2	SS 03	Total/NA	Solid	5035	
890-7379-3	SS 20	Total/NA	Solid	5035	
890-7379-5	SS 22	Total/NA	Solid	5035	
890-7379-6	SS 02	Total/NA	Solid	5035	
890-7379-7	SS 23	Total/NA	Solid	5035	
890-7379-8	SS 01	Total/NA	Solid	5035	
890-7379-9	SS 24	Total/NA	Solid	5035	
890-7379-10	SS 25	Total/NA	Solid	5035	
890-7379-11	SS 04	Total/NA	Solid	5035	
890-7379-12	SS 26	Total/NA	Solid	5035	
890-7379-13	SS 28	Total/NA	Solid	5035	
890-7379-14	SS 27	Total/NA	Solid	5035	
890-7379-15	SS 08	Total/NA	Solid	5035	
890-7379-16	SS 05	Total/NA	Solid	5035	
890-7379-17	SS 06	Total/NA	Solid	5035	
890-7379-18	SS 07	Total/NA	Solid	5035	
880-50704-A-8-C MB	Method Blank	Total/NA	Solid	5035	
MB 880-95689/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-95689/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-95689/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-7379-1 MS	SS 19	Total/NA	Solid	5035	
890-7379-1 MSD	SS 19	Total/NA	Solid	5035	

Prep Batch: 95691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-4	SS 21	Total/NA	Solid	5035	
MB 880-95691/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-95691/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-95691/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-51052-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
880-51052-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

GC VOA

Analysis Batch: 95762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-30	SS 12	Total/NA	Solid	8021B	95773
880-50704-A-31-A MB	Method Blank	Total/NA	Solid	8021B	95773
MB 880-95773/5-A	Method Blank	Total/NA	Solid	8021B	95773
LCS 880-95773/1-A	Lab Control Sample	Total/NA	Solid	8021B	95773
LCSD 880-95773/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	95773
890-7391-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	95773
890-7391-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	95773

Prep Batch: 95773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-30	SS 12	Total/NA	Solid	5035	
880-50704-A-31-A MB	Method Blank	Total/NA	Solid	5035	
MB 880-95773/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-95773/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-95773/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-7391-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-7391-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 95807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Total/NA	Solid	Total BTEX	
890-7379-2	SS 03	Total/NA	Solid	Total BTEX	
890-7379-3	SS 20	Total/NA	Solid	Total BTEX	
890-7379-4	SS 21	Total/NA	Solid	Total BTEX	
890-7379-5	SS 22	Total/NA	Solid	Total BTEX	
890-7379-6	SS 02	Total/NA	Solid	Total BTEX	
890-7379-7	SS 23	Total/NA	Solid	Total BTEX	
890-7379-8	SS 01	Total/NA	Solid	Total BTEX	
890-7379-9	SS 24	Total/NA	Solid	Total BTEX	
890-7379-10	SS 25	Total/NA	Solid	Total BTEX	
890-7379-11	SS 04	Total/NA	Solid	Total BTEX	
890-7379-12	SS 26	Total/NA	Solid	Total BTEX	
890-7379-13	SS 28	Total/NA	Solid	Total BTEX	
890-7379-14	SS 27	Total/NA	Solid	Total BTEX	
890-7379-15	SS 08	Total/NA	Solid	Total BTEX	
890-7379-16	SS 05	Total/NA	Solid	Total BTEX	
890-7379-17	SS 06	Total/NA	Solid	Total BTEX	
890-7379-18	SS 07	Total/NA	Solid	Total BTEX	
890-7379-19	SS 18	Total/NA	Solid	Total BTEX	
890-7379-20	SS 29	Total/NA	Solid	Total BTEX	
890-7379-21	SS 17	Total/NA	Solid	Total BTEX	
890-7379-22	SS 09	Total/NA	Solid	Total BTEX	
890-7379-23	SS 30	Total/NA	Solid	Total BTEX	
890-7379-24	SS 16	Total/NA	Solid	Total BTEX	
890-7379-25	SS 10	Total/NA	Solid	Total BTEX	
890-7379-26	SS 15	Total/NA	Solid	Total BTEX	
890-7379-27	SS 14	Total/NA	Solid	Total BTEX	
890-7379-28	SS 13	Total/NA	Solid	Total BTEX	
890-7379-29	SS 11	Total/NA	Solid	Total BTEX	
890-7379-30	SS 12	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

GC Semi VOA

Prep Batch: 95667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Total/NA	Solid	8015NM Prep	
890-7379-2	SS 03	Total/NA	Solid	8015NM Prep	
890-7379-3	SS 20	Total/NA	Solid	8015NM Prep	
890-7379-4	SS 21	Total/NA	Solid	8015NM Prep	
890-7379-5	SS 22	Total/NA	Solid	8015NM Prep	
890-7379-6	SS 02	Total/NA	Solid	8015NM Prep	
890-7379-7	SS 23	Total/NA	Solid	8015NM Prep	
890-7379-8	SS 01	Total/NA	Solid	8015NM Prep	
890-7379-9	SS 24	Total/NA	Solid	8015NM Prep	
890-7379-10	SS 25	Total/NA	Solid	8015NM Prep	
890-7379-11	SS 04	Total/NA	Solid	8015NM Prep	
890-7379-12	SS 26	Total/NA	Solid	8015NM Prep	
890-7379-13	SS 28	Total/NA	Solid	8015NM Prep	
890-7379-14	SS 27	Total/NA	Solid	8015NM Prep	
890-7379-15	SS 08	Total/NA	Solid	8015NM Prep	
890-7379-16	SS 05	Total/NA	Solid	8015NM Prep	
890-7379-17	SS 06	Total/NA	Solid	8015NM Prep	
890-7379-18	SS 07	Total/NA	Solid	8015NM Prep	
890-7379-19	SS 18	Total/NA	Solid	8015NM Prep	
890-7379-20	SS 29	Total/NA	Solid	8015NM Prep	
MB 880-95667/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-95667/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-95667/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-7379-1 MS	SS 19	Total/NA	Solid	8015NM Prep	
890-7379-1 MSD	SS 19	Total/NA	Solid	8015NM Prep	

Prep Batch: 95669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-21	SS 17	Total/NA	Solid	8015NM Prep	
890-7379-22	SS 09	Total/NA	Solid	8015NM Prep	
890-7379-23	SS 30	Total/NA	Solid	8015NM Prep	
890-7379-24	SS 16	Total/NA	Solid	8015NM Prep	
890-7379-25	SS 10	Total/NA	Solid	8015NM Prep	
890-7379-26	SS 15	Total/NA	Solid	8015NM Prep	
890-7379-27	SS 14	Total/NA	Solid	8015NM Prep	
890-7379-28	SS 13	Total/NA	Solid	8015NM Prep	
890-7379-29	SS 11	Total/NA	Solid	8015NM Prep	
890-7379-30	SS 12	Total/NA	Solid	8015NM Prep	
MB 880-95669/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-95669/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-95669/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-7379-21 MS	SS 17	Total/NA	Solid	8015NM Prep	
890-7379-21 MSD	SS 17	Total/NA	Solid	8015NM Prep	

Analysis Batch: 95719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-21	SS 17	Total/NA	Solid	8015B NM	95669
890-7379-22	SS 09	Total/NA	Solid	8015B NM	95669
890-7379-23	SS 30	Total/NA	Solid	8015B NM	95669
890-7379-24	SS 16	Total/NA	Solid	8015B NM	95669
890-7379-25	SS 10	Total/NA	Solid	8015B NM	95669

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

GC Semi VOA (Continued)

Analysis Batch: 95719 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-26	SS 15	Total/NA	Solid	8015B NM	95669
890-7379-27	SS 14	Total/NA	Solid	8015B NM	95669
890-7379-28	SS 13	Total/NA	Solid	8015B NM	95669
890-7379-29	SS 11	Total/NA	Solid	8015B NM	95669
890-7379-30	SS 12	Total/NA	Solid	8015B NM	95669
MB 880-95669/1-A	Method Blank	Total/NA	Solid	8015B NM	95669
LCS 880-95669/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	95669
LCSD 880-95669/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	95669
890-7379-21 MS	SS 17	Total/NA	Solid	8015B NM	95669
890-7379-21 MSD	SS 17	Total/NA	Solid	8015B NM	95669

Analysis Batch: 95721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Total/NA	Solid	8015B NM	95667
890-7379-2	SS 03	Total/NA	Solid	8015B NM	95667
890-7379-3	SS 20	Total/NA	Solid	8015B NM	95667
890-7379-4	SS 21	Total/NA	Solid	8015B NM	95667
890-7379-5	SS 22	Total/NA	Solid	8015B NM	95667
890-7379-6	SS 02	Total/NA	Solid	8015B NM	95667
890-7379-7	SS 23	Total/NA	Solid	8015B NM	95667
890-7379-8	SS 01	Total/NA	Solid	8015B NM	95667
890-7379-9	SS 24	Total/NA	Solid	8015B NM	95667
890-7379-10	SS 25	Total/NA	Solid	8015B NM	95667
890-7379-11	SS 04	Total/NA	Solid	8015B NM	95667
890-7379-12	SS 26	Total/NA	Solid	8015B NM	95667
890-7379-13	SS 28	Total/NA	Solid	8015B NM	95667
890-7379-14	SS 27	Total/NA	Solid	8015B NM	95667
890-7379-15	SS 08	Total/NA	Solid	8015B NM	95667
890-7379-16	SS 05	Total/NA	Solid	8015B NM	95667
890-7379-17	SS 06	Total/NA	Solid	8015B NM	95667
890-7379-18	SS 07	Total/NA	Solid	8015B NM	95667
890-7379-19	SS 18	Total/NA	Solid	8015B NM	95667
890-7379-20	SS 29	Total/NA	Solid	8015B NM	95667
MB 880-95667/1-A	Method Blank	Total/NA	Solid	8015B NM	95667
LCS 880-95667/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	95667
LCSD 880-95667/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	95667
890-7379-1 MS	SS 19	Total/NA	Solid	8015B NM	95667
890-7379-1 MSD	SS 19	Total/NA	Solid	8015B NM	95667

Analysis Batch: 95813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Total/NA	Solid	8015 NM	
890-7379-2	SS 03	Total/NA	Solid	8015 NM	
890-7379-3	SS 20	Total/NA	Solid	8015 NM	
890-7379-4	SS 21	Total/NA	Solid	8015 NM	
890-7379-5	SS 22	Total/NA	Solid	8015 NM	
890-7379-6	SS 02	Total/NA	Solid	8015 NM	
890-7379-7	SS 23	Total/NA	Solid	8015 NM	
890-7379-8	SS 01	Total/NA	Solid	8015 NM	
890-7379-9	SS 24	Total/NA	Solid	8015 NM	
890-7379-10	SS 25	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

GC Semi VOA (Continued)

Analysis Batch: 95813 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-11	SS 04	Total/NA	Solid	8015 NM	
890-7379-12	SS 26	Total/NA	Solid	8015 NM	
890-7379-13	SS 28	Total/NA	Solid	8015 NM	
890-7379-14	SS 27	Total/NA	Solid	8015 NM	
890-7379-15	SS 08	Total/NA	Solid	8015 NM	
890-7379-16	SS 05	Total/NA	Solid	8015 NM	
890-7379-17	SS 06	Total/NA	Solid	8015 NM	
890-7379-18	SS 07	Total/NA	Solid	8015 NM	
890-7379-19	SS 18	Total/NA	Solid	8015 NM	
890-7379-20	SS 29	Total/NA	Solid	8015 NM	
890-7379-21	SS 17	Total/NA	Solid	8015 NM	
890-7379-22	SS 09	Total/NA	Solid	8015 NM	
890-7379-23	SS 30	Total/NA	Solid	8015 NM	
890-7379-24	SS 16	Total/NA	Solid	8015 NM	
890-7379-25	SS 10	Total/NA	Solid	8015 NM	
890-7379-26	SS 15	Total/NA	Solid	8015 NM	
890-7379-27	SS 14	Total/NA	Solid	8015 NM	
890-7379-28	SS 13	Total/NA	Solid	8015 NM	
890-7379-29	SS 11	Total/NA	Solid	8015 NM	
890-7379-30	SS 12	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 95683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Soluble	Solid	DI Leach	
890-7379-2	SS 03	Soluble	Solid	DI Leach	
890-7379-3	SS 20	Soluble	Solid	DI Leach	
890-7379-4	SS 21	Soluble	Solid	DI Leach	
890-7379-5	SS 22	Soluble	Solid	DI Leach	
890-7379-6	SS 02	Soluble	Solid	DI Leach	
890-7379-7	SS 23	Soluble	Solid	DI Leach	
890-7379-8	SS 01	Soluble	Solid	DI Leach	
890-7379-9	SS 24	Soluble	Solid	DI Leach	
890-7379-10	SS 25	Soluble	Solid	DI Leach	
890-7379-11	SS 04	Soluble	Solid	DI Leach	
890-7379-12	SS 26	Soluble	Solid	DI Leach	
890-7379-13	SS 28	Soluble	Solid	DI Leach	
890-7379-14	SS 27	Soluble	Solid	DI Leach	
890-7379-15	SS 08	Soluble	Solid	DI Leach	
890-7379-16	SS 05	Soluble	Solid	DI Leach	
890-7379-17	SS 06	Soluble	Solid	DI Leach	
890-7379-18	SS 07	Soluble	Solid	DI Leach	
890-7379-19	SS 18	Soluble	Solid	DI Leach	
890-7379-20	SS 29	Soluble	Solid	DI Leach	
MB 880-95683/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-95683/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-95683/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-7379-1 MS	SS 19	Soluble	Solid	DI Leach	
890-7379-1 MSD	SS 19	Soluble	Solid	DI Leach	
890-7379-11 MS	SS 04	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

