#### Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

District I1625 N. French Dr., Hobbs, NM 88240District II811 S. First St., Artesia, NM 88210District III1000 Rio Brazos Road, Aztec, NM 87410District IV1220 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	NAPP2213151424
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 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707		

### **Location of Release Source**

Latitude 32.29070

(NAD 83 in decimal degrees to 5 decimal places)

Site Name BEU Connector PW Booster	Site Type pipeline
Date Release Discovered 04/27/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
Н	22	238	30E	Eddy

Surface Owner: 🗷 State 🗌 Federal 🗌 Tribal 🗌 Private (Name: \_

## Nature and Volume of Release

Materia	al(s) Released (Select all that apply and attach calculations or specific	justification for the volumes provided below)
Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
▼ Produced Water	Volume Released (bbls) 296.34	Volume Recovered (bbls) 0.00
	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)
	ged-end fitting separated from a hose, releasing fluids to ation purposes.	soil. A third-party contractor has been retained for

Zaba Siai	Document	+ D· 2160/1		
	I DOCUMENT		H CALONI OMA	
Rocon	ad by OC	D· 10/26/0	072/12+15+26D	-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA

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Form C-I41

NA

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-		-					_

Oil Conservation Division

Incident ID	NAPP2213151424
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release? A release equal to or greater than 25 barrels.		
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?		
Yes, by Garrett Green to Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Victoria Venegas; ocd.enviro@state.nm.us on Thursday, April 28, 2022 5:39 PM via email.			

### **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:Garrett Green	Title: SSHE Coordinator
Signature:	Date:
email: garrett.green@exxonmobil.com	Telephone:
OCD Only	
Received by: Jocelyn Harimon	Date: 05/11/2022

.

Location: BEU Connector PW Booster				
Spill Date:	4/27/2022			
	Area 1			
Approximate A	rea =	16882.00	sq. ft.	
Average Satura	tion (or depth) of spill =	5.00	inches	
Average Porosi	ty Factor =	0.20		
	VOLUME OF LEAK	0.00		
Total Crude Oil		0.00		
Total Produced		250.56	DDIS	
	Area 2			
Approximate A		9616.00		
Average Satura	tion (or depth) of spill =	2.00	inches	
		0.45		
Average Porosi	ty Factor =	0.15		
	VOLUME OF LEAK			
Total Crude Oil		0.00	bbls	
Total Produced		42.82		
	Area 3			
Approximate A	rea =	8869.00	sq. ft.	
Average Satura	tion (or depth) of spill =	0.75	inches	
Average Porosi	ty Factor =	0.03		
	VOLUME OF LEAK			
Total Crude Oil		0.00		
Total Produced	Water =	2.96	bbis	
	TOTAL VOLUME OF LEAK			
Total Crude Oil		0.00		
Total Produced	Water =	296.34	bbls	
	TOTAL VOLUME RECOVERED			
Total Crude Oil		0.00		
Total Produced	Water =	0.00	bbls	

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CONDITIONS

Action 106123

Condition Date 5/11/2022

District | 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	106123
	Action Type: [C-141] Release Corrective Action (C-141)
CONDITIONS	

#### Created By Condition

jharimon None Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA *Received by OCD: 10/26/2023 12:15:26 PM* Form C-141 State of New Mexico

**Oil Conservation Division** 

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Incident ID	NAPP2213151424
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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>&gt;100</u> (ft 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 <b>not</b> 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.
- $\square$ Field data

Page 3

- $\boxtimes$ Data table of soil contaminant concentration data
- $\boxtimes$ Depth to water determination
- $\boxtimes$ Determination of water sources and significant watercourses within <sup>1</sup>/<sub>2</sub>-mile of the lateral extents of the release
- Boring or excavation logs  $\boxtimes$
- $\boxtimes$ Photographs including date and GIS information
- $\boxtimes$ Topographic/Aerial maps
- $\boxtimes$ 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.

