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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

)

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Incident ID	NAPP2219646774
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Garrett Green	Contact Telephone 575-200-0729
Contact email garrett.green@exxonmobil.com	Incident # (assigned by OCD)
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Longitude	-103.77993
(NAD 83 in decimal degrees to 5 decimal	mal places)

Site Name Poker Lake Unit 411	Site Type Tank Battery
Date Release Discovered 07/08/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
В	28	24S	31E	Eddy

Surface Owner: State 🗴 Federal 🗌 Tribal 🗌 Private (Name: _____

Nature and Volume of Release

▼ Crude Oil	al(s) Released (Select all that apply and attach calculations or specific Volume Released (bbls) 2.37	Volume Recovered (bbls) 2.08
▼ Produced Water	Volume Released (bbls) 15.84	Volume Recovered (bbls) 13.92
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
	nd hydrocarbon buildup caused plugging in water meter to pad. All free fluids were recovered. A third-party co	

Page	2
I ugo	_

NA

Oil Conservation Division

Incident ID	NAPP2219646774
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Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?	
release as defined by	N/A	
19.15.29.7(A) NMAC?		
🗌 Yes 🗶 No		
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?		
N/A		

Initial Response

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

 \checkmark The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name:	Title:
Signature:	Date: Telephone:
OCD Only Received by: Jocelyn Harimon	Date: 07/15/2022

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Oil Conservation Division

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Incident ID	NAPP2219646774	
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Site Assessment/Characterization

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

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

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

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

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

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

Received by OCD: 8/22/2	023 1:20:35 PM State of New Mexico			Page 4 of 145
			Incident ID	NAPP2219646774
Page 4	Oil Conservation Divis	10 n	District RP	
			Facility ID	
			Application ID	
regulations all operators ar public health or the environ failed to adequately investi addition, OCD acceptance and/or regulations. Printed Name: _Garrett Signature: email: _garrett.green@e	t Sum	te notifications and perform co the OCD does not relieve the a threat to groundwater, surfa	prrective actions for rele coperator of liability sho ce water, human health iance with any other feo nator	ases which may endanger ould their operations have or the environment. In
OCD Only Received by: Joc	elyn Harimon	Date:12/	02/2022	

Received by OCD: 8/22/2023 1:20:35 PM State of New Mexico

Detailed description of proposed remediation technique

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Oil Conservation Division

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

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Remediation Plan

Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Garrrett Green Title: Environmental Coordinator Date: 12/2/2022 Signature: Telephone: 575-200-0729 email: garrett.green@exxonmobil.com **OCD Only** Jocelyn Harimon 12/02/2022 Received by: Date: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

Received by OCD: 8/22/2023 1:20:35 PM State of New Mexico

Detailed description of proposed remediation technique

Page 5

Oil Conservation Division

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

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Remediation Plan

Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Garrrett Green Title: Environmental Coordinator Date: 12/2/2022 Signature: Telephone: 575-200-0729 email: garrett.green@exxonmobil.com **OCD Only** Jocelyn Harimon 12/02/2022 Date: Received by: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Robert Hamlet Date: 3/6/2023 Signature:

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Oil Conservation Division

Incident ID	NAPP2219646774
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Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report. X A scaled site and sampling diagram as described in 19.15.29.11 NMAC X Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) X Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) X Description of remediation activities I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Green Title: HSSE Coordinator

Jum
Date:
8/22/2023
Printed Name: Garrett Green Signature: Telephone: 575-200-0749 garrett.green@exxonmobil.com email: **OCD Only** Received by: Shelly Wells Date: 8/22/2023 Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations. Closure Approved by: Scott Rodgers Date: 02/12/2024 Printed Name: Scott Rodgers Title: Environmental Specialist Adv.

ENSOLUM

August 22, 2023

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

Re: Closure Request Poker Lake Unit 411 Incident Number NAPP2219646774 Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document groundwater assessment activites at the Poker Lake Unit 411 (Site) as proposed in the December 2, 2022 *Remediation Work Plan* (Appendix A). Based on observations during drilling activities to assess depth to groundwater and comparing exisitng laboratory analytical results to the appropriate Closure Criteria, XTO is submitting this *Closure Request* describing recent assessment actions and requesting no further action for Incident Number NAPP2219646774.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit B, Section 28, Township 24 South, Range 31 East, in Eddy County, New Mexico (32.19312°, -103.77993°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On July 8, 2022, sand and hydrocarbon buildup in water meters and a separator caused a flowline to fail, which resulted in the release of 15.84 barrels (bbls) of produced water and 2.37 bbls of crude oil onto the surface of the well pad near active production equipment. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 13.92 bbls of produced water and 2.08 bbls of crude oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on July 15, 2022. The release was assigned Incident Number NAPP2219646774.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to determine 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 desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

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

• Benzene: 10 milligrams per kilogram (mg/kg)

XTO Energy, Inc Closure Request Poker Lake Unit 411

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

Since the nearest water well is not within the NMOCD preferred ½-mile radius of the Site, XTO advanced soil boring C-04760 (BH01) to a depth of 108 feet below ground surface (bgs) on August 1, 2023 to confirm depth to groundwater. The soil boring was advanced approximately 245 feet from the western edge of the release and a field geologist logged and described soils continuously. Ensolum's geologist did not observe any moisture and/or saturated soil indicative of a groundwater table throughout the drilling process. The soil boring was backfilled following New Mexico Office of the State Engineer (OSE) approved procedures; specifically, drill cuttings and hydrated benonite chips were backfilled into the boring. All observations during drilling were recorded on a Lithologic / Soil Sampling Log, which is included in Appendix B. Below is photographic documentation of drilling activities for soil boring C-04760.



Photographic Documentation

Drilling of soil boring C-04760, view southeast.

Based on drilling activities to assess depth to groundwater beneath the Site, it was confirmed groundwater is deeper than 108 feet bgs. With the absence of any other sensitive receptors, the Closure Criteria summarized above appears to be the appropriate Closure Criteria for this Site. As documented in the December 2022 *Remediation Work Plan*, final excavation confirmation soil samples were all compliant with the Closure Criteria (Figure 2 and Table 1) and as such, no further actions appear necessary as they relate to this release.

CLOSURE REQUEST



XTO Energy, Inc Closure Request Poker Lake Unit 411

Between September and October 2022, delineation and excavation activities were conducted at the Site to address the presence of impacted soil. Combined, the final excavation extents measured approximately 250 square feet. A total of approximately 13 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Landfill Facility in Hobbs, New Mexico. After the completion of confirmation sampling, the excavation areas were secured with fencing. Confirmation of depth to groundwater beneath the Site exceeding 100 feet bgs and verifying the Closure Criteria indicates remedial actions completed at the Site have been sufficient to address impacted soil resulting from the July 2022 produced water and crude oil release. XTO believes remedial actions have been protective of human health, the environment, and groundwater and as such, XTO respectfully requests no further action for Incident Number NAPP2219646774.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely, **Ensolum, LLC**

Daniel R. Moir, PG Senior Managing Geologist

cc: Garrett Green, XTO Shelby Pennington, XTO Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Remediation Work Plan
Appendix B	Lithologic / Soil Sampling Log

ashley L. ager

Ashley L. Ager, M.S., P.G. Program Director





Figures

Received by OCD: 8/22/2023 1:20:35 PM

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Released to Imaging: 2/12/2024 4:32:11 PM



Table

ENSOLUM

	TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Poker Lake Unit 411 XTO Energy, Inc Eddy County, New Mexico													
Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)				
NMOCD Table 1 (Closure Criteria ((NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000				
	Delineation Soil Samples													
SS01	08/18/2022	0.5	<0.00199	<0.00398	<50.0	5,420	1,140	5,420	6,560	2,990				
PH01	09/29/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	253				
\$\$02	08/18/2022	0.5	< 0.00199	< 0.00398	<50.0	3,650	897	3,650	4,550	21,100				
PH02	09/29/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	484				
SS03	08/18/2022	0.5	<0.00202	<0.00404	<50.0	128	<50.0	128	128	19,500				
PH03	09/29/2022	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	33.1				
PH03A	09/30/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	48.9				
PH04	09/29/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	221				
PH04A	09/29/2022	1	<0.00201	<0.00402	<50.0	60.7	<50.0	60.7	60.7	143				
PH04B	09/30/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	290				
SS04	08/18/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	57.9	<49.9	57.9	30.0				
SS05	08/18/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	16.7				
SS06	08/18/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	17.6				
SS07	08/18/2022	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	12.7				
				Exc	cavation Soil San	nples								
FS01	09/30/2022	1 - 2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	156				
FS02	10/12/2022	1	<0.00201	0.00468	<49.9	<49.9	<49.9	<49.9	<49.9	2,460				
SW01	09/30/2022	0 - 2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	93.4				
SW02	09/30/2022	0 - 2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	703				

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria

grey text indicates soil sample removed during excavation activities

GRO: Gasoline Range Organics DRO: Diesel Range Organics ORO: Oil Range Organics TPH: Total Petroleum Hydrocarbon



APPENDIX A

Remediation Work Plan

Released to Imaging: 2/12/2024 4:32:11 PM

ENSOLUM

December 2, 2022

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

Re: Remediation Work Plan Poker Lake Unit 411 Incident Number NAPP2219646774 Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Remediation Work Plan* to address impacted soil at the Poker Lake Unit 411 (Site). Soil was impacted due to a release of crude oil and produced water at the Site. Based on excavation activities and laboratory analytical results, XTO is submitting this Remediation Work Plan describing remediation actions completed to date and proposing to install a soil boring to investigate depth to groundwater to confirm the Closure Criteria for Incident Number NAPP2219646774.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit B, Section 28, Township 24 South, Range 31 East, in Eddy County, New Mexico (32.19312°N, 103.77993°W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On July 8, 2022, sand and hydrocarbon buildup in water meters and a separator caused a flowline to fail, which resulted in the release of 15.84 barrels (bbls) of produced water and 2.37 bbls of crude oil onto the surface of the well pad near active production equipment. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 13.92 bbls of produced water and 2.08 bbls of crude oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on July 15, 2022. The release was assigned Incident Number NAPP2219646774.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to determine 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 desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearby groundwater well data. Based on the desktop review, the closest permitted groundwater well is New Mexico Office of the State Engineer (NMOSE) well C-02021, located approximately 290 feet northwest of the Site, however, depth to groundwater was not recorded. Field

verification is sometimes necessary to measure the distance of the water well from the Site. During the field assessment to verify the location of NMOSE well C-2021, Ensolum verified that the well does not currently exist in the location presented. Ensolum conducted a survey within a 1,000-foot radius of the release and did not identify any water wells.

The next closest permitted well with depth to water data is a soil boring (C-4499) drilled in December 2020 approximately 1.1 miles northwest of the Site. Soil boring C-4499 was drilled to a depth of 110 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activites. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 11,563 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

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

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

SITE ASSESSMENT ACTIVITIES

On August 18, 2022, Ensolum personnel completed a Site assessment to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven delineation soil samples (SS01 through SS07) were collected within and around the release extent from a depth of approximately 0.5 feet bgs. Delineation soil samples SS01 through SS03 were collected within the release extent, and samples SS04 through SS07 were collected around the release extent to confirm the lateral exent. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach[®] chloride QuanTab[®] test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site assessment and a photographic log is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported



at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for delineation soil sample SS01 indicated TPH-GRO/TPH-DRO and TPH concentrations exceed the Closure Criteria. Laboratory analytical results for delineation soil sample SS02 indicated TPH-GRO/TPH-DRO, TPH, and chloride concentrations exceed the Closure Criteria. Laboratory analytical results for delineation soil sample SS03 through SS07 indicated all COC concentrations were compliant with the Closure Criteria. Based on laboratory analytical results for the delineation soil samples, additional delineation and excavation activities were warranted.

DELINEATION AND EXCAVATION ACTIVITIES

Between September 29, 2022 and October 12, 2022, delineation and excavation activities were conducted at the Site to address the presence of impacted soil. Four potholes (PH01 through PH04) were advanced by use of hydrovacuum truck and hand auger. Potholes PH01 and PH02 were advanced to a depth of approximately 1-foot bgs and were collected in the vicinity of delineation soil samples SS01 and SS02, respectively. Pothole PH03 was advanced to a depth of approximately 2 feet bgs and was collected in the vicinity of delineation soil sample SS03. Pothole PH04 was advanced to a depth of approximately 2 feet bgs. Discrete delineation soil samples were collected from each pothole and borehole at depths ranging from 0.5 feet to 2 feet bgs. Soil from all potholes was field screened and handled as described above. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations are depicted on Figure 2.

Impacted soil was excavated from the release area as indicated by laboratory analytical results from the delineation soil samples. Excavation activities were performed by use of a hydrovacuum truck. The excavation occurred around active production equipment on the well pad. To direct excavation activities, Ensolum personnel field screened soil as described above.

Following removal of impacted soil, Ensolum personnel collected 5-point composite soil samples representing 200 square feet from the floor of two separate excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation included two separate areas; impacted soil from delineation soil sample SS01 was removed in the southwestern area of the release extent, and impacted soil from delineation soil sample SS02 was removed in the eastern area of the release extent. Excavation soil sample FS01 was collected from the floor of the southwest excavation area at depths ranging from 1-foot to 2 feet bgs. Excavation soil samples SW01 and SW02 were collected from the sidewall of the southwestern excavation area at depths ranging from ground surface to 2 feet bgs. Excavation soil sample FS02 was collected from the floor of the eastern excavation area at a depth of 1-foot bgs. Due to the shallow depth of the excavation, soil from the sidewalls was incorporated into the floor sample, FS02. All excavation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Combined, the final excavation extents measured approximately 250 square feet. A total of approximately 13 cubic yards of impacted soil was removed during the excavation activities. The



impacted soil was transported and properly disposed of at the R360 Landfill Facility in Hobbs, New Mexico. After the completion of confirmation sampling, the excavation areas were secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all excavation soil samples indicated that all COC concentrations were compliant with the Closure Criteria. Additionally, laboratory analytical results from delineation soil samples PH01 through PH04B and SS04 through SS07, and excavation soil samples FS01, SW01, and SW02 indicate all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

PROPOSED REMEDIATION WORK PLAN

Since the location of soil boring C-4499 is not within the NMOCD preferred ½-mile radius of the Site, XTO proposes to advance a soil boring to a depth of 105 feet bgs to confirm depth to groundwater. The soil boring will be located within ½ mile of the Site and a field geologist will log and describe soils continuously. The soil boring will be left open for over 72 hours to allow for equilibration of groundwater levels within the temporary boring casing. After the 72-hour waiting period, depth to groundwater will be assessed and the soil boring will be backfilled following NMOSE approved procedures. A well record or soil boring log will be included in the follow up Closure Report.

XTO will complete the depth to water soil boring will be completed as soon as possible following approval from the BLM, receipt of the NMOSE drilling permit, and scheduling with a driller.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely, Ensolum, LLC

Dr.J. Dilil

Benjamin J. Belill Project Geologist

cc: Garrett Green, XTO Shelby Pennington, XTO Bureau of Land Management

Appendices:

- Figure 1 Site Location Map
- Figure 2 Delineation Soil Sample Locations
- Table 1Soil Sample Analytical Results

Ashley L. ager

Ashley L. Ager, M.S., P.G. Program Director



- Appendix A Appendix B **Referenced Well Records**
- Photographic Log
- Appendix C
- Lithologic / Soil Sampling Logs Laboratory Analytical Reports & Chain-of-Custody Documentation Appendix D
- Appendix E NMOCD Notifications





FIGURES

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TABLES

ENSOLUM

	TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Poker Lake Unit 411 XTO Energy, Inc Eddy County, New Mexico													
Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)				
NMOCD Table 1 (Closure Criteria ((NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000				
	Delineation Soil Samples													
<u>SS01</u>	08/18/2022	0.5	<0.00199	<0.00398	<50.0	5,420	1,140	5,420	6,560	2,990				
PH01	09/29/2022	4	<0.00201	< 0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	253				
\$\$02	08/18/2022	0.5	<0.00199	<0.00398	<50.0	3,650	897	3,650	4,550	21,100				
PH02	09/29/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	484				
SS03	08/18/2022	0.5	<0.00202	<0.00404	<50.0	128	<50.0	128	128	19,500				
PH03	09/29/2022	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	33.1				
PH03A	09/30/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	48.9				
PH04	09/29/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	221				
PH04A	09/29/2022	1	<0.00201	<0.00402	<50.0	60.7	<50.0	60.7	60.7	143				
PH04B	09/30/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	290				
SS04	08/18/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	57.9	<49.9	57.9	30.0				
SS05	08/18/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	16.7				
SS06	08/18/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	17.6				
SS07	08/18/2022	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	12.7				
		-		Exc	cavation Soil San	nples								
FS01	09/30/2022	1 - 2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	156				
FS02	10/12/2022	1	<0.00201	0.00468	<49.9	<49.9	<49.9	<49.9	<49.9	2,460				
SW01	09/30/2022	0 - 2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	93.4				
SW02	09/30/2022	0 - 2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	703				

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

 $\label{eq:BTEX:Benzene,Toluene,Ethylbenzene,and Xylenes$

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria gray text indicates soil sample removed during excavation activities

GRO: Gasoline Range Organics DRO: Diesel Range Organics ORO: Oil Range Organics TPH: Total Petroleum Hydrocarbon



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

z	OSE POD NO POD1 (M)		WELL TAG ID NO. n/a			OSE FILE NO() C-4499	S).					
CATIO	WELL OWN	ER NAME(S)						PHONE (OPTI	ONAL)					
LLOC	XTO Ener							CITY		STATE		ZIP		
WEL	6401 Holid	lay Hill D	r.					Midland		ТХ	79707			
GENERAL AND WELL LOCATION	WELL LOCATIO	ON LA	DI	egrees minutes seconds 32° 12' 15.89" _N				• ACCURACY	REQUIRED: ONE TEN	TH OF A SE	COND			
NERA	(FROM GF	2S)		-103°	47'	36.	29" W	* DATUM REG	QUIRED: WGS 84					
1. GE	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHJIP, RANGE) WHERE AVAILABLE SE NE Sec. 20 T24S R31E													
	LICENSE NO. NAME OF LICENSED DRILLER NAME OF WELL DRILLING COMPANY 1249 Jackie D. Atkins Atkins Engineering Associates, Inc.													
	DRILLING S 12/30/		DRILLING ENDED 12/30/2020		MPLETED WELL (FI ary well materia			le depth (ft) 110	DEPTH WATER FIRS	ST ENCOUI n/a	NTERED (FT)			
z	COMPLETE	D WELL IS:		🖌 DRY HOI	E 🗍 SHALLO	W (UNCO)NFINED)		STATIC WATER LEV	/EL IN COM n/a	APLETED WE	LL (FT)		
ATIO	DRILLING F	LUID:	🗹 AIR	MUD	ADDITIV	ES – SPE			• • • •					
ORM	DRILLING N		ROTARY	HAMMER CABLE TOOL OTHER - SPECIFY:			Hollow Stem Auger			1				
2. DRILLING & CASING INFORMATION	DEPTH FROM	(feet bgl) TO	BORE HOLE DIAM (inches)	(include each casing string, and T			ASING NECTION TYPE	CASING INSIDE DIAM. (inches)	THIC	NG WALL CKNESS Inches)	SLOT SIZE (inches)			
¢ CAS	0	110	±8.5	_	sections of screen) Boring- HSA		(add coup	ling diameter)						
P Su														
RILL														
2. D														
<u> </u>		(feet bgl)	BORE HOLE	<u> </u>	ST ANNULAR SI		TEPIAT		AMOUNT		метно			
F	FROM	TO	DIAM. (inches)		VEL PACK SIZE				(cubic feet)		PLACEN			
TER														
K MA			-											
ILAR							<u> </u>	<u> </u>						
ANNULAR MATERIAL												·		
3.4														
		l		<u> </u>										
	E NO.	NAL USE	499		POD NO).	1	WR-2	NO.		Version 06/3	0/17)		
	CATION		/	15.31	E.20.2		5	WELL TAG I	000	-		1 OF 2		

	DEPTH (: FROM	feet bgl) TO	THICKNESS (feet)	INCLUDE WATER-		IES OR H	FRACTURE ZON	ES	WATE BEARIN	G?	ESTIMATED YIELD FOR WATER-
	FROM	10		(attach supple	emental sheets to f	ully desc	ribe all units)		(YES/N	(0)	BEARING ZONES (gpm)
	0	6	6	SAND, well grade	d, fine-to-large gra	uin particl	es red-brown, dry		¥,	/ N	
	6	8	2	SAND, poorly graded, fin	e grained little clay	y mod. pla	asitcity, red-brown	, moist	Y,	N	
	8	11	3	CALICHE, mod. consoli	dated, some sand,	medium /	fine grain, white-ta	in, dry	Y v	/ N	
	11	46	35	CALICHE, mod. consolid	ated, some sand, m	edium to	fine grain, white-	an, dry.	Y۱	N	
	46	74	28	SAND, well-graded, me	dium grain,caliche	gravel (1-	-4mm), light brow	n, dry.	Y	/ N	
Н	74	110	36	SAND, well-graded, f	ine/large grain, few	⁷ clay, coł	nesive, red-brown,	dry	Y,	/ N	
4. HYDROGEOLOGIC LOG OF WELL									Y	N	
OF									Y	N	
93									Y	N	
BIC									Y	N	
I O									Y	N	
GEO									Y	N	
BR0									Y	N	
HX									Y	N	
4									Y	N	
									Y	N	
									Y	N	
									Y	N	
									Y	N	
									Y	N	
									Y	N	
	METHOD U	ISED TO ES	STIMATE YIELI	OF WATER-BEARING S	STRATA:				AL ESTIMA		
	PUM	Р 🔲 А	IR LIFT	BAILER OTHE	ER – SPECIFY:			WEI	L YIELD (;	gpm):	0.00
NOIS	WELL TES			ACH A COPY OF DATA ME, AND A TABLE SHO							
TEST; RIG SUPERVISI	MISCELLA	NEOUS INI	fe	emporary well materials et below ground surface ogs adapted from WSP o	, then hydrated b	soil bor entonite	ing backfilled us chips from ten f	ing dril eet belo	l cuttings fr w ground s	rom tot urface	al depth to ten to surface.
TEST	PRINT NAM	AE(S) OF D	RILL RIG SUPE	VISOR(S) THAT PROVI	DED ONSITE SUI	PERVISIO	ON OF WELL CO	NSTRU	CTION OTH	IER TH	AN LICENSEE:
5.7	Shane Eldri	dge									
TURE	CORRECT	RECORD O	F THE ABOVE I	FIES THAT, TO THE BES DESCRIBED HOLE AND 30 DAYS AFTER COMPL	THAT HE OR SH	E WILL I	FILE THIS WELI	LIEF, T RECOR	HE FOREGO	OING I HE STA	S A TRUE AND ATE ENGINEER
SIGNATURE	Jack A	tkins		Jacki	e D. Atkins				01/15/2	2021	
و		SIGNAT	URE OF DRILLI	ER / PRINT SIGNEE NA	ME				D	ATE	
FO	R OSE INTER						<u>WR-20</u> W	<u>ell re</u>	CORD & LO) <u>G (</u> Vei	rsion 06/30/2017)
	E NO.		1499	P	POD NO.	1	TRN NO.	U	825		
LO	CATION					v	VELL TAG ID NO				PAGE 2 OF 2
							Q	SEDI	I JAN 27	2021	рм3:34



APPENDIX B

Photographic Log

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APPENDIX C

Lithologic Soil Sampling Logs

•

								Sample Name: PH01	Date: 9/29/2022
					Ο		Μ	Site Name: Poker Lake Unit 41:	
					Engineer			Incident Number: nAPP221964	.6774
		Hydr	oge	ologic (Consultar	nts		Job Number: 03E1558096	
		LITHOL	OGI	C / SOIL S	SAMPLING	i LOG		Logged By: CW	Method: Hydrovac
Coord	linates: 32	2.19312,-	103.7	7993				Hole Diameter: 6"	Total Depth: 1'
			-		ith HACH Ch l to distilled	Strips and	PID for chloride and vapor, resp	pectively. Chloride test	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic I	Descriptions
М	5,062	9.4	Y	SS01	0.5	0	CCHE (fill)	0-1', CALICHE, moist, ligh consolidated, light bro no odor, fill.	t brown-tan, poorly wn surface staining,
Μ	414	0.0	Ν	PH01	1 _	_ 1	TD	<u>@ 1', no stain, no odor.</u> Total Depth at 1-foot bgs	i.
					-	2			
					-	- -			
						3			
					-	4			
					-	- 5			
					-	- 6			
					-	-			
					-	7			
					-	8			
					-	9			
					- - -	- 			
					-	- 10			
					- - -	11			
					-	- 12			

•

								Sample Name: PH02	Date: 9/29/2022
			N		0	LU	Μ	Site Name: Poker Lake Unit 41	
		Envii	ronr	nental,	Engineer	ing and		Incident Number: nAPP221964	16774
		Hydr	oge	ologic (Consultai	nts		Job Number: 03E1558096	
		LITHOL	OGI	C / SOIL S	SAMPLING	i log		Logged By: CW	Method: Hydrovac
Coor	dinates: 32	2.19312,-	103.7	7993				Hole Diameter: 6"	Total Depth: 1'
			-		vith HACH Ch il to distilled		Strips and	PID for chloride and vapor, res	pectively. Chloride test
penc	onneu witi	1 1.4 unu			ii to distilled	water.			
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Descriptions
Μ	19,790	2.5	Y	SS02	0.5	0 	CCHE (fill)	0-1', CALICHE, moist, ligh consolidated, light bro no odor, fill.	It brown-tan, poorly wn surface staining,
М	520	0.0	Ν	PH02	1 _	1	TD	@ 1', no stain, no odor. Total Depth at 1-foot bgs	
					-	-			
					-	2			
					-				
					_				
					-	3			
					-	-			
					_	4			
						- 4			
					-	_			
					-	5			
					-	-			
					_	6			
					-	-			
					-	7			
					-	-			
					_	-			
					_	8			
					-	-			
					-	9			
					-				
					-	-			
					-	10			
					-	-			
					-	11			
						_ 11			
					_	-			
					-	12			

•

								Sample Name: PH03	Date: 9/29/22 - 9/30/22
				1 2	0	LU	Μ	Site Name: Poker Lake Unit 411	
	2				Enginee			Incident Number: nAPP2219646	
		Hydi	roge	eologic	Consulta	nts		Job Number: 03E1558096	
		LITHOL	.OGI	C / SOIL	SAMPLING	G LOG		Logged By: CW	Method: Hydrovac
	rdinates: 3							Hole Diameter: 6"	Total Depth: 2'
			-		vith HACH Cl il to distilled		Strips and	PID for chloride and vapor, resp	ectively. Chloride test
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic D	escriptions
М	24,035	1.3	Ν	SS03	0.5	0 	CCHE (fill)	0-1', CALICHE, moist, light consolidated, no stain,	: brown-tan, poorly no odor, fill.
М	<168	0.0	N	PH03	1	1	SP	1'-2', SAND, moist, reddisl fine grain, trace caliche odor	h brown, poorly graded gravel, no stain, no
М	<168	0.0	Ν	PH03A	2	2			
					-	-	TD	Total depth at 2 feet bgs.	
					-	-			
					_	3			
					_	_			
					-	4			
					-	-			
					-	-			
					-	_ 5			
					_	-			
					-	6			
					-	-			
					_	-			
					-	7			
					-	-			
					-	8			
					-	-			
1					-	<u></u>			
					-	9			
1					-	-			
					-	10			
1									
					-	-			
1					-	11			
					-	-			
1					-	12			
•

									Sample Name: PH04	Date: 9/29/22 - 9/30/22
				N		ΟΙ			Site Name: Poker Lake Unit 411	
						Engineer			Incident Number: nAPP2219646	774
			Hydr	oge	ologic C	Consultar	nts		Job Number: 03E1558096	
			LITHOL	OGI	C / SOIL S	SAMPLING	i log		Logged By: CW	Method: Hand Auger
			2.19312,-						Hole Diameter: 3.5"	Total Depth: 2'
				-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respe	ctively. Chloride test
Moisture	Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	
N	1	<168	0.0	N	PH04	0.5	L 0	CCHE (fill)	0-1', CALICHE, moist, light consolidated, no stain, r	brown-tan, poorly 10 odor, fill.
N	1	<168	0.0	N	PH04A	1 _	1 1	SP	1'-2', SAND, moist, reddish fine grain, trace caliche g odor	
N	1	<168	0.0	Ν	PH04B	2	2			
						-	-	TD	Total depth at 2 feet bgs.	
						_	-			
						_	3			
							-			
						-	4			
						-				
						-	-			
						_	5			
						-	-			
						-	6			
						-	0			
						-	_			
							7			
						-	-			
						-	-			
						_	8			
						_	- -			
						-	9			
						-	-			
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						-	10			
						-	-			
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							12			



APPENDIX D

Laboratory Analytical Reports & Chain-of-Custody Documentation

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LINKS

Review your project results through

EOL

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2783-1

Laboratory Sample Delivery Group: 03E1558096 Client Project/Site: PLU 411

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 9/2/2022 10:48:23 AM Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com

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

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

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	Definitions/Glossary		
Client: Ensolum Project/Site: PL	1	Job ID: 890-2783-1 SDG: 03E1558096	2
Qualifiers			3
GC VOA Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VOA			5
Qualifier	Qualifier Description		
F1 S1-	MS and/or MSD recovery exceeds control limits.		
U	Surrogate recovery exceeds control limits, low biased. Indicates the analyte was analyzed for but not detected.		
HPLC/IC			
Qualifier	Qualifier Description		5
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 Not Calculated		
NC ND			
NEG	Not Detected at the reporting limit (or MDL or EDL if shown)		
POS	Negative / Absent 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			

TNTC Too Numerous To Count

.