HPLC/IC (Continued)

Leach Batch: 95683 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-11 MSD	SS 04	Soluble	Solid	DI Leach	

Leach Batch: 95684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-21	SS 17	Soluble	Solid	DI Leach	
890-7379-22	SS 09	Soluble	Solid	DI Leach	
890-7379-23	SS 30	Soluble	Solid	DI Leach	
890-7379-24	SS 16	Soluble	Solid	DI Leach	
890-7379-25	SS 10	Soluble	Solid	DI Leach	
890-7379-26	SS 15	Soluble	Solid	DI Leach	
890-7379-27	SS 14	Soluble	Solid	DI Leach	
890-7379-28	SS 13	Soluble	Solid	DI Leach	
890-7379-29	SS 11	Soluble	Solid	DI Leach	
890-7379-30	SS 12	Soluble	Solid	DI Leach	
MB 880-95684/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-95684/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-95684/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-7379-30 MS	SS 12	Soluble	Solid	DI Leach	
890-7379-30 MSD	SS 12	Soluble	Solid	DI Leach	

Analysis Batch: 95694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-1	SS 19	Soluble	Solid	300.0	95683
890-7379-2	SS 03	Soluble	Solid	300.0	95683
890-7379-3	SS 20	Soluble	Solid	300.0	95683
890-7379-4	SS 21	Soluble	Solid	300.0	95683
890-7379-5	SS 22	Soluble	Solid	300.0	95683
890-7379-6	SS 02	Soluble	Solid	300.0	95683
890-7379-7	SS 23	Soluble	Solid	300.0	95683
890-7379-8	SS 01	Soluble	Solid	300.0	95683
890-7379-9	SS 24	Soluble	Solid	300.0	95683
890-7379-10	SS 25	Soluble	Solid	300.0	95683
890-7379-11	SS 04	Soluble	Solid	300.0	95683
890-7379-12	SS 26	Soluble	Solid	300.0	95683
890-7379-13	SS 28	Soluble	Solid	300.0	95683
890-7379-14	SS 27	Soluble	Solid	300.0	95683
890-7379-15	SS 08	Soluble	Solid	300.0	95683
890-7379-16	SS 05	Soluble	Solid	300.0	95683
890-7379-17	SS 06	Soluble	Solid	300.0	95683
890-7379-18	SS 07	Soluble	Solid	300.0	95683
890-7379-19	SS 18	Soluble	Solid	300.0	95683
890-7379-20	SS 29	Soluble	Solid	300.0	95683
MB 880-95683/1-A	Method Blank	Soluble	Solid	300.0	95683
LCS 880-95683/2-A	Lab Control Sample	Soluble	Solid	300.0	95683
LCSD 880-95683/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	95683
890-7379-1 MS	SS 19	Soluble	Solid	300.0	95683
890-7379-1 MSD	SS 19	Soluble	Solid	300.0	95683
890-7379-11 MS	SS 04	Soluble	Solid	300.0	95683
890-7379-11 MSD	SS 04	Soluble	Solid	300.0	95683

QC Association Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

HPLC/IC

Analysis Batch: 95703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7379-21	SS 17	Soluble	Solid	300.0	95684
890-7379-22	SS 09	Soluble	Solid	300.0	95684
890-7379-23	SS 30	Soluble	Solid	300.0	95684
890-7379-24	SS 16	Soluble	Solid	300.0	95684
890-7379-25	SS 10	Soluble	Solid	300.0	95684
890-7379-26	SS 15	Soluble	Solid	300.0	95684
890-7379-27	SS 14	Soluble	Solid	300.0	95684
890-7379-28	SS 13	Soluble	Solid	300.0	95684
890-7379-29	SS 11	Soluble	Solid	300.0	95684
890-7379-30	SS 12	Soluble	Solid	300.0	95684
MB 880-95684/1-A	Method Blank	Soluble	Solid	300.0	95684
LCS 880-95684/2-A	Lab Control Sample	Soluble	Solid	300.0	95684
LCSD 880-95684/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	95684
890-7379-30 MS	SS 12	Soluble	Solid	300.0	95684
890-7379-30 MSD	SS 12	Soluble	Solid	300.0	95684

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 19

Lab Sample ID: 890-7379-1

Date Collected: 11/12/24 13:46
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 11:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 11:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 12:37	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 12:37	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/14/24 11:46	SMC	EET MID

Client Sample ID: SS 03

Lab Sample ID: 890-7379-2

Date Collected: 11/12/24 10:30
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 11:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 11:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 13:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 13:26	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	95694	11/14/24 12:02	SMC	EET MID

Client Sample ID: SS 20

Lab Sample ID: 890-7379-3

Date Collected: 11/12/24 10:35
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 12:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 14:17	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 14:17	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/14/24 12:07	SMC	EET MID

Client Sample ID: SS 21

Lab Sample ID: 890-7379-4

Date Collected: 11/12/24 10:40
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	95691	11/14/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95584	11/14/24 18:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 18:29	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 21

Lab Sample ID: 890-7379-4
Matrix: Solid
Date Collected: 11/12/24 10:40
Date Received: 11/13/24 08:00

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			95813	11/14/24 14:34	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 14:34	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/14/24 13:15	SMC	EET MID

Client Sample ID: SS 22

Lab Sample ID: 890-7379-5
Matrix: Solid
Date Collected: 11/12/24 12:51
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 13:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 13:22	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 14:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 14:50	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/14/24 13:20	SMC	EET MID

Client Sample ID: SS 02

Lab Sample ID: 890-7379-6
Matrix: Solid
Date Collected: 11/12/24 10:50
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 13:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 13:42	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 15:06	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 15:06	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	95694	11/15/24 09:57	SMC	EET MID

Client Sample ID: SS 23

Lab Sample ID: 890-7379-7
Matrix: Solid
Date Collected: 11/12/24 10:55
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 14:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 14:03	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 15:22	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 15:22	TKC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 23

Lab Sample ID: 890-7379-7
Matrix: Solid
Date Collected: 11/12/24 10:55
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 10:03	SMC	EET MID

Client Sample ID: SS 01

Lab Sample ID: 890-7379-8
Matrix: Solid
Date Collected: 11/12/24 11:00
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 14:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 14:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 15:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 15:38	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	95694	11/15/24 10:08	SMC	EET MID

Client Sample ID: SS 24

Lab Sample ID: 890-7379-9
Matrix: Solid
Date Collected: 11/12/24 11:05
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 14:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 14:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 15:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 15:54	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 10:13	SMC	EET MID

Client Sample ID: SS 25

Lab Sample ID: 890-7379-10
Matrix: Solid
Date Collected: 11/12/24 12:46
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 15:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 15:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 16:11	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 10:19	SMC	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 04

Lab Sample ID: 890-7379-11

Date Collected: 11/12/24 11:15
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 17:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 17:10	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 16:43	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 16:43	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	95694	11/15/24 10:24	SMC	EET MID

Client Sample ID: SS 26

Lab Sample ID: 890-7379-12

Date Collected: 11/12/24 11:20
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 17:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 17:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 16:59	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 16:59	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 10:40	SMC	EET MID

Client Sample ID: SS 28

Lab Sample ID: 890-7379-13

Date Collected: 11/12/24 11:25
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 17:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 17:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 17:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 17:15	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 10:45	SMC	EET MID

Client Sample ID: SS 27

Lab Sample ID: 890-7379-14

Date Collected: 11/12/24 11:36
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 18:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 18:11	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 27

Lab Sample ID: 890-7379-14

Date Collected: 11/12/24 11:36
Matrix: Solid
Date Received: 11/13/24 08:00

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			95813	11/14/24 17:33	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 17:33	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 11:01	SMC	EET MID

Client Sample ID: SS 08

Lab Sample ID: 890-7379-15

Date Collected: 11/12/24 11:38
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 18:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 18:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 17:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 17:49	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 11:06	SMC	EET MID

Client Sample ID: SS 05

Lab Sample ID: 890-7379-16

Date Collected: 11/12/24 11:40
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 18:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 18:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 18:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 18:05	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	95694	11/15/24 11:12	SMC	EET MID

Client Sample ID: SS 06

Lab Sample ID: 890-7379-17

Date Collected: 11/12/24 11:45
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 19:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 19:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 18:22	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 18:22	TKC	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 06

Date Collected: 11/12/24 11:45
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-17
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			4.97 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	95694	11/15/24 11:17	SMC	EET MID

Client Sample ID: SS 07

Date Collected: 11/12/24 11:49
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-18
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	95689	11/14/24 08:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95588	11/14/24 19:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 19:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 18:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 18:38	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	95694	11/15/24 11:22	SMC	EET MID

Client Sample ID: SS 18

Date Collected: 11/12/24 11:51
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-19
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	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 14:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 14:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 18:55	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 18:55	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	95694	11/15/24 11:27	SMC	EET MID

Client Sample ID: SS 29

Date Collected: 11/12/24 11:56
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-20
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	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 14:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 14:38	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 19:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	95667	11/13/24 19:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95721	11/14/24 19:11	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	95683	11/14/24 07:52	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95694	11/15/24 11:33	SMC	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 17

Lab Sample ID: 890-7379-21

Date Collected: 11/12/24 12:00
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 16:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 16:12	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 21:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 21:20	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 15:44	CH	EET MID

Client Sample ID: SS 09

Lab Sample ID: 890-7379-22

Date Collected: 11/12/24 12:02
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 16:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 16:33	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 22:08	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 22:08	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 15:51	CH	EET MID

Client Sample ID: SS 30

Lab Sample ID: 890-7379-23

Date Collected: 11/12/24 12:05
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 16:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 16:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 22:24	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 22:24	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 15:57	CH	EET MID

Client Sample ID: SS 16

Lab Sample ID: 890-7379-24

Date Collected: 11/12/24 12:07
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 17:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 17:14	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 16
Date Collected: 11/12/24 12:07
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-24
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			95813	11/14/24 22:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 22:40	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 16:04	CH	EET MID

Client Sample ID: SS 10
Date Collected: 11/12/24 12:10
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-25
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	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 17:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 17:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 22:56	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 22:56	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 16:24	CH	EET MID

Client Sample ID: SS 15
Date Collected: 11/12/24 12:12
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-26
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	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 17:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 17:54	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 23:12	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 23:12	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 16:31	CH	EET MID

Client Sample ID: SS 14
Date Collected: 11/12/24 12:14
Date Received: 11/13/24 08:00

Lab Sample ID: 890-7379-27
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	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 18:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 18:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 23:28	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 23:28	TKC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Client Sample ID: SS 14

Lab Sample ID: 890-7379-27

Date Collected: 11/12/24 12:14
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 16:37	CH	EET MID

Client Sample ID: SS 13

Lab Sample ID: 890-7379-28

Date Collected: 11/12/24 12:17
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 18:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 18:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/14/24 23:46	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/14/24 23:46	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 16:44	CH	EET MID

Client Sample ID: SS 11

Lab Sample ID: 890-7379-29

Date Collected: 11/12/24 12:18
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	95688	11/14/24 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95686	11/14/24 18:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/14/24 18:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/15/24 00:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/15/24 00:01	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 16:51	CH	EET MID

Client Sample ID: SS 12

Lab Sample ID: 890-7379-30

Date Collected: 11/12/24 12:19
Matrix: Solid
Date Received: 11/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	95773	11/15/24 08:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	95762	11/15/24 16:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			95807	11/15/24 16:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			95813	11/15/24 00:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	95669	11/13/24 19:10	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	95719	11/15/24 00:18	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	95684	11/14/24 07:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	95703	11/14/24 16:57	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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	06-30-25