Case Narrative

Client: Ensolum Project/Site: PLU 411 Job ID: 890-2783-1 SDG: 03E1558096

Job ID: 890-2783-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2783-1

Receipt

The samples were received on 8/18/2022 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 21.6°C

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: SS01 (890-2783-1), SS02 (890-2783-2), SS03 (890-2783-3), SS04 (890-2783-4), SS05 (890-2783-5), SS06 (890-2783-6) and SS07 (890-2783-7). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis. Samples received out of temp range21.8/21.6 client wanted to proceed with testing

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-2789-A-1-E), (890-2789-A-1-F MS) and (890-2789-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-2783-1), SS02 (890-2783-2), SS03 (890-2783-3), SS04 (890-2783-4), SS05 (890-2783-5), SS06 (890-2783-6) and SS07 (890-2783-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-32608 and analytical batch 880-32586 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-32608 and analytical batch 880-32586 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

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Job ID: 890-2783-1 SDG: 03E1558096

Matrix: Solid

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Lab Sample ID: 890-2783-1

Client Sample ID: SS01 Date Collected: 08/18/22 12:35

Client: Ensolum

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Project/Site: PLU 411

Date Received: 08/18/22 16:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/30/22 11:43	08/31/22 20:58	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/30/22 11:43	08/31/22 20:58	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/30/22 11:43	08/31/22 20:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/30/22 11:43	08/31/22 20:58	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/30/22 11:43	08/31/22 20:58	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/30/22 11:43	08/31/22 20:58	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	112		70 - 130			08/30/22 11:43	08/31/22 20:58	1
1,4-Difluorobenzene (Surr)	81		70 - 130			08/30/22 11:43	08/31/22 20:58	1
Method: Total BTEX - Total BTI	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/01/22 12:38	1
Method: 8015 NM - Diesel Rang	ge Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	6560		50.0	mg/Kg			08/23/22 11:36	
		RO) (GC)	50.0	mg/Kg			08/23/22 11:36	
Method: 8015B NM - Diesel Ra	nge Organics (D	<mark>RO) (GC)</mark> Qualifier	50.0 RL	mg/Kg Unit	 D	Prepared	08/23/22 11:36 Analyzed	
Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics	nge Organics (D	Qualifier			D	Prepared 08/22/22 09:31		Dil Fa
Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	nge Organics (D Result	Qualifier	RL	Unit	D		Analyzed	Dil Fac
Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10	nge Organics (D Result <50.0	Qualifier	RL 50.0	<mark>Unit</mark> mg/Kg	<u>D</u>	08/22/22 09:31	Analyzed 08/22/22 17:31	Dil Fac
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	nge Organics (D Result <50.0 5420	Qualifier	RL 50.0 50.0	<mark>Unit</mark> mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 17:31 08/22/22 17:31	Dil Fa
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	nge Organics (D Result <50.0 5420	Qualifier	RL 50.0 50.0	<mark>Unit</mark> mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 17:31 08/22/22 17:31	Dil Fac
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over	nge Organics (D Result <50.0 5420 1140	Qualifier U	RL 50.0 50.0 50.0	<mark>Unit</mark> mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 17:31 08/22/22 17:31 08/22/22 17:31	Dil Fac
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	nge Organics (D) Result <50.0 5420 1140 %Recovery	Qualifier U Qualifier	RL 50.0 50.0 50.0 <i>Limits</i>	<mark>Unit</mark> mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 Prepared	Analyzed 08/22/22 17:31 08/22/22 17:31 08/22/22 17:31 Analyzed	Dil Fa
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	nge Organics (D) <u>Result</u> <50.0 5420 1140 <u>%Recovery</u> 65 81	Qualifier U Qualifier S1-	RL 50.0 50.0 50.0 50.0 50.0 50.0 70 - 130	<mark>Unit</mark> mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 17:31 08/22/22 17:31 08/22/22 17:31 Analyzed 08/22/22 17:31	Dil Fa
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane p-Terphenyl	nge Organics (D) Result <50.0 5420 1140 %Recovery 65 81 aromatography -	Qualifier U Qualifier S1-	RL 50.0 50.0 50.0 50.0 50.0 50.0 70 - 130	<mark>Unit</mark> mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 17:31 08/22/22 17:31 08/22/22 17:31 Analyzed 08/22/22 17:31	Dil Fa
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Ch	nge Organics (D) Result <50.0 5420 1140 %Recovery 65 81 aromatography -	Qualifier U Qualifier S1- Soluble	RL 50.0 50.0 50.0 50.0 70.130 70.130	Unit mg/Kg mg/Kg mg/Kg		08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 17:31 08/22/22 17:31 08/22/22 17:31 Analyzed 08/22/22 17:31 08/22/22 17:31	Dil Fac
Method: 8015B NM - Diesel Rat Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Ch Analyte	nge Organics (D) Result <50.0 5420 1140 %Recovery 65 81 promatography - Result	Qualifier U Qualifier S1- Soluble	RL 50.0 </td <td>Unit mg/Kg mg/Kg mg/Kg</td> <td></td> <td>08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 Prepared 08/22/22 09:31 08/22/22 09:31 Prepared</td> <td>Analyzed 08/22/22 17:31 08/22/22 17:31 08/22/22 17:31 Analyzed Analyzed</td> <td>Dil Fac</td>	Unit mg/Kg mg/Kg mg/Kg		08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 Prepared 08/22/22 09:31 08/22/22 09:31 Prepared	Analyzed 08/22/22 17:31 08/22/22 17:31 08/22/22 17:31 Analyzed Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00199	U	0.00199	mg/Kg		08/31/22 09:38	09/01/22 15:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/31/22 09:38	09/01/22 15:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/31/22 09:38	09/01/22 15:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/31/22 09:38	09/01/22 15:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/31/22 09:38	09/01/22 15:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/31/22 09:38	09/01/22 15:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			08/31/22 09:38	09/01/22 15:40	1
1,4-Difluorobenzene (Surr)	91		70 - 130			08/31/22 09:38	09/01/22 15:40	1

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Released to Imaging: 2/12/2024 4:32:11 PM

Job ID: 890-2783-1 SDG: 03E1558096

Lab Sample ID: 890-2783-2

Lab Sample ID: 890-2783-3

Matrix: Solid

Client Sample ID: SS02 Date Collected: 08/18/22 12:40

Client: Ensolum

Project/Site: PLU 411

Date Received: 08/18/22 16:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/01/22 12:38	1
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4550		50.0	mg/Kg			08/23/22 11:36	1
Method: 8015B NM - Diesel Ran	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/22/22 09:31	08/22/22 17:53	1
GRO)-C6-C10								
Diesel Range Organics (Over	3650		50.0	mg/Kg		08/22/22 09:31	08/22/22 17:53	1
C10-C28)								
Oll Range Organics (Over	897		50.0	mg/Kg		08/22/22 09:31	08/22/22 17:53	1
C28-C36)								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130			08/22/22 09:31	08/22/22 17:53	1
o-Terphenyl	67	S1-	70 - 130			08/22/22 09:31	08/22/22 17:53	1
Method: 300.0 - Anions, Ion Chr	omatography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21100		248	mg/Kg			08/29/22 03:09	50

Client Sample ID: SS03

Date Collected: 08/18/22 12:45

Date Received: 08/18/22 16:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 21:50	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 21:50	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 21:50	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		08/30/22 11:43	08/31/22 21:50	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 21:50	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		08/30/22 11:43	08/31/22 21:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130			08/30/22 11:43	08/31/22 21:50	1
1,4-Difluorobenzene (Surr)	94		70 - 130			08/30/22 11:43	08/31/22 21:50	1
Method: Total BTEX - Total B	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			09/01/22 12:38	1
Method: 8015 NM - Diesel Rar	nge Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Total TPH	128		50.0	mg/Kg			08/23/22 11:36	1
Method: 8015B NM - Diesel Range	Organics (DI	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/22/22 09:31	08/22/22 18:37	1

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Matrix: Solid

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Job ID: 890-2783-1 SDG: 03E1558096

Client Sample ID: SS03 Date Collected: 08/18/22 12:45

Client: Ensolum

Project/Site: PLU 411

Date Received: 08/18/22 16:15

Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC) (C	ontinued)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Diesel Range Organics (Over	128		50.0	mg/Kg		08/22/22 09:31	08/22/22 18:37	
C10-C28) Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/22/22 09:31	08/22/22 18:37	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	63	S1-	70 - 130			08/22/22 09:31	08/22/22 18:37	
o-Terphenyl	65	S1-	70 - 130			08/22/22 09:31	08/22/22 18:37	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	19500		250	mg/Kg			08/29/22 03:17	5
lient Sample ID: SS04						Lab San	nple ID: 890-	2783-
Pate Collected: 08/18/22 12:50							Matri	x: Soli
ate Received: 08/18/22 16:15								
Method: 8021B - Volatile Organic								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200		0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:16	
Toluene	<0.00200		0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:16	
Ethylbenzene		U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:16	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/30/22 11:43	08/31/22 22:16	
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:16	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/30/22 11:43	08/31/22 22:16	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	104		70 - 130			08/30/22 11:43	08/31/22 22:16	
1,4-Difluorobenzene (Surr)	89		70 - 130			08/30/22 11:43	08/31/22 22:16	
Method: Total BTEX - Total BTEX	Calculation							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399	mg/Kg			09/01/22 12:38	
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	57.9		49.9	mg/Kg			08/23/22 11:36	
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 18:59	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 18:59	
Oll Range Organics (Over C28-C36)	57.9		49.9	mg/Kg		08/22/22 09:31	08/22/22 18:59	
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil F
1-Chlorooctane	64	S1-	70 - 130			08/22/22 09:31	08/22/22 18:59	
o-Terphenyl	73		70 - 130			08/22/22 09:31	08/22/22 18:59	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed	Dil Fa

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Lab Sample ID: 890-2783-3 Matrix: Solid 5

Released to Imaging: 2/12/2024 4:32:11 PM

9/2/2022

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Job ID: 890-2783-1 SDG: 03E1558096

Client Sample ID: SS05 Date Collected: 08/18/22 12:55

Client: Ensolum

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Project/Site: PLU 411

Date Received: 08/18/22 16:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/30/22 11:43	08/31/22 22:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 22:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/30/22 11:43	08/31/22 22:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/30/22 11:43	08/31/22 22:42	1
1,4-Difluorobenzene (Surr)	93		70 - 130			08/30/22 11:43	08/31/22 22:42	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			09/01/22 12:38	1
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/23/22 11:36	1
			50.0	mg/Kg			08/23/22 11:36	1
Method: 8015B NM - Diesel Rang	ge Organics (D		50.0 RL	mg/Kg Unit	 D	Prepared	08/23/22 11:36 Analyzed	
Method: 8015B NM - Diesel Rang Analyte	ge Organics (D	RO) (GC) Qualifier			D	Prepared 08/22/22 09:31		Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	ge Organics (D	RO) (GC) Qualifier	RL	Unit	D		Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D	RO) (GC) Qualifier U	RL	Unit	<u>D</u>		Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (D 	RO) (GC) Qualifier U	RL 50.0 50.0	Unit mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 19:20 08/22/22 19:20	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (D Result <50.0	RO) (GC) Qualifier U	RL 50.0	Unit mg/Kg	<u>D</u>	08/22/22 09:31	Analyzed 08/22/22 19:20	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (D 	RO) (GC) Qualifier U	RL 50.0 50.0	Unit mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 19:20 08/22/22 19:20	1 1 1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	ge Organics (D Result <50.0 <50.0 <50.0	RO) (GC) Qualifier U U U	RL 50.0 50.0 50.0	Unit mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 19:20 08/22/22 19:20 08/22/22 19:20	1
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	ge Organics (D) Result <50.0 <50.0 <50.0 <50.0 %Recovery 49	RO) (GC) Qualifier U U Qualifier	RL 50.0 50.0 50.0 <i>Limits</i>	Unit mg/Kg mg/Kg	<u>D</u>	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 Prepared	Analyzed 08/22/22 19:20 08/22/22 19:20 08/22/22 19:20 Analyzed	Dil Fac 1 1 1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	ge Organics (D) Result <50.0 <50.0 <50.0 <50.0 %Recovery 49 58	RO) (GC) Qualifier U U U Qualifier S1- S1-	RL 50.0 50.0 50.0 50.0 50.0 70.130	Unit mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 19:20 08/22/22 19:20 08/22/22 19:20 Analyzed 08/22/22 19:20	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	ge Organics (D) Result <50.0	RO) (GC) Qualifier U U U Qualifier S1- S1-	RL 50.0 50.0 50.0 50.0 50.0 70.130	Unit mg/Kg mg/Kg	D	08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31 08/22/22 09:31	Analyzed 08/22/22 19:20 08/22/22 19:20 08/22/22 19:20 Analyzed 08/22/22 19:20	Dil Fac

Date Collected: 08/18/22 13:00 Date Received: 08/18/22 16:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 23:07	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 23:07	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 23:07	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/30/22 11:43	08/31/22 23:07	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/30/22 11:43	08/31/22 23:07	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/30/22 11:43	08/31/22 23:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			08/30/22 11:43	08/31/22 23:07	1
1,4-Difluorobenzene (Surr)	94		70 - 130			08/30/22 11:43	08/31/22 23:07	1

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 Lab Sample ID: 890-2783-5 Matrix: Solid
 3

 4
 4

 Sol 22 11:43
 Analyzed 08/31/22 22:42
 Dil Fac 1

Job ID: 890-2783-1 SDG: 03E1558096

Lab Sample ID: 890-2783-6

Client Sample ID: SS06 Date Collected: 08/18/22 13:00

Client: Ensolum

Project/Site: PLU 411

Date Received: 08/18/22 16:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			09/01/22 12:38	1
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/23/22 11:36	1
Method: 8015B NM - Diesel Rang	e Organics (DI	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 19:42	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 19:42	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 19:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	52	S1-	70 - 130			08/22/22 09:31	08/22/22 19:42	1
o-Terphenyl	61	S1-	70 - 130			08/22/22 09:31	08/22/22 19:42	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.6		5.05	mg/Kg			08/29/22 03:56	1

Client Sample ID: SS07

Date Collected: 08/18/22 13:05

Date Received: 08/18/22 16:15

Method: 8021B - Volatile Organ	nic Compounds ((GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/30/22 11:43	08/31/22 23:33	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/30/22 11:43	08/31/22 23:33	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/30/22 11:43	08/31/22 23:33	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		08/30/22 11:43	08/31/22 23:33	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/30/22 11:43	08/31/22 23:33	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		08/30/22 11:43	08/31/22 23:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/30/22 11:43	08/31/22 23:33	1
1,4-Difluorobenzene (Surr)	96		70 - 130			08/30/22 11:43	08/31/22 23:33	1

Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			09/01/22 12:38	1
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/23/22 11:36	1
Method: 8015B NM - Diesel Ran	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 20:04	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 20:04	1
C10-C28)								

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Matrix: Solid

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Lab Sample ID: 890-2783-7

Matrix: Solid

Client: Ensolum Project/Site: PLU 411

Client Sample ID: SS07

SDG: 03E1558096

Lab Sample ID: 890-2783-7

Date Collected: 08/18/22 13:05 Date Received: 08/18/22 16:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/22/22 09:31	08/22/22 20:04	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	44	S1-	70 - 130			08/22/22 09:31	08/22/22 20:04	
o-Terphenyl	48	S1-	70 - 130			08/22/22 09:31	08/22/22 20:04	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	12.7		4.97	mg/Kg			08/29/22 04:04	

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Job ID: 890-2783-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

Percent Surrogate Recovery (Acceptance Limits) BFB1 DFBZ1 (70-130) (70-130) Lab Sample ID **Client Sample ID** 880-18581-A-1-K MS Matrix Spike 102 114 880-18581-A-1-L MSD Matrix Spike Duplicate 109 97 880-18581-A-21-E MS Matrix Spike 101 104 880-18581-A-21-F MSD Matrix Spike Duplicate 110 108 890-2783-1 SS01 81 112 890-2783-2 SS02 120 91 890-2783-3 SS03 94 130 SS04 89 890-2783-4 104 890-2783-5 SS05 111 93 890-2783-6 SS06 109 94 890-2783-7 SS07 116 96 LCS 880-33353/1-A 107 106 Lab Control Sample LCS 880-33416/1-A Lab Control Sample 122 105 LCSD 880-33353/2-A Lab Control Sample Dup 101 101 102 LCSD 880-33416/2-A Lab Control Sample Dup 106 MB 880-33353/5-A Method Blank 74 82 MB 880-33416/5-A Method Blank 77 80 Surrogate Legend BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) (70-130) Lab Sample ID **Client Sample ID** 890-2783-1 SS01 65 S1-81 890-2783-2 SS02 67 S1-70 890-2783-3 SS03 63 S1-65 S1-890-2783-4 SS04 64 S1-73 890-2783-5 SS05 49 S1-58 S1-890-2783-6 SS06 52 S1-61 S1-SS07 890-2783-7 44 S1-48 S1-890-2789-A-1-F MS Matrix Spike 72 67 S1-890-2789-A-1-G MSD Matrix Spike Duplicate 62 S1-58 S1-LCS 880-32608/2-A Lab Control Sample 72 74 91 LCSD 880-32608/3-A Lab Control Sample Dup 86 MB 880-32608/1-A Method Blank 63 S1-68 S1-

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Job ID: 890-2783-1 SDG: 03E1558096

Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 33353

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Project/Site: PLU 411 Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Analysis Batch: 33469

Client: Ensolum

Analysis Batch: 33469							Prep Batch	n: 33353
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 20:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 20:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 20:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/30/22 11:43	08/31/22 20:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/30/22 11:43	08/31/22 20:07	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/30/22 11:43	08/31/22 20:07	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130			08/30/22 11:43	08/31/22 20:07	1
1,4-Difluorobenzene (Surr)	82		70 - 130			08/30/22 11:43	08/31/22 20:07	1

Lab Sample ID: LCS 880-33353/1-A Matrix: Solid

Analysis Batch: 33469

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1114		mg/Kg		111	70 - 130	
Toluene	0.100	0.1082		mg/Kg		108	70 - 130	
Ethylbenzene	0.100	0.1049		mg/Kg		105	70 - 130	
m-Xylene & p-Xylene	0.200	0.2121		mg/Kg		106	70 - 130	
o-Xylene	0.100	0.1197		mg/Kg		120	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-33353/2-A

Matrix: Solid

Analysis Batch: 33469							Prep	Batch:	33353
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09634		mg/Kg		96	70 - 130	14	35
Toluene	0.100	0.09803		mg/Kg		98	70 - 130	10	35
Ethylbenzene	0.100	0.09504		mg/Kg		95	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1926		mg/Kg		96	70 - 130	10	35
o-Xylene	0.100	0.1063		mg/Kg		106	70 - 130	12	35

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

Lab Sample ID: 880-18581-A-21-E MS

Matrix: Solid

Analysis Batch: 33469									Prep	Batch: 33353
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.101	0.1065		mg/Kg		105	70 - 130	
Toluene	<0.00199	U	0.101	0.1017		mg/Kg		101	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client: Ensolum

Project/Site: PLU 411

QC Sample Results

Job ID: 890-2783-1 SDG: 03E1558096

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

Prep Batch: 33363 Prep Batch: 33363 Result Qualifier Added Result Qualifier Vinte Limits Note: Colspan="2">Prep Batch: 33363 Note: Colspan="2">Colspan="2">Name: Colspan="2">Splite Winte Note: Colspan="2">Colspan="2">Note: Colspan="2">Colspan="2">Name: Colspan="2">Splite Note: Colspan="2">Colspan="2">Splite Note: Colspan="2">Colspan="2" Note: Colspan="2">Note: Colspan="2" Note: Colspan="2" Note: Colspan="2" Note: Colspan="2" Note: Colspan="2" Note: Colspan="2" Splite Limits Splite Colspan="2" Splite Colspan="2" Splite Colspan="2" Splite Colspan="2" Splite Colspan="2" Splite Colspan="2" Splite <th< th=""><th>ab Sample ID: 880-18581-A-2</th><th>21-E MS</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Client S</th><th>Sample ID:</th><th></th><th></th></th<>	ab Sample ID: 880-18581-A-2	21-E MS								Client S	Sample ID:		
Sample Spike MS MS MR	Matrix: Solid												
Natyle Result Qualifier Added Result Qualifier Unit D %Rec Limits Emplorazene <0.00199 U 0.101 0.09276 mgKg 9.2 70.130 xXplene <0.00199 U 0.101 0.1040 mgKg 9.2 70.130 xXplene <0.00199 U 0.101 0.1040 mgKg 9.03 70.130 xRecovery V Vallifer Limits Limits Freemonits Freemonits <th>Analysis Batch: 33469</th> <th></th> <th>_</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Batch:</th> <th>33353</th>	Analysis Batch: 33469		_									Batch:	33353
Ethybenzene -0.00199 U 0.101 0.09276 mg/kg 92 70.130 x-Sylene -0.00398 U 0.202 0.1866 mg/kg 92 70.130 x-Sylene -0.00399 U 0.101 0.1040 mg/kg 103 70.130 MS MS MS MS MS MS MS MS Surrogate			•		-								
h-Xylene <0.00398 U	-			ier			Qualifier						
Scholene -0.00199 U 0.101 0.104 mg/kg 103 70.130 Surrogate 340ecovary Personalluorobenzene (Surr) MS MS MS 1,4-Difluorobenzene (Surr) 104 70.130 70.130 70.130 Lab Sample ID: 880-18581-A.21-F MSD Matrix: Solid Analysis Batch: 33469 Sample Sample Sample Sample Solid Matrix: Solid Analysis Batch: 33469 MSD MSD %Rec Warr Prop Type: Total/MV Prop Batch: 3335 Nalyte Result Qualifier Added Main/secone 0.00199 0.100 0.1198 mg/kg 110 70.130 8 33 Foluene <0.00199													
MS MS MS Surrogate SRecovery L+Dimulorobenzene (Surr) 101 70 - 130 Lab Sample DI: 880-18581-A-21-F MSD Client Sample ID: Matrix Spike Duplicate Matrix: Solid Prep Type: Total/M/ Prep Batch: 33459 Analyte Result Qualifier Added Result Qualifier Unit D %Rec RPD Singles Sample Spike MSD MSD Sec RPD Limits Analyte Result Qualifier Added Result Qualifier Unit D %Rec RPD Limits Singles Somple Singles Spike MSD MSD Singles RPD Limits Singles 0.0019 0.100 0.1134 mg/Kg 101 70.130 8 3 Skylene <0.00190	n-Xylene & p-Xylene	<0.00398	U		0.202	0.1866		mg/Kg		92	70 - 130		
Surrogate %Recovery Qualifier Limits 14-Bromdhuorobenzene (Surr) 101 70 - 130 14-Bromdhuorobenzene (Surr) 104 70 - 130 Lab Sample ID: 80-18561-A-21-F MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/MV Prep Batch: 33469 Analysis Batch: 33469 Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec RPD Sample Sample Sample Spike MSD MSD WSD %Rec RPD Limits Sample Sample Solid 0.0100 0.1162 mg/Kg 101 70.130 8 33 Strybenzene <0.00398	o-Xylene	<0.00199 1	U		0.101	0.1040		mg/Kg		103	70 - 130		
Herromofluorobenzene (Surr) 107 70 - 130 1,4 - Difuorobenzene (Surr) 104 70 - 130 Lab Sample ID: 880-18581-A21-F MSD Client Sample ID: Matrix Spike Duplication Matrix: Solid Sample Sample Analycis Batch: 33469 Sample Sample Sample ID: 880-18581-A21-F MSD Client Sample ID: Matrix Spike Duplication Matrix: Solid Analycis Sample Analyce Result Qualifier Added Sample Sample ID: Matrix Spike Duplication NSD Signed NSD MSD Surgete <0.00199		MS	мs										
1,4-Difluorobenzene (Surr) 104 70 - 130 Lab Sample ID: 880-18581-A-21-F MSD Matrix: Solid Client Sample ID: Matrix Spike Duplicate Prep Type: Total/N/ Prep Batch: 33469 Analysis Batch: 33469 Sample Sample Added Spike MSD MSD MSD MSD Vike Composition (Surri) Prep Batch: 33435 Analysis Batch: 33499 Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limits Servere <0.00199 U 0.100 0.100 0.1011 mg/Kg 101 70.130 9 33 Stylene & <0.00199 U 0.100 0.100 0.1011 mg/Kg 101 70.130 9 33 Stylene & <0.00199 U 0.100 0.1014 mg/Kg 101 70.130 9 33 Surrogate %SD MSD MSD Surrogate Solid 70.130 70.130 70.130 70.130 714 70.130 70.130 Analyte Mesuitaria Matrix: Solid Matrix: Solid Matrix: Solid Matrix: Solid Prep Batch: 33416 Analyte Result Qualifier RL Unit D Prepa	Surrogate	%Recovery	Qualií	fier	Limits								
Lab Sample ID: 880-18581-A-21-F MSD Client Sample ID: Matrix Spike Duplication Matrix: Solid Analysis Batch: 33469 Sample Sample Spike MSD MSD Skee Rep Type: Total/NL Prep Batch: 33352 Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limits Server < 0.00199	4-Bromofluorobenzene (Surr)	101			70 - 130								
Matrix: Solid Analysis Batch: 33469 Sample Sample Sample Spike MSD MSD <td>1,4-Difluorobenzene (Surr)</td> <td>104</td> <td></td> <td></td> <td>70 - 130</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1,4-Difluorobenzene (Surr)	104			70 - 130								
Matrix: Solid Analysis Batch: 33469 Sample Sample Sample Spike MSD MSD <td>Lab Sample ID: 880-18581-A-;</td> <td>21-F MSD</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>(</td> <td>Clien</td> <td>t Sample ID:</td> <td>Matrix Sp</td> <td>ike Dur</td> <td>olicate</td>	Lab Sample ID: 880-18581-A-;	21-F MSD						(Clien	t Sample ID:	Matrix Sp	ike Dur	olicate
Malysis Batch: 33469 Sample Spike MSD MSD Prep Batch: 33352 Analyte Result Qualifier Added Result Qualifier MisD MSD %Rec RPI Senzene <0.00199	Matrix: Solid												
Sample Sample Spike MSD MSD %Rec RPI Analyte Result Qualifier Added Result Qualifier Unit D %Rec Linit RPD Linit Benzene <0.00199													
Benzene < 0.00199 U 0.100 0.1162 mg/Kg 116 70 - 130 9 33 Foluene < 0.00199		Sample 9	Samp	le	Spike	MSD	MSD						RPD
Toluene < 0.00199 U 0.100 0.1098 mg/Kg 110 70.130 8 33 Ethylbenzene < 0.00199	Analyte	Result	Qualif	lier	Added	Result	Qualifier	Unit		D %Rec	Limits	RPD	Limit
Ethylbenzene < 0.00199 U 0.100 0.1011 mg/Kg 101 70.130 9 33 m-Xylene & p-Xylene < 0.00398	Benzene	<0.00199	U		0.100	0.1162		mg/Kg			70 - 130	9	35
n-Xylene & p-Xylene 	Toluene	<0.00199	U		0.100	0.1098				110	70 - 130	8	35
n-Xylene & p-Xylene 	Ethylbenzene	<0.00199	U		0.100	0.1011		mg/Kg		101	70 - 130	9	35
Sylene <0.00199 U 0.100 0.1134 mg/Kg 113 70.130 9 33 Surrogate %Recovery H=Bromofluorobenzene (Surr) 110 70.130 <t< td=""><td>m-Xylene & p-Xylene</td><td></td><td></td><td></td><td>0.200</td><td></td><td></td><td></td><td></td><td></td><td>70 - 130</td><td>8</td><td>35</td></t<>	m-Xylene & p-Xylene				0.200						70 - 130	8	35
Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 110 70 - 130 1,4-Difluorobenzene (Surr) 108 70 - 130 Lab Sample ID: MB 880-33416/5-A Matrix: Solid Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 33496 Analysis Batch: 33496 MB Prepared Analyzed Dil Fai Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fai Senzene <0.00200	p-Xylene												35
Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 110 70 - 130 1,4-Difluorobenzene (Surr) 108 70 - 130 Lab Sample ID: MB 880-33416/5-A Matrix: Solid Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 33496 Analysis Batch: 33496 MB Prepared Analyzed Dil Fai Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fai Senzene <0.00200		MSD	MSD										
H-Bromofluorobenzene (Surr) 110 70 - 130 1,4-Difluorobenzene (Surr) 108 70 - 130 Lab Sample ID: MB 880-33416/5-A Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA Analysis Batch: 33496 MB Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fai Genzene <0.00200	Surrogate			fier	Limits								
Client Sample ID: MB 880-33416/5-A Matrix: Solid Prep Type: Total/NA Analysis Batch: 33496 MB Manalyte Result Qualifier RL Unit D Prepared Analyzed Dil Fax Benzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Out Followne <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Out Toluene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Out Thylene & p-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Out Sylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Out Nylenes, Total MB MB MB Dilt Dilt <thd< td=""><td>4-Bromofluorobenzene (Surr)</td><td>110</td><td></td><td></td><td>70 - 130</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thd<>	4-Bromofluorobenzene (Surr)	110			70 - 130								
Matrix: Solid Analysis Batch: 33496 Prep Type: Total/NA Prep Batch: 33416 MB MB MB Prep Batch: 33416 Prep Batch: 33416 Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fau Senzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau Foluene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau Ethylbenzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & p-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & p-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & co.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & co.00200 U 0.00400 mg/Kg 08/31/22 09:38 09/	1,4-Difluorobenzene (Surr)	108			70 - 130								
Matrix: Solid Analysis Batch: 33496 Prep Type: Total/NA Prep Batch: 33416 MB MB MB Prep Batch: 33416 Prep Batch: 33416 Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fau Senzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau Foluene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau Ethylbenzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & p-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & p-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & co.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Dil Fau -x-Xylene & co.00200 U 0.00400 mg/Kg 08/31/22 09:38 09/	Lab Sample ID: MB 880-33416	6/ 5-A								Client Sa	ample ID: N	/lethod	Blank
Malysis Batch: 33496 MB MB Malyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00200	Matrix: Solid												
MB MB Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00200	Analysis Batch: 33496												
Benzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Toluene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Ethylbenzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 m-Xylene & p-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 o-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 o-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 o-Xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Kylenes, Total <0.00400 U 0.00400 mg/Kg 08/31/22 09:38 09/01/22 11:24 MB MB MB Dil Fait 4-Bromofluorobenzene (Surr) 77 70 - 130 Analyzed 09/01/22 11	-		мв Г	мв									
Foluene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Ethylbenzene <0.00200	Analyte	Re	sult (Qualifier	RI	-	Unit		D	Prepared	Analyze	ed	Dil Fac
Ethylbenzene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 m-Xylene & p-Xylene <0.00400	Benzene	<0.002	200	U	0.00200	<u>,</u>	mg/K	g	(08/31/22 09:38	09/01/22 1	1:24	1
M-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 08/31/22 09:38 09/01/22 11:24 o-Xylene <0.00200	Toluene	<0.002	200	U	0.00200)			()8/31/22 09:38	09/01/22 1	1:24	1
M-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 08/31/22 09:38 09/01/22 11:24 o-Xylene <0.00200	Ethylbenzene	<0.002	200	U	0.00200)	mg/K	g	()8/31/22 09:38			1
xylene <0.00200 U 0.00200 mg/Kg 08/31/22 09:38 09/01/22 11:24 Additional state Kylenes, Total MB MB MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fau 4-Bromofluorobenzene (Surr) 77 70 - 130 70 - 130 08/31/22 09:38 09/01/22 11:24 Dil Fau	m-Xylene & p-Xylene	<0.004	400	U	0.00400))8/31/22 09:38	09/01/22 1	1:24	1
Kylenes, Total <0.00400 U 0.00400 mg/Kg 08/31/22 09:38 09/01/22 11:24 MB MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Factor 4-Bromofluorobenzene (Surr) 77 70 - 130 08/31/22 09:38 09/01/22 11:24	p-Xylene										09/01/22 1	1:24	1
Surrogate%RecoveryQualifierLimitsPreparedAnalyzedDil Factoria4-Bromofluorobenzene (Surr)7770 - 13008/31/22 09:3809/01/22 11:2409/01/22 11:24	Xylenes, Total	<0.004	400	U	0.00400)			()8/31/22 09:38	09/01/22 1	1:24	1
4-Bromofluorobenzene (Surr) 77 70 - 130 08/31/22 09:38 09/01/22 11:24			мв	МВ									
4-Bromofluorobenzene (Surr) 77 70 - 130 08/31/22 09:38 09/01/22 11:24	Surrogate	%Recov	ery (Qualifier	Limits					Prepared	Analyze	ed	Dil Fac
1,4-Difluorobenzene (Surr) 80 70 - 130 08/31/22 09:38 09/01/22 11:24	4-Bromofluorobenzene (Surr)				70 - 130	-				08/31/22 09:38	09/01/22 1	11:24	1
	1,4-Difluorobenzene (Surr)		80		70 - 130				(08/31/22 09:38	09/01/22 1	11:24	1