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: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

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: Casamigos Frac Line

Job ID: 890-7379-1
SDG: 03D2764001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-7379-1	SS 19	Solid	11/12/24 13:46	11/13/24 08:00	0.5
890-7379-2	SS 03	Solid	11/12/24 10:30	11/13/24 08:00	0.5
890-7379-3	SS 20	Solid	11/12/24 10:35	11/13/24 08:00	0.5
890-7379-4	SS 21	Solid	11/12/24 10:40	11/13/24 08:00	0.5
890-7379-5	SS 22	Solid	11/12/24 12:51	11/13/24 08:00	0.5
890-7379-6	SS 02	Solid	11/12/24 10:50	11/13/24 08:00	0.5
890-7379-7	SS 23	Solid	11/12/24 10:55	11/13/24 08:00	0.5
890-7379-8	SS 01	Solid	11/12/24 11:00	11/13/24 08:00	0.5
890-7379-9	SS 24	Solid	11/12/24 11:05	11/13/24 08:00	0.5
890-7379-10	SS 25	Solid	11/12/24 12:46	11/13/24 08:00	0.5
890-7379-11	SS 04	Solid	11/12/24 11:15	11/13/24 08:00	0.5
890-7379-12	SS 26	Solid	11/12/24 11:20	11/13/24 08:00	0.5
890-7379-13	SS 28	Solid	11/12/24 11:25	11/13/24 08:00	0.5
890-7379-14	SS 27	Solid	11/12/24 11:36	11/13/24 08:00	0.5
890-7379-15	SS 08	Solid	11/12/24 11:38	11/13/24 08:00	0.5
890-7379-16	SS 05	Solid	11/12/24 11:40	11/13/24 08:00	0.5
890-7379-17	SS 06	Solid	11/12/24 11:45	11/13/24 08:00	0.5
890-7379-18	SS 07	Solid	11/12/24 11:49	11/13/24 08:00	0.5
890-7379-19	SS 18	Solid	11/12/24 11:51	11/13/24 08:00	0.5
890-7379-20	SS 29	Solid	11/12/24 11:56	11/13/24 08:00	0.5
890-7379-21	SS 17	Solid	11/12/24 12:00	11/13/24 08:00	0.5
890-7379-22	SS 09	Solid	11/12/24 12:02	11/13/24 08:00	0.5
890-7379-23	SS 30	Solid	11/12/24 12:05	11/13/24 08:00	0.5
890-7379-24	SS 16	Solid	11/12/24 12:07	11/13/24 08:00	0.5
890-7379-25	SS 10	Solid	11/12/24 12:10	11/13/24 08:00	0.5
890-7379-26	SS 15	Solid	11/12/24 12:12	11/13/24 08:00	0.5
890-7379-27	SS 14	Solid	11/12/24 12:14	11/13/24 08:00	0.5
890-7379-28	SS 13	Solid	11/12/24 12:17	11/13/24 08:00	0.5
890-7379-29	SS 11	Solid	11/12/24 12:18	11/13/24 08:00	0.5
890-7379-30	SS 12	Solid	11/12/24 12:19	11/13/24 08:00	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

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Work Order No: _____

Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum	Company Name:	Ensolum, LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-557-8895	Email:	hgreen@ensolum.com / msarkis@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:	Casamigos Frac Line	Turn Around	
Project Number:	03D2764001	☑ Routine ☐ Rush	
Project Location:	32.06646, -103.94944	Due Date:	11/19/2024
Sampler's Name:	Mario Sarkis	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:	TNM007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	-0.6
Total Containers:		Corrected Temperature:	-0.4

Preservative Codes

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

890-7379 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS19	S	11/13/24	1346	0,5"	G	1	Cool	✓	✓	✓	
SS03	S		1030	0,5"	G	1	Cool	✓	✓	✓	
SS20	S		1035	0.5'	G	1	Cool	✓	✓	✓	
SS21	S		1040	0.5"	G	1	Cool	✓	✓	✓	
SS22	S		~~1045~~ 1057 MS	0,5"	G	1	Cool	✓	✓	✓	
SS02	S		1050	0,5"	G	1	Cool	✓	✓	✓	
SS23	S		1055	0,5"	G	1	Cool	✓	✓	✓	
SS01	S		1100	0.5'	G	1	Cool	✓	✓	✓	
SS24	S		1105	0,5'	G	1	Cool	✓	✓	✓	
SS25	S		1246	0.5"	G	1	Cool	✓	✓	✓	

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		11/13 8a	2		
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: _____

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Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum	Company Name:	Ensolum, LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-557-8895	Email:	hgreen@ensolum.com / msarkis@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:	Casamigos Frac Line	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2764001	Due Date:	11/19/2024
Project Location:	32.06646, -103.94944	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Mario Sarkis		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TM006
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	-0.6
Total Containers:		Corrected Temperature:	-0.4

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: 3000.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS04	S	11/13/24	1115	0.5	G	1	Cool	✓	✓	✓	
SS26	S		1120	0.5	G	1	Cool	✓	✓	✓	
SS28	S		1125	0.5	G	1	Cool	✓	✓	✓	
SS27	S		1136	0.5	G	1	Cool	✓	✓	✓	
SS08	S		1138	0.5	G	1	Cool	✓	✓	✓	
SS05	S		1140	0.5	G	1	Cool	✓	✓	✓	
SS06	S		1145	0.5	G	1	Cool	✓	✓	✓	
SS07	S		1149	0.5	G	1	Cool	✓	✓	✓	
SS18	S		1151	0.5	G	1	Cool	✓	✓	✓	
SS29	S		1156	0.5	G	1	Cool	✓	✓	✓	

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		11/13 89	2		
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

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Work Order No: _____

Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum	Company Name:	Ensolum, LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-557-8895	Email:	hgreen@ensolum.com / msarkis@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:	Casamigos Frac Line	Turn Around	
Project Number:	03D2764001	☑ Routine ☐ Rush	
Project Location:	32.06646, -103.94944	Due Date:	11/19/2024
Sampler's Name:	Mario Sarkis	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:	Thermo
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	-0.6
Total Containers:		Corrected Temperature:	-0.4

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	ANALYSIS REQUEST: CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)	Sample Comments
							Parameters	Cool	Cool	Cool	
SS17	S	11/12/24	1200	0.5	G	1		✓	✓	✓	
SS09	S		1202	0.5	G	1		✓	✓	✓	
SS30	S		1205	0.5	G	1		✓	✓	✓	
SS16	S		1207	0.5	G	1		✓	✓	✓	
SS10	S		1210	0.5	G	1		✓	✓	✓	
SS15	S		1212	0.5	G	1		✓	✓	✓	
SS14	S		1214	0.5	G	1		✓	✓	✓	
SS13	S		1217	0.5	G	1		✓	✓	✓	
SS11	S		1218	0.5	G	1		✓	✓	✓	
SS12	S		1219	0.5	G	1		✓	✓	✓	

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		11/13 8a	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-7379-1
SDG Number: 03D2764001

Login Number: 7379
List Number: 1
Creator: Bruns, Shannon

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: 890-7379-1
SDG Number: 03D2764001

Login Number: 7379
List Number: 2
Creator: Laing, Edmundo

List Source: Eurofins Midland
List Creation: 11/14/24 07:53 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/26/2024 10:24:12 AM

JOB DESCRIPTION

CASAMIGOS FRAC LINE
03D2764001

JOB NUMBER

890-7409-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

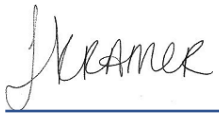
Eurofins Carlsbad

Job Notes

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

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

Authorization



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11/26/2024 10:24:12 AM

Authorized for release by
Jessica Kramer, Project Manager
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(432)704-5440

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Laboratory Job ID: 890-7409-1
SDG: 03D2764001

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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 Job ID: 890-7409-1
Project: CASAMIGOS FRAC LINE

Job ID: 890-7409-1 Eurofins Carlsbad

Job Narrative
890-7409-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/22/2024 8:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH 02 (890-7409-1), PH 02 (890-7409-2), PH 05 (890-7409-3), PH 05 (890-7409-4), PH 06 (890-7409-5), PH 06 (890-7409-6), PH 07 (890-7409-7) and PH 07 (890-7409-8).

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

Diesel Range Organics
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-96466 and analytical batch 880-96449 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: PH 05 (890-7409-3), PH 05 (890-7409-4), PH 06 (890-7409-5) and PH 06 (890-7409-6). 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: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 02

Date Collected: 11/21/24 09:45
Date Received: 11/22/24 08:25
Sample Depth: 2

Lab Sample ID: 890-7409-1
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		11/25/24 09:41	11/25/24 13:24	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/25/24 09:41	11/25/24 13:24	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/25/24 09:41	11/25/24 13:24	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/25/24 09:41	11/25/24 13:24	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/25/24 09:41	11/25/24 13:24	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/25/24 09:41	11/25/24 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*11/25/24 09:41*	*11/25/24 13:24*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/25/24 09:41*	*11/25/24 13:24*	*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			11/25/24 13:24	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			11/26/24 01:13	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		11/25/24 08:22	11/26/24 01:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		11/25/24 08:22	11/26/24 01:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/25/24 08:22	11/26/24 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*11/25/24 08:22*	*11/26/24 01:13*	*1*
o-Terphenyl	*71*		*70 - 130*	*11/25/24 08:22*	*11/26/24 01:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1850**		50.3		mg/Kg			11/26/24 02:10	5

Client Sample ID: PH 02

Date Collected: 11/21/24 10:29
Date Received: 11/22/24 08:25
Sample Depth: 4

Lab Sample ID: 890-7409-2
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		11/25/24 09:41	11/25/24 13:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 13:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 13:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/25/24 09:41	11/25/24 13:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 13:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/25/24 09:41	11/25/24 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*11/25/24 09:41*	*11/25/24 13:45*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 02

Date Collected: 11/21/24 10:29
Date Received: 11/22/24 08:25
Sample Depth: 4

Lab Sample ID: 890-7409-2

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*	*11/25/24 09:41*	*11/25/24 13:45*	*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			11/25/24 13:45	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			11/26/24 02:00	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		11/25/24 08:22	11/26/24 02:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/25/24 08:22	11/26/24 02:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/25/24 08:22	11/26/24 02:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*11/25/24 08:22*	*11/26/24 02:00*	*1*
o-Terphenyl	*73*		*70 - 130*	*11/25/24 08:22*	*11/26/24 02:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**452**		10.1	mg/Kg			11/26/24 02:30	1

Client Sample ID: PH 05

Date Collected: 11/21/24 10:59
Date Received: 11/22/24 08:25
Sample Depth: 1

Lab Sample ID: 890-7409-3

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		11/25/24 09:41	11/25/24 14:05	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/25/24 09:41	11/25/24 14:05	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/25/24 09:41	11/25/24 14:05	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/25/24 09:41	11/25/24 14:05	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/25/24 09:41	11/25/24 14:05	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/25/24 09:41	11/25/24 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*11/25/24 09:41*	*11/25/24 14:05*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/25/24 09:41*	*11/25/24 14:05*	*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			11/25/24 14:05	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			11/26/24 02:16	1

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Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 05

Lab Sample ID: 890-7409-3
Matrix: Solid
Date Collected: 11/21/24 10:59
Date Received: 11/22/24 08:25
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/25/24 08:22	11/26/24 02:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/25/24 08:22	11/26/24 02:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/25/24 08:22	11/26/24 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*11/25/24 08:22*	*11/26/24 02:16*	*1*
o-Terphenyl	*65*	*S1-*	*70 - 130*	*11/25/24 08:22*	*11/26/24 02:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5440**		101		mg/Kg			11/26/24 02:37	10

Client Sample ID: PH 05

Lab Sample ID: 890-7409-4
Matrix: Solid
Date Collected: 11/21/24 11:18
Date Received: 11/22/24 08:25
Sample Depth: 4

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		11/25/24 09:41	11/25/24 14:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/25/24 09:41	11/25/24 14:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/25/24 09:41	11/25/24 14:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/25/24 09:41	11/25/24 14:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/25/24 09:41	11/25/24 14:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/25/24 09:41	11/25/24 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*11/25/24 09:41*	*11/25/24 14:26*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/25/24 09:41*	*11/25/24 14:26*	*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			11/25/24 14:26	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			11/26/24 02:32	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		11/25/24 08:22	11/26/24 02:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 02:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*11/25/24 08:22*	*11/26/24 02:32*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*11/25/24 08:22*	*11/26/24 02:32*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 05

Lab Sample ID: 890-7409-4
Matrix: Solid
Date Collected: 11/21/24 11:18
Date Received: 11/22/24 08:25
Sample Depth: 4

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	424		10.1		mg/Kg			11/26/24 02:43	1

Client Sample ID: PH 06

Lab Sample ID: 890-7409-5
Matrix: Solid
Date Collected: 11/21/24 11:38
Date Received: 11/22/24 08:25
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 14:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 14:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 14:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/25/24 09:41	11/25/24 14:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 14:46	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/25/24 09:41	11/25/24 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*11/25/24 09:41*	*11/25/24 14:46*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/25/24 09:41*	*11/25/24 14:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/25/24 14:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/26/24 02:47	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		11/25/24 08:22	11/26/24 02:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 02:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*11/25/24 08:22*	*11/26/24 02:47*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*11/25/24 08:22*	*11/26/24 02:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5490		101		mg/Kg			11/26/24 02:50	10

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 06

Lab Sample ID: 890-7409-6
Matrix: Solid
Date Collected: 11/21/24 12:34
Date Received: 11/22/24 08:25
Sample Depth: 4

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		11/25/24 09:41	11/25/24 15:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 15:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 15:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/25/24 09:41	11/25/24 15:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 15:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/25/24 09:41	11/25/24 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*11/25/24 09:41*	*11/25/24 15:07*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*11/25/24 09:41*	*11/25/24 15:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			11/25/24 15:07	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			11/26/24 03:04	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		11/25/24 08:22	11/26/24 03:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 03:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*11/25/24 08:22*	*11/26/24 03:04*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*11/25/24 08:22*	*11/26/24 03:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.5**		10.0		mg/Kg			11/26/24 03:10	1

Client Sample ID: PH 07

Lab Sample ID: 890-7409-7
Matrix: Solid
Date Collected: 11/21/24 12:53
Date Received: 11/22/24 08:25
Sample Depth: 1

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		11/25/24 09:41	11/25/24 15:27	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/25/24 09:41	11/25/24 15:27	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/25/24 09:41	11/25/24 15:27	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/25/24 09:41	11/25/24 15:27	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/25/24 09:41	11/25/24 15:27	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/25/24 09:41	11/25/24 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*11/25/24 09:41*	*11/25/24 15:27*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 07

Lab Sample ID: 890-7409-7
Matrix: Solid
Date Collected: 11/21/24 12:53
Date Received: 11/22/24 08:25
Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/25/24 09:41*	*11/25/24 15:27*	*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			11/25/24 15:27	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			11/26/24 03:19	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		11/25/24 08:22	11/26/24 03:19	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/25/24 08:22	11/26/24 03:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/25/24 08:22	11/26/24 03:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*92*		*70 - 130*	*11/25/24 08:22*	*11/26/24 03:19*	*1*
o-Terphenyl	*71*		*70 - 130*	*11/25/24 08:22*	*11/26/24 03:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1180**		9.90	mg/Kg			11/26/24 03:17	1

Client Sample ID: PH 07

Lab Sample ID: 890-7409-8
Matrix: Solid
Date Collected: 11/21/24 13:14
Date Received: 11/22/24 08:25
Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/25/24 09:41	11/25/24 15:48	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/25/24 09:41	11/25/24 15:48	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/25/24 09:41	11/25/24 15:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/25/24 09:41	11/25/24 15:48	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/25/24 09:41	11/25/24 15:48	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/25/24 09:41	11/25/24 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/25/24 09:41*	*11/25/24 15:48*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/25/24 09:41*	*11/25/24 15:48*	*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			11/25/24 15:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			11/26/24 03:35	1

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Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 07

Date Collected: 11/21/24 13:14
Date Received: 11/22/24 08:25
Sample Depth: 2

Lab Sample ID: 890-7409-8

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	<49.7	U	49.7		mg/Kg		11/25/24 08:22	11/26/24 03:35	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/25/24 08:22	11/26/24 03:35	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		11/25/24 08:22	11/26/24 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/25/24 08:22*	*11/26/24 03:35*	*1*
o-Terphenyl	*75*		*70 - 130*	*11/25/24 08:22*	*11/26/24 03:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**429**		9.90		mg/Kg			11/26/24 03:23	1

Surrogate Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

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)
890-7409-1	PH 02	127	94
890-7409-1 MS	PH 02	103	99
890-7409-1 MSD	PH 02	103	98
890-7409-2	PH 02	121	94
890-7409-3	PH 05	118	94
890-7409-4	PH 05	126	93
890-7409-5	PH 06	121	93
890-7409-6	PH 06	114	95
890-7409-7	PH 07	127	94
890-7409-8	PH 07	119	94
LCS 880-96483/1-A	Lab Control Sample	105	98
LCSD 880-96483/2-A	Lab Control Sample Dup	103	98
MB 880-96483/5-A	Method Blank	110	86

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)
890-7409-1	PH 02	87	71
890-7409-1 MS	PH 02	92	80
890-7409-1 MSD	PH 02	94	80
890-7409-2	PH 02	91	73
890-7409-3	PH 05	82	65 S1-
890-7409-4	PH 05	88	68 S1-
890-7409-5	PH 06	85	67 S1-
890-7409-6	PH 06	87	69 S1-
890-7409-7	PH 07	92	71
890-7409-8	PH 07	93	75
LCS 880-96466/2-A	Lab Control Sample	100	88
LCSD 880-96466/3-A	Lab Control Sample Dup	93	82
MB 880-96466/1-A	Method Blank	109	86

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-96483/5-A
Matrix: Solid
Analysis Batch: 96468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96483

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 12:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 12:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 12:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/25/24 09:41	11/25/24 12:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/25/24 09:41	11/25/24 12:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/25/24 09:41	11/25/24 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/25/24 09:41*	*11/25/24 12:23*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*11/25/24 09:41*	*11/25/24 12:23*	*1*

Lab Sample ID: LCS 880-96483/1-A
Matrix: Solid
Analysis Batch: 96468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96483

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1159		mg/Kg		116	70 - 130		
Toluene			0.100	0.1123		mg/Kg		112	70 - 130		
Ethylbenzene			0.100	0.1163		mg/Kg		116	70 - 130		
m-Xylene & p-Xylene			0.200	0.2333		mg/Kg		117	70 - 130		
o-Xylene			0.100	0.1194		mg/Kg		119	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-96483/2-A
Matrix: Solid
Analysis Batch: 96468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 96483

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1203		mg/Kg		120	70 - 130	4	35
Toluene			0.100	0.1163		mg/Kg		116	70 - 130	4	35
Ethylbenzene			0.100	0.1196		mg/Kg		120	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2382		mg/Kg		119	70 - 130	2	35
o-Xylene			0.100	0.1223		mg/Kg		122	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-7409-1 MS
Matrix: Solid
Analysis Batch: 96468

Client Sample ID: PH 02
Prep Type: Total/NA
Prep Batch: 96483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.1236		mg/Kg		124	70 - 130		
Toluene	<0.00201	U	0.100	0.1188		mg/Kg		119	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

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

Lab Sample ID: 890-7409-1 MS
Matrix: Solid
Analysis Batch: 96468

Client Sample ID: PH 02
Prep Type: Total/NA
Prep Batch: 96483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.1233		mg/Kg		123	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2476		mg/Kg		124	70 - 130
o-Xylene	<0.00201	U	0.100	0.1247		mg/Kg		125	70 - 130

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

Lab Sample ID: 890-7409-1 MSD
Matrix: Solid
Analysis Batch: 96468

Client Sample ID: PH 02
Prep Type: Total/NA
Prep Batch: 96483

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.100	0.1109		mg/Kg		111	70 - 130	11	35
Toluene	<0.00201	U	0.100	0.1039		mg/Kg		104	70 - 130	13	35
Ethylbenzene	<0.00201	U	0.100	0.1059		mg/Kg		106	70 - 130	15	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2114		mg/Kg		106	70 - 130	16	35
o-Xylene	<0.00201	U	0.100	0.1078		mg/Kg		108	70 - 130	15	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-96466/1-A
Matrix: Solid
Analysis Batch: 96449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96466

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		11/25/24 08:22	11/26/24 00:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 00:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/25/24 08:22	11/26/24 00:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*11/25/24 08:22*	*11/26/24 00:26*	*1*
o-Terphenyl	*86*		*70 - 130*	*11/25/24 08:22*	*11/26/24 00:26*	*1*

Lab Sample ID: LCS 880-96466/2-A
Matrix: Solid
Analysis Batch: 96449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96466

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1062		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)			1000	847.0		mg/Kg		85	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

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

Lab Sample ID: LCS 880-96466/2-A
Matrix: Solid
Analysis Batch: 96449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96466

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: LCSD 880-96466/3-A
Matrix: Solid
Analysis Batch: 96449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 96466

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1010		mg/Kg		101	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	785.8		mg/Kg		79	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: 890-7409-1 MS
Matrix: Solid
Analysis Batch: 96449

Client Sample ID: PH 02
Prep Type: Total/NA
Prep Batch: 96466

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	1000	865.4		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1000	690.2	F1	mg/Kg		69	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: 890-7409-1 MSD
Matrix: Solid
Analysis Batch: 96449

Client Sample ID: PH 02
Prep Type: Total/NA
Prep Batch: 96466

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	1000	884.3		mg/Kg		88	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1000	701.6		mg/Kg		70	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	80		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-96518/1-A
Matrix: Solid
Analysis Batch: 96560

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			11/26/24 01:50	1

Lab Sample ID: LCS 880-96518/2-A
Matrix: Solid
Analysis Batch: 96560

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.6		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-96518/3-A
Matrix: Solid
Analysis Batch: 96560

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	258.6		mg/Kg		103	90 - 110	2	20

Lab Sample ID: 890-7409-1 MS
Matrix: Solid
Analysis Batch: 96560

Client Sample ID: PH 02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1850		1260	3118		mg/Kg		101	90 - 110		

Lab Sample ID: 890-7409-1 MSD
Matrix: Solid
Analysis Batch: 96560

Client Sample ID: PH 02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1850		1260	3147		mg/Kg		103	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

GC VOA

Analysis Batch: 96468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Total/NA	Solid	8021B	96483
890-7409-2	PH 02	Total/NA	Solid	8021B	96483
890-7409-3	PH 05	Total/NA	Solid	8021B	96483
890-7409-4	PH 05	Total/NA	Solid	8021B	96483
890-7409-5	PH 06	Total/NA	Solid	8021B	96483
890-7409-6	PH 06	Total/NA	Solid	8021B	96483
890-7409-7	PH 07	Total/NA	Solid	8021B	96483
890-7409-8	PH 07	Total/NA	Solid	8021B	96483
MB 880-96483/5-A	Method Blank	Total/NA	Solid	8021B	96483
LCS 880-96483/1-A	Lab Control Sample	Total/NA	Solid	8021B	96483
LCSD 880-96483/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	96483
890-7409-1 MS	PH 02	Total/NA	Solid	8021B	96483
890-7409-1 MSD	PH 02	Total/NA	Solid	8021B	96483

Prep Batch: 96483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Total/NA	Solid	5035	
890-7409-2	PH 02	Total/NA	Solid	5035	
890-7409-3	PH 05	Total/NA	Solid	5035	
890-7409-4	PH 05	Total/NA	Solid	5035	
890-7409-5	PH 06	Total/NA	Solid	5035	
890-7409-6	PH 06	Total/NA	Solid	5035	
890-7409-7	PH 07	Total/NA	Solid	5035	
890-7409-8	PH 07	Total/NA	Solid	5035	
MB 880-96483/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-96483/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-96483/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-7409-1 MS	PH 02	Total/NA	Solid	5035	
890-7409-1 MSD	PH 02	Total/NA	Solid	5035	

Analysis Batch: 96634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Total/NA	Solid	Total BTEX	
890-7409-2	PH 02	Total/NA	Solid	Total BTEX	
890-7409-3	PH 05	Total/NA	Solid	Total BTEX	
890-7409-4	PH 05	Total/NA	Solid	Total BTEX	
890-7409-5	PH 06	Total/NA	Solid	Total BTEX	
890-7409-6	PH 06	Total/NA	Solid	Total BTEX	
890-7409-7	PH 07	Total/NA	Solid	Total BTEX	
890-7409-8	PH 07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 96449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Total/NA	Solid	8015B NM	96466
890-7409-2	PH 02	Total/NA	Solid	8015B NM	96466
890-7409-3	PH 05	Total/NA	Solid	8015B NM	96466
890-7409-4	PH 05	Total/NA	Solid	8015B NM	96466
890-7409-5	PH 06	Total/NA	Solid	8015B NM	96466
890-7409-6	PH 06	Total/NA	Solid	8015B NM	96466