Analysis Batch: 33496

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1121		mg/Kg		112	70 - 130	
Toluene	0.100	0.1069		mg/Kg		107	70 - 130	
Ethylbenzene	0.100	0.1139		mg/Kg		114	70 - 130	
m-Xylene & p-Xylene	0.200	0.2296		mg/Kg		115	70 - 130	

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Prep Batch: 33416

Lab Sample ID: LCS 880-33416/1-A

Client: Ensolum

Matrix: Solid

Project/Site: PLU 411

QC Sample Results

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

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

									Dron	Deteks	33416
Analysis Batch: 33496									Frep	Batch:	00410
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
o-Xylene			0.100	0.1276		mg/Kg		128	70 - 130		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	105		70 - 130								
Lab Sample ID: LCSD 880-3	3416/2-A					Clier	nt Sam	ple ID:	Lab Contro	ol Sampl	e Dup
Matrix: Solid										· Type: To	
Analysis Batch: 33496										Batch:	
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Benzene			0.100	0.08760		mg/Kg		88	70 - 130	25	35
Toluene			0.100	0.09256		mg/Kg		93	70 - 130	14	35
Ethylbenzene			0.100	0.09249		mg/Kg		92	70 - 130	21	35
m-Xylene & p-Xylene			0.200	0.1860		mg/Kg		93	70 - 130	21	35
o-Xylene			0.100	0.1031		mg/Kg		103	70 - 130	21	35
			0.100	0.1001		mg/rtg		100	101100	21	00
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
	100	-									
4-Bromofluorobenzene (Surr)	106		70 - 130								
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid	102		70 ₋ 130 70 ₋ 130					Client		Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid	102 A-1-K MS	Samala	70 - 130	мс	мс			Client	Prep 1 Prep		tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496	102 A-1-K MS Sample	Sample Qualifier	70 - 130 Spike	MS Result	MS Qualifier	Unit	D		Prep 1 Prep %Rec	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte	102 A-1-K MS Sample Result	Qualifier	70 - 130 Spike Added	Result	MS Qualifier	_ Unit ma/Ka	D	%Rec	Prep 1 Prep %Rec Limits	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene	102 A-1-K MS Sample Result <0.00201	Qualifier	70 - 130 Spike Added 0.0998	Result 0.08964		mg/Kg	D	%Rec 90	Prep 1 Prep %Rec Limits 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene	102 A-1-K MS 	Qualifier U U	70 - 130 Spike Added 0.0998 0.0998	Result 0.08964 0.08837		mg/Kg mg/Kg	D	%Rec 90 89	Prep 1 Prep %Rec Limits 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201	Qualifier U U U	70 - 130 Spike Added 0.0998 0.0998 0.0998	Result 0.08964 0.08837 0.08726		mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 90 89 87	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	102 A-1-K MS	Qualifier U U U U	70 - 130 Spike Added 0.0998 0.0998 0.0998 0.200	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 90 89 87 87	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201	Qualifier U U U U	70 - 130 Spike Added 0.0998 0.0998 0.0998	Result 0.08964 0.08837 0.08726		mg/Kg mg/Kg mg/Kg	<u>D</u>	%Rec 90 89 87	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	102 A-1-K MS	Qualifier U U U U	70 - 130 Spike Added 0.0998 0.0998 0.0998 0.200	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg	<u>D</u>	%Rec 90 89 87 87	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	102 A-1-K MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.0998 0.0998 0.0998 0.200	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 90 89 87 87	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.0998 0.0998 0.200 0.200 0.0998	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 90 89 87 87	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 <i>MS</i> %Recovery	Qualifier U U U U U U MS	70 - 130 Spike Added 0.0998 0.0998 0.200 0.0998 Limits	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 90 89 87 87	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	102 A-1-K MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.0998 0.0998 0.200 0.200 0.0998	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 90 89 87 87 98	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To Batch:	tal/NA 33416
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	102 A-1-K MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.0998 0.0998 0.200 0.200 0.0998	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 90 89 87 87 98	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To Batch:	dicate
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid	102 A-1-K MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.0998 0.0998 0.200 0.200 0.0998	Result 0.08964 0.08837 0.08726 0.1744		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 90 89 87 87 98	Prep 7 Prep 7 %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Dike Dup	dicate
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00402 <0.00201 MS %Recovery 114 102 A-1-L MSD	Qualifier U U U U U U MS	70 - 130 Spike Added 0.0998 0.0998 0.200 0.200 0.0998	Result 0.08964 0.08837 0.08726 0.1744 0.09787		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 90 89 87 87 98	Prep 7 Prep 7 %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: To Batch: 	licate tal/NA 33416
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 MS %Recovery 114 102 A-1-L MSD Sample	Qualifier U U U U U MS Qualifier	70 - 130 Spike Added 0.0998 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998	Result 0.08964 0.08837 0.08726 0.1744 0.09787 MSD	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 90 89 87 87 98	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 Prep 1 Prep 1 Prep 1	Dike Dup	blicate tal/NA 33416 RPD
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 MS %Recovery 114 102 A-1-L MSD Sample	Qualifier U U U U MS Qualifier Sample Qualifier	70 - 130 Spike Added 0.0998 0.0998 0.200 0.0998 Limits 70 - 130 70 - 130 70 - 130	Result 0.08964 0.08837 0.08726 0.1744 0.09787 MSD	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg	ient Sa	%Rec 90 89 87 87 98	Prep 1 Prep %Rec Limits 70 - 130 70 - 190 70 - 130 70 - 190 70 - 190	Dike Dup Dike Dup Dype: To Datch:	blicate tal/NA 33416 RPD Limit
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 MS %Recovery 114 102 A-1-L MSD Sample Result	Qualifier U U U U U MS Qualifier U	70 - 130 Spike Added 0.0998 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 D.200 0.0998 Spike Added	Result 0.08964 0.08837 0.08726 0.1744 0.09787	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg Cl	ient Sa	%Rec 90 89 87 87 98	Prep 1 Prep %Rec Limits 70 - 130 70 - 190 70 - 130 70 - 130	Dike Dup Dike Dup Dype: To Batch: 	olicate tal/NA 33416 licate tal/NA 33416 RPD Limit 35
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene	102 A-1-K MS	Qualifier U U U U U U MS Qualifier U U U	70 - 130 Spike Added 0.0998 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 D.200 0.0998 Spike Added 0.0996	Result 0.08964 0.08837 0.08726 0.1744 0.09787	Qualifier	 mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg 	ient Sa	%Rec 90 89 87 98	Prep 1 Prep 3 %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 9 . Matrix Sp Prep 1 Prep 3 %Rec Limits 70 - 130	Dike Dup Type: To Batch: Dike Dup Type: To Batch: RPD 6	blicate tal/NA 33416 slicate tal/NA 33416 RPD Limit 35 35
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-18581-4 Matrix: Solid Analysis Batch: 33496 Analyte Benzene	102 A-1-K MS Sample Result <0.00201 <0.00201 <0.00201 <0.00201 MS %Recovery 114 102 A-1-L MSD Sample Result <0.00201 <0.00201	Qualifier U U U U U U MS Qualifier U U U U	70 - 130 Spike Added 0.0998 0.0998 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 0.200 0.0998 D.200 0.0998 Spike Added 0.0996 0.0996	Result 0.08964 0.08837 0.08726 0.1744 0.09787	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg Cl	ient Sa	%Rec 90 89 87 98	Prep 1 Prep 2 %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 Prep 1 Prep 2 %Rec Limits 70 - 130 70 - 130	Dike Dup Type: To Dike Dup Type: To Batch: RPD 6 8	dicate

Eurofins Carlsbad

QC Sample Results

Job ID: 890-2783-1 SDG: 03E1558096

Client: Ensolum Project/Site: PLU 411

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

ab Sample ID: 880-18581-A-1-	-L MSD						Clier	nt Sample ID:	Matrix Spil	ke Dup	olicate
Aatrix: Solid									Prep Ty		
Analysis Batch: 33496									Prep B	Batch:	33416
	MSD MS	D									
Surrogate	%Recovery Qu	alifier	Limits								
4-Bromofluorobenzene (Surr)	109		70 - 130								
1,4-Difluorobenzene (Surr)	97		70 - 130								
lethod: 8015B NM - Diese	l Range Orga	nics (DR	(GC)								
Lab Sample ID: MB 880-32608/	1 -A							Client Sa	ample ID: M		
Matrix: Solid									Prep Ty	-	
Analysis Batch: 32586									Prep B	Batch:	32608
		3 MB									
Analyte		t Qualifier			Unit		<u>D</u>	Prepared	Analyzec		Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0		50.0		mg/k	-		08/22/22 09:31	08/22/22 11		1
Diesel Range Organics (Over C10-C28)	<50.0) U	50.0		mg/k	ξg		08/22/22 09:31	08/22/22 11	:08	1
Oll Range Organics (Over C28-C36)	<50.0) U	50.0		mg/k	ξg		08/22/22 09:31	08/22/22 11	:08	1
	ME	B MB									
Surrogate		Qualifier	Limits					Prepared	Analyzed		Dil Fac
1-Chlorooctane	63	3 S1-	70 - 130					08/22/22 09:31	08/22/22 11	:08	1
p-Terphenyl	68	8 S1-	70 - 130					08/22/22 09:31	08/22/22 11	:08	1
Lab Sample ID: LCS 880-32608	3/2-A						C	lient Sample	ID: Lab Con	ntrol Sa	ample
Matrix: Solid									Prep Ty		
Analysis Batch: 32586									Prep B	-	
-			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits		
Gasoline Range Organics			1000	708.2		mg/Kg		71	70 - 130		
(GRO)-C6-C10											
Diesel Range Organics (Over C10-C28)			1000	764.5		mg/Kg		76	70 - 130		
	LCS LC										
Surrogate	%Recovery Qu	alifier	Limits								
1-Chlorooctane	72		70 - 130								
p-Terphenyl	74		70 - 130								
										Sampl	
Lab Sample ID: LCSD 880-3260	08/3-A					CI	ient	Sample ID: L	ab Control S Prep Ty		tal/NA
Lab Sample ID: LCSD 880-3260 Matrix: Solid	08/3-A					CI	ient	Sample ID: L		pe: To	
Lab Sample ID: LCSD 880-3260 Matrix: Solid	08/3-A		Spike	LCSD	LCSD	CI	ient	Sample ID: L	Prep Ty	pe: To	
Lab Sample ID: LCSD 880-3260 Matrix: Solid Analysis Batch: 32586	08/3-A		Spike Added		LCSD Qualifier	CI Unit	ient	Sample ID: L	Prep Ty Prep B	pe: To	3 <mark>26</mark> 08
Lab Sample ID: LCSD 880-3260 Matrix: Solid Analysis Batch: 32586 Analyte Gasoline Range Organics	08/3-A		-				ient	-	Prep Ty Prep E %Rec	pe: To Batch:	32608 RPD
Lab Sample ID: LCSD 880-3260 Matrix: Solid Analysis Batch: 32586 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	08/3-A		Added	Result		Unit	ient	D %Rec	Prep Ty Prep B %Rec Limits	pe: To Batch: RPD	32608 RPD Limit
Lab Sample ID: LCSD 880-3260 Matrix: Solid Analysis Batch: 32586 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)			Added	Result 744.7		_ <mark>Unit</mark> mg/Kg	ient	D %Rec	Prep Ty Prep E %Rec Limits 70 - 130	pe: To Batch: RPD 5	32608 RPD Limit 20
Lab Sample ID: LCSD 880-3260 Matrix: Solid Analysis Batch: 32586 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)			Added 1000 1000	Result 744.7		_ <mark>Unit</mark> mg/Kg	ient	D %Rec	Prep Ty Prep E %Rec Limits 70 - 130	pe: To Batch: RPD 5	32608 RPD Limit 20
Lab Sample ID: LCSD 880-3260 Matrix: Solid Analysis Batch: 32586 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		SD alifier	Added	Result 744.7		_ <mark>Unit</mark> mg/Kg	ient	D %Rec	Prep Ty Prep E %Rec Limits 70 - 130	pe: To Batch: RPD 5	32608 RPD Limit 20

Client: Ensolum

Project/Site: PLU 411

QC Sample Results

Job ID: 890-2783-1 SDG: 03E1558096

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

Lab Sample ID: 890-2789-A- Matrix: Solid								Client	Sample ID	гиантх Гуре: То	
Analysis Batch: 32586										Batch:	
Analysis Batch. 52500	Sample	Sample	Spike	MS	MS				%Rec	Datch.	3200
Analyte	-	Qualifier	Added	Result		Unit	D	%Rec	Limits		
Gasoline Range Organics	<49.9	-	<u>Added</u>	862.4	Quanner	mg/Kg		86	70 - 130		
GRO)-C6-C10	-+0.0	0	555	002.4		iiig/itg		00	70 - 100		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	712.0		mg/Kg		71	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	72		70 - 130	_							
p-Terphenyl	67	S1-	70 - 130								
.ab Sample ID: 890-2789-A-	1-G MSD						Client S	ample II): Matrix S	oike Dur	olica
Matrix: Solid										Гуре: То	
Analysis Batch: 32586										Batch:	
	Sample	Sample	Spike	MSD	MSD				%Rec		RF
Analyte	-	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lin
Gasoline Range Organics	<49.9	U	998	747.4		mg/Kg		75	70 - 130	14	
GRO)-C6-C10											
Diesel Range Organics (Over 210-C28)	<49.9	U F1	998	626.3	F1	mg/Kg		63	70 - 130	13	
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
-Chlorooctane	62	S1-	70 - 130	_							
o-Terphenyl	58	S1-	70 - 130								
ethod: 300.0 - Anions,	Ion Chromat	ograph	у								
_ab Sample ID: MB 880-3258	82/1-A							Client S	Sample ID:	Method	Blar
Matrix: Solid										Type: S	
Analysis Batch: 33167											
		MB MB									
Analyte	R	esult Qua	lifier	RL	Unit	t	D	Prepared	Analyz	zed	Dil F
Chloride	<	5.00 U		5.00	mg/	Kg			08/29/22	02:22	
ab Sample ID: LCS 880-328	582/2-A						Clien	t Sample	e ID: Lab Co	ontrol S	amp
Matrix: Solid										Type: S	
Analysis Batch: 33167											
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250	248.2		mg/Kg		99	90 - 110		
						5 5					
ab Sample ID: LCSD 880-3	2582/3-A					CI	ient Saı	mple ID:	Lab Contro	ol Sampl	le Du
Matrix: Solid									Prep	Type: S	olub
Analysis Batch: 33167											
Analysis Batch: 33167			Spike	LCSD	LCSD				%Rec		RF
Analysis Batch: 33167 Analyte			Spike Added		LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RF Lin

Client: Ensolum

Project/Site: PLU 411

Job ID: 890-2783-1 SDG: 03E1558096

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2783-1 MS Matrix: Solid									Client Sa Prep	mple ID: Type: S	
Analysis Batch: 33167	•	Sample	Spike		MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	2990		1240	4313		mg/Kg		107	90 - 110		
Lab Sample ID: 890-2783-1 MSD									Client Sa	mple ID:	SS01
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 33167											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	2990		1240	4333	-	mg/Kg		108	90 - 110	0	20

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QC Association Summary

Client: Ensolum Project/Site: PLU 411 Job ID: 890-2783-1 SDG: 03E1558096

GC VOA

Prep Batch: 33353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
90-2783-1	SS01	Total/NA	Solid	5035	
390-2783-3	SS03	Total/NA	Solid	5035	
390-2783-4	SS04	Total/NA	Solid	5035	
890-2783-5	SS05	Total/NA	Solid	5035	
890-2783-6	SS06	Total/NA	Solid	5035	
890-2783-7	SS07	Total/NA	Solid	5035	
MB 880-33353/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33353/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33353/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18581-A-21-E MS	Matrix Spike	Total/NA	Solid	5035	
880-18581-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2783-2		Total/NA	Solid	Method	Ргер Ватсп
MB 880-33416/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33416/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33416/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18581-A-1-K MS	Matrix Spike	Total/NA	Solid	5035	
880-18581-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
nalysis Batch: 33469					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
Lab Sample ID 890-2783-1	SS01	Total/NA	Solid	8021B	33353
Lab Sample ID 890-2783-1 890-2783-3	SS01 SS03	Total/NA Total/NA	Solid Solid	8021B 8021B	33353 33353
Lab Sample ID 890-2783-1 890-2783-3 890-2783-4 890-2783-5	SS01	Total/NA	Solid	8021B	33353

890-2783-4	SS04	Total/NA	Solid	8021B	33353
890-2783-5	SS05	Total/NA	Solid	8021B	33353
890-2783-6	SS06	Total/NA	Solid	8021B	33353
890-2783-7	SS07	Total/NA	Solid	8021B	33353
MB 880-33353/5-A	Method Blank	Total/NA	Solid	8021B	33353
LCS 880-33353/1-A	Lab Control Sample	Total/NA	Solid	8021B	33353
LCSD 880-33353/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33353
880-18581-A-21-E MS	Matrix Spike	Total/NA	Solid	8021B	33353
880-18581-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	33353

Analysis Batch: 33496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2783-2	SS02	Total/NA	Solid	8021B	33416
MB 880-33416/5-A	Method Blank	Total/NA	Solid	8021B	33416
LCS 880-33416/1-A	Lab Control Sample	Total/NA	Solid	8021B	33416
LCSD 880-33416/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33416
880-18581-A-1-K MS	Matrix Spike	Total/NA	Solid	8021B	33416
880-18581-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	33416

Analysis Batch: 33547

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2783-1	SS01	Total/NA	Solid	Total BTEX	
890-2783-2	SS02	Total/NA	Solid	Total BTEX	
890-2783-3	SS03	Total/NA	Solid	Total BTEX	
890-2783-4	SS04	Total/NA	Solid	Total BTEX	
890-2783-5	SS05	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum Project/Site: PLU 411

GC VOA (Continued)

Analysis Batch: 33547 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2783-6	SS06	Total/NA	Solid	Total BTEX	
890-2783-7	SS07	Total/NA	Solid	Total BTEX	
_					

GC Semi VOA

Analysis Batch: 32586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2783-1	SS01	Total/NA	Solid	8015B NM	32608
890-2783-2	SS02	Total/NA	Solid	8015B NM	32608
890-2783-3	SS03	Total/NA	Solid	8015B NM	32608
890-2783-4	SS04	Total/NA	Solid	8015B NM	32608
890-2783-5	SS05	Total/NA	Solid	8015B NM	32608
890-2783-6	SS06	Total/NA	Solid	8015B NM	32608
890-2783-7	SS07	Total/NA	Solid	8015B NM	32608
MB 880-32608/1-A	Method Blank	Total/NA	Solid	8015B NM	32608
LCS 880-32608/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32608
LCSD 880-32608/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32608
890-2789-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	32608
890-2789-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32608

Prep Batch: 32608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-2783-1	SS01	Total/NA	Solid	8015NM Prep	
890-2783-2	SS02	Total/NA	Solid	8015NM Prep	
890-2783-3	SS03	Total/NA	Solid	8015NM Prep	
890-2783-4	SS04	Total/NA	Solid	8015NM Prep	
890-2783-5	SS05	Total/NA	Solid	8015NM Prep	
390-2783-6	SS06	Total/NA	Solid	8015NM Prep	
890-2783-7	SS07	Total/NA	Solid	8015NM Prep	
MB 880-32608/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32608/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32608/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2789-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2789-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32778

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2783-1	SS01	Total/NA	Solid	8015 NM	
890-2783-2	SS02	Total/NA	Solid	8015 NM	
890-2783-3	SS03	Total/NA	Solid	8015 NM	
890-2783-4	SS04	Total/NA	Solid	8015 NM	
890-2783-5	SS05	Total/NA	Solid	8015 NM	
890-2783-6	SS06	Total/NA	Solid	8015 NM	
890-2783-7	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32582

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2783-1	SS01	Soluble	Solid	DI Leach	
890-2783-2	SS02	Soluble	Solid	DI Leach	
890-2783-3	SS03	Soluble	Solid	DI Leach	

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Job ID: 890-2783-1

SDG: 03E1558096

QC Association Summary

Client: Ensolum Project/Site: PLU 411

Job ID: 890-2783-1 SDG: 03E1558096

HPLC/IC (Continued)

Leach Batch: 32582 (Continued)

ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
90-2783-4	SS04	Soluble	Solid	DI Leach	
90-2783-5	SS05	Soluble	Solid	DI Leach	
90-2783-6	SS06	Soluble	Solid	DI Leach	
90-2783-7	SS07	Soluble	Solid	DI Leach	
B 880-32582/1-A	Method Blank	Soluble	Solid	DI Leach	
CS 880-32582/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
CSD 880-32582/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
90-2783-1 MS	SS01	Soluble	Solid	DI Leach	
0-2783-1 MSD	SS01	Soluble	Solid	DI Leach	

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-2783-1	SS01	Soluble	Solid	300.0	32582	
890-2783-2	SS02	Soluble	Solid	300.0	32582	
890-2783-3	SS03	Soluble	Solid	300.0	32582	
890-2783-4	SS04	Soluble	Solid	300.0	32582	
890-2783-5	SS05	Soluble	Solid	300.0	32582	
890-2783-6	SS06	Soluble	Solid	300.0	32582	
890-2783-7	SS07	Soluble	Solid	300.0	32582	
MB 880-32582/1-A	Method Blank	Soluble	Solid	300.0	32582	
LCS 880-32582/2-A	Lab Control Sample	Soluble	Solid	300.0	32582	
LCSD 880-32582/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32582	
890-2783-1 MS	SS01	Soluble	Solid	300.0	32582	
890-2783-1 MSD	SS01	Soluble	Solid	300.0	32582	

Job ID: 890-2783-1 SDG: 03E1558096

Lab Sample ID: 890-2783-1

Date Collected: 08/18/22 12:35 Date Received: 08/18/22 16:15

Client Sample ID: SS01

Client: Ensolum

Project/Site: PLU 411

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	33353	08/30/22 11:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33469	08/31/22 20:58	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33547	09/01/22 12:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			32778	08/23/22 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32608	08/22/22 09:31	AM	EET MID
Total/NA	Analysis	8015B NM		1			32586	08/22/22 17:31	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	32582	08/21/22 19:23	SMC	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33167	08/29/22 02:46	СН	EET MID

Client Sample ID: SS02

Date Collected: 08/18/22 12:40

Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	33416	08/31/22 09:38	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33496	09/01/22 15:40	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33547	09/01/22 12:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			32778	08/23/22 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	32608	08/22/22 09:31	AM	EET MID
Total/NA	Analysis	8015B NM		1			32586	08/22/22 17:53	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	32582	08/21/22 19:23	SMC	EET MID
Soluble	Analysis	300.0		50	0 mL	0 mL	33167	08/29/22 03:09	СН	EET MID

Client Sample ID: SS03

Date Collected: 08/18/22 12:45

Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	33353	08/30/22 11:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33469	08/31/22 21:50	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33547	09/01/22 12:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			32778	08/23/22 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32608	08/22/22 09:31	AM	EET MID
Total/NA	Analysis	8015B NM		1			32586	08/22/22 18:37	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32582	08/21/22 19:23	SMC	EET MID
Soluble	Analysis	300.0		50	0 mL	0 mL	33167	08/29/22 03:17	СН	EET MID

Client Sample ID: SS04 Date Collected: 08/18/22 12:50 Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	33353	08/30/22 11:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33469	08/31/22 22:16	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33547	09/01/22 12:38	SM	EET MID

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Matrix: Solid

Lab Sample ID: 890-2783-2

Matrix: Solid

Lab Sample ID: 890-2783-3

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-2783-4

Released to Imaging: 2/12/2024 4:32:11 PM

Lab Chronicle

Client: Ensolum Project/Site: PLU 411

Client Sample ID: SS04

Date Collected: 08/18/22 12:50 Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			32778	08/23/22 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32608	08/22/22 09:31	AM	EET MID
Total/NA	Analysis	8015B NM		1			32586	08/22/22 18:59	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	32582	08/21/22 19:23	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33167	08/29/22 03:25	СН	EET MID

Client Sample ID: SS05

Date Collected: 08/18/22 12:55 Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	33353	08/30/22 11:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33469	08/31/22 22:42	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33547	09/01/22 12:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			32778	08/23/22 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32608	08/22/22 09:31	AM	EET MID
Total/NA	Analysis	8015B NM		1			32586	08/22/22 19:20	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32582	08/21/22 19:23	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33167	08/29/22 03:33	СН	EET MID

Client Sample ID: SS06

Date Collected: 08/18/22 13:00 Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	33353	08/30/22 11:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33469	08/31/22 23:07	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33547	09/01/22 12:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			32778	08/23/22 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32608	08/22/22 09:31	AM	EET MID
Total/NA	Analysis	8015B NM		1			32586	08/22/22 19:42	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	32582	08/21/22 19:23	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33167	08/29/22 03:56	СН	EET MID

Client Sample ID: SS07 Date Collected: 08/18/22 13:05

Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	33353	08/30/22 11:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33469	08/31/22 23:33	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33547	09/01/22 12:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			32778	08/23/22 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32608	08/22/22 09:31	AM	EET MID
Total/NA	Analysis	8015B NM		1			32586	08/22/22 20:04	SM	EET MID

Eurofins Carlsbad

Page 60 of 145

Job ID: 890-2783-1 SDG: 03E1558096

Lab Sample ID: 890-2783-4 Matrix: Solid

Lab Sample ID: 890-2783-5

Lab Sample ID: 890-2783-6

Lab Sample ID: 890-2783-7

Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab Chronicle

Client: Ensolum Project/Site: PLU 411 Job ID: 890-2783-1 SDG: 03E1558096

Client Sample ID: SS07 Date Collected: 08/18/22 13:05

Date Received: 08/18/22 16:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	- 5
Soluble	Leach	DI Leach			5.03 g	50 mL	32582	08/21/22 19:23	SMC	EET MID	
Soluble	Analysis	300.0		1	0 mL	0 mL	33167	08/29/22 04:04	СН	EET MID	

Laboratory References:

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

Lab Sample ID: 890-2783-7 Matrix: Solid

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum Project/Site: PLU 411

Laboratory: Eurofins Midland

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

thority	P	rogram	Identification Number	Expiration Date
xas	N	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, b	ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for wh
the agency does not o		Matrix	Analyte	
the agency does not o Analysis Method 8015 NM	fer certification. Prep Method	Matrix Solid	Analyte Total TPH	

10

Job ID: 890-2783-1

SDG: 03E1558096

Eurofins Carlsbad

Method Summary

Client: Ensolum Project/Site: PLU 411 Job ID: 890-2783-1 SDG: 03E1558096

Nethod	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
lotal BTEX	Total BTEX Calculation	TAL SOP	EET MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
800.0	Anions, Ion Chromatography	MCAWW	EET MID
035	Closed System Purge and Trap	SW846	EET MID
3015NM Prep	Microextraction	SW846	EET MID
I Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: PLU 411 Job ID: 890-2783-1 SDG: 03E1558096

ab Sample ID	Client Sample ID	Matrix	Collected	Received	
90-2783-1	SS01	Solid	08/18/22 12:35	08/18/22 16:15	
90-2783-2	SS02	Solid	08/18/22 12:40	08/18/22 16:15	
90-2783-3	SS03	Solid	08/18/22 12:45	08/18/22 16:15	
90-2783-4	SS04	Solid	08/18/22 12:50	08/18/22 16:15	
90-2783-5	SS05	Solid	08/18/22 12:55	08/18/22 16:15	
90-2783-6	SS06	Solid	08/18/22 13:00	08/18/22 16:15	
90-2783-7	SS07	Solid	08/18/22 13:05	08/18/22 16:15	

				Hobbs,	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199		-
				the different	Correct Green		Work Order	Work Order Comments
Company Name: Ens	Ensolum		0	Company Name:	XTO Energy		Program: UST/PST PRP E	PRP Brownfields RRC Superfund
	3122 National Parks Hwy	ks Hwy	Þ	Address:	3104 E. Green St		State of Project:	
te ZIP:	Carlsbad, NM 88220	20	0	City, State ZIP:	Carlsbad, NM 88220	220	Reporting: Level II Level III PST/UST TRRP	
	303-887-2946		Email:	Garret.Green@	Email: Garret.Green@ExxonMobil.com		Deliverables: EDD	ADaPT COther:
Project Name:	PLU 411	ET	Turn /	Turn Around		ANALYSIS REQUEST	EST	Preservative Codes
Project Number:	03E1558096	8096	Routine	Rush	Code			None: NO DI Water: H ₂ O
Project Location:	32.1931,-103.7799	03.7799	Due Date:					2
Sampler's Name:	Kase Parker	arker	TAT starts the	TAT starts the day received by				
PO#	2	4		ved by 4: supm				H,PO,: HP
Sample Received Intert	Hemp Blank:	K: Yes No VV	er ice:	THE NO	rame 300.0)			NaHSO4: NABIS
Cooler Custody Seals:	Yes No (习		è v				Na2S2O3: NaSO3
Sample Custody Seals:			ding:	21.8		INNUMBER OF STREET	Chain of Custody	Zn Acetate+NaOH: Zn
Total Containers:		Corrected 1	Corrected Temperature:	21.10	015)		-	Nauh+Ascoldic Acid. SAPC
Sample Identification		Matrix Date Sampled	Time Sampled	Depth Comp C	CHLO CHLO TPH (I BTEX			Sample Comments
SS01		S 8/18/2022	12:35	0.5	x x x			Incident ID:
SS02		S 8/18/2022	12:40	0.5'	× × ×			nAPP2219646//4
SS03		S 8/18/2022	12:45	0.5	× × ×			Cost Center
SS04		S 8/18/2022	12:50	0.5	× × ×			2159981001
SS05		S 8/18/2022	12:55	0.5	× × ×			AFE:
SS06		S 8/18/2022	13:00	0.5	× × ×			
SS07		S 8/18/2022	13:05	0.5	× × ×			
1								
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	200.8 / 6020: Metal(s) to be an		8RCRA 13PPM TCLP / SPLP	CRA 13PPM Texas 11 AI	as as	As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn N As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag	TI U	k <mark>g SiO₂</mark> Na Sr TI Sn U V Zn Hg: 1631/245.T7 7470_1 7471
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcor 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 of Eurofina Xenco. A minimum charge of \$86.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. The	iment and relinquish III be liable only for ti m charge of \$85.00 v	ment of samples co he cost of samples a vill be applied to eac	nstitutes a valid pu and shall not assur h project and a ch	rrchase order from c ne any responsibility arge of \$5 for each s	lient company to Eurofins / for any losses or expense ample submitted to Eurofi	Notce: 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 contro of Eurofins Xenco. A minimum charge of \$86.00 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 negotiate of the contro of the con	treactors. It assigns standard terms and conditions losses are due to circumstances beyond the control see terms will be enforced unless previously negotlated.	ns trol tlated.
Relinquished by: (Signature)	jgnajure)	Aeceiv	Received by: (Signature)	ure)	Date/Time	Relinquished by: (Signature)	e) Received by: (Signature)	gnature) Date/Time
1 Wary	hund	(hu	2			643		

ŗ Chain of Custody

Job Number: 890-2783-1 SDG Number: 03E1558096

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 2783 List Number: 1 Creator: Stutzman, Amanda

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Job Number: 890-2783-1 SDG Number: 03E1558096

List Source: Eurofins Midland

List Creation: 08/22/22 09:51 AM

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 2783 List Number: 2 Creator: Rodriguez, Leticia

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	N/A	

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Received by OCD: 8/22/2023 1:20:35 PM

LINKS

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3127-1

Laboratory Sample Delivery Group: 03E1558096 Client Project/Site: PLU 411

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 10/11/2022 12:53:13 PM Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com



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

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

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	Definitions/Glossary	
Client: Ensolum		
Project/Site: PL	U 411 SDG: 03E1558096	
Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		5
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	8
U	Indicates the analyte was analyzed for but not detected.	
Glossary		9
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)	4.9
Dil Fac	Dilution Factor	13
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	

Not Calculated

Presumptive

Quality Control

Negative / Absent Positive / Present

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Not Detected at the reporting limit (or MDL or EDL if shown)

NC

ND

NEG

POS

PQL PRES

QC

RER

RPD

TEF TEQ

TNTC

RL

Case Narrative

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3127-1 SDG: 03E1558096

Job ID: 890-3127-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3127-1

Receipt

The samples were received on 10/3/2022 1:04 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions

The following samples analyzed for method <FRACTION_METHOD> were received and analyzed from an unpreserved bulk soil jar: PH01 (890-3127-1), PH02 (890-3127-2), PH03 (890-3127-3), PH03A (890-3127-4), PH04 (890-3127-5), PH04A (890-3127-6) and PH04B (890-3127-7). THE SAMPLES WERE RECEIVED IN UNPRESERVED BULK SOLID

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-19920-A-7-H). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-36053 and analytical batch 880-36023 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: PH03 (890-3127-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: PH04A (890-3127-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36154 and analytical batch 880-36309 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36287 and analytical batch 880-36379 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

Result Qualifier

Qualifier

<0.00201 U

<0.00201 U

<0.00201 U

<0.00402 U

<0.00201 U

<0.00402 U

93

96

<0.00402 U

Result Qualifier

Result Qualifier

<49.9 U

%Recovery

RL

0.00201

0.00201

0.00201

0.00402

0.00201

0.00402

Limits 70 - 130

70 - 130

RL

RL

49.9

0.00402

Unit

mg/Kg

D

Prepared

10/10/22 08:19

Job ID: 890-3127-1 SDG: 03E1558096

Client Sample ID: PH01

Date Collected: 09/29/22 13:30 Date Received: 10/03/22 13:04

Sample Depth: 1

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Analyte

Analyte

Total TPH

Total BTEX

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Project/Site: PLU 411

Client: Ensolum

Lab Sample ID: 890-3127-1

Analyzed

10/10/22 17:00

Matrix: Solid

5 Dil Fac

mg/Kg		10/10/22 08:19	10/10/22 17:00	1	
mg/Kg		10/10/22 08:19	10/10/22 17:00	1	7
mg/Kg		10/10/22 08:19	10/10/22 17:00	1	
mg/Kg		10/10/22 08:19	10/10/22 17:00	1	8
mg/Kg		10/10/22 08:19	10/10/22 17:00	1	0
					0
		Prepared	Analyzed	Dil Fac	3
		10/10/22 08:19	10/10/22 17:00	1	40
		10/10/22 08:19	10/10/22 17:00	1	10
					11
 Unit	D	Prepared	Analyzed	Dil Fac	
mg/Kg			10/11/22 10:15	1	12
					_
	_	<u> </u>			13
 Unit	D	Prepared	Analyzed	Dil Fac	
mg/Kg			10/05/22 09:29	1	4.4
					14
	_				
 Unit	D	Prepared	Analyzed	Dil Fac	
mg/Kg		10/04/22 12:00	10/04/22 15:26	1	
mg/Kg		10/04/22 12:00	10/04/22 15:26	1	
0 0					

Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 15:26	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 15:26	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 15:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			10/04/22 12:00	10/04/22 15:26	1
o-Terphenyl	113		70 - 130			10/04/22 12:00	10/04/22 15:26	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	ography - S	oluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: PH02 Date Collected: 09/29/22 12:20

Date Received: 10/03/22 13:04

Sample Depth: 1

Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/10/22 08:19	10/10/22 17:20	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/10/22 08:19	10/10/22 17:20	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/10/22 08:19	10/10/22 17:20	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/10/22 08:19	10/10/22 17:20	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/10/22 08:19	10/10/22 17:20	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/10/22 08:19	10/10/22 17:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			10/10/22 08:19	10/10/22 17:20	1

Eurofins Carlsbad

Lab Sample ID: 890-3127-2

Matrix: Solid
Client Sample Results

Job ID: 890-3127-1 SDG: 03E1558096

Lab Sample ID: 890-3127-2

Client Sample ID: PH02

Date Collected: 09/29/22 12:20 Date Received: 10/03/22 13:04

Sample Depth: 1

Client: Ensolum

Project/Site: PLU 411

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130			10/10/22 08:19	10/10/22 17:20	1
Method: TAL SOP Total BTE	X - Total BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00402	U	0.00402	mg/Kg			10/11/22 10:15	1
Method: SW846 8015 NM - D	iesel Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/05/22 09:29	1
Method: SW846 8015B NM -	Diesel Range Orga	nics (DRO)	(GC)					

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 15:48	1	
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 15:48	1	
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 15:48	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	103		70 - 130			10/04/22 12:00	10/04/22 15:48	1	
o-Terphenyl	115		70 - 130			10/04/22 12:00	10/04/22 15:48	1	

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qual	lifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	484	4.97	mg/Kg			10/07/22 03:13	1

Client Sample ID: PH03

Date Collected: 09/29/22 12:30 Date Received: 10/03/22 13:04 Sample Depth: 1

Lab Sample ID: 890-3127-3

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/10/22 08:19	10/10/22 17:41	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/10/22 08:19	10/10/22 17:41	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/10/22 08:19	10/10/22 17:41	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		10/10/22 08:19	10/10/22 17:41	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/10/22 08:19	10/10/22 17:41	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		10/10/22 08:19	10/10/22 17:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			10/10/22 08:19	10/10/22 17:41	1
1,4-Difluorobenzene (Surr)	86		70 - 130			10/10/22 08:19	10/10/22 17:41	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			10/11/22 10:15	1
Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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10/05/22 09:29

Matrix: Solid

5

Total TPH

49.9

mg/Kg

<49.9 U

Client Sample Results

Job ID: 890-3127-1 SDG: 03E1558096

Lab Sample ID: 890-3127-4

Matrix: Solid

Client Sample ID: PH03

Date Collected: 09/29/22 12:30 Date Received: 10/03/22 13:04

Sample Depth: 1

Client: Ensolum

Project/Site: PLU 411

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 16:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 16:09	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 16:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130			10/04/22 12:00	10/04/22 16:09	1
o-Terphenyl	131	S1+	70 - 130			10/04/22 12:00	10/04/22 16:09	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.1		4.98	mg/K			10/07/22 03:21	1

Client Sample ID: PH03A

Date Collected: 09/30/22 10:15 Date Received: 10/03/22 13:04

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 08:19	10/10/22 18:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 08:19	10/10/22 18:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 08:19	10/10/22 18:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 08:19	10/10/22 18:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 08:19	10/10/22 18:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 08:19	10/10/22 18:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			10/10/22 08:19	10/10/22 18:01	1
1,4-Difluorobenzene (Surr)	96		70 - 130			10/10/22 08:19	10/10/22 18:01	1
Method: TAL SOP Total BTEX - 1 Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte Total BTEX		Qualifier U	0.00398	Unit mg/Kg	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese	el Range Organ	Qualifier U ics (DRO) (0.00398	mg/Kg			10/11/22 10:15	Dil Fac
Analyte Total BTEX	el Range Organ	Qualifier U ics (DRO) (Qualifier	0.00398		<u>D</u>	Prepared Prepared		Dil Fac 1 Dil Fac 1
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte	el Range Organ Result Strange Organ Result Strange	Qualifier U ics (DRO) (Qualifier U	0.00398 GC) RL 50.0	mg/Kg Unit			10/11/22 10:15	1
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	el Range Organ Result Conception Result Conception Result Conception Result Conception Result Conception Result Conception Result	Qualifier U ics (DRO) (Qualifier U	0.00398 GC) RL 50.0	mg/Kg Unit			10/11/22 10:15	1
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	el Range Organ Result Conception Result Conception Result Conception Result Conception Result Conception Result Conception Result	Qualifier U ics (DRO) (Qualifier U nics (DRO) Qualifier	0.00398 GC) RL 50.0 (GC)	mg/Kg Unit mg/Kg	D	Prepared	10/11/22 10:15 Analyzed 10/05/22 09:29	Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result <50.0 sel Range Orga sel Range Orga Result	Qualifier U ics (DRO) (Qualifier U nics (DRO) Qualifier U	0.00398 GC) RL 50.0 (GC) RL	mg/Kg Unit mg/Kg Unit	D	Prepared	10/11/22 10:15 Analyzed 10/05/22 09:29 Analyzed	Dil Fac

%Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 70 - 130 10/04/22 12:00 1-Chlorooctane 119 10/04/22 16:50 1 o-Terphenyl 129 70 - 130 10/04/22 12:00 10/04/22 16:50 1

		Clien	t Sample Re	sults				
Client: Ensolum							Job ID: 890	-3127-1
Project/Site: PLU 411							SDG: 03E1	1558096
Client Sample ID: PH03A						Lab San	nple ID: 890-	3127-4
Date Collected: 09/30/22 10:15								x: Solid
Date Received: 10/03/22 13:04								
Sample Depth: 2								
Method: MCAWW 300.0 - Anion				11-14	_	Description	A	D11 E
Analyte Chloride		Qualifier		Unit	D	Prepared	Analyzed 10/07/22 03:29	Dil Fac
	48.9		4.95	mg/Kg			10/07/22 03.29	I
Client Sample ID: PH04						Lab San	nple ID: 890-	3127-5
Date Collected: 09/29/22 12:55							Matri	x: Solid
Date Received: 10/03/22 13:04								
Sample Depth: 0.5								
- Mathadi CW046 2024 D. Valatil		ounde (CC	`					
Method: SW846 8021B - Volatile Analyte		Qualifier) RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	-	0.00198			10/10/22 08:19	10/10/22 18:22	1
Toluene	< 0.00198		0.00198	mg/Kg		10/10/22 08:19	10/10/22 18:22	י 1
Ethylbenzene	< 0.00198		0.00198	mg/Kg		10/10/22 08:19	10/10/22 18:22	1
m-Xylene & p-Xylene	< 0.00397		0.00397	mg/Kg		10/10/22 08:19	10/10/22 18:22	 1
o-Xylene	< 0.00198		0.00198	mg/Kg		10/10/22 08:19	10/10/22 18:22	1
Xylenes, Total	< 0.00397		0.00397	mg/Kg		10/10/22 08:19	10/10/22 18:22	י 1
Aylenes, rotar	-0.00007	0	0.00007	ilig/itg		10/10/22 00:13	10/10/22 10:22	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			10/10/22 08:19	10/10/22 18:22	1
1,4-Difluorobenzene (Surr)	91		70 - 130			10/10/22 08:19	10/10/22 18:22	1
Method: TAL SOP Total BTEX -			Ы	11	<u> </u>	Dremered	Amalyzad	
Analyte Total BTEX		Qualifier	RL 0.00397		D	Prepared	Analyzed 10/11/22 10:15	Dil Fac
	<0.00397	0	0.00397	mg/Kg			10/11/22 10.15	1
Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/05/22 09:29	1
_								
Method: SW846 8015B NM - Die								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 17:10	1
(GRO)-C6-C10 Diesel Range Organics (Over	<49.9	U.	49.9	mg/Kg		10/04/22 12:00	10/04/22 17:10	1
C10-C28)	5.87	5	40.0	119/129		10107122 12.00	10/07/22 11.10	'
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 17:10	1
Currente	0/	Qualifier	1 : :4-			Dwam	A	D"! F
Surrogate	%Recovery	Quainfier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113					10/04/22 12:00	10/04/22 17:10 10/04/22 17:10	1
o-Terphenyl	123		70 - 130			10/04/22 12:00	10/04/22 17:10	1
Method: MCAWW 300.0 - Anior	is, Ion Chromato	ography - S	oluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

RL

0.00201

Unit

mg/Kg

D

Prepared

10/11/22 08:09

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Job ID: 890-3127-1 SDG: 03E1558096

Client Sample ID: PH04A

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

Result Qualifier

<0.00201 U

Date Collected: 09/29/22 13:05 Date Received: 10/03/22 13:04

Sample Depth: 1

Analyte

Benzene

Project/Site: PLU 411

Client: Ensolum

Lab Sample ID: 890-3127-6

Analyzed

10/11/22 12:23

Matrix: Solid

5 Dil Fac 1 1

Benzene	< 0.00199	U	0.00199	mg/Kg	_	10/11/22 08:09	10/11/22 12:44	
Method: SW846 8021B - Volatile Analyte	• •	Qualifier) RL	Unit	D	Prepared	Analyzed	Dil Fac
Sample Depth: 2								
Date Received: 10/03/22 13:04								
Date Collected: 09/30/22 10:30							Matri	ix: Solic
lient Sample ID: PH04B						Lab Sar	nple ID: 890-	3127-7
Chloride	143		5.01	mg/Kg	_		10/07/22 03:44	
Analyte		Qualifier		Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Method: MCAWW 300.0 - Anions	s lon Chromat	ography - S	olublo					
o-Terphenyl	131	S1+	70 - 130			10/04/22 12:00	10/04/22 17:30	
1-Chlorooctane	<u></u>		70 - 130			10/04/22 12:00	10/04/22 17:30	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 17:30	
Diesel Range Organics (Over C10-C28)	60.7		50.0	mg/Kg		10/04/22 12:00	10/04/22 17:30	
(GRO)-C6-C10		-						
Gasoline Range Organics			50.0			10/04/22 12:00	10/04/22 17:30	
Method: SW846 8015B NM - Die Analyte		nics (DRO) Qualifier	(<mark>GC)</mark> RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	60.7		50.0	mg/Kg			10/05/22 09:29	
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Total BTEX	<0.00402		0.00402	mg/Kg			10/11/22 10:15	
Method: TAL SOP Total BTEX - Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	98		70 - 130			10/11/22 08:09	10/11/22 12:23	
Surrogate 4-Bromofluorobenzene (Surr)	%Recovery 107	Qualifier	<i>Limits</i> 70 _ 130			Prepared 10/11/22 08:09	Analyzed 10/11/22 12:23	Dil Fa
-				mg/rtg				
Xylenes, Total	<0.00201		0.00402	mg/Kg		10/11/22 08:09	10/11/22 12:23	
o-Xylene	<0.00402		0.00201	mg/Kg mg/Kg		10/11/22 08:09	10/11/22 12:23	
Ethylbenzene m-Xylene & p-Xylene	<0.00201 <0.00402		0.00201 0.00402	mg/Kg		10/11/22 08:09 10/11/22 08:09	10/11/22 12:23 10/11/22 12:23	
Toluene	< 0.00201		0.00201	mg/Kg		10/11/22 08:09	10/11/22 12:23	
Taluana	<0.00201		0.00201	mg/Kg		10/11/22 00:00	10/11/22 12:20	

Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg	10/11/22 08:09	10/11/22 12:44	1
Toluene	<0.00199	U	0.00199	mg/Kg	10/11/22 08:09	10/11/22 12:44	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg	10/11/22 08:09	10/11/22 12:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg	10/11/22 08:09	10/11/22 12:44	1
o-Xylene	<0.00199	U	0.00199	mg/Kg	10/11/22 08:09	10/11/22 12:44	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg	10/11/22 08:09	10/11/22 12:44	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130		10/11/22 08:09	10/11/22 12:44	1

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Released to Imaging: 2/12/2024 4:32:11 PM

Client Sample Results

Job ID: 890-3127-1 SDG: 03E1558096

Client Sample ID: PH04B

Date Collected: 09/30/22 10:30 Date Received: 10/03/22 13:04

Sample Depth: 2

Client: Ensolum

Project/Site: PLU 411

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130			10/11/22 08:09	10/11/22 12:44	1
Method: TAL SOP Total BTEX - T	otal BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/11/22 10:15	
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/05/22 09:29	1
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 17:51	
Method: SW846 8015B NM - Dies Analyte		nics (DRO) Qualifier	(GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 17:51	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 17:51	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	115		70 - 130			10/04/22 12:00	10/04/22 17:51	
o-Terphenyl	128		70 - 130			10/04/22 12:00	10/04/22 17:51	1
Method: MCAWW 300.0 - Anions								
	Posult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Kesuit							

Lab Sample ID: 890-3127-7 Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

Percent Surrogate Recovery (Acceptance Limits) BFB1 DFBZ1 Client Sample ID (70-130) (70-130) Lab Sample ID 880-19920-A-7-F MS Matrix Spike 99 95 880-19920-A-7-G MSD Matrix Spike Duplicate 94 93 890-3114-A-33-D MS Matrix Spike 116 99 890-3114-A-33-E MSD Matrix Spike Duplicate 100 120 890-3127-1 PH01 93 96 PH02 890-3127-2 95 98 890-3127-3 PH03 87 86 890-3127-4 PH03A 93 96 890-3127-5 PH04 96 91 890-3127-6 PH04A 107 98 890-3127-7 PH04B 107 95 LCS 880-36502/1-A 105 99 Lab Control Sample LCS 880-36628/1-A Lab Control Sample 89 92 LCSD 880-36502/2-A Lab Control Sample Dup 110 88 LCSD 880-36628/2-A Lab Control Sample Dup 93 88 MB 880-36502/5-A 94 Method Blank 84 MB 880-36628/5-A Method Blank 106 84 Surrogate Legend BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Sample ID	Client Sample ID	(70-130)	(70-130)	
9906-A-8-D MS	Matrix Spike	91	84	
9906-A-8-E MSD	Matrix Spike Duplicate	91	82	
27-1	PH01	102	113	
27-2	PH02	103	115	
7-3	PH03	117	131 S1+	
27-4	PH03A	119	129	
27-5	PH04	113	123	
27-6	PH04A	119	131 S1+	
7-7	PH04B	115	128	
0-36053/2-A	Lab Control Sample	106	120	
380-36053/3-A	Lab Control Sample Dup	107	120	
30-36053/1-A	Method Blank	127	142 S1+	

Surroyate Legenu

1CO = 1-Chlorooctane OTPH = o-Terphenyl Page 78 of 145

Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

Job ID: 890-3127-1 SDG: 03E1558096

Page 79 of 145

Project/Site: PLU 411

Client: Ensolum

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3650 Matrix: Solid	JZ/5-A							Client Sa	mple ID: Mether Prep Type:	
Analysis Batch: 36576									Prep Bato	:h: 365
A b -d		B MB			1114				A sea la sea al	
Analyte Benzene	Kesu <0.0020	It Qualifier			Unit			repared	Analyzed	Dil F
Toluene	<0.0020		0.00200 0.00200		mg/K mg/K	-		0/22 08:19 0/22 08:19	10/10/22 14:09 10/10/22 14:09	
Ethylbenzene	<0.0020		0.00200		mg/K	-		0/22 08:19	10/10/22 14:09	
m-Xylene & p-Xylene	<0.0020		0.00200					0/22 08:19	10/10/22 14:09	
o-Xylene	<0.0040		0.00400		mg/K mg/K			0/22 08:19	10/10/22 14:09	
Xylenes, Total	<0.0020		0.00200		mg/K	-		0/22 08:19	10/10/22 14:09	
Aylenes, Total	\$0.0040	0 0	0.00400		ing/it	9	10/1	0/22 00.13	10/10/22 14:09	
	М	B MB								
Surrogate	%Recover		Limits					repared	Analyzed	Dil F
4-Bromofluorobenzene (Surr)	8	4	70 - 130				10/1	0/22 08:19	10/10/22 14:09	
1,4-Difluorobenzene (Surr)	g	4	70 - 130				10/1	0/22 08:19	10/10/22 14:09	
Lab Sample ID: LCS 880-365	02/1-A						Client	Sample	ID: Lab Contro	l Samn
Matrix: Solid							onom	Campie	Prep Type:	
Analysis Batch: 36576									Prep Batc	
Analysis Baten. 00070			Spike	LCS	LCS				%Rec	
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	
Benzene			0.100	0.08498		mg/Kg	<u>-</u>	85	70 - 130	
Toluene			0.100	0.08913		mg/Kg		89	70 - 130	
Ethylbenzene			0.100	0.09110		mg/Kg		91	70 - 130	
			0.200	0.1988		mg/Kg		99	70 - 130	
m-Xvlene & p-Xvlene				0					10 - 100	
				0.1122		ma/Ka		112	70 - 130	
			0.100	0.1122		mg/Kg		112	70 - 130	
o-Xylene	LCS LC		0.100	0.1122		mg/Kg		112	70 - 130	
o-Xylene Surrogate	%Recovery Qu		0.100 <i>Limits</i>	0.1122		mg/Kg		112	70 - 130	
o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	% Recovery 105		0.100 <i>Limits</i> 70 - 130	0.1122		mg/Kg		112	70 - 130	
o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	%Recovery Qu		0.100 <i>Limits</i>	0.1122		mg/Kg		112	70 - 130	
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	%Recovery Qu 105 99		0.100 <i>Limits</i> 70 - 130	0.1122			ent Sam			nple Du
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36	%Recovery Qu 105 99		0.100 <i>Limits</i> 70 - 130	0.1122			ent Sam		ab Control San	-
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid	%Recovery Qu 105 99		0.100 <i>Limits</i> 70 - 130	0.1122			ent Sam			Total/N
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid	%Recovery Qu 105 99		0.100 <i>Limits</i> 70 - 130		LCSD		ent Sam		ab Control San Prep Type:	Total/N
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576	%Recovery Qu 105 99		0.100 Limits 70 - 130 70 - 130	LCSD	LCSD Qualifier		ent Sam		ab Control San Prep Type: Prep Batc	Total/N ch: 365 R
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte	%Recovery Qu 105 99		0.100 <i>Limits</i> 70 - 130 70 - 130 Spike	LCSD		Clie		iple ID: La	ab Control San Prep Type: Prep Batc %Rec	Total/N ch: 365 R
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene	%Recovery Qu 105 99		0.100 <i>Limits</i> 70 - 130 70 - 130 Spike Added	LCSD Result		Clie		ple ID: La	ab Control San Prep Type: Prep Batc %Rec LimitsRP	Total/N ch: 365 Ri PD Lir
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene	%Recovery Qu 105 99		0.100 Limits 70 - 130 70 - 130 Spike Added 0.100	LCSD Result 0.08520		Clie Unit mg/Kg		ple ID: L a <u>%Rec</u>	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130	Total/N ch: 3650 RI <u>PD</u> Lir
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene	%Recovery Qu 105 99		0.100 Limits 70 - 130 70 - 130 Spike Added 0.100 0.100	LCSD Result 0.08520 0.08986		Clie Unit mg/Kg mg/Kg		ple ID: L a 	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130	Total/N ch: 3650 RI 2D Lir 0 1
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	%Recovery Qu 105 99		0.100 Limits 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100	LCSD Result 0.08520 0.08986 0.08939		Clie Unit mg/Kg mg/Kg mg/Kg		%Rec 85 90 89	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130	Total/N ch: 3650 RI D 1 2
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	%Recovery Qu 105 99 5502/2-A	<i>ualifier</i>	0.100 Limits 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130	Total/N ch: 3650 R D 1 2 1 1
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	%Recovery Qu 105 99 5502/2-A 	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130	Total/N ch: 3650 R D 1 2 1 1
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate		ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 Limits	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130	Total/N ch: 3650 R D 1 2 1 1
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	%Recovery Qu 105 99 5502/2-A 	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130	Total/N ch: 3650 R D 1 2 1 1
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	<u>%Recovery</u> Qu 105 99 5502/2-A <u>LCSD LC</u> %Recovery Qu 110	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 0.100 0.200 0.100 0.100	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130	Total/N ch: 3650 R D 1 2 1 1
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	<u>%Recovery</u> Qu 105 99 5502/2-A <u>LCSD LC</u> %Recovery Qu 110 88	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 0.100 0.200 0.100 0.100	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98 111	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130	Total/N ch: 3650 RI 2 1 1 1 1
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-3114-A-3	<u>%Recovery</u> Qu 105 99 5502/2-A <u>LCSD LC</u> %Recovery Qu 110 88	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 0.100 0.200 0.100 0.100	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98 111	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Total/N th: 3650 RI 2 1 1 1 1 rix Spil
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-3114-A-3 Matrix: Solid	<u>%Recovery</u> Qu 105 99 5502/2-A <u>LCSD LC</u> %Recovery Qu 110 88	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 0.100 0.200 0.100 0.100	LCSD Result 0.08520 0.08986 0.08939 0.1958		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98 111	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Total/N th: 3650 RI 2 1 1 1 1 rix Spill Total/N
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-3114-A-3 Matrix: Solid	<u>%Recovery</u> Qu 105 99 5502/2-A <u>LCSD LC</u> %Recovery Qu 110 88	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 0.100 0.200 0.100 0.100	LCSD Result 0.08520 0.08939 0.1958 0.1110		Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98 111	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 Sample ID: Mat Prep Type:	Total/N th: 3650 RI 2 1 1 1 1 rix Spill Total/N
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	<u>%Recovery</u> Qu 105 99 5502/2-A <u>LCSD</u> LC <u>%Recovery</u> Qu 110 88 33-D MS	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 Umits 70 - 130 70 - 130	LCSD Result 0.08520 0.08939 0.1958 0.1110	Qualifier	Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 85 90 89 98 111	ab Control San Prep Type: Prep Batc %Rec Limits RP 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Total/N th: 3650 RI 2 1 1 1 1 rix Spill Total/N
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-36 Matrix: Solid Analysis Batch: 36576 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-3114-A-3 Matrix: Solid Analysis Batch: 36576	<u>%Recovery</u> Qu 105 99 5502/2-A LCSD LC <i>MRecovery</i> Qu 7110 88 33-D MS Sample Sa	ualifier	0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 Uimits 70 - 130 70 - 130 70 - 130	LCSD Result 0.08520 0.08939 0.1958 0.1110	Qualifier	Clie Unit mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 85 90 89 98 111	ab Control San Prep Type: Prep Bato %Rec Limits RP 70 - 130 70 - 19 70 - 10 70	Total/N th: 3650 RI 2 1 1 1 1 rix Spill Total/N