QC Association Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

GC Semi VOA (Continued)

Analysis Batch: 96449 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-7	PH 07	Total/NA	Solid	8015B NM	96466
890-7409-8	PH 07	Total/NA	Solid	8015B NM	96466
MB 880-96466/1-A	Method Blank	Total/NA	Solid	8015B NM	96466
LCS 880-96466/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	96466
LCSD 880-96466/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	96466
890-7409-1 MS	PH 02	Total/NA	Solid	8015B NM	96466
890-7409-1 MSD	PH 02	Total/NA	Solid	8015B NM	96466

Prep Batch: 96466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Total/NA	Solid	8015NM Prep	
890-7409-2	PH 02	Total/NA	Solid	8015NM Prep	
890-7409-3	PH 05	Total/NA	Solid	8015NM Prep	
890-7409-4	PH 05	Total/NA	Solid	8015NM Prep	
890-7409-5	PH 06	Total/NA	Solid	8015NM Prep	
890-7409-6	PH 06	Total/NA	Solid	8015NM Prep	
890-7409-7	PH 07	Total/NA	Solid	8015NM Prep	
890-7409-8	PH 07	Total/NA	Solid	8015NM Prep	
MB 880-96466/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-96466/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-96466/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-7409-1 MS	PH 02	Total/NA	Solid	8015NM Prep	
890-7409-1 MSD	PH 02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 96645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Total/NA	Solid	8015 NM	
890-7409-2	PH 02	Total/NA	Solid	8015 NM	
890-7409-3	PH 05	Total/NA	Solid	8015 NM	
890-7409-4	PH 05	Total/NA	Solid	8015 NM	
890-7409-5	PH 06	Total/NA	Solid	8015 NM	
890-7409-6	PH 06	Total/NA	Solid	8015 NM	
890-7409-7	PH 07	Total/NA	Solid	8015 NM	
890-7409-8	PH 07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 96518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Soluble	Solid	DI Leach	
890-7409-2	PH 02	Soluble	Solid	DI Leach	
890-7409-3	PH 05	Soluble	Solid	DI Leach	
890-7409-4	PH 05	Soluble	Solid	DI Leach	
890-7409-5	PH 06	Soluble	Solid	DI Leach	
890-7409-6	PH 06	Soluble	Solid	DI Leach	
890-7409-7	PH 07	Soluble	Solid	DI Leach	
890-7409-8	PH 07	Soluble	Solid	DI Leach	
MB 880-96518/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-96518/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-96518/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-7409-1 MS	PH 02	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

HPLC/IC (Continued)

Leach Batch: 96518 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1 MSD	PH 02	Soluble	Solid	DI Leach	

Analysis Batch: 96560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7409-1	PH 02	Soluble	Solid	300.0	96518
890-7409-2	PH 02	Soluble	Solid	300.0	96518
890-7409-3	PH 05	Soluble	Solid	300.0	96518
890-7409-4	PH 05	Soluble	Solid	300.0	96518
890-7409-5	PH 06	Soluble	Solid	300.0	96518
890-7409-6	PH 06	Soluble	Solid	300.0	96518
890-7409-7	PH 07	Soluble	Solid	300.0	96518
890-7409-8	PH 07	Soluble	Solid	300.0	96518
MB 880-96518/1-A	Method Blank	Soluble	Solid	300.0	96518
LCS 880-96518/2-A	Lab Control Sample	Soluble	Solid	300.0	96518
LCSD 880-96518/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	96518
890-7409-1 MS	PH 02	Soluble	Solid	300.0	96518
890-7409-1 MSD	PH 02	Soluble	Solid	300.0	96518

Lab Chronicle

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 02
Date Collected: 11/21/24 09:45
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-1
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	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 13:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 13:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			96645	11/26/24 01:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 01:13	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	96560	11/26/24 02:10	SMC	EET MID

Client Sample ID: PH 02
Date Collected: 11/21/24 10:29
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-2
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	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 13:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 13:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			96645	11/26/24 02:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 02:00	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	96560	11/26/24 02:30	SMC	EET MID

Client Sample ID: PH 05
Date Collected: 11/21/24 10:59
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-3
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			4.97 g	5 mL	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 14:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			96645	11/26/24 02:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 02:16	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	96560	11/26/24 02:37	SMC	EET MID

Client Sample ID: PH 05
Date Collected: 11/21/24 11:18
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-4
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	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 14:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 14:26	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 05

Date Collected: 11/21/24 11:18
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-4

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			96645	11/26/24 02:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 02:32	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	96560	11/26/24 02:43	SMC	EET MID

Client Sample ID: PH 06

Date Collected: 11/21/24 11:38
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 14:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 14:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			96645	11/26/24 02:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 02:47	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	96560	11/26/24 02:50	SMC	EET MID

Client Sample ID: PH 06

Date Collected: 11/21/24 12:34
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-6

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			5.00 g	5 mL	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 15:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 15:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			96645	11/26/24 03:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 03:04	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	96560	11/26/24 03:10	SMC	EET MID

Client Sample ID: PH 07

Date Collected: 11/21/24 12:53
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 15:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 15:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			96645	11/26/24 03:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 03:19	TKC	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Client Sample ID: PH 07

Date Collected: 11/21/24 12:53
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-7

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			5.05 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	96560	11/26/24 03:17	SMC	EET MID

Client Sample ID: PH 07

Date Collected: 11/21/24 13:14
Date Received: 11/22/24 08:25

Lab Sample ID: 890-7409-8

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	96483	11/25/24 09:41	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	96468	11/25/24 15:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			96634	11/25/24 15:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			96645	11/26/24 03:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	96466	11/25/24 08:22	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	96449	11/26/24 03:35	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	96518	11/25/24 11:26	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	96560	11/26/24 03:23	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

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	06-30-25

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: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

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: CASAMIGOS FRAC LINE

Job ID: 890-7409-1
SDG: 03D2764001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-7409-1	PH 02	Solid	11/21/24 09:45	11/22/24 08:25	2
890-7409-2	PH 02	Solid	11/21/24 10:29	11/22/24 08:25	4
890-7409-3	PH 05	Solid	11/21/24 10:59	11/22/24 08:25	1
890-7409-4	PH 05	Solid	11/21/24 11:18	11/22/24 08:25	4
890-7409-5	PH 06	Solid	11/21/24 11:38	11/22/24 08:25	1
890-7409-6	PH 06	Solid	11/21/24 12:34	11/22/24 08:25	4
890-7409-7	PH 07	Solid	11/21/24 12:53	11/22/24 08:25	1
890-7409-8	PH 07	Solid	11/21/24 13:14	11/22/24 08:25	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 ___1__ of ___1___

Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum	Company Name:	Ensolum, LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-557-8895	Email:	hgreen@ensolum.com / msarkis@ensolum.com

Work Order Comments

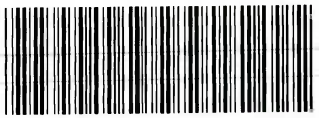
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☑ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Casamigos Frac Line	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2764001	Due Date:	12/2/2024
Project Location:	32.06646, -103.94944	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Mario Sarkis		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.4
Total Containers:		Corrected Temperature:	1.2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)	Sample Comments
PH02	S	11/21/2024	9:45	2	G	1		X	X	X	
PH02	S	11/21/2024	10:29	4	G	1		X	X	X	
PH05	S	11/21/2024	10:59	1	G	1		X	X	X	
PH05	S	11/21/2024	11:18	4	G	1		X	X	X	
PH06	S	11/21/2024	11:38	1	G	1		X	X	X	
PH06	S	11/21/2024	12:34	4	G	1		X	X	X	
PH07	S	11/21/2024	12:53	1	G	1		X	X	X	
PH07	S	11/21/2024	13:14	2	G	1		X	X	X	



Preservative Codes

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

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		11/22 825	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: N/A	Lab PM: Kramer, Jessica	Carrier Tracking No(s): N/A	COC No: 890-4342.1
Client Contact: Shipping/Receiving	Phone: N/A	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 #: 890-7409-1
Address: 1211 W. Florida Ave, ,	Due Date Requested: 12/2/2024			Preservation Codes:
City: Midland	TAT Requested (days): N/A			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: CASAMIGOS FRAC LINE	Project #: 89000145			
Site: N/A	SSOW#: N/A			Other: N/A

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:										
PH 02 (890-7409-1)	11/21/24	09:45 Mountain	G	Solid			X	X	X	X	X	1	
PH 02 (890-7409-2)	11/21/24	10:29 Mountain	G	Solid			X	X	X	X	X	1	
PH 05 (890-7409-3)	11/21/24	10:59 Mountain	G	Solid			X	X	X	X	X	1	
PH 05 (890-7409-4)	11/21/24	11:18 Mountain	G	Solid			X	X	X	X	X	1	
PH 06 (890-7409-5)	11/21/24	11:38 Mountain	G	Solid			X	X	X	X	X	1	
PH 06 (890-7409-6)	11/21/24	12:34 Mountain	G	Solid			X	X	X	X	X	1	
PH 07 (890-7409-7)	11/21/24	12:53 Mountain	G	Solid			X	X	X	X	X	1	
PH 07 (890-7409-8)	11/21/24	13:14 Mountain	G	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 our 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 compliance 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:

Relinquished by:	Date/Time: 11/22 1630	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
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: 10/10/2024

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: N/A	Lab PM: Kramer, Jessica	Carrier Tracking No(s): N/A	COC No: 890-4344.2
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Jessica.Kramer@et.eurofinsus.com	State of Origin: Texas	Page: Page 2 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-7411-1
Address: 1211 W. Florida Ave, ,	Due Date Requested: 12/2/2024			Preservation Codes: -
City: Midland	TAT Requested (days): N/A			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Yates to Kaiser Line	Project #: 88000222			
Site: N/A	SSOW#: N/A			Other: N/A

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)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH GRO-DRO-MRO	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW-6 (890-7411-10)	11/22/24	Central	G	Solid			X	X	X	X	X	1	
SW-7 (890-7411-11)	11/22/24	Central	G	Solid			X	X	X	X	X	1	
SW-8 (890-7411-12)	11/22/24	Central	G	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 our 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 compliance 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:

Relinquished by:	Date/Time: 11/22 1630	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
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: 10/10/2024

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-7409-1
SDG Number: 03D2764001

Login Number: 7409
List Number: 1
Creator: Bruns, Shannon

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: 890-7409-1
SDG Number: 03D2764001

Login Number: 7409
List Number: 2
Creator: Laing, Edmundo

List Source: Eurofins Midland
List Creation: 11/25/24 08:20 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 1/2/2025 11:58:32 AM

JOB DESCRIPTION

CASAMIGOS FRAC LINE
03D2764001

JOB NUMBER

890-7497-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

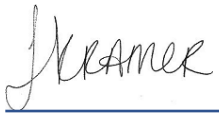
Eurofins Carlsbad

Job Notes

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

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

Authorization



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1/2/2025 11:58:32 AM

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

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Laboratory Job ID: 890-7497-1
SDG: 03D2764001

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Qualifiers

GC VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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 Job ID: 890-7497-1
Project: CASAMIGOS FRAC LINE

Job ID: 890-7497-1 Eurofins Carlsbad

Job Narrative
890-7497-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/20/2024 8:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.2°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH 04 (890-7497-1), PH 04 (890-7497-2), PH 04 (890-7497-3), PH 01 (890-7497-4), PH 01 (890-7497-5), PH 03 (890-7497-6), PH 03 (890-7497-7), PH 08 (890-7497-8) and PH 08 (890-7497-9).

GC VOA
Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-98627 and analytical batch 880-98602 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 8021B: The continuing calibration verification (CCV) associated with batch 880-98602 recovered under the lower control limit for m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

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

Diesel Range Organics
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-99161 and analytical batch 880-99162 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: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (890-7523-A-1-F) and (890-7523-A-1-H MSD). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-99124/2-A) and (LCSD 880-99124/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-99124 and analytical batch 880-99164 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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-99126 and analytical batch 880-99162 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: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: PH 03 (890-7497-6). Percent recoveries are based on the amount spiked.