Client: Ensolum

Project/Site: PLU 411

QC Sample Results

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

Lab Sample ID: 890-3114-A-3	33-D MS								Client	Sample ID:		
Matrix: Solid										Prep Ty		
Analysis Batch: 36576	0	0		0						Prep E	atch:	3650
A maluta	Sample			Spike			11		0/ Daa	%Rec		
	Result			Added		Qualifier	Unit	<u>D</u>	%Rec	Limits		
Ethylbenzene		U		0.101	0.08079		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene	< 0.00402			0.202	0.1745		mg/Kg		87	70 - 130		
o-Xylene	<0.00201	U		0.101	0.09974		mg/Kg		99	70 - 130		
	MS	MS										
Surrogate	%Recovery	Qua	lifier	Limits								
4-Bromofluorobenzene (Surr)	116			70 - 130								
1,4-Difluorobenzene (Surr)	99			70 - 130								
Lab Sample ID: 890-3114-A-3	33-E MSD							Client S	ample ID	: Matrix Spi	ce Duj	plicat
Matrix: Solid										Prep Ty		
Analysis Batch: 36576										Prep E		
	Sample	Sam	ple	Spike	MSD	MSD				%Rec		RP
Analyte	Result			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Benzene	<0.00201			0.0994	0.07235		mg/Kg		73	70 - 130	11	3
Toluene	<0.00201			0.0994	0.07714		mg/Kg		78	70 - 130	5	З
Ethylbenzene	<0.00201			0.0994	0.08257		mg/Kg		83	70 - 130	2	3
m-Xylene & p-Xylene	<0.00402			0.199	0.1761		mg/Kg		89	70 - 130		3
o-Xylene	<0.00201			0.0994	0.1004		mg/Kg		101	70 - 130	1	3
	MSD	MSD										
Surrogate	%Recovery	Qual		Limits								
4-Bromofluorobenzene (Surr)	120			70 - 130								
1,4-Difluorobenzene (Surr)	100			70 - 130								
Lab Sample ID: MB 880-3662	09/E A								Client S	ample ID: M	athod	Plan
Matrix: Solid	20/ 3- A								Chefit S	Prep Ty		
Analysis Batch: 36625		МВ	мв							Prep E	atch.	3002
Analyte	D		Qualifier		RL	Unit		DF	Proparod	Analyze		Dil Fa
Benzene		0200		0.002			~		Prepared 11/22 08:09	10/11/22 10		Dii Fa
Toluene			U	0.002		mg/K	-		11/22 08:09	10/11/22 10		
				0.002		mg/K	-			10/11/22 10		
Ethylbenzene		0200				mg/K			11/22 08:09			
m-Xylene & p-Xylene		0400		0.004		mg/K			11/22 08:09	10/11/22 10		
o-Xylene		0200		0.002		mg/K			11/22 08:09	10/11/22 10		
Xylenes, Total	<0.0	0400	U	0.004	UU	mg/K	g	10/	11/22 08:09	10/11/22 10	:38	
			МВ						_		_	
Surrogate	%Reco		Qualifier	Limits					Prepared	Analyze		Dil Fa
		106		70 - 130)			10/	11/22 08:09	10/11/22 10	:38	
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)		84		70 - 130					11/22 08:09	10/11/22 10		

Analysis Batch: 36625

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1103		mg/Kg		110	70 - 130	
Toluene	0.100	0.1115		mg/Kg		112	70 - 130	
Ethylbenzene	0.100	0.1048		mg/Kg		105	70 - 130	
m-Xylene & p-Xylene	0.200	0.2169		mg/Kg		108	70 - 130	

Eurofins Carlsbad

Prep Batch: 36628

Lab Sample ID: LCS 880-36628/1-A

Client: Ensolum

Matrix: Solid

Project/Site: PLU 411

QC Sample Results

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

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

									Drop	Potch:	36628
Analysis Batch: 36625									Fieb	Datch.	
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
o-Xylene			0.100	0.1075		mg/Kg		108	70 - 130		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	92		70 - 130								
Lab Sample ID: LCSD 880-3	36628/2-A					Clier	nt Sam	ple ID: I	Lab Contro		
Matrix: Solid										Type: Tot	
Analysis Batch: 36625										Batch:	
			Spike	LCSD	LCSD				%Rec		RPI
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Benzene			0.100	0.1090		mg/Kg		109	70 - 130	1	3
Toluene			0.100	0.1103		mg/Kg		110	70 - 130	1	3
Ethylbenzene			0.100	0.1027		mg/Kg		103	70 - 130	2	3
m-Xylene & p-Xylene			0.200	0.2070		mg/Kg		104	70 - 130	5	35
o-Xylene			0.100	0.1038		mg/Kg		104	70 - 130	4	3
• · · ·		LCSD									
Surrogate	%Recovery	Qualifier	Limits								
(D											
4-Bromofluorobenzene (Surr)	88		70 - 130								
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	93		70 - 130 70 - 130								
1,4-Difluorobenzene (Surr)	93							Client	Sample ID	· Matrix	Snike
1,4-Difluorobenzene (Surr)	93							Client	Sample ID		
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid	93							Client	Prep T	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr)	93 A-7-F MS	Samolo	70 - 130	МС	мс			Client	Prep T Prep		tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625	93 A-7-F MS Sample	Sample	70 ₋ 130 Spike		MS	Unit	Р		Prep T Prep %Rec	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte	93 A-7-F MS Sample Result	Qualifier	70 - 130 Spike Added	Result	MS Qualifier	Unit	D	%Rec	Prep 1 Prep %Rec Limits	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene	93 A-7-F MS 	Qualifier	70 - 130 Spike Added 0.101	Result 0.1073		mg/Kg	<u>D</u>	%Rec	Prep T Prep %Rec Limits 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene	93 A-7-F MS 	Qualifier U U	70 - 130 Spike Added 0.101 0.101	Result 0.1073 0.1092		mg/Kg mg/Kg	<u>D</u>	%Rec 106 108	Prep T Prep %Rec Limits 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene	93 A-7-F MS	Qualifier U U U	70 - 130 Spike Added 0.101 0.101 0.101	Result 0.1073 0.1092 0.09795		mg/Kg mg/Kg mg/Kg	<u>D</u>	%Rec 106 108 97	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	93 A-7-F MS 	Qualifier U U U U U	70 - 130 Spike Added 0.101 0.101 0.101 0.202	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 106 108 97 103	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene	93 A-7-F MS	Qualifier U U U U U	70 - 130 Spike Added 0.101 0.101 0.101	Result 0.1073 0.1092 0.09795		mg/Kg mg/Kg mg/Kg	D	%Rec 106 108 97	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	93 A-7-F MS 	Qualifier U U U U U U	70 - 130 Spike Added 0.101 0.101 0.101 0.202	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg	<u>D</u>	%Rec 106 108 97 103	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	93 A-7-F MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.101 0.101 0.101 0.202	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 106 108 97 103	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	93 A-7-F MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.101 0.101 0.101 0.202 0.101	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	%Rec 106 108 97 103	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00402 <0.00201 <i>Substruct State Stat</i>	Qualifier U U U U U U MS	70 - 130 Spike Added 0.101 0.101 0.202 0.101 Limits	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg	D	%Rec 106 108 97 103	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: Tot	tal/NA
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	93 A-7-F MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.101 0.101 0.202 0.101 Limits 70 - 130	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 106 108 97 103 102	Prep 1 Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: Tot Batch: :	tal/NA 36628
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/	93 A-7-F MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.101 0.101 0.202 0.101 Limits 70 - 130	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 106 108 97 103 102	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Type: Tot Batch: :	dicate
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid	93 A-7-F MS	Qualifier U U U U U U MS	70 - 130 Spike Added 0.101 0.101 0.202 0.101 Limits 70 - 130	Result 0.1073 0.1092 0.09795 0.2071		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 106 108 97 103 102	Prep T Prep %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Dike Dup	tal/NA 36628
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00402 <0.00201 <i>MS</i> <i>%Recovery</i> 99 95 A-7-G MSD	Qualifier U U U U U MS Qualifier	70 - 130 Spike Added 0.101 0.101 0.202 0.101 Limits 70 - 130 70 - 130	Result 0.1073 0.1092 0.09795 0.2071 0.1026	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 106 108 97 103 102	Prep T Prep %Rec Limits 70 - 130 70 - 130	Type: Tot Batch: :	tal/NA 36628
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 <i>MS</i> <i>%Recovery</i> 99 95 A-7-G MSD Sample	Qualifier UUUUUUUUUUUUUUUUUSAAAAAAAAAAAAAAAAAAAA	70 - 130 Spike Added 0.101 0.101 0.202 0.101 Limits 70 - 130 70 - 130 70 - 130	Result 0.1073 0.1092 0.2071 0.1026 MSD	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg	ient Sa	%Rec 106 108 97 103 102	Prep T Prep %Rec Limits 70 - 130 70 - 190 70 - 130 70 - 190 70 - 1	Dike Dup Batch: 3	blicate tal/NA 36628 tal/NA 36628 RPI
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 <i>MS</i> <i>%Recovery</i> 99 95 A-7-G MSD Sample Result	Qualifier U U U U U MS Qualifier Sample Qualifier	70 - 130 Spike Added 0.101 0.101 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 Spike Added	Result 0.1073 0.1092 0.09795 0.2071 0.1026	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg Cl		%Rec	Prep T Prep %Rec Limits 70 - 130 70 - 190 70 - 130 70 - 190 70 - 190	Dike Dup Dike Dup Dype: Tot Batch:	blicate tal/NA 36621 tal/NA 36622 RPI Limi
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 <i>MS</i> <i>%Recovery</i> 99 95 A-7-G MSD Sample	Qualifier U U U U U MS Qualifier Sample Qualifier	70 - 130 Spike Added 0.101 0.101 0.202 0.101 Limits 70 - 130 70 - 130 70 - 130	Result 0.1073 0.1092 0.2071 0.1026 MSD	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg	ient Sa	%Rec 106 108 97 103 102	Prep T Prep %Rec Limits 70 - 130 70 - 190 70 - 130 70 - 190 70 - 1	Dike Dup Batch: 3	blicate tal/NA 36621 tal/NA 36622 RPI Limi
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00201 <0.00402 <0.00201 <i>MS</i> <i>%Recovery</i> 99 95 A-7-G MSD Sample Result	Qualifier U U U U U U MS Qualifier U	70 - 130 Spike Added 0.101 0.101 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 Spike Added	Result 0.1073 0.1092 0.09795 0.2071 0.1026	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg Cl	ient Sa	%Rec	Prep T Prep %Rec Limits 70 - 130 70 - 190 70 - 130 70 - 190 70 - 190	Dike Dup Dike Dup Dype: Tot Batch:	licate tal/NA 36628 blicate tal/NA 36628 RPE Limi 38
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00201 <0.00201 MS %Recovery 99 95 A-7-G MSD Sample Result <0.00201	Qualifier U U U U U U MS Qualifier U U U	70 - 130 Spike Added 0.101 0.101 0.101 0.101 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 Spike Added 0.0994	Result 0.1073 0.1092 0.09795 0.2071 0.1026	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg Cl Unit mg/Kg	ient Sa	%Rec 106 108 97 103 102 ample ID %Rec 82	Prep T Prep 7 %Rec Limits 70 - 130 70 - 130 9 %Rec Limits 70 - 130	Dike Dup Type: Tot Dike Dup Type: Tot Batch: 3 	blicate tal/NA 36628 blicate tal/NA 36628 RPE Limi 35
1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-/ Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene	93 A-7-F MS Sample Result <0.00201 <0.00201 <0.00201 <0.00201 %Recovery 99 95 A-7-G MSD Sample Result <0.00201 <0.00201 <0.00201	Qualifier U U U U U U U MS Qualifier U U U U	70 - 130 Spike Added 0.101 0.101 0.101 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 0.202 0.101 D.202 0.101 Spike Added 0.0994 0.0994	Result 0.1073 0.1092 0.09795 0.2071 0.1026	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	ient Sa	%Rec 106 108 97 103 102 ample IC %Rec 82 85	Prep T Prep 7 %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 Prep 7 Prep 7 %Rec Limits 70 - 130 70 - 130	Dike Dup Type: Tot Batch: 3 Dike Dup Type: Tot Batch: 3 28 26	dicate

QC Sample Results

Job ID: 890-3127-1 SDG: 03E1558096

Client: Ensolum Project/Site: PLU 411

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

Lab Sample ID: 880-19920-A-7 Matrix: Solid Analysis Batch: 36625											Matrix Spik Prep Typ Prep B	e: To	tal/NA
Analysis Batch. 30020											Перь	aten.	50020
	MSD												
Surrogate	%Recovery	Qual	lifier	Limits									
4-Bromofluorobenzene (Surr)	94			70 - 130									
1,4-Difluorobenzene (Surr)	93		(D.	70 - 130									
lethod: 8015B NM - Diese	Range Or	gan		(GC)									
Lab Sample ID: MB 880-36053	/ 1-A									Client Sa	ample ID: Me	thod	Blank
Matrix: Solid											Prep Typ	e: To	tal/NA
Analysis Batch: 36023											Prep B	atch:	36053
		MB	MB										
Analyte	Re	esult	Qualifier	RL		Unit		D	P	repared	Analyzed		Dil Fac
Gasoline Range Organics	<	\$0.0	U	50.0		mg/K	ξg		10/0	04/22 10:04	10/04/22 11:	15	
GRO)-C6-C10													
Diesel Range Organics (Over	<	\$50.0	U	50.0		mg/K	ξg		10/0	04/22 10:04	10/04/22 11:	15	
C10-C28)									4010	N/00 40 0 :	1010 1100 11	4.5	
Oll Range Organics (Over C28-C36)	<	50.0	U	50.0		mg/K	g		10/0	04/22 10:04	10/04/22 11:	15	
		ΜВ	МВ										
Surrogate	%Reco	very	Qualifier	Limits					P	Prepared	Analyzed		Dil Fa
-Chlorooctane		127		70 - 130					10/0)4/22 10:04	10/04/22 11:		
-Terphenyl		142	S1+	70 - 130					10/0	04/22 10:04	10/04/22 11:	15	
nalyte				Spike Added		LCS Qualifier	Unit		D	%Rec	%Rec Limits		
Gasoline Range Organics GRO)-C6-C10				1000	810.8		mg/Kg			81	70 - 130		
Diesel Range Organics (Over C10-C28)				1000	863.7		mg/Kg			86	70 - 130		
	LCS	LCS											
Surrogate		Qual	lifier	Limits									
-Chlorooctane	106			70 - 130									
p-Terphenyl	120			70 - 130									
.ab Sample ID: LCSD 880-360 Aatrix: Solid	53/3-A						CI	ient	Sam	nple ID: L	ab Control S Prep Typ		
Analysis Batch: 36023											Prep B		
				Spike	LCSD	LCSD					%Rec		RP
Analyte				Added		Qualifier	Unit		D	%Rec	Limits	RPD	Lim
Gasoline Range Organics				1000	801.9		mg/Kg			80	70 - 130	1	2
GRO)-C6-C10							5.5						
Diesel Range Organics (Over				1000	863.0		mg/Kg			86	70 - 130	0	2
	LCSD	LCSI	D										
C10-C28)	LCSD %Recovery			Limits									
C10-C28) Surrogate 1-Chlorooctane				Limits 70 - 130									

Client: Ensolum

Project/Site: PLU 411

QC Sample Results

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

Lab Sample ID: 880-19906-A Matrix: Solid	4-8-D INIS							Client	Sample ID		
										Type: To	
Analysis Batch: 36023	Sample	Samplo	Spike	MS	MS				%Rec	Batch:	3005
Analyte	-	Qualifier	Added	Result		Unit	D	%Rec	Limits		
Gasoline Range Organics			998	1095	Quaimer			107	70 - 130		
(GRO)-C6-C10	~ 50.0	0	990	1095		mg/Kg		107	70 - 130		
Diesel Range Organics (Over	<50.0	U	998	1112		mg/Kg		109	70 - 130		
C10-C28)						0 0					
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	91		70 - 130	_							
o-Terphenyl	84		70 - 130								
Lab Sample ID: 880-19906-4	A-8-E MSD					•	Client S	Sample IL	D: Matrix Sp		
Matrix: Solid										Type: To	
Analysis Batch: 36023										Batch:	
	Sample	-	Spike		MSD				%Rec		RP
Analyte		Qualifier	Added		Qualifier	Unit	D		Limits	RPD	Lim
Gasoline Range Organics	<50.0	U	999	1092		mg/Kg		106	70 - 130	0	2
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0		999	1096		malka		108	70 - 130	1	2
C10-C28)	<50.0	0	999	1090		mg/Kg		100	70 - 130	I	2
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	91		70 - 130	_							
o-Terphenyl	82		70 - 130								
ethod: 300.0 - Anions,	Ion Chromat	ography									
Lab Sample ID: MB 880-361	54/1-A							Client S	Sample ID:	Method	Blan
Matrix: Solid	• • • • • •									Type: S	
Analysis Batch: 36309									Trop	1990.0	orabi
		MB MB									
Analyte	R	esult Qualifie	r	RL	Unit		D	Prepared	Analyz	zed	Dil Fa
Chloride	<	5.00 U		5.00	mg/k	ζg		•	10/06/22		
Lab Sample ID: LCS 880-36	154/2-A						Clier	it Sample	D: Lab Co		
Matrix: Solid									Prep	Type: S	olubi
Analysis Batch: 36309			• •						~-		
			Spike		LCS				%Rec		
Analyte			Added		Qualifier	Unit	D		Limits		
Chloride			250	267.9		mg/Kg		107	90 - 110		
Lab Sample ID: LCSD 880-3	6154/3-A					Cli	ent Sa	mple ID:	Lab Contro	ol Samp	le Du
Matrix: Solid										Type: S	
Analysis Batch: 36309										1	
			Spike	LCSD	LCSD				%Rec		RP
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Lim

Client: Ensolum

Project/Site: PLU 411

Job ID: 890-3127-1 SDG: 03E1558096

Method: 300.0 - Anions, Ion Chromatography (Continued)

-								Client	Completio		
Lab Sample ID: 880-19966-A-	41-I MS							Chem	Sample ID:	: Matrix	Spike
Matrix: Solid										Type: S	
Analysis Batch: 36309											
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	59.3	F1	250	264.6	F1	mg/Kg		82	90 - 110		
-											
Lab Sample ID: 880-19966-A-	41-J MSD					C	Client S	Sample IE	D: Matrix Sp		
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 36309											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	59.3	F1	250	256.2	F1	mg/Kg		79	90 - 110	3	20
Lab Cample ID: MD 990 2020	7/4 4							Client C	Semale ID. I	Mathad	Diank
Lab Sample ID: MB 880-3628	//1 -A							Client	Sample ID: I		
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 36379											
	_	MB MB					-	. .			
Analyte		esult Qualifier		RL	Unit		D	Prepared	Analyz		Dil Fac
Chloride	<	<5.00 U		5.00	mg/Kg]			10/07/22	10:29	1
Lah Sample ID: LCS 880-3628	R7/2-A						Clien	t Sample	D' Lah Co	ontrol S	amnle
	87/2-A						Clien	it Sample	e ID: Lab Co Pren		
Lab Sample ID: LCS 880-3628 Matrix: Solid Analysis Batch: 36379	87/2-A						Clien	it Sample		ontrol S Type: S	-
	87/2 -A		Spike	LCS	LCS		Clien	it Sample			
Matrix: Solid Analysis Batch: 36379	87/2-A		Spike Added		LCS Qualifier	Unit	Clien	t Sample %Rec	Prep		
Matrix: Solid	87/2-A					Unit mg/Kg		-	Prep [•] %Rec		
Matrix: Solid Analysis Batch: 36379 Analyte	87/2-A		Added	Result				%Rec	Prep %Rec Limits		
Matrix: Solid Analysis Batch: 36379 Analyte Chloride			Added	Result		mg/Kg	<u>D</u>	%Rec 90	Prep %Rec Limits	Type: S	oluble
Matrix: Solid Analysis Batch: 36379 Analyte			Added	Result		mg/Kg	<u>D</u>	%Rec 90	Prep %Rec Limits 90 - 110 Lab Contro	Type: S	oluble
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid			Added	Result		mg/Kg	<u>D</u>	%Rec 90	Prep %Rec Limits 90 - 110 Lab Contro	Type: S 	oluble le Dup
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid			Added	Result 225.7		mg/Kg	<u>D</u>	%Rec 90	Prep %Rec Limits 90 - 110 Lab Contro	Type: S 	oluble le Dup oluble
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362			Added 250	Result 225.7	Qualifier	mg/Kg	<u>D</u>	%Rec 90	Prep %Rec Limits 90 - 110 Lab Contro Prep	Type: S 	oluble le Dup oluble RPD
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-363 Matrix: Solid Analysis Batch: 36379 Analyte			Added 250 Spike	Result 225.7	Qualifier	mg/Kg Cli	<u>D</u> ent Sar	%Rec 90 mple ID:	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec	Type: S I Sampl Type: S	oluble le Dup oluble RPD Limit
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride	287/3-A		Added 250 Spike Added	Result 225.7 LCSD Result	Qualifier	mg/Kg Cli	<u>D</u> ent Sar	%Rec 90 mple ID: %Rec 92	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110	Type: S I Sampl Type: S <u>RPD</u> 2	ele Dup oluble oluble RPD Limit 20
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6	287/3-A		Added 250 Spike Added	Result 225.7 LCSD Result	Qualifier	mg/Kg Cli	<u>D</u> ent Sar	%Rec 90 mple ID: %Rec 92	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID	Type: S	e Dup oluble oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-363 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid	287/3-A		Added 250 Spike Added	Result 225.7 LCSD Result	Qualifier	mg/Kg Cli	<u>D</u> ent Sar	%Rec 90 mple ID: %Rec 92	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID	Type: S I Sampl Type: S <u>RPD</u> 2	e Dup oluble oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6	287/3-A -C MS		Added 250 Spike Added 250	Result 225.7 LCSD Result 230.8	Qualifier LCSD Qualifier	mg/Kg Cli	<u>D</u> ent Sar	%Rec 90 mple ID: %Rec 92	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep	Type: S	e Dup oluble oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid Analysis Batch: 36379	287/3-A -C MS Sample	-	Added 250 Spike Added 250 Spike	Result 225.7 LCSD Result 230.8	Qualifier LCSD Qualifier MS	mg/Kg Clin Unit mg/Kg	D_ ent Sar D_	%Rec 90 mple ID: %Rec 92 Client	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec	Type: S	e Dup oluble oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid Analysis Batch: 36379 Analyte	287/3-A -C MS Sample Result	Qualifier	Added 250 Spike Added 250 Spike Added	Result 225.7 LCSD Result 230.8 MS Result	Qualifier LCSD Qualifier MS Qualifier	mg/Kg Clin Unit mg/Kg Unit	<u>D</u> ent Sar	%Rec 90 mple ID: %Rec 92 Client	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits	Type: S	e Dup oluble oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid Analysis Batch: 36379 Analyte	287/3-A -C MS Sample	Qualifier	Added 250 Spike Added 250 Spike	Result 225.7 LCSD Result 230.8	Qualifier LCSD Qualifier MS Qualifier	mg/Kg Clin Unit mg/Kg	D_ ent Sar D_	%Rec 90 mple ID: %Rec 92 Client	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec	Type: S	e Dup oluble oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid Analysis Batch: 36379 Analyte Chloride	287/3-A -C MS Sample Result 741	Qualifier	Added 250 Spike Added 250 Spike Added	Result 225.7 LCSD Result 230.8 MS Result	Qualifier LCSD Qualifier MS Qualifier	mg/Kg Clin Unit mg/Kg Unit mg/Kg	D_ ent Sar D_	%Rec 90 mple ID: %Rec 92 Client %Rec 68	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID: %Rec Limits 90 - 110	Type: S I Sampl Type: S RPD 2 : Matrix Type: S	e Dup oluble RPD Limit 20 Spike oluble
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6	287/3-A -C MS Sample Result 741	Qualifier	Added 250 Spike Added 250 Spike Added	Result 225.7 LCSD Result 230.8 MS Result	Qualifier LCSD Qualifier MS Qualifier	mg/Kg Clin Unit mg/Kg Unit mg/Kg	D_ ent Sar D_	%Rec 90 mple ID: %Rec 92 Client %Rec 68	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits 90 - 110	Type: S I Sampl Type: S RPD 2 : Matrix Type: S oike Dup	e Dup oluble RPD Limit 20 Spike oluble
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid	287/3-A -C MS Sample Result 741	Qualifier	Added 250 Spike Added 250 Spike Added	Result 225.7 LCSD Result 230.8 MS Result	Qualifier LCSD Qualifier MS Qualifier	mg/Kg Clin Unit mg/Kg Unit mg/Kg	D_ ent Sar D_	%Rec 90 mple ID: %Rec 92 Client %Rec 68	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits 90 - 110	Type: S I Sampl Type: S RPD 2 : Matrix Type: S	e Dup oluble RPD Limit 20 Spike oluble
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-362 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid	287/3-A -C MS Sample Result 741 -D MSD	Qualifier F1	Added 250 Spike Added 250 Spike Added 248	Result 225.7 LCSD Result 230.8 MS Result 910.0	Qualifier LCSD Qualifier MS Qualifier F1	mg/Kg Clin Unit mg/Kg Unit mg/Kg	D_ ent Sar D_	%Rec 90 mple ID: %Rec 92 Client %Rec 68	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID %Rec Limits 90 - 110 %Rec Limits 90 - 110	Type: S I Sampl Type: S RPD 2 : Matrix Type: S oike Dup	oluble le Dup oluble RPD Limit 20 Spike oluble olicate oluble
Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: LCSD 880-363 Matrix: Solid Analysis Batch: 36379 Analyte Chloride Lab Sample ID: 890-3148-A-6 Matrix: Solid	287/3-A -C MS Sample Result 741 -D MSD Sample	Qualifier F1	Added 250 Spike Added 250 Spike Added	Result 225.7 LCSD Result 230.8 MS Pesult 910.0	Qualifier LCSD Qualifier MS Qualifier	mg/Kg Clin Unit mg/Kg Unit mg/Kg	D_ ent Sar D_	%Rec 90 mple ID: %Rec 92 Client %Rec 68	Prep %Rec Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits 90 - 110	Type: S I Sampl Type: S RPD 2 : Matrix Type: S oike Dup	oluble le Dup oluble <u>RPD</u> Limit 20 Spike oluble

QC Association Summary

Client: Ensolum Project/Site: PLU 411

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Job ID: 890-3127-1 SDG: 03E1558096

GC VOA

Prep Batch: 36502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3127-1	PH01	Total/NA	Solid	5035	
890-3127-2	PH02	Total/NA	Solid	5035	
890-3127-3	PH03	Total/NA	Solid	5035	
890-3127-4	PH03A	Total/NA	Solid	5035	
890-3127-5	PH04	Total/NA	Solid	5035	
MB 880-36502/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36502/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36502/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3114-A-33-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3114-A-33-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36576

LCO 000-30302/ 1-A	Lab Control Cample	TOtal/NA	Solid	3033		
LCSD 880-36502/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		8
890-3114-A-33-D MS	Matrix Spike	Total/NA	Solid	5035		
890-3114-A-33-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035		9
Analysis Batch: 36576						10
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-3127-1	PH01	Total/NA	Solid	8021B	36502	
890-3127-2	PH02	Total/NA	Solid	8021B	36502	
890-3127-3	PH03	Total/NA	Solid	8021B	36502	
890-3127-4	PH03A	Total/NA	Solid	8021B	36502	
890-3127-5	PH04	Total/NA	Solid	8021B	36502	40
MB 880-36502/5-A	Method Blank	Total/NA	Solid	8021B	36502	13
LCS 880-36502/1-A	Lab Control Sample	Total/NA	Solid	8021B	36502	
LCSD 880-36502/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36502	
890-3114-A-33-D MS	Matrix Spike	Total/NA	Solid	8021B	36502	
890-3114-A-33-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36502	

Analysis Batch: 36625

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3127-6	PH04A	Total/NA	Solid	8021B	36628
890-3127-7	PH04B	Total/NA	Solid	8021B	36628
MB 880-36628/5-A	Method Blank	Total/NA	Solid	8021B	36628
LCS 880-36628/1-A	Lab Control Sample	Total/NA	Solid	8021B	36628
LCSD 880-36628/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36628
880-19920-A-7-F MS	Matrix Spike	Total/NA	Solid	8021B	36628
880-19920-A-7-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36628

Prep Batch: 36628

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batc
890-3127-6	PH04A	Total/NA	Solid	5035	
890-3127-7	PH04B	Total/NA	Solid	5035	
MB 880-36628/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36628/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36628/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19920-A-7-F MS	Matrix Spike	Total/NA	Solid	5035	
880-19920-A-7-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36663

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3127-1	PH01	Total/NA	Solid	Total BTEX	
890-3127-2	PH02	Total/NA	Solid	Total BTEX	
890-3127-3	PH03	Total/NA	Solid	Total BTEX	
890-3127-4	PH03A	Total/NA	Solid	Total BTEX	
890-3127-5	PH04	Total/NA	Solid	Total BTEX	

Client: Ensolum Project/Site: PLU 411

GC VOA (Continued)

Analysis Batch: 36663 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3127-6	PH04A	Total/NA	Solid	Total BTEX	
890-3127-7	PH04B	Total/NA	Solid	Total BTEX	
_					

GC Semi VOA

Analysis Batch: 36023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-3127-1	PH01	Total/NA	Solid	8015B NM	36053	8
890-3127-2	PH02	Total/NA	Solid	8015B NM	36053	0
890-3127-3	PH03	Total/NA	Solid	8015B NM	36053	0
890-3127-4	PH03A	Total/NA	Solid	8015B NM	36053	
890-3127-5	PH04	Total/NA	Solid	8015B NM	36053	
890-3127-6	PH04A	Total/NA	Solid	8015B NM	36053	
890-3127-7	PH04B	Total/NA	Solid	8015B NM	36053	
MB 880-36053/1-A	Method Blank	Total/NA	Solid	8015B NM	36053	
LCS 880-36053/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36053	
LCSD 880-36053/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36053	
880-19906-A-8-D MS	Matrix Spike	Total/NA	Solid	8015B NM	36053	
880-19906-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36053	13

Prep Batch: 36053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-3127-1	PH01	Total/NA	Solid	8015NM Prep	
890-3127-2	PH02	Total/NA	Solid	8015NM Prep	
890-3127-3	PH03	Total/NA	Solid	8015NM Prep	
890-3127-4	PH03A	Total/NA	Solid	8015NM Prep	
890-3127-5	PH04	Total/NA	Solid	8015NM Prep	
390-3127-6	PH04A	Total/NA	Solid	8015NM Prep	
890-3127-7	PH04B	Total/NA	Solid	8015NM Prep	
MB 880-36053/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36053/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36053/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19906-A-8-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19906-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36142

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3127-1	PH01	Total/NA	Solid	8015 NM	
890-3127-2	PH02	Total/NA	Solid	8015 NM	
890-3127-3	PH03	Total/NA	Solid	8015 NM	
890-3127-4	PH03A	Total/NA	Solid	8015 NM	
890-3127-5	PH04	Total/NA	Solid	8015 NM	
890-3127-6	PH04A	Total/NA	Solid	8015 NM	
890-3127-7	PH04B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36154

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3127-1	PH01	Soluble	Solid	DI Leach	
890-3127-2	PH02	Soluble	Solid	DI Leach	
890-3127-3	PH03	Soluble	Solid	DI Leach	

Job ID: 890-3127-1

SDG: 03E1558096

QC Association Summary

Client: Ensolum Project/Site: PLU 411

HPLC/IC (Continued)

Leach Batch: 36154 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3127-4	PH03A	Soluble	Solid	DI Leach	
890-3127-5	PH04	Soluble	Solid	DI Leach	
890-3127-6	PH04A	Soluble	Solid	DI Leach	
MB 880-36154/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36154/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36154/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19966-A-41-I MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19966-A-41-J MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 36287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3127-7	PH04B	Soluble	Solid	DI Leach	
MB 880-36287/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36287/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36287/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3148-A-6-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3148-A-6-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3127-1	PH01	Soluble	Solid	300.0	36154
890-3127-2	PH02	Soluble	Solid	300.0	36154
890-3127-3	PH03	Soluble	Solid	300.0	36154
890-3127-4	PH03A	Soluble	Solid	300.0	36154
890-3127-5	PH04	Soluble	Solid	300.0	36154
890-3127-6	PH04A	Soluble	Solid	300.0	36154
MB 880-36154/1-A	Method Blank	Soluble	Solid	300.0	36154
LCS 880-36154/2-A	Lab Control Sample	Soluble	Solid	300.0	36154
LCSD 880-36154/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36154
880-19966-A-41-I MS	Matrix Spike	Soluble	Solid	300.0	36154
880-19966-A-41-J MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36154

Analysis Batch: 36379

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3127-7	PH04B	Soluble	Solid	300.0	36287
MB 880-36287/1-A	Method Blank	Soluble	Solid	300.0	36287
LCS 880-36287/2-A	Lab Control Sample	Soluble	Solid	300.0	36287
LCSD 880-36287/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36287
890-3148-A-6-C MS	Matrix Spike	Soluble	Solid	300.0	36287
890-3148-A-6-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36287

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Job ID: 890-3127-1 SDG: 03E1558096

Job ID: 890-3127-1 SDG: 03E1558096

Lab Sample ID: 890-3127-1 Matrix: Solid

Lab Sample ID: 890-3127-2

Lab Sample ID: 890-3127-3

Lab Sample ID: 890-3127-4

Matrix: Solid

Matrix: Solid

Date Collected: 09/29/22 13:30 Date Received: 10/03/22 13:04

Client Sample ID: PH01

Client: Ensolum

Project/Site: PLU 411

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36502	10/10/22 08:19	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36576	10/10/22 17:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36663	10/11/22 10:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36142	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 15:26	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	36154	10/05/22 10:31	KS	EET MID
Soluble	Analysis	300.0		1			36309	10/07/22 03:05	СН	EET MID

Client Sample ID: PH02

Date Collected: 09/29/22 12:20

Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36502	10/10/22 08:19	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36576	10/10/22 17:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36663	10/11/22 10:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36142	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 15:48	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36154	10/05/22 10:31	KS	EET MID
Soluble	Analysis	300.0		1			36309	10/07/22 03:13	СН	EET MID

Client Sample ID: PH03

Date Collected: 09/29/22 12:30

Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	36502	10/10/22 08:19	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36576	10/10/22 17:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36663	10/11/22 10:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36142	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 16:09	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36154	10/05/22 10:31	KS	EET MID
Soluble	Analysis	300.0		1			36309	10/07/22 03:21	CH	EET MID

Client Sample ID: PH03A Date Collected: 09/30/22 10:15 Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36502	10/10/22 08:19	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36576	10/10/22 18:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36663	10/11/22 10:15	AJ	EET MID

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Released to Imaging: 2/12/2024 4:32:11 PM

Matrix: Solid

Job ID: 890-3127-1 SDG: 03E1558096

Lab Sample ID: 890-3127-4 Matrix: Solid

Lab Sample ID: 890-3127-5

Date Collected: 09/30/22 10:15 Date Received: 10/03/22 13:04

Client Sample ID: PH03A

Client: Ensolum

Project/Site: PLU 411

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			36142	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	36154	10/05/22 10:31	KS	EET MID
Soluble	Analysis	300.0		1			36309	10/07/22 03:29	СН	EET MID

Client Sample ID: PH04

Date Collected: 09/29/22 12:55 Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	36502	10/10/22 08:19	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36576	10/10/22 18:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36663	10/11/22 10:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36142	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 17:10	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	36154	10/05/22 10:31	KS	EET MID
Soluble	Analysis	300.0		1			36309	10/07/22 03:36	СН	EET MID

Client Sample ID: PH04A

Date Collected: 09/29/22 13:05 Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36628	10/11/22 08:09	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 12:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36663	10/11/22 10:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36142	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 17:30	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	36154	10/05/22 10:31	KS	EET MID
Soluble	Analysis	300.0		1			36309	10/07/22 03:44	СН	EET MID

Client Sample ID: PH04B

Date Collected: 09/30/22 10:30 Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36628	10/11/22 08:09	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 12:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36663	10/11/22 10:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36142	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 17:51	SM	EET MID

Eurofins Carlsbad

> 11 12 13

Lab Sample ID: 890-3127-6

Matrix: Solid

Matrix: Solid

Lab	Sample	ID:	890-3127-7
			Matrix: Solid

Lab Chronicle

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3127-1 SDG: 03E1558096

Client Sample ID: PH04B Date Collected: 09/30/22 10:30

Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	5
Soluble	Leach	DI Leach			5.03 g	50 mL	36287	10/06/22 15:32	KS	EET MID	
Soluble	Analysis	300.0		1			36379	10/07/22 14:30	СН	EET MID	

Laboratory References:

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

Lab Sample ID: 890-3127-7 Matrix: Solid

Accreditation/Certification Summary

Client: Ensolum Project/Site: PLU 411

Laboratory: Eurofins Midland

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

thority		Program	Identification Number	Expiration Date
exas		NELAP	T104704400-22-24	06-30-23
The following analytes the agency does not o Analysis Method		but the laboratory is not certifi Matrix	ed by the governing authority. This list ma	ay include analytes for wh
	i iop monou			
		Solid	Total TPH	
8015 NM		Solid	Total TPH	

10

Job ID: 890-3127-1

SDG: 03E1558096

Method Summary

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3127-1 SDG: 03E1558096

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: PLU 411

b Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
0-3127-1	PH01	Solid	09/29/22 13:30	10/03/22 13:04	1	
0-3127-2	PH02	Solid	09/29/22 12:20	10/03/22 13:04	1	
0-3127-3	PH03	Solid	09/29/22 12:30	10/03/22 13:04	1	
0-3127-4	PH03A	Solid	09/30/22 10:15	10/03/22 13:04	2	
0-3127-5	PH04	Solid	09/29/22 12:55	10/03/22 13:04	0.5	
0-3127-6	PH04A	Solid	09/29/22 13:05	10/03/22 13:04	1	
0-3127-7	PH04B	Solid	09/30/22 10:30	10/03/22 13:04	2	

yr Name: Ensolum Company Name: XTO Energy ar:2: 303-887.2946 Enail: Garrestad, NM 88220 303-887.2946 smane: PLU 411 Tum Avanta Firestic Green R 303-887.2946 smane: Connor Whitman Tur Starts the day received by control by a 30pm Firestic Green R Firestic Green R stander Connor Whitman The bab, if received by 4.30pm Firestic Green R Firestic Green R stander Connor Whitman The bab, if received by 4.30pm Firestic Green R Firestic Green R standord Inact: Connected Temperature Reading: Concected Temperature Reading: Concected Temperature Reading: D Sample Identification Matrix Sampled Sampled Sampled Sampled Sampled		Ben Belili		EL Paso, TX Hobbs, NM Bill to: (if different)	EL Paso, TX (915) 585-3443, Lubbock. TX (906) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 (ifferent) Garrett Green	
Ite 3122 National Parks Hwy Address: 3104 E Green St. Ite Carisbad, NM 88220 City, State ZIP. Carisbad, NM 88220 303-887-2946 Email: Garrett Green @ExxonMobil.com Address: 303-887-2946 Email: Garrett Green @ExxonMobil.com Address: 303-887-2946 Comor Whitman Turn Around Received Intact: Comor Whitman Number: OSE1558096 Comor Whitman The lab. Incover by krowed by kr30pm File lab. Incover by krawed by kr30pm 's Name: Comor Whitman The momenter ID The lab. Incover by kr30pm File lab. Incover by kr30pm 's Name: Comor Whitman The lab. Incover by kr30pm File lab. Incover by kr30pm File lab. Incover by kr30pm 's Name: Comor Whitman The lab. Incover badding Series No File lab. Incover badding File lab. Incover badding 's Name: Comor Whitman The lab. Incover badding Series No File lab. Incover badding File lab. Incover badding 's Name: Comor Whitman Series No Series No Series No File lab. Incover badding LE RECEIPT Leg No Mathew Series Sampled Sampled Sampled Sampled Series No File lab. Incover Sample Sampled Sampled Series No Semple Identification </th <th></th> <th>en Belill nsolum</th> <th></th> <th>Bill to: (if different) Company Name:</th> <th>Garrett Green XTO Energy</th> <th>Work Order Comments Program: UST/PST PRP Brownfields RRC Superfund</th>		en Belill nsolum		Bill to: (if different) Company Name:	Garrett Green XTO Energy	Work Order Comments Program: UST/PST PRP Brownfields RRC Superfund
Iter Carlsbad, NM 86220 Email: Garratt Green@ExcomMobil.com Name: PIU 411 Tum Around O3E 1558096 Reunine Iterantic Garratt Green@ExcomMobil.com Name: 03E 1558096 Reunine Iterantic Garratt Green@ExcomMobil.com AMAL Same: Connor Whilman Tits stars the day received by The basic fractions by day received by Satisfy Seals: Tamp Blank: No Met basic Satisfy Satisfy Basic AMAL LE RECEIPT Tamp Blank: Ves No Met basic Satisfy Satisfy Basic Satisfy Satisfy Basic AmAL Sample Identification Marin Satisfy Satisfy Basic Satisfy Satisfy Satisfy Basic Satisfy Satisfy Basis		122 National Parks Hwy		Address:	3104 E. Green St.	
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Name: PLU 411 Turn Around Rounine Turn Around Rounine Turn Around Rounine Tasus the day received by the lab, fr re		03-887-2946	Email:	Garrett.Green@Ex	(onMobil.com	
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eurofins.

Chain of Custody

Job Number: 890-3127-1 SDG Number: 03E1558096

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 3127 List Number: 1 Creator: Clifton, Cloe

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	

14

Job Number: 890-3127-1 SDG Number: 03E1558096

List Source: Eurofins Midland

List Creation: 10/04/22 10:34 AM

Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 3127 List Number: 2 Creator: Rodriguez, Leticia

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	N/A	

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LINKS

Review your project results through

EOL

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3129-1

Laboratory Sample Delivery Group: 03E1558096 Client Project/Site: PLU 411

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 10/11/2022 4:03:04 PM Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com

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

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

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QC Association Summary	13
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Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20
-	

	Demitions/Glossary		
Client: Ensolum Project/Site: PL		Job ID: 890-3129-1 SDG: 03E1558096	2
Qualifiers			3
GC VOA Qualifier	Qualifier Description		4
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VOA Qualifier	Qualifier Description		5
S1+	Surrogate recovery exceeds control limits, high biased.		
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC Qualifier	Qualifier Description		7
U	Indicates the analyte was analyzed for but not detected.		8
Glossary			9
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		19
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		

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Positive / Present

Presumptive

Quality Control

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

POS

PQL

PRES

QC

RER RL

RPD TEF

TEQ TNTC

10/11/2022

Case Narrative

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3129-1 SDG: 03E1558096

Job ID: 890-3129-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3129-1

Receipt

The samples were received on 10/3/2022 1:04 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions

The following samples analyzed for method <FRACTION_METHOD> were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3129-1), SW01 (890-3129-2) and SW02 (890-3129-3). SAMPLES WERE RECEIVED FROM UNPRESERVED BULK SOIL

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-19920-A-7-H). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-36053 and analytical batch 880-36023 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS01 (890-3129-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

4

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Unit

Unit

mg/Kg

mg/Kg

D

D

D

Prepared

10/11/22 08:09

10/11/22 08:09

10/11/22 08:09

10/11/22 08:09

10/11/22 08:09

10/11/22 08:09

Prepared

10/11/22 08:09

10/11/22 08:09

Prepared

Prepared

Dil Fac

1

1

1

1

1

1

1

1

Dil Fac

Dil Fac

Dil Fac

Job ID: 890-3129-1 SDG: 03E1558096

Client Sample ID: FS01

Date Collected: 09/30/22 14:40 Date Received: 10/03/22 13:04

Sample Depth: 1 - 2'

Client: Ensolum

Analyte

Project/Site: PLU 411

SDG: 03E1558

Analyzed

10/11/22 13:05

10/11/22 13:05

10/11/22 13:05

10/11/22 13:05

10/11/22 13:05

10/11/22 13:05

Analyzed

10/11/22 13:05

10/11/22 13:05

Analyzed

10/11/22 13:27

Analyzed

10/05/22 09:29

Lab Sample ID: 890-3129-2

Matrix: Solid

Lab Sample ID: 890-3129-1 Matrix: Solid

0.0020 0.0020	<0.00200 U e <0.00200 U
0.0020	e <0.00200 U
0.0040	p-Xylene <0.00400 U
0.0020	<0.00200 U
0.0040	al <0.00400 U
Limits	%Recovery Qualifier
Limits 70 - 130	robenzene (Surr) 712 Qualifier
	benzene (Surr) 112 benzene (Surr) 100
70 - 130	robenzene (Surr) 112
70 - 130 70 - 130	robenzene (Surr) 112 benzene (Surr) 100 FAL SOP Total BTEX - Total BTEX Calculation
70 - 130 70 - 130 70 - 130 F 0.0040	Importance (Surr) 112 benzene (Surr) 100 Important SOP Total BTEX - Total BTEX Calculation Result Qualifier
0.0	<0.00200 U

Result Qualifier

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 18:12	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 18:12	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 18:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			10/04/22 12:00	10/04/22 18:12	1
o-Terphenyl	133	S1+	70 - 130			10/04/22 12:00	10/04/22 18:12	1

RL

Method: MCAWW 300.0 - Anions, I	on Chromatography - So	luble					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	156	4.97	mg/Kg			10/07/22 12:05	1

Client Sample ID: SW01 Date Collected: 09/30/22 14:15

Date Received: 10/03/22 13:04 Sample Depth: 0 - 2'

Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC))					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 13:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 13:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 13:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/11/22 08:09	10/11/22 13:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 13:25	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/11/22 08:09	10/11/22 13:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/11/22 08:09	10/11/22 13:25	1

Eurofins Carlsbad

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Client Sample Results

Job ID: 890-3129-1 SDG: 03E1558096

Lab Sample ID: 890-3129-2

Lab Sample ID: 890-3129-3

Matrix: Solid

1

1

1

1

1

1

1

1

Client Sample ID: SW01

Date Collected: 0 0/22 44.45

Date Received: 1 Sample Depth: 0

Client: Ensolum

Project/Site: PLU 411

J9/30/22 14:15	
0/03/22 13:04	
- 2'	

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130			10/11/22 08:09	10/11/22 13:25	1
Method: TAL SOP Total BTEX - 1	Total BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/11/22 13:27	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/05/22 09:29	1
Gasoline Range Organics (GRO)-C6-C10	<49.9		49.9	mg/Kg		10/04/22 12:00	10/04/22 18:33	1
Method: SW846 8015B NM - Dies Analyte	Result	Qualifier		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 18:33	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/04/22 12:00	10/04/22 18:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130			10/04/22 12:00	10/04/22 18:33	1
o-Terphenyl	128		70 - 130			10/04/22 12:00	10/04/22 18:33	1
Method: MCAWW 300.0 - Anions		Ouglifier		Unit	п	Propared	Analyzod	Dil Eac

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93.4	4.97	mg/Kg			10/07/22 12:13	1

Client Sample ID: SW02

Date Collected: 09/30/22 14:20 Date Received: 10/03/22 13:04 Sample Depth: 0 - 2'

Analyte

Benzene

Toluene

o-Xylene

Method: SW846 8021B - Volatile Organic Compounds (GC) Result Qualifier RL Unit D Prepared Analyzed Dil Fac <0.00200 U 0.00200 mg/Kg 10/11/22 08:09 10/11/22 15:31 <0.00200 U 0.00200 10/11/22 08:09 10/11/22 15:31 mg/Kg Ethylbenzene <0.00200 U 0.00200 mg/Kg 10/11/22 08:09 10/11/22 15:31 0.00399 m-Xylene & p-Xylene <0.00399 U 10/11/22 08:09 10/11/22 15:31 mg/Kg <0.00200 U 0.00200 mg/Kg 10/11/22 08:09 10/11/22 15:31 Xylenes, Total <0.00399 U 0.00399 mg/Kg 10/11/22 08:09 10/11/22 15:31 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 107 70 - 130 10/11/22 08:09 4-Bromofluorobenzene (Surr) 10/11/22 15:31 1,4-Difluorobenzene (Surr) 91 70 - 130 10/11/22 08:09 10/11/22 15:31

Method: TAL SOP Total B	STEX - Total BTEX Cal	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/11/22 13:27	1
Method: SW846 8015 NM	- Diesel Range Organ	ics (DRO) (C	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	ma/Ka			10/05/22 09:29	1

Eurofins Carlsbad

Matrix: Solid

Client Sample Results

Job ID: 890-3129-1
SDG: 03E1558096

Matrix: Solid

Lab Sample ID: 890-3129-3

Client Sample ID: SW02

Client: Ensolum Project/Site: PLU 411

Date Collected: 09/30/22 14:20

Date Received: 10/03/22 13:04

Samp	le Depth:	: 0 - 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 18:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 18:54	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/04/22 12:00	10/04/22 18:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130			10/04/22 12:00	10/04/22 18:54	1
o-Terphenyl	124		70 - 130			10/04/22 12:00	10/04/22 18:54	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	graphy - So	oluble					
Analyte	Desult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

н						
L	Chloride	703	4.99	mg/Kg	10/07/22 12:21	1

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Released to Imaging: 2/12/2024 4:32:11 PM

Job ID: 890-3129-1 SDG: 03E1558096

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	4
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
880-19920-A-7-F MS	Matrix Spike	99	95		
880-19920-A-7-G MSD	Matrix Spike Duplicate	94	93		6
890-3129-1	FS01	112	100		
890-3129-2	SW01	115	102		7
890-3129-3	SW02	107	91		
LCS 880-36628/1-A	Lab Control Sample	89	92		8
LCSD 880-36628/2-A	Lab Control Sample Dup	88	93		U
MB 880-36628/5-A	Method Blank	106	84		0
.					3
Surrogate Legend					

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-19906-A-8-D MS	Matrix Spike	91	84
880-19906-A-8-E MSD	Matrix Spike Duplicate	91	82
890-3129-1	FS01	121	133 S1+
890-3129-2	SW01	115	128
890-3129-3	SW02	111	124
LCS 880-36053/2-A	Lab Control Sample	106	120
LCSD 880-36053/3-A	Lab Control Sample Dup	107	120
MB 880-36053/1-A	Method Blank	127	142 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

Client: Ensolum

Job ID: 890-3129-1 SDG: 03E1558096

Project/Site: PLU 411 Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3662 Matrix: Solid Analysis Batch: 36625	28/ 5-A									Client Sa	mple ID: N Prep Ty Prep I	vpe: To	
	_	MB MB						_	_			_	
Analyte		sult Qua	alifier			Unit		<u>D</u>		repared	Analyze		Dil Fa
Benzene		0200 U		0.00200		mg/K	-			1/22 08:09	10/11/22 10		
Toluene		0200 U		0.00200		mg/K	-			1/22 08:09	10/11/22 10		
Ethylbenzene		0200 U		0.00200		mg/K				1/22 08:09	10/11/22 10		
m-Xylene & p-Xylene		0400 U		0.00400		mg/K	-			1/22 08:09	10/11/22 10		
o-Xylene	<0.00	0200 U		0.00200		mg/K	-		10/1	1/22 08:09	10/11/22 10	0:38	
Xylenes, Total	<0.00	0400 U		0.00400		mg/K	9		10/11	1/22 08:09	10/11/22 10	0:38	
Suma mata	%/Deee	MB MB	lifian	Limite						vonovod	A		
Surrogate	%Reco	<u> </u>	alifier	Limits						repared	Analyze		Dil Fa
4-Bromofluorobenzene (Surr)		106		70 - 130						1/22 08:09	10/11/22 1		
1,4-Difluorobenzene (Surr)		84		70 - 130					10/1	1/22 08:09	10/11/22 1	0:38	
Lab Sample ID: LCS 880-366 Matrix: Solid Analysis Batch: 36625	628/1-A							C	lient	Sample			otal/N
				Spike		LCS					%Rec		
Analyte				Added		Qualifier	Unit		D	%Rec	Limits		
Benzene				0.100	0.1103		mg/Kg			110	70 - 130		
Toluene				0.100	0.1115		mg/Kg			112	70 - 130		
Ethylbenzene				0.100	0.1048		mg/Kg			105	70 - 130		
				0.000	0.2169		mg/Kg			108	70 - 130		
m-Xylene & p-Xylene				0.200	0.2100								
m-Xylene & p-Xylene o-Xylene				0.200	0.1075		mg/Kg			108	70 - 130		
o-Xylene	LCS			0.100			mg/Kg			108			
o-Xylene Surrogate	%Recovery	LCS Qualifier		0.100 <i>Limits</i>			mg/Kg			108			
o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	<u>%Recovery</u> 89			0.100 Limits 70 - 130			mg/Kg			108			
o-Xylene Surrogate	%Recovery			0.100 <i>Limits</i>			mg/Kg			108			
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30	%Recovery 89 92			0.100 Limits 70 - 130				ient	Sam		70 - 130 ab Control		
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	%Recovery 89 92			0.100 Limits 70 - 130				ient	Sam		70 - 130		
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30	%Recovery 89 92			0.100 Limits 70 - 130				ient	Sam		70 - 130 ab Control Prep Ty		otal/N
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid	%Recovery 89 92			0.100 Limits 70 - 130	0.1075	LCSD		ient	Sam		70 - 130 ab Control Prep Ty	pe: To	otal/N 3662
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625	%Recovery 89 92			0.100 Limits 70 - 130 70 - 130	0.1075 LCSD	LCSD Qualifier		ient	Sam		70 - 130 ab Control Prep Ty Prep I	pe: To	otal/N 3662 RF
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte	%Recovery 89 92			0.100 <i>Limits</i> 70 - 130 70 - 130 Spike	0.1075 LCSD		CI	ient		ple ID: L	70 - 130 ab Control Prep Ty Prep I %Rec	vpe: To Batch:	otal/N 3662 RF Lin
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene	%Recovery 89 92			0.100 <i>Limits</i> 70 - 130 70 - 130 Spike Added	0.1075 LCSD Result		CI	ient		ple ID: L	70 - 130 ab Control Prep Ty Prep I %Rec Limits	vpe: To Batch:	otal/N 3662 RF Lin
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid	%Recovery 89 92			0.100 Limits 70 - 130 70 - 130 Spike Added 0.100	0.1075 LCSD Result 0.1090		CI Unit mg/Kg	ient		ple ID: L <u>%Rec</u> 109	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130	pe: To Batch: RPD 1	otal/N 3662 RF Lin
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene	%Recovery 89 92			0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100	0.1075 LCSD Result 0.1090 0.1103		CI Unit mg/Kg mg/Kg	ient		ple ID: L <u>%Rec</u> 109 110	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 130	vpe: To Batch: RPD 1 1	2010 2 3662 RF
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene	%Recovery 89 92			0.100 Limits 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100	0.1075 LCSD Result 0.1090 0.1103 0.1027		CI mg/Kg mg/Kg mg/Kg	ient		ple ID: L <u>%Rec</u> 109 110 103	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 130 70 - 130	rpe: To Batch: RPD 1 1 2	20000000000000000000000000000000000000
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	89 92 6628/2-A	Qualifier		0.100 <i>Limits</i> 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070		CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	RPD 1 2 5	20000000000000000000000000000000000000
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	<u>%Recovery</u> 89 92 6628/2-A	Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070		CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	RPD 1 2 5	20000000000000000000000000000000000000
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate		Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.100 Limits	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070		CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	RPD 1 2 5	20000000000000000000000000000000000000
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	<u>%Recovery</u> 89 92 6628/2-A	Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070		CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	RPD 1 2 5	20000000000000000000000000000000000000
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)		Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.100 0.200 0.100 0.100 0.200 0.100 0.100 0.200 0.100	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070		CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104 104	70 - 130 ab Control Prep Ty Prep 1 %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	RPD 1 1 2 5 4	20141/N 3662 RP <u>Lim</u> 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-A		Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.100 0.200 0.100 0.100 0.200 0.100 0.100 0.200 0.100	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070		CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 130	RPD 1 1 2 5 4 Matrix	stal/N 3662 RP Lim 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-A Matrix: Solid		Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.100 0.200 0.100 0.100 0.200 0.100 0.100 0.200 0.100	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070		CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 100 70	Appe: To Batch: RPD 1 1 2 5 4 4 Matrix ype: To	s Spik
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-A		Qualifier LCSD Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 Uimits 70 - 130 70 - 130	0.1075 LCSD Result 0.1090 0.1103 0.1027 0.2070 0.1038	Qualifier	CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 170 Prep Ty Prep Ty Prep I	RPD 1 1 2 5 4 Matrix	stal/N. 3662 RP Lim 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-A Matrix: Solid Analysis Batch: 36625	- %Recovery 89 92 6628/2-A - <i>LCSD</i> %Recovery 88 93 -7-F MS Sample	Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 0.200 0.100 0.100 0.200 0.100 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.000000 0.00000 0.00000000	0.1075 LCSD Result 0.1090 0.1103 0.2070 0.2070 0.1038	Qualifier	CI mg/Kg mg/Kg mg/Kg mg/Kg	ient	<u>D</u>	%Rec 109 110 103 104 104 Client S	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 190 %Rec	Appe: To Batch: RPD 1 1 2 5 4 4 Matrix ype: To	s Spik
o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-30 Matrix: Solid Analysis Batch: 36625 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 880-19920-A Matrix: Solid	- %Recovery 89 92 6628/2-A - <i>LCSD</i> %Recovery 88 93 -7-F MS Sample	Qualifier LCSD Qualifier Sample Qualifier		0.100 Limits 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100 0.100 0.200 0.100 0.200 0.100 Uimits 70 - 130 70 - 130	0.1075 LCSD Result 0.1090 0.1103 0.2070 0.2070 0.1038	Qualifier	CI mg/Kg mg/Kg mg/Kg	ient		%Rec 109 110 103 104 104	70 - 130 ab Control Prep Ty Prep I %Rec Limits 70 - 130 70 - 170 Prep Ty Prep Ty Prep I	Appe: To Batch: RPD 1 1 2 5 4 4 Matrix ype: To	stal/N. 3662 RP Lim 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