Case Narrative

Client: Ensolum Job ID: 890-7497-1
Project: CASAMIGOS FRAC LINE

Job ID: 890-7497-1 (Continued) Eurofins Carlsbad

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: PH 04 (890-7497-3). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-98875 and analytical batch 880-99025 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 04

Date Collected: 12/19/24 09:50
Date Received: 12/20/24 08:08
Sample Depth: 1

Lab Sample ID: 890-7497-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 00:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 00:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 00:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/23/24 09:55	12/24/24 00:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 00:57	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/23/24 09:55	12/24/24 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*12/23/24 09:55*	*12/24/24 00:57*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*12/23/24 09:55*	*12/24/24 00:57*	*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			12/24/24 00:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**65.1**		49.8		mg/Kg			12/31/24 03:21	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		12/27/24 13:49	12/31/24 03:21	1
Diesel Range Organics (Over C10-C28)	**65.1**		49.8		mg/Kg		12/27/24 13:49	12/31/24 03:21	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/27/24 13:49	12/31/24 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*12/27/24 13:49*	*12/31/24 03:21*	*1*
o-Terphenyl	*121*		*70 - 130*	*12/27/24 13:49*	*12/31/24 03:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1720**		49.9		mg/Kg			12/30/24 11:06	5

Client Sample ID: PH 04

Date Collected: 12/19/24 09:55
Date Received: 12/20/24 08:08
Sample Depth: 2

Lab Sample ID: 890-7497-2
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		12/23/24 09:55	12/24/24 01:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/23/24 09:55	12/24/24 01:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/23/24 09:55	12/24/24 01:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/23/24 09:55	12/24/24 01:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/23/24 09:55	12/24/24 01:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/23/24 09:55	12/24/24 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*12/23/24 09:55*	*12/24/24 01:17*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 04

Date Collected: 12/19/24 09:55
Date Received: 12/20/24 08:08
Sample Depth: 2

Lab Sample ID: 890-7497-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*12/23/24 09:55*	*12/24/24 01:17*	*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			12/24/24 01:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			12/31/24 03:42	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	<49.7	U	49.7	mg/Kg		12/27/24 13:49	12/31/24 03:42	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		12/27/24 13:49	12/31/24 03:42	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		12/27/24 13:49	12/31/24 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*12/27/24 13:49*	*12/31/24 03:42*	*1*
o-Terphenyl	*110*		*70 - 130*	*12/27/24 13:49*	*12/31/24 03:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**399**		9.94	mg/Kg			12/30/24 11:13	1

Client Sample ID: PH 04

Date Collected: 12/19/24 10:07
Date Received: 12/20/24 08:08
Sample Depth: 3

Lab Sample ID: 890-7497-3
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		12/23/24 09:55	12/24/24 01:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/23/24 09:55	12/24/24 01:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/23/24 09:55	12/24/24 01:38	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/23/24 09:55	12/24/24 01:38	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/23/24 09:55	12/24/24 01:38	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/23/24 09:55	12/24/24 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*12/23/24 09:55*	*12/24/24 01:38*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*12/23/24 09:55*	*12/24/24 01:38*	*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			12/24/24 01:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			12/31/24 22:37	1

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Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 04

Lab Sample ID: 890-7497-3
Matrix: Solid
Date Collected: 12/19/24 10:07
Date Received: 12/20/24 08:08
Sample Depth: 3

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	<50.3	U	50.3		mg/Kg		12/30/24 19:21	12/31/24 22:37	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		12/30/24 19:21	12/31/24 22:37	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		12/30/24 19:21	12/31/24 22:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*12/30/24 19:21*	*12/31/24 22:37*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*12/30/24 19:21*	*12/31/24 22:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.1**		9.92		mg/Kg			12/30/24 11:37	1

Client Sample ID: PH 01

Lab Sample ID: 890-7497-4
Matrix: Solid
Date Collected: 12/19/24 10:44
Date Received: 12/20/24 08:08
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 03:02	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 03:02	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 03:02	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/23/24 09:55	12/24/24 03:02	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 03:02	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/23/24 09:55	12/24/24 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*12/23/24 09:55*	*12/24/24 03:02*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*12/23/24 09:55*	*12/24/24 03:02*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/24/24 03:02	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			12/31/24 22:52	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	<49.9	U	49.9		mg/Kg		12/31/24 16:27	12/31/24 22:52	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/31/24 16:27	12/31/24 22:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/31/24 16:27	12/31/24 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*12/31/24 16:27*	*12/31/24 22:52*	*1*
o-Terphenyl	*70*		*70 - 130*	*12/31/24 16:27*	*12/31/24 22:52*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 01

Lab Sample ID: 890-7497-4
Matrix: Solid
Date Collected: 12/19/24 10:44
Date Received: 12/20/24 08:08
Sample Depth: 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2720		50.4		mg/Kg			12/30/24 11:45	5

Client Sample ID: PH 01

Lab Sample ID: 890-7497-5
Matrix: Solid
Date Collected: 12/19/24 10:51
Date Received: 12/20/24 08:08
Sample Depth: 3

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		12/23/24 09:55	12/24/24 03:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 03:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 03:23	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/23/24 09:55	12/24/24 03:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 03:23	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/23/24 09:55	12/24/24 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*12/23/24 09:55*	*12/24/24 03:23*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*12/23/24 09:55*	*12/24/24 03:23*	*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			12/24/24 03:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			12/31/24 23:07	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	<49.7	U	49.7		mg/Kg		12/31/24 16:27	12/31/24 23:07	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		12/31/24 16:27	12/31/24 23:07	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		12/31/24 16:27	12/31/24 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*12/31/24 16:27*	*12/31/24 23:07*	*1*
o-Terphenyl	*74*		*70 - 130*	*12/31/24 16:27*	*12/31/24 23:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	302		9.94		mg/Kg			12/30/24 11:53	1

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 03

Lab Sample ID: 890-7497-6
Matrix: Solid
Date Collected: 12/19/24 11:21
Date Received: 12/20/24 08:08
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 03:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 03:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 03:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/23/24 09:55	12/24/24 03:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/24/24 03:43	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/23/24 09:55	12/24/24 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*12/23/24 09:55*	*12/24/24 03:43*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*12/23/24 09:55*	*12/24/24 03:43*	*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			12/24/24 03:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			12/31/24 23:24	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	<49.6	U	49.6		mg/Kg		12/31/24 16:27	12/31/24 23:24	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		12/31/24 16:27	12/31/24 23:24	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		12/31/24 16:27	12/31/24 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*12/31/24 16:27*	*12/31/24 23:24*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*12/31/24 16:27*	*12/31/24 23:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**196**		9.98		mg/Kg			12/30/24 12:01	1

Client Sample ID: PH 03

Lab Sample ID: 890-7497-7
Matrix: Solid
Date Collected: 12/19/24 11:26
Date Received: 12/20/24 08:08
Sample Depth: 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/23/24 09:55	12/24/24 04:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/23/24 09:55	12/24/24 04:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/23/24 09:55	12/24/24 04:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/23/24 09:55	12/24/24 04:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/23/24 09:55	12/24/24 04:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/23/24 09:55	12/24/24 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*12/23/24 09:55*	*12/24/24 04:04*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 03

Lab Sample ID: 890-7497-7
Matrix: Solid
Date Collected: 12/19/24 11:26
Date Received: 12/20/24 08:08
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*12/23/24 09:55*	*12/24/24 04:04*	*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			12/24/24 04:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			12/31/24 15:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		12/31/24 12:10	12/31/24 15:01	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		12/31/24 12:10	12/31/24 15:01	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		12/31/24 12:10	12/31/24 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*12/31/24 12:10*	*12/31/24 15:01*	*1*
o-Terphenyl	*74*		*70 - 130*	*12/31/24 12:10*	*12/31/24 15:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**188**		9.98	mg/Kg			12/30/24 12:08	1

Client Sample ID: PH 08

Lab Sample ID: 890-7497-8
Matrix: Solid
Date Collected: 12/19/24 12:11
Date Received: 12/20/24 08:08
Sample Depth: 1

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		12/23/24 09:55	12/24/24 04:24	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/23/24 09:55	12/24/24 04:24	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/23/24 09:55	12/24/24 04:24	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/23/24 09:55	12/24/24 04:24	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/23/24 09:55	12/24/24 04:24	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/23/24 09:55	12/24/24 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*12/23/24 09:55*	*12/24/24 04:24*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*12/23/24 09:55*	*12/24/24 04:24*	*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			12/24/24 04:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			12/31/24 15:18	1

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Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 08

Lab Sample ID: 890-7497-8
Matrix: Solid
Date Collected: 12/19/24 12:11
Date Received: 12/20/24 08:08
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		12/31/24 12:10	12/31/24 15:18	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		12/31/24 12:10	12/31/24 15:18	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		12/31/24 12:10	12/31/24 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*12/31/24 12:10*	*12/31/24 15:18*	*1*
o-Terphenyl	*73*		*70 - 130*	*12/31/24 12:10*	*12/31/24 15:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1070**		9.96		mg/Kg			12/30/24 12:16	1

Client Sample ID: PH 08

Lab Sample ID: 890-7497-9
Matrix: Solid
Date Collected: 12/19/24 12:22
Date Received: 12/20/24 08:08
Sample Depth: 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 04:45	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 04:45	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 04:45	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/23/24 09:55	12/24/24 04:45	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/23/24 09:55	12/24/24 04:45	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/23/24 09:55	12/24/24 04:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*12/23/24 09:55*	*12/24/24 04:45*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*12/23/24 09:55*	*12/24/24 04:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			12/24/24 04:45	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			12/31/24 15:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/30/24 19:16	12/31/24 15:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/30/24 19:16	12/31/24 15:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/30/24 19:16	12/31/24 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*12/30/24 19:16*	*12/31/24 15:01*	*1*
o-Terphenyl	*110*		*70 - 130*	*12/30/24 19:16*	*12/31/24 15:01*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 08
Date Collected: 12/19/24 12:22
Date Received: 12/20/24 08:08
Sample Depth: 3

Lab Sample ID: 890-7497-9
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	186		10.0		mg/Kg			12/30/24 12:40	1

Surrogate Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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)
890-7495-A-1-D MS	Matrix Spike	88	106
890-7495-A-1-E MSD	Matrix Spike Duplicate	104	96
890-7497-1	PH 04	96	89
890-7497-2	PH 04	86	96
890-7497-3	PH 04	90	95
890-7497-4	PH 01	92	92
890-7497-5	PH 01	86	93
890-7497-6	PH 03	87	96
890-7497-7	PH 03	86	95
890-7497-8	PH 08	92	93
890-7497-9	PH 08	90	91
LCS 880-98627/1-A	Lab Control Sample	109	109
LCSD 880-98627/2-A	Lab Control Sample Dup	88	106
MB 880-98438/5-A	Method Blank	79	95
MB 880-98627/5-A	Method Blank	79	93

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-52535-A-16-C MS	Matrix Spike	90	102
880-52535-A-16-D MSD	Matrix Spike Duplicate	89	98
890-7497-1	PH 04	93	121
890-7497-2	PH 04	87	110
890-7497-3	PH 04	70	68 S1-
890-7497-4	PH 01	70	70
890-7497-5	PH 01	77	74
890-7497-6	PH 03	66 S1-	66 S1-
890-7497-7	PH 03	76	74
890-7497-8	PH 08	73	73
890-7497-9	PH 08	105	110
890-7521-A-1-B MS	Matrix Spike	94	101
890-7521-A-1-C MSD	Matrix Spike Duplicate	85	90
890-7522-A-14-B MS	Matrix Spike	76	77
890-7522-A-14-C MSD	Matrix Spike Duplicate	75	75
890-7523-A-1-G MS	Matrix Spike	81	72
890-7523-A-1-H MSD	Matrix Spike Duplicate	67 S1-	69 S1-
LCS 880-98960/2-A	Lab Control Sample	102	116
LCS 880-99124/2-A	Lab Control Sample	124	134 S1+
LCS 880-99126/2-A	Lab Control Sample	98	98
LCS 880-99161/2-A	Lab Control Sample	97	99
LCSD 880-98960/3-A	Lab Control Sample Dup	95	108
LCSD 880-99124/3-A	Lab Control Sample Dup	128	137 S1+
LCSD 880-99126/3-A	Lab Control Sample Dup	105	104

Surrogate Summary

Client: Ensolum Job ID: 890-7497-1
Project/Site: CASAMIGOS FRAC LINE SDG: 03D2764001

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)								
LCSD 880-99161/3-A	Lab Control Sample Dup	99	101								
MB 880-98960/1-A	Method Blank	96	127								
MB 880-99124/1-A	Method Blank	122	125								
MB 880-99126/1-A	Method Blank	82	77								
MB 880-99161/1-A	Method Blank	81	77								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-98438/5-A
Matrix: Solid
Analysis Batch: 98602

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 98438

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/20/24 09:20	12/23/24 11:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/20/24 09:20	12/23/24 11:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/20/24 09:20	12/23/24 11:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/20/24 09:20	12/23/24 11:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/20/24 09:20	12/23/24 11:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/20/24 09:20	12/23/24 11:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*12/20/24 09:20*	*12/23/24 11:32*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*12/20/24 09:20*	*12/23/24 11:32*	*1*