Client: Ensolum

Project/Site: PLU 411

QC Sample Results

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

Lab Sample ID: 880-19920-A-7	′-F MS									Client S	Sample ID:		
Matrix: Solid											Prep Ty	-	
Analysis Batch: 36625											Prep I	Batch:	3662
	Sample	Sam	ple	Spike	MS	MS					%Rec		
Analyte	Result	Qual	ifier	Added	Result	Qualifier	Unit		D	%Rec	Limits		
Ethylbenzene	<0.00201	U		0.101	0.09795		mg/Kg			97	70 - 130		
m-Xylene & p-Xylene	<0.00402	U		0.202	0.2071		mg/Kg			103	70 - 130		
o-Xylene	<0.00201	U		0.101	0.1026		mg/Kg			102	70 - 130		
	MS	мs											
Surrogate	%Recovery	Qual	ifier	Limits									
4-Bromofluorobenzene (Surr)	99			70 - 130									
1,4-Difluorobenzene (Surr)	95			70 - 130									
Lab Sample ID: 880-19920-A-7	'-G MSD						(Clien	t Sa	mple ID:	: Matrix Spi	ke Dur	olicat
Matrix: Solid										1 - C	Prep Ty		
Analysis Batch: 36625												Batch:	
,,	Sample	Sam	ple	Spike	MSD	MSD					%Rec		RPI
Analyte	Result			Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Benzene	<0.00201			0.0994	0.08107		mg/Kg			82	70 - 130	28	3
Toluene	<0.00201			0.0994	0.08422		mg/Kg			85	70 - 130	26	3
Ethylbenzene	<0.00201			0.0994	0.07745		mg/Kg			78	70 - 130	23	3
m-Xylene & p-Xylene	<0.00201			0.199	0.1614		mg/Kg			81	70 - 130	25	3
				0.0994	0.07982					80	70 - 130 70 - 130	25	3
p-Xylene	<0.00201			0.0994	0.07962		mg/Kg			00	70 - 130	25	3
Surrogate		MSD Qual		Limits									
4-Bromofluorobenzene (Surr)		Quai		70 - 130									
1,4-Difluorobenzene (Surr)	93			70 - 130 70 - 130									
lethod: 8015B NM - Diese	I Range Or	gan	ics (DR	O) (GC)									
Lab Sample ID: MB 880-36053	/1-A								C	Client Sa	ample ID: M	ethod	Blan
Matrix: Solid											D	no: To	
											Prep Ty	pe. 10	tal/N/
Analysis Batch: 36023												Batch:	
Analysis Batch: 36023		мв	МВ										
-	Re		MB Qualifier	RL		Unit		D	Pre	epared		Batch:	
Analyte Gasoline Range Organics			Qualifier			Unit mg/K	g			epared //22 10:04	Prep I	Batch:	3605 Dil Fa
Analysis Batch: 36023 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10 C28)	<	esult	Qualifier U				-		10/04	•	Prep I Analyze	Batch: d	3605
Analyte Gasoline Range Organics (GRO)-C6-C10	<	50.0	Qualifier U	50.0		mg/K	g		10/04 10/04	/22 10:04	Prep I Analyze 10/04/22 12	Batch: d 1:15	3605 Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<	50.0	Qualifier U U	50.0		mg/K	g		10/04 10/04	/22 10:04	Prep I Analyze 10/04/22 1 10/04/22 1	Batch: d 1:15	3605 Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<	esult 50.0 50.0 50.0 MB	Qualifier U U MB	50.0		mg/K	g		10/04 10/04 10/04	/22 10:04	Prep I Analyze 10/04/22 1 10/04/22 1	d 1:15 1:15	3605 Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	< < <	esult 50.0 50.0 50.0 MB	Qualifier U U MB	50.0 50.0 50.0		mg/K	g		10/04 10/04 10/04 Pr e	/22 10:04 //22 10:04 //22 10:04	Prep I Analyze 10/04/22 11 10/04/22 11 10/04/22 11	d 1:15 1:15 1:15	3605 Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) DII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	< < <	250.0 50.0 50.0 <i>MB</i> <i>very</i>	Qualifier U U U MB Qualifier	50.0 50.0 50.0 <i>Limits</i>		mg/K	g		10/04 10/04 10/04 Pr o 10/04	/22 10:04 /22 10:04 /22 10:04 /22 10:04	Prep E Analyze 10/04/22 11 10/04/22 11 10/04/22 11 Analyze	d 1:15 1:15 1:15 1:15 d 1:15	3605 Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) DII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane p-Terphenyl	<	esult 50.0 50.0 50.0 MB very 127	Qualifier U U U MB Qualifier	50.0 50.0 50.0 <u>Limits</u> 70 - 130		mg/K	g		10/04 10/04 10/04 <i>Pro</i> 10/04 10/04	<pre>//22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04</pre>	Prep I Analyze 10/04/22 1* 10/04/22 1* 10/04/22 1* Analyze 10/04/22 1*	d 1:15 1:15 1:15 d 1:15 d 1:15	3605 Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<	esult 50.0 50.0 50.0 MB very 127	Qualifier U U U MB Qualifier	50.0 50.0 50.0 <u>Limits</u> 70 - 130		mg/K	g		10/04 10/04 10/04 <i>Pro</i> 10/04 10/04	<pre>//22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04</pre>	Prep I Analyze 10/04/22 1* 10/04/22 1* 10/04/22 1* 10/04/22 1* 10/04/22 1* 10/04/22 1* 10/04/22 1* 10/04/22 1*	d 1:15 1:15 1:15 1:15 1:15 1:15 1:15	3605 Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane to-Terphenyl Lab Sample ID: LCS 880-36053 Matrix: Solid	<	esult 50.0 50.0 50.0 MB very 127	Qualifier U U U MB Qualifier	50.0 50.0 50.0 <u>Limits</u> 70 - 130		mg/K	g		10/04 10/04 10/04 <i>Pro</i> 10/04 10/04	<pre>//22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04</pre>	Prep I Analyze 10/04/22 1 ⁻² 10/04/22 1 ⁻² 10/04/22 1 ⁻² Analyze 10/04/22 1 ⁻² 10/04/22 1 ⁻² 10 ⁻	d d 1:15 1:15 d 1:15 d 1:15 d 1:15 d 1:15 d 1:15 pe: To	3605 Dil Fa Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCS 880-36053	<	esult 50.0 50.0 50.0 MB very 127	Qualifier U U U MB Qualifier	50.0 50.0 50.0 <u>Limits</u> 70 - 130		mg/K	g		10/04 10/04 10/04 <i>Pro</i> 10/04 10/04	<pre>//22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04 //22 10:04</pre>	Prep I Analyze 10/04/22 1 ⁻² 10/04/22 1 ⁻² 10/04/22 1 ⁻² Analyze 10/04/22 1 ⁻² 10/04/22 1 ⁻² 10 ⁻	d 1:15 1:15 1:15 1:15 1:15 1:15 1:15	3605 Dil Fa Dil Fa

	opine	200	200				/01000	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	810.8		mg/Kg		81	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	863.7		mg/Kg		86	70 - 130	
C10-C28)								

QC Sample Results

Job ID: 890-3129-1 SDG: 03E1558096

Client: Ensolum Project/Site: PLU 411

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

Lab Sample ID: LCS 880-360 Matrix: Solid)53/2-A						Client	Sample	ID: Lab Co Bron 1		
										Type: Tot	
Analysis Batch: 36023									Prep	Batch:	3605
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	106		70 - 130								
o-Terphenyl	120		70 - 130								
Lab Sample ID: LCSD 880-36	6053/3-0					Clior	nt Sam		Lab Contro	Sample	
Matrix: Solid	JUJJ/J-A					Cilei	it San	ipie ib. i		Type: Tot	
Analysis Batch: 36023										Batch:	
Analysis Batch. 50025			Spike		LCSD				%Rec	Datch.	RP
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Gasoline Range Organics			1000	801.9	Quaimer	mg/Kg		80	70 - 130	1	2
(GRO)-C6-C10			1000	001.5		mg/rtg		00	70 - 150	I	2
Diesel Range Organics (Over C10-C28)			1000	863.0		mg/Kg		86	70 - 130	0	2
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	120		70 - 130								
Lab Sample ID: 880-19906-A Matrix: Solid	-8-D MS							Client	Sample ID Prep 1	: Matrix Type: Tot	
Analysis Batch: 36023									Prep	Batch:	3605
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1095		mg/Kg		107	70 - 130		
Diesel Range Organics (Over	<50.0	U	998	1112		mg/Kg		109	70 - 130		
	MS	MS									
C10-C28)		MS Qualifier	Limits								
C10-C28) Surrogate	MS %Recovery 		Limits								
C10-C28) Surrogate 1-Chlorooctane	%Recovery										
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl	<u>%Recovery</u> 91 84		70 - 130			CI	iont S	ample IF). Matrix Sr	oike Dun	licat
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A	<u>%Recovery</u> 91 84		70 - 130			Cli	ient Sa	ample IC): Matrix Sp Pren 1		
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid	<u>%Recovery</u> 91 84		70 - 130			Cli	ient Sa	ample IE	Prep 1	Type: Tot	al/N
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid	<u>91</u> 91 84 \-8-E MSD	Qualifier	70 - 130 70 - 130	MSD	MSD	CI	ient Sa	ample IC	Prep T Prep		al/N 3605
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid Analysis Batch: 36023	%Recovery 91 84 A-8-E MSD Sample	<u>Qualifier</u> Sample	70 - 130 70 - 130 Spike		MSD			-	Prep 1 Prep %Rec	Type: Tot Batch: 3	al/N 3605 RP
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid Analysis Batch: 36023 Analyte	%Recovery 91 84 A-8-E MSD Sample Result	Qualifier Sample Qualifier	70 - 130 70 - 130 Spike Added	Result	MSD Qualifier	Unit	ient Sa	%Rec	Prep 1 Prep %Rec Limits	Batch:	al/N/ 3605 RP Lim
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid Analysis Batch: 36023 Analyte Gasoline Range Organics	%Recovery 91 84 A-8-E MSD Sample	Qualifier Sample Qualifier	70 - 130 70 - 130 Spike					-	Prep 1 Prep %Rec	Type: Tot Batch: 3	al/N 3605 RP Lim
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid Analysis Batch: 36023 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 91 84 A-8-E MSD Sample Result	Qualifier Sample Qualifier U	70 - 130 70 - 130 Spike Added	Result		Unit		%Rec	Prep 1 Prep %Rec Limits	Batch:	al/N 3605 RP Lim
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid Analysis Batch: 36023 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 91 84 A-8-E MSD Sample Result <50.0 <50.0	Qualifier Sample Qualifier U	70 - 130 70 - 130 Spike Added 999	Result 1092		_ <mark>Unit</mark> mg/Kg		%Rec	Prep 7 Prep %Rec Limits 70 - 130	Type: Tot Batch: RPD 0	al/N/ 3605 RP Lim 2
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid Analysis Batch: 36023 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	%Recovery 91 84 A-8-E MSD Sample Result <50.0 <50.0 MSD	Qualifier Sample Qualifier U U	70 - 130 70 - 130 Spike Added 999	Result 1092		_ <mark>Unit</mark> mg/Kg		%Rec	Prep 7 Prep %Rec Limits 70 - 130	Type: Tot Batch: RPD 0	al/N/
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-19906-A Matrix: Solid Analysis Batch: 36023 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 91 84 A-8-E MSD Sample Result <50.0 <50.0	Qualifier Sample Qualifier U U	70 - 130 70 - 130 Spike Added 999	Result 1092		_ <mark>Unit</mark> mg/Kg		%Rec	Prep 7 Prep %Rec Limits 70 - 130	Type: Tot Batch: RPD 0	al/N/ 3605 RP Lim 2

Client: Ensolum

Project/Site: PLU 411

QC Sample Results

Job ID: 890-3129-1 SDG: 03E1558096

Method: 300.0 - Anions, Ion Chromatography

 Lab Sample ID: MB 880-36168/1-	A							С	lient S	ample ID:	Method	Blank
Matrix: Solid											Type: S	
Analysis Batch: 36311												
-		MB MB										
Analyte	Re	esult Qualifier		RL	Unit		D	Pre	pared	Analyz	zed	Dil Fac
Chloride	<	5.00 U		5.00	mg/K	íg				10/07/22	08:30	1
	:-A						Cli	ent S	Sample	ID: Lab C	ontrol S	ample
Matrix: Solid										Prep	Type: S	oluble
Analysis Batch: 36311												
			Spike	LCS	LCS					%Rec		
Analyte			Added		Qualifier	Unit		<u>D</u>	%Rec	Limits		
Chloride			250	267.0		mg/Kg			107	90 - 110		
Lab Sample ID: LCSD 880-36168	/3-A					CI	ient S	amp	le ID: L	.ab Contro	ol Sampl	e Dup
Matrix: Solid										Prep	Type: S	oluble
Analysis Batch: 36311												
			Spike	LCSD	LCSD					%Rec		RPD
Analyte			Added		Qualifier	Unit		<u>D</u>	%Rec	Limits	RPD	Limit
Chloride			250	260.7		mg/Kg			104	90 - 110	2	20
Lab Sample ID: 890-3126-A-11-B	MS								Client	Sample ID	: Matrix	Spike
Matrix: Solid										Prep	Type: S	oluble
Analysis Batch: 36311												
	Sample	Sample	Spike	MS	MS					%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit		<u>D</u>	%Rec	Limits		
Chloride	1930		2510	4615		mg/Kg			107	90 - 110		
- Lab Sample ID: 890-3126-A-11-C	MSD						Client	t San	nple ID	: Matrix S	pike Dup	olicate
Matrix: Solid									-		Type: S	
Analysis Batch: 36311												
	Sample	Sample	Spike	MSD	MSD					%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit		<u>D</u>	%Rec	Limits	RPD	Limit
Chloride	1930		2510	4632		mg/Kg	-		108	90 - 110	0	20
QC Association Summary

Client: Ensolum Project/Site: PLU 411

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Job ID: 890-3129-1 SDG: 03E1558096

GC VOA

Analysis Batch: 36625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3129-1	FS01	Total/NA	Solid	8021B	36628
890-3129-2	SW01	Total/NA	Solid	8021B	36628
890-3129-3	SW02	Total/NA	Solid	8021B	36628
MB 880-36628/5-A	Method Blank	Total/NA	Solid	8021B	36628
LCS 880-36628/1-A	Lab Control Sample	Total/NA	Solid	8021B	36628
LCSD 880-36628/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36628
880-19920-A-7-F MS	Matrix Spike	Total/NA	Solid	8021B	36628
880-19920-A-7-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36628

Prep Batch: 36628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-3129-1	FS01	Total/NA	Solid	5035	
890-3129-2	SW01	Total/NA	Solid	5035	
890-3129-3	SW02	Total/NA	Solid	5035	
MB 880-36628/5-A	Method Blank	Total/NA	Solid	5035	
_CS 880-36628/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36628/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19920-A-7-F MS	Matrix Spike	Total/NA	Solid	5035	
880-19920-A-7-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

890-3129-1 FS01 Total/NA Solid Total BTEX	
890-3129-2 SW01 Total/NA Solid Total BTEX	
890-3129-3 SW02 Total/NA Solid Total BTEX	

GC Semi VOA

Analysis Batch: 36023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3129-1	FS01	Total/NA	Solid	8015B NM	36053
890-3129-2	SW01	Total/NA	Solid	8015B NM	36053
890-3129-3	SW02	Total/NA	Solid	8015B NM	36053
MB 880-36053/1-A	Method Blank	Total/NA	Solid	8015B NM	36053
LCS 880-36053/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36053
LCSD 880-36053/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36053
880-19906-A-8-D MS	Matrix Spike	Total/NA	Solid	8015B NM	36053
880-19906-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36053

Prep Batch: 36053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3129-1	FS01	Total/NA	Solid	8015NM Prep	
890-3129-2	SW01	Total/NA	Solid	8015NM Prep	
890-3129-3	SW02	Total/NA	Solid	8015NM Prep	
MB 880-36053/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36053/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36053/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19906-A-8-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19906-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Client: Ensolum Project/Site: PLU 411

Analysis Batch: 36143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3129-1	FS01	Total/NA	Solid	8015 NM	
890-3129-2	SW01	Total/NA	Solid	8015 NM	
890-3129-3	SW02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36168

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	8
890-3129-1	FS01	Soluble	Solid	DI Leach		
890-3129-2	SW01	Soluble	Solid	DI Leach		0
890-3129-3	SW02	Soluble	Solid	DI Leach		3
MB 880-36168/1-A	Method Blank	Soluble	Solid	DI Leach		
LCS 880-36168/2-A	Lab Control Sample	Soluble	Solid	DI Leach		
LCSD 880-36168/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach		
890-3126-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach		
890-3126-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach		
Analysis Batch: 36311						
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	13
890-3129-1	FS01	Soluble	Solid	300.0	36168	

Analysis Batch: 36311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3129-1	FS01	Soluble	Solid	300.0	36168
890-3129-2	SW01	Soluble	Solid	300.0	36168
890-3129-3	SW02	Soluble	Solid	300.0	36168
MB 880-36168/1-A	Method Blank	Soluble	Solid	300.0	36168
LCS 880-36168/2-A	Lab Control Sample	Soluble	Solid	300.0	36168
LCSD 880-36168/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36168
890-3126-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	36168
890-3126-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36168

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Job ID: 890-3129-1 SDG: 03E1558096

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Job ID: 890-3129-1 SDG: 03E1558096

Lab Sample ID: 890-3129-1 Matrix: Solid

Lab Sample ID: 890-3129-2

Lab Sample ID: 890-3129-3

Matrix: Solid

Matrix: Solid

Date Collected: 09/30/22 14:40 Date Received: 10/03/22 13:04

Client Sample ID: FS01

Client: Ensolum

Project/Site: PLU 411

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	36628	10/11/22 08:09	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 13:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36681	10/11/22 13:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			36143	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 18:12	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36168	10/05/22 10:50	KS	EET MID
Soluble	Analysis	300.0		1			36311	10/07/22 12:05	СН	EET MID

Client Sample ID: SW01

Date Collected: 09/30/22 14:15

Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36628	10/11/22 08:09	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 13:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36681	10/11/22 13:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			36143	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 18:33	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36168	10/05/22 10:50	KS	EET MID
Soluble	Analysis	300.0		1			36311	10/07/22 12:13	СН	EET MID

Client Sample ID: SW02

Date Collected: 09/30/22 14:20

Date Received: 10/03/22 13:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36628	10/11/22 08:09	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 15:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36681	10/11/22 13:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			36143	10/05/22 09:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36053	10/04/22 12:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36023	10/04/22 18:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36168	10/05/22 10:50	KS	EET MID
Soluble	Analysis	300.0		1			36311	10/07/22 12:21	СН	EET MID

Laboratory References:

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

Client: Ensolum Project/Site: PLU 411

Laboratory: Eurofins Midland

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

thority	P	rogram	Identification Number	Expiration Date
xas	N	ELAP	T104704400-22-24	06-30-23
The following applytes	are included in this report b	ut the laboratory is not certif	ied by the governing authority. This list ma	w include analytes for whi
the agency does not o	ffer certification.	·		
the agency does not of Analysis Method	•	Matrix	Analyte	
the agency does not o	ffer certification.	·		

Job ID: 890-3129-1

SDG: 03E1558096

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Eurofins Carlsbad

Method Summary

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3129-1 SDG: 03E1558096

Nethod	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
lotal BTEX	Total BTEX Calculation	TAL SOP	EET MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
3015NM Prep	Microextraction	SW846	EET MID
OI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3129-1 SDG: 03E1558096

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
90-3129-1	FS01	Solid	09/30/22 14:40	10/03/22 13:04	1 - 2'	4
90-3129-2	SW01	Solid	09/30/22 14:15	10/03/22 13:04	0 - 2'	
90-3129-3	SW02	Solid	09/30/22 14:20	10/03/22 13:04	0 - 2'	5
						6
						8
						9
						1:
						1:
						1

.



Login Sample Receipt Checklist

Client: Ensolum

Login Number: 3129 List Number: 1 Creator: Clifton, Cloe

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	

Job Number: 890-3129-1 SDG Number: 03E1558096

SDG Number: 03E1558096
List Source: Eurofins Carlsbad

Job Number: 890-3129-1 SDG Number: 03E1558096

List Source: Eurofins Midland

List Creation: 10/04/22 10:34 AM

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 3129 List Number: 2 Creator: Rodriguez, Leticia

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	N/A	

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

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Received by OCD: 8/22/2023 1:20:35 PM

LINKS

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EOL

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3203-1

Laboratory Sample Delivery Group: 03E1558096 Client Project/Site: PLU 411

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

signature.

Authorized for release by: 10/19/2022 2:02:50 PM Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com

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

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

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*	Page 120 o	
	Definitions/Glossary	
Client: Ensolum		
Project/Site: PL	U 411 SDG: 03E155809	3
Qualifiers		
GC VOA		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
=2	MS/MSD RPD exceeds control limits	
S1-	Surrogate recovery exceeds control limits, low biased.	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	1
HPLC/IC		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	- 1
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.	Ĩ
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	Ĩ.,
%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	
	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)	

Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE)

Method Detection Limit Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent

Positive / Present Practical Quantitation Limit

Presumptive Quality Control

Method Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

EPA recommended "Maximum Contaminant Level"

Not Detected at the reporting limit (or MDL or EDL if shown)

Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry)

LOD

LOQ MCL

MDA

MDC MDL

ML MPN

MQL

NC

ND NEG

POS

PQL PRES

QC RER

RL RPD

TEF TEQ

TNTC

Case Narrative

Client: Ensolum Project/Site: PLU 411

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Job ID: 890-3203-1 SDG: 03E1558096

Job ID: 890-3203-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3203-1

Receipt

The sample was received on 10/13/2022 4:31 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

Receipt Exceptions

The following samples analyzed were received and analyzed from an unpreserved bulk soil jar: FS02 (890-3203-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-37241 and analytical batch 880-37264 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS02 (890-3203-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-37126 and analytical batch 880-37035 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-37046 and analytical batch 880-37227 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Job ID: 890-3203-1 SDG: 03E1558096

Client Sample ID: FS02

Date Collected: 10/12/22 14:00 Date Received: 10/13/22 16:31

Sample Depth: 1

Analyte

Chloride

Project/Site: PLU 411

Client: Ensolum

Lab Sample ID: 890-3203-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/19/22 10:00	10/19/22 12:53	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/19/22 10:00	10/19/22 12:53	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/19/22 10:00	10/19/22 12:53	1
m-Xylene & p-Xylene	0.00468		0.00402	mg/Kg		10/19/22 10:00	10/19/22 12:53	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/19/22 10:00	10/19/22 12:53	1
Xylenes, Total	0.00468		0.00402	mg/Kg		10/19/22 10:00	10/19/22 12:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	38	S1-	70 - 130			10/19/22 10:00	10/19/22 12:53	1
1,4-Difluorobenzene (Surr)	99		70 - 130			10/19/22 10:00	10/19/22 12:53	1
Method: TAL SOP Total BTEX - T	otal BTEX Calc	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result 0.00468	Qualifier	RL 0.00402	Unit mg/Kg	D	Prepared	Analyzed 10/19/22 14:22	Dil Fac
Total BTEX	0.00468		0.00402		<u> </u>	Prepared		
Total BTEX Method: SW846 8015 NM - Diese	0.00468 I Range Organ	ics (DRO) (0.00402	mg/Kg		<u> </u>	10/19/22 14:22	1
Total BTEX Method: SW846 8015 NM - Diese Analyte	0.00468 I Range Organ Result	ics (DRO) (Qualifier	0.00402 GC)	mg/Kg Unit	D	Prepared Prepared	10/19/22 14:22 Analyzed	
Total BTEX Method: SW846 8015 NM - Diese Analyte	0.00468 I Range Organ	ics (DRO) (Qualifier	0.00402	mg/Kg		<u> </u>	10/19/22 14:22	1
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	0.00468 I Range Organi Result <49.9	<mark>ics (DRO) (</mark> Qualifier U	0.00402 GC) RL 49.9	mg/Kg Unit		<u> </u>	10/19/22 14:22 Analyzed	1
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	0.00468 I Range Organi Result <49.9 sel Range Orga	<mark>ics (DRO) (</mark> Qualifier U	0.00402 GC) RL 49.9	mg/Kg Unit		<u> </u>	10/19/22 14:22 Analyzed	1 Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	0.00468 I Range Organi Result <49.9 sel Range Orga	ics (DRO) (Qualifier U nnics (DRO) Qualifier	0.00402 GC) RL 49.9 (GC)	mg/Kg	D	Prepared	10/19/22 14:22 Analyzed 10/18/22 10:10	1 Dil Fac 1 Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	0.00468 I Range Organ Result <49.9 sel Range Orga Result	ics (DRO) (Qualifier U unics (DRO) Qualifier U	0.00402 GC) RL 49.9 (GC) RL	Unit mg/Kg mg/Kg Unit	D	Prepared	10/19/22 14:22 Analyzed 10/18/22 10:10 Analyzed	1
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	0.00468 I Range Organ Result <49.9 Sel Range Orga Result <49.9	ics (DRO) (Qualifier U unics (DRO) Qualifier U	0.00402 GC) RL 49.9 (GC) RL 49.9	Unit mg/Kg Ug/Kg Unit mg/Kg	D	Prepared Prepared 10/17/22 10:20	Analyzed 10/19/22 14:22 Analyzed 10/18/22 10:10 Analyzed 10/17/22 16:50	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	0.00468 I Range Organ Result <49.9 Sel Range Orga Result <49.9 <49.9	ics (DRO) (Qualifier U mics (DRO) Qualifier U U	0.00402 GC) RL 49.9 (GC) RL 49.9 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg mg/Kg	D	Prepared Prepared 10/17/22 10:20 10/17/22 10:20	Analyzed 10/19/22 14:22 Analyzed 10/18/22 10:10 Analyzed 10/17/22 16:50 10/17/22 16:50	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	0.00468 I Range Organ 							

Released to Imaging: 2/12/2024 4:32:11 PM

RL

25.0

Unit

mg/Kg

D

Prepared

Analyzed

10/18/22 09:25

Dil Fac

5

Result Qualifier

2460 F1

Job ID: 890-3203-1 SDG: 03E1558096

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		i
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
880-20432-A-1-B MS	Matrix Spike	93	108		
880-20432-A-1-C MSD	Matrix Spike Duplicate	102	97		
890-3203-1	FS02	38 S1-	99		- 5
LCS 880-37241/1-A	Lab Control Sample	117	104		
LCSD 880-37241/2-A	Lab Control Sample Dup	83	88		
MB 880-37241/5-A	Method Blank	90	99		
Surrogate Legend					
BFB = 4-Bromofluorobe	nzene (Surr)				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) Lab Sample ID **Client Sample ID** (70-130) 880-20420-A-4-D MS Matrix Spike 104 87 880-20420-A-4-E MSD Matrix Spike Duplicate 99 80 890-3203-1 FS02 112 97 LCS 880-37126/2-A Lab Control Sample 82 80 Lab Control Sample Dup LCSD 880-37126/3-A 83 81 MB 880-37126/1-A Method Blank 124 110

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

Client: Ensolum

Job ID: 890-3203-1 SDG: 03E1558096

Project/Site: PLU 411

Lab Sample ID: MB 880-37241/5-A Matrix: Solid Analysis Batch: 37264								Client Sa	ample ID: Metho Prep Type: ` Prep Bato	Fotal/N/
	М	3 MB								
Analyte		t Qualifier	RL		Unit		D P	repared	Analyzed	Dil Fa
Benzene	<0.0020) U	0.00200		mg/Kg	1	10/1	8/22 14:33	10/19/22 10:50	
Toluene	<0.0020) U	0.00200		mg/Kg			8/22 14:33	10/19/22 10:50	
Ethylbenzene	<0.0020) U	0.00200		mg/Kg]	10/1	8/22 14:33	10/19/22 10:50	
m-Xylene & p-Xylene	<0.0040) U	0.00400		mg/Kg	1	10/1	8/22 14:33	10/19/22 10:50	
o-Xylene	<0.0020) U	0.00200		mg/Kg	J	10/1	8/22 14:33	10/19/22 10:50	
Xylenes, Total	<0.0040) U	0.00400		mg/Kg	J	10/1	8/22 14:33	10/19/22 10:50	
	М	B MB								
Surrogate	%Recover		Limits				P	repared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	9		70 - 130					8/22 14:33	10/19/22 10:50	
1,4-Difluorobenzene (Surr)	9	9	70 - 130				10/1	8/22 14:33	10/19/22 10:50	
Toluene Ethylbenzene			0.100	0.09988		mg/Kg		100	70 - 130	
m-Xylene & p-Xylene			0.100 0.200 0.100	0.1071 0.2327 0.1130		mg/Kg mg/Kg mg/Kg		107 116 113	70 - 130 70 - 130 70 - 130 70 - 130	
m-Xylene & p-Xylene	LCS LC	s	0.200	0.2327		mg/Kg		116	70 - 130	
m-Xylene & p-Xylene o-Xylene Surrogate %	LCS LC Recovery Qu		0.200	0.2327		mg/Kg		116	70 - 130	
m-Xylene & p-Xylene o-Xylene Surrogate %			0.200 0.100	0.2327		mg/Kg		116	70 - 130	
m-Xylene & p-Xylene o-Xylene	Recovery Qu		0.200 0.100 <i>Limits</i>	0.2327		mg/Kg		116	70 - 130	
m-Xylene & p-Xylene o-Xylene <u>Surrogate</u> % 4-Bromofluorobenzene (Surr)	117 Qu 117 104		0.200 0.100 <i>Limits</i> 70 - 130	0.2327 0.1130	LCSD	mg/Kg mg/Kg	ent San	116 113	70 - 130	Fotal/N n: 3724
m-Xylene & p-Xylene o-Xylene <i>Surrogate</i> <i>4-Bromofluorobenzene (Surr)</i> 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-37241/2- Matrix: Solid	117 Qu 117 104		0.200 0.100 <i>Limits</i> 70 - 130 70 - 130	0.2327 0.1130 LCSD	LCSD Qualifier	mg/Kg mg/Kg	ient San	116 113	70 - 130 70 - 130 ab Control Sam Prep Type: Prep Batc	Total/N n: 3724 RP
m-Xylene & p-Xylene o-Xylene <i>Surrogate %</i> 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-37241/2- Matrix: Solid Analysis Batch: 37264	117 Qu 117 104		0.200 0.100 <i>Limits</i> 70 - 130 70 - 130 Spike	0.2327 0.1130 LCSD		mg/Kg mg/Kg Cli		116 113	70 - 130 70 - 130 ab Control Sam Prep Type: Prep Batc %Rec	Total/N n: 3724 RP D Lim
m-Xylene & p-Xylene o-Xylene <i>Surrogate</i> % <i>4-Bromofiuorobenzene (Surr)</i> 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-37241/2- Matrix: Solid Analysis Batch: 37264 Analyte Benzene Toluene	117 Qu 117 104		0.200 0.100 <u>Limits</u> 70 - 130 70 - 130 Spike Added	0.2327 0.1130 LCSD Result		mg/Kg mg/Kg Cli		116 113 nple ID: L <u>%Rec</u>	70 - 130 70 - 130 ab Control Sam Prep Type: " Prep Batc %Rec Limits RP	rotal/N n: 3724 RP <u>0</u> 4
m-Xylene & p-Xylene o-Xylene <i>Surrogate</i> % <i>4-Bromofiuorobenzene (Surr)</i> 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-37241/2- Matrix: Solid Analysis Batch: 37264 Analyte Benzene	117 Qu 117 104		0.200 0.100 <i>Limits</i> 70 - 130 70 - 130 Spike Added 0.100	0.2327 0.1130 LCSD Result 0.08677		mg/Kg mg/Kg Cli <u>Unit</u> mg/Kg		116 113 nple ID: L <u>%Rec</u> 87	70 - 130 70 - 130 ab Control Sam Prep Type: Prep Batc %Rec Limits RP 70 - 130 1	Fotal/N n: 3724 RP <u>2</u> 2 3
m-Xylene & p-Xylene o-Xylene <i>Surrogate</i> % <i>4-Bromofluorobenzene (Surr)</i> 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-37241/2- Matrix: Solid Analysis Batch: 37264 Analyte Benzene Toluene	117 Qu 117 104		0.200 0.100 <i>Limits</i> 70 - 130 70 - 130 70 - 130 Spike Added 0.100 0.100	0.2327 0.1130 LCSD Result 0.08677 0.08816		mg/Kg mg/Kg Cli mg/Kg mg/Kg		116 113 nple ID: L <u>%Rec</u> 87 88	70 - 130 70 - 130 ab Control Sam Prep Type: Prep Batc %Rec Limits RPI 70 - 130 1 70 - 130 1	Fotal/N n: 3724 RP 2 2 3 5 3

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: 880-20432-A-1-B MS

Matrix: Solid

Analysis Batch: 37264									Prep	Batch: 3	37241	
	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Benzene	<0.00200	U F2 F1	0.100	0.1140		mg/Kg		114	70 - 130			
Toluene	<0.00200	U F2 F1	0.100	0.08876		mg/Kg		89	70 - 130			

Eurofins Carlsbad

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Analysis Batch: 37264							Prep	Batch:	37241
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08677		mg/Kg		87	70 - 130	14	35
Toluene	0.100	0.08816		mg/Kg		88	70 - 130	12	35
Ethylbenzene	0.100	0.09190		mg/Kg		92	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.1686		mg/Kg		84	70 - 130	32	35
o-Xylene	0.100	0.08047		mg/Kg		80	70 - 130	34	35

Client: Ensolum

Project/Site: PLU 411

QC Sample Results

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

Lab Sample ID: 880-20432-A-1	-B MS										Client S	Sample ID:		
Matrix: Solid												Prep T		
Analysis Batch: 37264												Prep	Batch:	3724
	Sample	Samp	ole	Spike	MS	MS						%Rec		
Analyte	Result	Quali	fier	Added	Result	Qualifi	er Ur	nit		D	%Rec	Limits		
Ethylbenzene	<0.00200	U F2	F1	0.100	0.07928	5	m	g/Kg			78	70 - 130		
m-Xylene & p-Xylene	<0.00401	U F2	F1	0.200	0.1573	5	m	g/Kg			78	70 - 130		
o-Xylene	<0.00200	U F2	F1	0.100	0.07806	i	mę	g/Kg			76	70 - 130		
	MS	MS												
Surrogate	%Recovery	Quali	ifier	Limits	-									
4-Bromofluorobenzene (Surr)	93			70 - 130										
1,4-Difluorobenzene (Surr)	108			70 - 130										
Lab Sample ID: 880-20432-A-1	-C MSD							CI	ient	Sar	nple ID:	Matrix Sp	ike Dup	olicat
Matrix: Solid											-	Prep T	ype: To	tal/N
Analysis Batch: 37264													Batch:	
-	Sample	Samp	ole	Spike	MSD	MSD						%Rec		RP
Analyte	Result	Quali	fier	Added	Result	t Qualifi	er Ur	nit		D	%Rec	Limits	RPD	Lim
Benzene	<0.00200	U F2	F1	0.100	0.05454	F2 F1	mg	g/Kg			54	70 - 130	71	3
Foluene	<0.00200	U F2	F1	0.100	0.05015	5 F2 F1	m	g/Kg			50	70 - 130	56	3
Ethylbenzene	<0.00200	U F2	F1	0.100	0.04517	F2 F1		g/Kg			44	70 - 130	55	3
n-Xylene & p-Xylene	<0.00401	U F2	F1	0.201	0.09314	F2 F1	m	g/Kg			45	70 - 130	51	
p-Xylene	<0.00200	U F2	F1	0.100		F2 F1		g/Kg			48	70 - 130	43	3
	MSD	MSD												
Surrogate	%Recovery	Quali	ifier	Limits										
4-Bromofluorobenzene (Surr)	102			70 - 130	-									
1,4-Difluorobenzene (Surr)	97			70 _ 130										
lethod: 8015B NM - Diese	I Range O	rgan	ics (DR	O) (GC))									
Lab Sample ID: MB 880-37126/	/1_A									6	lient Sa	mple ID: N	/ethod	Blan
Matrix: Solid												Prep Ty		
Analysis Batch: 37035													Batch:	
Analysis Daton. 57000		МВ	мв									Пер	Daten.	57 12
Analyte			Qualifier		RL	U	nit		2	Pre	epared	Analyze		Dil Fa
Gasoline Range Organics GRO)-C6-C10	~	<50.0	U		50.0	n	ıg/Kg		1	0/17/	/22 10:20	10/17/22 1	0:46	
Diesel Range Organics (Over C10-C28)	~	<50.0	U		50.0	n	ıg/Kg		1	0/17/	/22 10:20	10/17/22 1	0:46	
Oll Range Organics (Over C28-C36)	•	<50.0	U		50.0	m	ıg/Kg		1	0/17/	/22 10:20	10/17/22 1	0:46	
		МВ	мв											

		NO D	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: LCS 880-37126/2-A Matrix: Solid

Analysis Batch: 37035							Prep	Batch:	37126	
	Spike	LCS	LCS				%Rec			
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Gasoline Range Organics	1000	825.5		mg/Kg		83	70 - 130			
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	881.6		mg/Kg		88	70 - 130			
C10-C28)										

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Prep Type: Total/NA

Dil Fac

1

1

Analyzed

10/17/22 10:46

Client Sample ID: Lab Control Sample

10/17/22 10:20 10/17/22 10:46

Prepared

10/17/22 10:20

QC Sample Results

Job ID: 890-3203-1 SDG: 03E1558096

Client: Ensolum Project/Site: PLU 411

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

Lab Sample ID: LCS 880-371	26/2-A						Client	Sample	D: Lab Co		
Matrix: Solid										Type: Tot	
Analysis Batch: 37035									Prep	Batch:	3712
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	82		70 - 130								
o-Terphenyl	80		70 - 130								
Lab Sample ID: LCSD 880-37	7126/3-A					Clier	nt Sam	nple ID:	Lab Contro	ol Sample	e Du
Matrix: Solid										Type: Tot	
Analysis Batch: 37035										Batch:	
			Spike	LCSD	LCSD				%Rec		RP
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Gasoline Range Organics			1000	755.2		mg/Kg		76	70 - 130	9	2
(GRO)-C6-C10 Diesel Range Organics (Over			1000	880.0		ma/Ka		80	70 - 130	1	2
C10-C28)			1000	889.9		mg/Kg		89	70 - 130	I	2
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	83		70 - 130								
o-Terphenyl	81		70 - 130								
Analyte	-	Sample Qualifier	Spike Added		MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	979.1		mg/Kg		98	70 - 130		
Diesel Range Organics (Over	<49.9	U	998	983.6		mg/Kg		96	70 - 130		
G10-G28)											
G10-G28)	MS	MS									
	MS %Recovery		Limits								
Surrogate			Limits								
Surrogate 1-Chlorooctane	%Recovery										
Surrogate 1-Chlorooctane o-Terphenyl	<u>%Recovery</u> 104 87		70 - 130			CI	ient Sa	ample IC): Matrix Sp	oike Dup	licat
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A	<u>%Recovery</u> 104 87		70 - 130			CI	ient Sa	ample IC		oike Dup Type: Tot	
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid	<u>%Recovery</u> 104 87		70 - 130			CI	ient Sa	ample IE	Prep 1		al/N
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid			70 - 130	MSD	MSD	CI	ient Sa	ample IC	Prep 1	Type: Tot	al/N 3712
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid Analysis Batch: 37035		Qualifier	70 - 130 70 - 130		MSD Qualifier	Cl	ient Sa	%Rec	Prep T Prep	Type: Tot	al/N 3712 RP
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid Analysis Batch: 37035 Analyte Gasoline Range Organics		Qualifier Sample Qualifier	70 - 130 70 - 130 Spike					·	Prep 1 Prep %Rec	Type: Tot Batch: 3	al/N 3712 RP Lim
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid Analysis Batch: 37035 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		Qualifier Sample Qualifier U	70 - 130 70 - 130 Spike Added	Result		Unit		%Rec	Prep 1 Prep %Rec Limits	Type: Tot Batch: 3	al/N 3712 RP Lim
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid Analysis Batch: 37035 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	%Recovery 104 87 4-E MSD 	Qualifier Sample Qualifier U	70 - 130 70 - 130 Spike Added 998	Result 869.6		- Unit mg/Kg		%Rec 87	Prep 7 Prep %Rec Limits 70 - 130	RPD	al/N 3712 RP Lim 2
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid Analysis Batch: 37035 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 104 87 4-E MSD 	Qualifier Sample Qualifier U U	70 - 130 70 - 130 Spike Added 998	Result 869.6		- Unit mg/Kg		%Rec 87	Prep 7 Prep %Rec Limits 70 - 130	RPD	al/N 3712 RP Lim 2
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 880-20420-A Matrix: Solid Analysis Batch: 37035 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)		Qualifier Sample Qualifier U U	70 - 130 70 - 130 Spike Added 998 998	Result 869.6		- Unit mg/Kg		%Rec 87	Prep 7 Prep %Rec Limits 70 - 130	RPD	al/N

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Client: Ensolum

Project/Site: PLU 411

QC Sample Results

Job ID: 890-3203-1 SDG: 03E1558096

Method: 300.0 - Anions, Ion Chromatography

=														
Lab Sample ID: MB 880-37046/1-A										C	lient S	ample ID:	Method	Blank
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 37227														
		MB N	ИВ											
Analyte	R	esult C	Qualifier		RL		Un	it	<u>D</u>	Prep	bared	Analy		Dil Fac
Chloride	~	<5.00 L	J		5.00		mg	/Kg				10/18/22	09:11	
Lab Sample ID: LCS 880-37046/2-A									Clie	ent S	ample	ID: Lab C	ontrol S	ample
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 37227														
				Spike		LCS	LCS					%Rec		
Analyte				Added		Result	Qualifier	Unit	I	D %	%Rec	Limits		
Chloride				250		241.4		mg/Kg			97	90 - 110		
Lab Sample ID: LCSD 880-37046/3-	A							CI	ient Sa	ampl	e ID: I	Lab Contro	ol Sampl	le Dur
Matrix: Solid												Prep	Type: S	olubl
Analysis Batch: 37227														
-				Spike		LCSD	LCSD					%Rec		RPD
Analyte				Added		Result	Qualifier	Unit	I	D %	%Rec	Limits	RPD	Limi
Chloride				250		234.6		mg/Kg			94	90 _ 110	3	20
Lab Sample ID: 890-3203-1 MS												Client Sa	mple ID:	: FS02
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 37227														
	Sample	Sampl	e	Spike		MS	MS					%Rec		
Analyte	Result	Qualifi	ier	Added		Result	Qualifier	Unit	I	D %	%Rec	Limits		
Chloride	2460	F1		1250		3561	F1	mg/Kg			89	90 - 110		
Lab Sample ID: 890-3203-1 MSD												Client Sa	mple ID:	: FS0;
Matrix: Solid													Type: S	
Analysis Batch: 37227				0		Men	MSD					%Rec		RPD
Analysis Batch: 37227	Sample	Sampl	e	Spike		WISD	MOD					/01100		111 6
Analysis Batch: 37227		Sampl Qualifi		Spike Added			Qualifier	Unit	I	D %	%Rec	Limits	RPD	Limi

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QC Association Summary

Client: Ensolum Project/Site: PLU 411

Job ID: 890-3203-1 SDG: 03E1558096

GC VOA

Prep Batch: 37241

ep Batch: 37241					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3203-1	FS02	Total/NA	Solid	5035	
MB 880-37241/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37241/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37241/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20432-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-20432-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
nalysis Batch: 37264					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3203-1	FS02	Total/NA	Solid	8021B	37241
MB 880-37241/5-A	Method Blank	Total/NA	Solid	8021B	37241
LCS 880-37241/1-A	Lab Control Sample	Total/NA	Solid	8021B	37241
LCSD 880-37241/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37241
880-20432-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	37241
880-20432-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	37241
analysis Batch: 37333					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3203-1	FS02	Total/NA	Solid	Total BTEX	

Analysis Batch: 37035

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3203-1	FS02	Total/NA	Solid	8015B NM	37126
MB 880-37126/1-A	Method Blank	Total/NA	Solid	8015B NM	37126
LCS 880-37126/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37126
LCSD 880-37126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37126
880-20420-A-4-D MS	Matrix Spike	Total/NA	Solid	8015B NM	37126
880-20420-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37126

Prep Batch: 37126

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3203-1	FS02	Total/NA	Solid	8015NM Prep	
MB 880-37126/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37126/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-20420-A-4-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-20420-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Total/NA

Solid

8015 NM

HPLC/IC

890-3203-1

Leach Batch: 37046

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-3203-1	FS02	Soluble	Solid	DI Leach	
MB 880-37046/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37046/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37046/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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FS02

37046

37046

37046

37046

5

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Job ID: 890-3203-1 SDG: 03E1558096

HPLC/IC (Continued)

Project/Site: PLU 411

LCS 880-37046/2-A

890-3203-1 MS

890-3203-1 MSD

LCSD 880-37046/3-A

Client: Ensolum

Leach Batch: 37046 (Continued)

Lab Control Sample

FS02

FS02

Lab Control Sample Dup

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3203-1 MS	FS02	Soluble	Solid	DI Leach	
890-3203-1 MSD	FS02	Soluble	Solid	DI Leach	
nalysis Batch: 37227	7				
		Pren Type	Matrix	Method	Prep Batch
ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
nalysis Batch: 37227 Lab Sample ID 890-3203-1		Prep Type Soluble Soluble	Matrix Solid	Method 300.0	Prep Batc 3704 3704

Soluble

Soluble

Soluble

Soluble

Solid

Solid

Solid

Solid

300.0

300.0

300.0

300.0

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Job ID: 890-3203-1 SDG: 03E1558096

Matrix: Solid

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Lab Sample ID: 890-3203-1

Client Sample ID: FS02 Date Collected: 10/12/22 14:00 Date Received: 10/13/22 16:31

Client: Ensolum

Project/Site: PLU 411

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	37241	10/19/22 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37264	10/19/22 12:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37333	10/19/22 14:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			37211	10/18/22 10:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	37126	10/17/22 10:20	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37035	10/17/22 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	37046	10/17/22 08:35	KS	EET MID
Soluble	Analysis	300.0		5			37227	10/18/22 09:25	СН	EET MID

Laboratory References:

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

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Client: Ensolum Project/Site: PLU 411

Laboratory: Eurofins Midland

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

thority	F	Program	Identification Number	Expiration Date
xas	Ν	IELAP	T104704400-22-24	06-30-23
The following enclutes	are included in this report	out the leheratory is not cortif	ind by the governing outbority. This list me	windudo ondutos for wh
the agency does not o	ffer certification.		ed by the governing authority. This list ma	ay include analytes for wh
the agency does not o Analysis Method		Matrix	Analyte	
the agency does not o	ffer certification.			

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Job ID: 890-3203-1

SDG: 03E1558096

Eurofins Carlsbad

Method Summary

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3203-1 SDG: 03E1558096

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
3015NM Prep	Microextraction	SW846	EET MID
OI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: PLU 411 Job ID: 890-3203-1 SDG: 03E1558096

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-3203-1	FS02	Solid	10/12/22 14:00	10/13/22 16:31	1	4
						5
						8
						9
						12
						13

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🐺 eurotins		nment	Testing	Hou EL P Hob	uston, TX (2 nd, TX (432) ²aso, TX (9 bs, NM (57)	281) 240-42) 704-5440, 15) 585-344 5) 392-7550	00, Dallas San Antor 3, Lubbocl), Carlsbad	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) 986-3199		Work Order No:	No:
Project Manager: Be	Ben Belill			Bill to: (if different)		Garret Green	5			Work Ord	S S S
	Ensolum			Company Name:		XTO Energy			Program	Program: UST/PST 🗌 PRP 🗌 Brownfields 🗌 RRC 🗌	ownfields 🗌 RRC
	3122 National Parks Hwy	rks Hwy		Address:		3104 E. Green St	en St.		State of	State of Project:	
e ZIP:	Carlsbad, NM 88220	220		City, State ZIP:		Carlsbad, NM 88220	M 88220		Reportin	Reporting: Level II DLevel III PST/UST TRRP	PST/UST
	303-887-2946		Email:	Garret.Green@ExxonMobil.com	@Exxon	Mobil.com			Delivera	Deliverables: EDD A	ADaPT Other:
Project Name:	PLU 411	411	Tun	Turn Around				ANALYSIS RE	IS REQUEST		Preservative Codes
Project Number:	03E1558096	58096	Routine	🗆 Rush	Pres. Code						None: NO
Project Location:	32.19312,-103.77993	103.77993	Due Date:								Cool: Cool
Sampler's Name:	Kase Parker	Parker	TAT starts th	e day received by	-						HCL: HC
PO #		2	CXX the lab, if re	the lab, if received by 4:30pm	I						H ₂ S0 ₄ : H ₂
SAMPLE RECEIPT	Temp Blank:	sex.	No Wet Ice:	(Yes) No	nete	.0)					H ₃ PO ₄ : HP
Samples Received Intact:	Yes N		ieter ID:	FOOMM		300					NaHSO4: NABIS
Cooler Custody Seals:	Yes No	(N/A Correction Factor:	n Factor:	6.0.		PA:		890-3203 Chain of Custody	in of Cust	ody	Na2S2O3: NASO3
Sample Custody Seals:	1/	V/A Tempera	Temperature Reading:	5,5	L		1		-	-	Zn Acetate+NaOH: Zn
Total Containers:		Corrected	Corrected Temperature:	5.0			8021				NaOH+Ascorbic Acid: SAPC
Sample Identification		Matrix Date Sampled	t Time Sampled	Depth Grab/ Comp	# of Cont	CHLOF TPH (8	BTEX (Sample Comments
FS02		S 10/12/2022	022 14:00	1' G	1	×	×				Incident ID:
1											Cont Contor:
		$\frac{1}{1}$									2159981001
									-		AFE:
						R					
							H	/			
									1		
						-					/
		-									/
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed) 200.8 / 6020: Metal(s) to be ana	0: Inalyzed	BRCRA 13F	13PPM Texas 11 > / SPLP 6010: 8R	1 AI SD	As Ba Be b As Ba B	Be Cd	RA 13PPM Texas 11 AISbAs BaBeBCdCaCrCoCuFePbMgMnMoNi TCLP/SPLP6010: 8RCRASbAsBaBeCdCrCoCuPbMnMoNiSeAgTIU	Mg Mn Mo Ni Se Ag T	K Se A	vg SiO ₂ Na Sr TI Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471
otice: Signature of this doci f service. Eurofins Xenco w f Eurofins Xenco. A minimu	ument and relinquis) vill be liable only for 1 um charge of \$85.00 v	nment of samples ; he cost of sample will be applied to e	constitutes a valid p and shall not assu ach project and a ch	urchase order from me any responsibil arge of \$5 for each	i client comp Ity for any lo sample sub	oany to Euro osses or exp mitted to Eu	fins Xenco, enses Incur rofins Xenc	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 negotiat	It assigns at e due to circ will be enfor	ractors. It assigns standard terms and conditions cases are due to circumstances beyond the control to terms will be enforced unless previously negotiated.	đ.
Reinquished by (s	(Signature)	A. Rece	Received by: (Signature)	ture)		Date/Time		Relinquished by: (Signature)	ture)	Received by: (Signature)	iature)
- purit	22	Chur	Calm		10-13	0-13-22 1	1631 2				
	and the second second second second		0				4				

10/19/2022

Job Number: 890-3203-1 SDG Number: 03E1558096

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 3203 List Number: 1 Creator: Clifton, Cloe

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	

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Job Number: 890-3203-1 SDG Number: 03E1558096

List Source: Eurofins Midland

List Creation: 10/17/22 08:21 AM

Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 3203 List Number: 2 Creator: Rodriguez, Leticia

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	N/A	

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APPENDIX E

NMOCD Notifications

From:	Hamlet, Robert, EMNRD
To:	Collins, Melanie
Cc:	<u>DelawareSpills /SM; Ashley Ager; Tacoma Morrissey; Ben Belill; Green, Garrett J; Bratcher, Michael, EMNRD;</u> <u>Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD</u>
Subject:	(Extension Approval) - XTO- Extension Poker Lake Unit 411 – Incident Number NAPP2219646774
Date:	Thursday, October 6, 2022 4:49:59 PM
Attachments:	image003.png

[**EXTERNAL EMAIL**]

RE: Incident #NAPP2219646774

Melanie,

Your request for an extension to **December 5th, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

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



From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, October 6, 2022 2:42 PM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Enviro, OCD, EMNRD
<OCD.Enviro@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Ashley Ager <aager@ensolum.com>;
Tacoma Morrissey <tmorrissey@ensolum.com>; bbelill@ensolum.com; Green, Garrett J
<garrett.green@exxonmobil.com>
Subject: [EXTERNAL] XTO- Extension Poker Lake Unit 411 – Incident Number NAPP2219646774

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

All,

XTO- Extension Poker Lake Unit 411 – Incident Number NAPP2219646774

XTO is requesting an extension for the current deadline of October 6, 2022, for submitting a

remediation work plan or closure request required in 19.15.29.12.B.(1) NMAC at the Poker Lake Unit 411 (Incident Number NAPP2219646774). The release occurred on July 8, 2022. An initial assessment of the release was completed August 18, 2022, however; additional remediation work was delayed due to XTO on-site operations. Delineation and excavation activities began last week and are ongoing. In order to complete the remediation activities, review laboratory analytical results, and submit a remediation work plan or closure request, XTO is requesting a 60-day extension for the release until December 5, 2022.

Thank you,



432-556-3756

Ben Belill

From: Sent:	Green, Garrett J <garrett.green@exxonmobil.com> Friday, September 23, 2022 4:52 PM</garrett.green@exxonmobil.com>
То:	ocd.enviro@state.nm.us; mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD
Cc:	DelawareSpills /SM; Kalei Jennings
Subject:	XTO - Sampling Notification (Week of 9/26/22 - 9/30/22)

[**EXTERNAL EMAIL**]

All,

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

Monday

- PLU 184H / nAPP2219648561

Tuesday

- PLU 184H / nAPP2219648561

Wednesday

- PLU PC 17 / NAPP2223832773

Thursday

- BEU 29W Vader 100H / nAPP2102831345
- PLU 411/ nAPP2219646774

Friday

- BEU 29W Vader 100H / nAPP2102831345
- PLU 411/ nAPP2219646774

Thank you!

Garrett Green Environmental Coordinator Delaware Business Unit (575) 200-0729 Garrett.Green@ExxonMobil.com

XTO Energy, Inc. 3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

From:	Tacoma Morrissey
To:	Ben Belill
Subject:	Fwd: XTO - Sampling Notification (Week of 10/10/22 - 10/14/22)
Date:	Monday, November 28, 2022 5:54:02 PM

Hey Ben,

Is this the one you're missing?

Tacoma Morrissey

Senior Geologist 337-257-8307 **Ensolum, LLC**

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Friday, October 7, 2022 2:49:52 PM
To: ocd.enviro@emnrd.nm.gov <ocd.enviro@emnrd.nm.gov>; Bratcher, Michael, EMNRD
<mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Tacoma Morrissey
<tmorrissey@ensolum.com>
Subject: XTO - Sampling Notification (Week of 10/10/22 - 10/14/22)

[**EXTERNAL EMAIL**]

All,

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

Monday

- BEU 29W Vader 100H / nAPP2102831345
- PLU 78 SWD / NAPP2126639352

Tuesday

- BEU 29W Vader 100H / nAPP2102831345
- PLU 78 SWD / NAPP2126639352

Wednesday

- BEU 29W Vader 100H / nAPP2102831345
- JRU 163 / nAPP2219649599
- PLU 411/ nAPP2219646774

Thursday

- BEU 29W Vader 100H / nAPP2102831345
- JRU 163 / nAPP2219649599
- PLU 411/ nAPP2219646774

Friday

- BEU 29W Vader 100H / nAPP2102831345

Thank you,

Garrett Green

Environmental Coordinator Delaware Business Unit (575) 200-0729 <u>Garrett.Green@ExxonMobil.com</u>

XTO Energy, Inc. 3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729



APPENDIX B

Lithologic / Soil Sampling Log

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									Sample Name: C-04760 (BH01)	Date: 8/1/2023
					6				Site Name: PLU 411	· · ·
14					3		LU		Incident Number: NAPP22196466	774
									Job Number: 03C1558096	
			LITHOL	OGI		SAMPLING	G LOG		Logged By: MR/SW	Method: Air Rotary
Coor	dinat				780346				Hole Diameter: 5"	Total Depth: 108' bgs
					-	· ·			5. 2" diameter PVC well set at 75' b hydrated bentonite clay chips to	
Moisture Contont	Chloride	(mqq)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	scriptions
						0.5	0 	CCHE	0-30', CALICHE with sand, ta poorly sorted, fine to med no stain, no odor.	an-off white, dry, lium grained, round,
						20	20			
						30	30	SP	30'-100', SAND, reddish ora sorted, medium grain, son sub-round to sub-angular,	ne coarse gravel,
						40	40		40'-50', some white to trans crystalline gypsum.	
						50	50			
						60	60 			
						70 _	70		@ 75', hole collapsed due to No evidence of water throws the second s	o sandy conditions. Sughout drilling
						80 <u>-</u> -	80		process.	
						90	90			
						100	100	SP/SC	100'-110', CLAYEY SAND, dr poorly graded, fine-v/fine no odor.	grained, silty, no stain,
						108 _ 	110 - - 120	טו	Total depth at 108 feet bgs.	

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	255568
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	2/12/2024

CONDITIONS

Action 255568