Lab Sample ID: MB 880-98627/5-A
Matrix: Solid
Analysis Batch: 98602

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 98627

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/23/24 22:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/23/24 22:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/23/24 22:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/23/24 09:55	12/23/24 22:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/23/24 09:55	12/23/24 22:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/23/24 09:55	12/23/24 22:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*12/23/24 09:55*	*12/23/24 22:11*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*12/23/24 09:55*	*12/23/24 22:11*	*1*

Lab Sample ID: LCS 880-98627/1-A
Matrix: Solid
Analysis Batch: 98602

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 98627

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09982		mg/Kg		100	70 - 130		
Toluene			0.100	0.1007		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.1061		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.2098		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130		

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

Lab Sample ID: LCSD 880-98627/2-A
Matrix: Solid
Analysis Batch: 98602

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 98627

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1029		mg/Kg		103	70 - 130	3	35

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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

Lab Sample ID: LCSD 880-98627/2-A
Matrix: Solid
Analysis Batch: 98602

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 98627

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09918		mg/Kg		99	70 - 130	2	35
Ethylbenzene			0.100	0.08801		mg/Kg		88	70 - 130	19	35
m-Xylene & p-Xylene			0.200	0.1756		mg/Kg		88	70 - 130	18	35
o-Xylene			0.100	0.08570		mg/Kg		86	70 - 130	18	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-7495-A-1-D MS
Matrix: Solid
Analysis Batch: 98602

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 98627

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0996	0.1029		mg/Kg		103	70 - 130
Toluene	<0.00199	U	0.0996	0.09554		mg/Kg		96	70 - 130
Ethylbenzene	<0.00199	U F2	0.0996	0.08302		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2	0.199	0.1636		mg/Kg		82	70 - 130
o-Xylene	<0.00199	U F2	0.0996	0.07956		mg/Kg		80	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-7495-A-1-E MSD
Matrix: Solid
Analysis Batch: 98602

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 98627

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1157		mg/Kg		115	70 - 130	12	35
Toluene	<0.00199	U	0.101	0.1225		mg/Kg		122	70 - 130	25	35
Ethylbenzene	<0.00199	U F2	0.101	0.1231	F2	mg/Kg		122	70 - 130	39	35
m-Xylene & p-Xylene	<0.00398	U F2	0.202	0.2393	F2	mg/Kg		119	70 - 130	38	35
o-Xylene	<0.00199	U F2	0.101	0.1162	F2	mg/Kg		115	70 - 130	37	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

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

Lab Sample ID: MB 880-98960/1-A
Matrix: Solid
Analysis Batch: 98997

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 98960

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		12/27/24 13:49	12/30/24 19:11	1

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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

Lab Sample ID: MB 880-98960/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 98997 — **Prep Batch: 98960**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/27/24 13:49	12/30/24 19:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/27/24 13:49	12/30/24 19:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*12/27/24 13:49*	*12/30/24 19:11*	*1*
o-Terphenyl	*127*		*70 - 130*	*12/27/24 13:49*	*12/30/24 19:11*	*1*

Lab Sample ID: LCS 880-98960/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 98997 — **Prep Batch: 98960**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	807.9		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1045		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: LCSD 880-98960/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 98997 — **Prep Batch: 98960**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	773.4		mg/Kg		77	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1020		mg/Kg		102	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: 880-52535-A-16-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 98997 — **Prep Batch: 98960**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	809.9		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	999	901.1		mg/Kg		90	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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

Lab Sample ID: 880-52535-A-16-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 98997 — **Prep Batch: 98960**

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	<49.8	U	999	796.2		mg/Kg		80	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	887.3		mg/Kg		89	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: MB 880-99124/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 99164 — **Prep Batch: 99124**

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		12/30/24 19:16	12/31/24 08:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/30/24 19:16	12/31/24 08:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/30/24 19:16	12/31/24 08:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*12/30/24 19:16*	*12/31/24 08:42*	*1*
o-Terphenyl	*125*		*70 - 130*	*12/30/24 19:16*	*12/31/24 08:42*	*1*

Lab Sample ID: LCS 880-99124/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 99164 — **Prep Batch: 99124**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1137		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1198		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*124*		*70 - 130*
o-Terphenyl	*134*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-99124/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 99164 — **Prep Batch: 99124**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1175		mg/Kg		117	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1190		mg/Kg		119	70 - 130	1	20

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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

Lab Sample ID: LCSD 880-99124/3-A
Matrix: Solid
Analysis Batch: 99164

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99124

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	128		70 - 130
o-Terphenyl	137	S1+	70 - 130

Lab Sample ID: 890-7521-A-1-B MS
Matrix: Solid
Analysis Batch: 99164

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99124

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	996	650.2	F1	mg/Kg		65	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1	996	787.9		mg/Kg		79	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: 890-7521-A-1-C MSD
Matrix: Solid
Analysis Batch: 99164

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 99124

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	996	585.0	F1	mg/Kg		59	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	996	689.4	F1	mg/Kg		69	70 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: MB 880-99126/1-A
Matrix: Solid
Analysis Batch: 99162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99126

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		12/30/24 19:21	12/31/24 16:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/30/24 19:21	12/31/24 16:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/30/24 19:21	12/31/24 16:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	12/30/24 19:21	12/31/24 16:43	1
o-Terphenyl	77		70 - 130	12/30/24 19:21	12/31/24 16:43	1

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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

Lab Sample ID: LCS 880-99126/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 99162 — **Prep Batch: 99126**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	979.7		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	871.0		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: LCSD 880-99126/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 99162 — **Prep Batch: 99126**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1034		mg/Kg		103	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	922.2		mg/Kg		92	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: 890-7522-A-14-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 99162 — **Prep Batch: 99126**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	561.6	F1	mg/Kg		56	70 - 130		
Diesel Range Organics (Over C10-C28)	90.2	F1	997	585.2	F1	mg/Kg		50	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Lab Sample ID: 890-7522-A-14-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 99162 — **Prep Batch: 99126**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	541.1	F1	mg/Kg		54	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	90.2	F1	997	578.7	F1	mg/Kg		49	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*75*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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

Lab Sample ID: 890-7522-A-14-C MSD
Matrix: Solid
Analysis Batch: 99162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 99126

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	75		70 - 130

Lab Sample ID: MB 880-99161/1-A
Matrix: Solid
Analysis Batch: 99162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99161

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		12/31/24 10:44	12/31/24 08:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/31/24 10:44	12/31/24 08:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/31/24 10:44	12/31/24 08:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	12/31/24 10:44	12/31/24 08:42	1
o-Terphenyl	77		70 - 130	12/31/24 10:44	12/31/24 08:42	1

Lab Sample ID: LCS 880-99161/2-A
Matrix: Solid
Analysis Batch: 99162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99161

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	935.8		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	877.5		mg/Kg		88	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-99161/3-A
Matrix: Solid
Analysis Batch: 99162

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99161

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	953.3		mg/Kg		95	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	887.6		mg/Kg		89	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	101		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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

Lab Sample ID: 890-7523-A-1-G MS
Matrix: Solid
Analysis Batch: 99162

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 99161

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	1010	611.7	F1	mg/Kg		61	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1010	642.8	F1	mg/Kg		62	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*81*		*70 - 130*
o-Terphenyl	*72*		*70 - 130*

Lab Sample ID: 890-7523-A-1-H MSD
Matrix: Solid
Analysis Batch: 99162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 99161

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	1010	602.2	F1	mg/Kg		60	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1010	657.1	F1	mg/Kg		63	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*67*	*S1-*	*70 - 130*
o-Terphenyl	*69*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-98875/1-A
Matrix: Solid
Analysis Batch: 99025

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			12/30/24 10:03	1

Lab Sample ID: LCS 880-98875/2-A
Matrix: Solid
Analysis Batch: 99025

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	242.6		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-98875/3-A
Matrix: Solid
Analysis Batch: 99025

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	255.2		mg/Kg		102	90 - 110	5	20

QC Sample Results

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-7497-8 MS
Matrix: Solid
Analysis Batch: 99025

Client Sample ID: PH 08
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1070		249	1278	4	mg/Kg		85	90 - 110		

Lab Sample ID: 890-7497-8 MSD
Matrix: Solid
Analysis Batch: 99025

Client Sample ID: PH 08
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1070		249	1279	4	mg/Kg		85	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

GC VOA

Prep Batch: 98438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-98438/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 98602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Total/NA	Solid	8021B	98627
890-7497-2	PH 04	Total/NA	Solid	8021B	98627
890-7497-3	PH 04	Total/NA	Solid	8021B	98627
890-7497-4	PH 01	Total/NA	Solid	8021B	98627
890-7497-5	PH 01	Total/NA	Solid	8021B	98627
890-7497-6	PH 03	Total/NA	Solid	8021B	98627
890-7497-7	PH 03	Total/NA	Solid	8021B	98627
890-7497-8	PH 08	Total/NA	Solid	8021B	98627
890-7497-9	PH 08	Total/NA	Solid	8021B	98627
MB 880-98438/5-A	Method Blank	Total/NA	Solid	8021B	98438
MB 880-98627/5-A	Method Blank	Total/NA	Solid	8021B	98627
LCS 880-98627/1-A	Lab Control Sample	Total/NA	Solid	8021B	98627
LCSD 880-98627/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	98627
890-7495-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	98627
890-7495-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	98627

Prep Batch: 98627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Total/NA	Solid	5035	
890-7497-2	PH 04	Total/NA	Solid	5035	
890-7497-3	PH 04	Total/NA	Solid	5035	
890-7497-4	PH 01	Total/NA	Solid	5035	
890-7497-5	PH 01	Total/NA	Solid	5035	
890-7497-6	PH 03	Total/NA	Solid	5035	
890-7497-7	PH 03	Total/NA	Solid	5035	
890-7497-8	PH 08	Total/NA	Solid	5035	
890-7497-9	PH 08	Total/NA	Solid	5035	
MB 880-98627/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-98627/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-98627/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-7495-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-7495-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 98824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Total/NA	Solid	Total BTEX	
890-7497-2	PH 04	Total/NA	Solid	Total BTEX	
890-7497-3	PH 04	Total/NA	Solid	Total BTEX	
890-7497-4	PH 01	Total/NA	Solid	Total BTEX	
890-7497-5	PH 01	Total/NA	Solid	Total BTEX	
890-7497-6	PH 03	Total/NA	Solid	Total BTEX	
890-7497-7	PH 03	Total/NA	Solid	Total BTEX	
890-7497-8	PH 08	Total/NA	Solid	Total BTEX	
890-7497-9	PH 08	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

GC Semi VOA

Prep Batch: 98960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Total/NA	Solid	8015NM Prep	
890-7497-2	PH 04	Total/NA	Solid	8015NM Prep	
MB 880-98960/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-98960/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-98960/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-52535-A-16-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-52535-A-16-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 98997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Total/NA	Solid	8015B NM	98960
890-7497-2	PH 04	Total/NA	Solid	8015B NM	98960
MB 880-98960/1-A	Method Blank	Total/NA	Solid	8015B NM	98960
LCS 880-98960/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	98960
LCSD 880-98960/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	98960
880-52535-A-16-C MS	Matrix Spike	Total/NA	Solid	8015B NM	98960
880-52535-A-16-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	98960

Prep Batch: 99124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-9	PH 08	Total/NA	Solid	8015NM Prep	
MB 880-99124/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-99124/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-99124/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-7521-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-7521-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 99126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-3	PH 04	Total/NA	Solid	8015NM Prep	
890-7497-4	PH 01	Total/NA	Solid	8015NM Prep	
890-7497-5	PH 01	Total/NA	Solid	8015NM Prep	
890-7497-6	PH 03	Total/NA	Solid	8015NM Prep	
MB 880-99126/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-99126/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-99126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-7522-A-14-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-7522-A-14-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 99161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-7	PH 03	Total/NA	Solid	8015NM Prep	
890-7497-8	PH 08	Total/NA	Solid	8015NM Prep	
MB 880-99161/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-99161/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-99161/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-7523-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-7523-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

GC Semi VOA

Analysis Batch: 99162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-3	PH 04	Total/NA	Solid	8015B NM	99126
890-7497-4	PH 01	Total/NA	Solid	8015B NM	99126
890-7497-5	PH 01	Total/NA	Solid	8015B NM	99126
890-7497-6	PH 03	Total/NA	Solid	8015B NM	99126
890-7497-7	PH 03	Total/NA	Solid	8015B NM	99161
890-7497-8	PH 08	Total/NA	Solid	8015B NM	99161
MB 880-99126/1-A	Method Blank	Total/NA	Solid	8015B NM	99126
MB 880-99161/1-A	Method Blank	Total/NA	Solid	8015B NM	99161
LCS 880-99126/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	99126
LCS 880-99161/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	99161
LCSD 880-99126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	99126
LCSD 880-99161/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	99161
890-7522-A-14-B MS	Matrix Spike	Total/NA	Solid	8015B NM	99126
890-7522-A-14-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	99126
890-7523-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	99161
890-7523-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	99161

Analysis Batch: 99164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-9	PH 08	Total/NA	Solid	8015B NM	99124
MB 880-99124/1-A	Method Blank	Total/NA	Solid	8015B NM	99124
LCS 880-99124/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	99124
LCSD 880-99124/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	99124
890-7521-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	99124
890-7521-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	99124

Analysis Batch: 99183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Total/NA	Solid	8015 NM	
890-7497-2	PH 04	Total/NA	Solid	8015 NM	
890-7497-3	PH 04	Total/NA	Solid	8015 NM	
890-7497-4	PH 01	Total/NA	Solid	8015 NM	
890-7497-5	PH 01	Total/NA	Solid	8015 NM	
890-7497-6	PH 03	Total/NA	Solid	8015 NM	
890-7497-7	PH 03	Total/NA	Solid	8015 NM	
890-7497-8	PH 08	Total/NA	Solid	8015 NM	
890-7497-9	PH 08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 98875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Soluble	Solid	DI Leach	
890-7497-2	PH 04	Soluble	Solid	DI Leach	
890-7497-3	PH 04	Soluble	Solid	DI Leach	
890-7497-4	PH 01	Soluble	Solid	DI Leach	
890-7497-5	PH 01	Soluble	Solid	DI Leach	
890-7497-6	PH 03	Soluble	Solid	DI Leach	
890-7497-7	PH 03	Soluble	Solid	DI Leach	
890-7497-8	PH 08	Soluble	Solid	DI Leach	
890-7497-9	PH 08	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

HPLC/IC (Continued)

Leach Batch: 98875 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-98875/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-98875/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-98875/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-7497-8 MS	PH 08	Soluble	Solid	DI Leach	
890-7497-8 MSD	PH 08	Soluble	Solid	DI Leach	

Analysis Batch: 99025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7497-1	PH 04	Soluble	Solid	300.0	98875
890-7497-2	PH 04	Soluble	Solid	300.0	98875
890-7497-3	PH 04	Soluble	Solid	300.0	98875
890-7497-4	PH 01	Soluble	Solid	300.0	98875
890-7497-5	PH 01	Soluble	Solid	300.0	98875
890-7497-6	PH 03	Soluble	Solid	300.0	98875
890-7497-7	PH 03	Soluble	Solid	300.0	98875
890-7497-8	PH 08	Soluble	Solid	300.0	98875
890-7497-9	PH 08	Soluble	Solid	300.0	98875
MB 880-98875/1-A	Method Blank	Soluble	Solid	300.0	98875
LCS 880-98875/2-A	Lab Control Sample	Soluble	Solid	300.0	98875
LCSD 880-98875/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	98875
890-7497-8 MS	PH 08	Soluble	Solid	300.0	98875
890-7497-8 MSD	PH 08	Soluble	Solid	300.0	98875

Lab Chronicle

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 04
Date Collected: 12/19/24 09:50
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-1
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	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 00:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 00:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 03:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	98960	12/27/24 13:49	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	98997	12/31/24 03:21	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	99025	12/30/24 11:06	CH	EET MID

Client Sample ID: PH 04
Date Collected: 12/19/24 09:55
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-2
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			5.03 g	5 mL	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 01:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 01:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 03:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	98960	12/27/24 13:49	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	98997	12/31/24 03:42	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	99025	12/30/24 11:13	CH	EET MID

Client Sample ID: PH 04
Date Collected: 12/19/24 10:07
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-3
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	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 01:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 01:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 22:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	99126	12/30/24 19:21	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	99162	12/31/24 22:37	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	99025	12/30/24 11:37	CH	EET MID

Client Sample ID: PH 01
Date Collected: 12/19/24 10:44
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-4
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			4.95 g	5 mL	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 03:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 03:02	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 01
Date Collected: 12/19/24 10:44
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-4
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			99183	12/31/24 22:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	99126	12/31/24 16:27	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	99162	12/31/24 22:52	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	99025	12/30/24 11:45	CH	EET MID

Client Sample ID: PH 01
Date Collected: 12/19/24 10:51
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-5
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			4.99 g	5 mL	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 03:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 03:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 23:07	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	99126	12/31/24 16:27	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	99162	12/31/24 23:07	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	99025	12/30/24 11:53	CH	EET MID

Client Sample ID: PH 03
Date Collected: 12/19/24 11:21
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-6
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			5.01 g	5 mL	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 03:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 03:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 23:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	99126	12/31/24 16:27	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	99162	12/31/24 23:24	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	99025	12/30/24 12:01	CH	EET MID

Client Sample ID: PH 03
Date Collected: 12/19/24 11:26
Date Received: 12/20/24 08:08

Lab Sample ID: 890-7497-7
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	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 04:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 04:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	99161	12/31/24 12:10	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	99162	12/31/24 15:01	TKC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Client Sample ID: PH 03

Lab Sample ID: 890-7497-7

Date Collected: 12/19/24 11:26
Matrix: Solid
Date Received: 12/20/24 08:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	99025	12/30/24 12:08	CH	EET MID

Client Sample ID: PH 08

Lab Sample ID: 890-7497-8

Date Collected: 12/19/24 12:11
Matrix: Solid
Date Received: 12/20/24 08:08

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	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 04:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 04:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 15:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	99161	12/31/24 12:10	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	99162	12/31/24 15:18	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	99025	12/30/24 12:16	CH	EET MID

Client Sample ID: PH 08

Lab Sample ID: 890-7497-9

Date Collected: 12/19/24 12:22
Matrix: Solid
Date Received: 12/20/24 08:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	98627	12/23/24 09:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	98602	12/24/24 04:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			98824	12/24/24 04:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			99183	12/31/24 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	99124	12/30/24 19:16	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	99164	12/31/24 15:01	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	98875	12/26/24 16:05	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	99025	12/30/24 12:40	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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	06-30-25

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: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

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: CASAMIGOS FRAC LINE

Job ID: 890-7497-1
SDG: 03D2764001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-7497-1	PH 04	Solid	12/19/24 09:50	12/20/24 08:08	1
890-7497-2	PH 04	Solid	12/19/24 09:55	12/20/24 08:08	2
890-7497-3	PH 04	Solid	12/19/24 10:07	12/20/24 08:08	3
890-7497-4	PH 01	Solid	12/19/24 10:44	12/20/24 08:08	1
890-7497-5	PH 01	Solid	12/19/24 10:51	12/20/24 08:08	3
890-7497-6	PH 03	Solid	12/19/24 11:21	12/20/24 08:08	1
890-7497-7	PH 03	Solid	12/19/24 11:26	12/20/24 08:08	2
890-7497-8	PH 08	Solid	12/19/24 12:11	12/20/24 08:08	1
890-7497-9	PH 08	Solid	12/19/24 12:22	12/20/24 08:08	3

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page ___1__ of ___1___

Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum	Company Name:	Ensolum, LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-557-8895	Email:	hgreen@ensolum.com / msarkis@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:	Casamigos Frac Line	Turn Around	
Project Number:	03D2764001	☑ Routine ☐ Rush	
Project Location:	32.06646, -103.94944	Due Date:	12/30/2024
Sampler's Name:	Mario Sarkis	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TM007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	0	
Total Containers:		Corrected Temperature:	-0.2	

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	Pres. Code	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)	Sample Comments
							Cool	Cool	Cool		
PH04	S	12/19/2024	9:50	1	G	1		X	X	X	
PH04	S	12/19/2024	9:55	2	G	1		X	X	X	
PH04	S	12/19/2024	10:07	3	G	1		X	X	X	
PH01	S	12/19/2024	10:44	1	G	1		X	X	X	
PH01	S	12/19/2024	10:51	3	G	1		X	X	X	
PH03	S	12/19/2024	11:21	1	G	1		X	X	X	
PH03	S	12/19/2024	11:26	2	G	1		X	X	X	
PH08	S	12/19/2024	12:11	1	G	1		X	X	X	
PH08	S	12/19/2024	12:22	3	G	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

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		12/20 808	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: N/A	Lab PM: Kramer, Jessica	Carrier Tracking No(s): N/A	COC No: 890-4438.1
Client Contact: Shipping/Receiving	Phone: N/A	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 #: 890-7497-1
Address: 1211 W. Florida Ave, ,	Due Date Requested: 12/30/2024			Preservation Codes: -
City: Midland	TAT Requested (days): N/A			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: CASAMIGOS FRAC LINE	Project #: 88001662			
Site: N/A	SSOW#: N/A			Other: N/A

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:										
PH 04 (890-7497-1)	12/19/24	09:50 Mountain	G	Solid			X	X	X	X	X	1	
PH 04 (890-7497-2)	12/19/24	09:55 Mountain	G	Solid			X	X	X	X	X	1	
PH 04 (890-7497-3)	12/19/24	10:07 Mountain	G	Solid			X	X	X	X	X	1	
PH 01 (890-7497-4)	12/19/24	10:44 Mountain	G	Solid			X	X	X	X	X	1	
PH 01 (890-7497-5)	12/19/24	10:51 Mountain	G	Solid			X	X	X	X	X	1	
PH 03 (890-7497-6)	12/19/24	11:21 Mountain	G	Solid			X	X	X	X	X	1	
PH 03 (890-7497-7)	12/19/24	11:26 Mountain	G	Solid			X	X	X	X	X	1	
PH 08 (890-7497-8)	12/19/24	12:11 Mountain	G	Solid			X	X	X	X	X	1	
PH 08 (890-7497-9)	12/19/24	12:22 Mountain	G	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 our 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 compliance 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:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
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: 10/10/2024

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-7497-1
SDG Number: 03D2764001

Login Number: 7497
List Number: 1
Creator: Bruns, Shannon

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: 890-7497-1
SDG Number: 03D2764001

Login Number: 7497
List Number: 2
Creator: Lee, Randell

List Source: Eurofins Midland
List Creation: 12/23/24 10:13 AM

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

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 423505
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2425757674**
Incident Name	**NAPP2425757674 CASAMIGOS FRAC LINE @ 30-015-48608**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-015-48608] CASAMIGOS 2 W1OB STATE COM #001H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	CASAMIGOS FRAC LINE
Date Release Discovered	08/30/2024
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Pipeline (Any) | Produced Water | Released: 392 BBL | Recovered: 0 BBL | Lost: 392 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 423505
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 09/13/2024

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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QUESTIONS (continued)

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QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission		Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.		
Have the lateral and vertical extents of contamination been fully delineated		Yes
Was this release entirely contained within a lined containment area		No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		
Chloride	(EPA 300.0 or SM4500 Cl B)	9300
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	50
GRO+DRO	(EPA SW-846 Method 8015M)	50
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.		
On what estimated date will the remediation commence		04/22/2025
On what date will (or did) the final sampling or liner inspection occur		05/22/2025
On what date will (or was) the remediation complete(d)		05/22/2025
What is the estimated surface area (in square feet) that will be reclaimed		110415
What is the estimated volume (in cubic yards) that will be reclaimed		44
What is the estimated surface area (in square feet) that will be remediated		110415
What is the estimated volume (in cubic yards) that will be remediated		44
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.		

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	*Not answered.*
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	Yes
In which state is the disposal taking place	Texas
What is the name of the out-of-state facility	R360 Red Bluff
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 01/22/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Deferral Requests Only *Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

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QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**403284**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**11/21/2024**
What was the (estimated) number of samples that were to be gathered	**30**
What was the sampling surface area in square feet	**110415**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation plan is approved as written except with the following conditions; 1. Alternative sampling proposal to increase the sampling frequency from 200 to 400 square feet is denied. Release had entered a significant watercourse and wetland riverine per 19.15.29.12C (4) NMAC. The closure standard for this release must meet Table I of 19.15.29.12 NMAC for groundwater < 50 feet. 2. Proposal to advance an exploratory boring to determine depth to water estimation is not recommended due to what was stated in bullet #2. 3. Prior to backfilling any open excavations per 19.15.29.12D (2) NMAC, Mewbourne must collect a minimum of one (1) 5pcs from the media being used as backfill to verify that it meets non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. This is especially important for the material being used within the top four (4) feet from the ground surface.	1/29/2025
nvelez	4. Mewbourne has 90-days (April 29, 2025) to submit to OCD its appropriate or final remediation closure report.	1/29/2025