ho Sign Document ID: 3160 Received by OCD: 10/20	41F4-TCXLSMRSMA -RYMVWPYZ 2023 12:15:26 PM State of New	Z5N65-VBDSLNCKFXVFE4AUD	A	Page 6 of
Form C-141	State of New	Mex1co	Incident ID	NAPP2213151424
Page 4	Oil Conservation Divi	on Division	District RP	
			Facility ID	
			Application ID	
regulations all operators a public health or the envir failed to adequately invest addition, OCD acceptance and/or regulations. Printed Name:Garret Signature:	nformation given above is true and are required to report and/or file cer onment. The acceptance of a C-14 stigate and remediate contamination e of a C-141 report does not relieve t Green	rtain release notifications and per 1 report by the OCD does not rel 1 that pose a threat to groundwate e the operator of responsibility fo	form corrective actions for relieve the operator of liability sler, surface water, human health r compliance with any other for Coordinator26 2023	eases which may endanger hould their operations have h or the environment. In ederal, state, or local laws
OCD Only Received by: Shelly	Wells	Date:	_10/26/2023	

Zoho Sign Document ID: 316041F4-TCXLSMRSMA -RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA *Received by OCD: 10/26/2023 12:15:26 PM* Form C-141 State of New Mexico

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Oil Conservation Division

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Incident ID	NAPP2213151424
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# **Remediation Plan**

<b>Remediation Plan Checklist:</b> Each of the following items must be included in the plan.			
<ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>			
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: Garrett Green Title: _Environmental Coordinator			
Signature: Sattle State Date: Oct 26 2023			
email:garrett.green@exxonmobil.com Telephone:575-200-0729			
OCD Only			
Received by: <u>Shelly Wells</u> Date: <u>10/26/2023</u>			
Approved Approved with Attached Conditions of Approval Denied Deferral Approved			
Signature: Date:			

# **ENSOLUM**

October 25, 2023

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

#### Re: Remediation Work Plan Update BEU Connector PW Booster and Mobley Ranch Incident Numbers NAPP2213151424 and NAPP2316045229 Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan Update (Update)* to document assessment activities completed to date and provide an update on remedial actions to address impacted soil identified at the BEU Connector PW Booster (Site). In addition, this *Update* includes information on a recent release, the Mobley Ranch, which will be addressed concurrently and included as the "Site" for future discussions below.

#### **RELEASE SUMMARY AND BACKGROUND**

The Site is located in Unit H, Section 22, Township 23 South, Range 30 East, in Eddy County, New Mexico (32.29070°, -103.86159°) and is associated with oil and gas exploration and production operations on New Mexico State Trust Land (STL) managed by the New Mexico State Land Office (NMSLO).

On April 27, 2022, a flanged-end fitting separated from a hose and resulted in the release of 296.34 barrels (bbls) of produced water onto the pipeline right-of-way (ROW) and pasture area. No fluids were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on April 28, 2022, and submitted a Release Notification Form C-141 (Form C-141) on May 9, 2022. The release was assigned Incident Number NAPP2213151424.

In August 2022, following approval of a Right-of-Entry (ROE) request for land access from NMSLO, Ensolum personnel completed delineation of the release. The delineation soil sampling results indicated soil contained elevated chloride concentrations in a 30,000 square foot area. A *Remediation Work Plan* (*Work Plan*) was submitted on October 24, 2022, proposing excavation of impacted soil identified during delineation activities and requested a sampling variance. The *Work Plan* was approved by the NMOCD on February 28, 2023, with the following conditions:

- Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC.
- Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination.
- Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release.

XTO Energy, Inc. Remediation Work Plan Update BEU Connector PW Booster and Mobley Ranch

• The variance for confirmation samples every 500 is approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH.

Following approval of the *Work Plan*, XTO requested ROE access from the NMSLO, as well as an Archaeological Records Management Section (ARMS) review to ensure compliance with the Cultural Properties Protection (CPP) Rule, published after submittal of the *Work Plan*. While access to the Site was pending approval, a second release occurred in the area, overlapping Incident Number NAPP2213151424.

On May 27, 2023, a gasket failed on pump discharge piping and resulted in the release of 9.04 barrels (bbls) of produced water onto the pipeline ROW and pasture area. Approximately 2 bbls of produced water were recovered. XTO reported the release to the NMOCD and submitted a Form C-141 on June 9, 2023. The release was assigned Incident Number nAPP2316045229. The release overlapped the release extent for Incident Number NAPP2213151424. XTO proposes to address both releases concurrently.

#### **CLOSURE CRITERIA**

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) 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 and approval by the NMOCD, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

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

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

#### SITE ACTIVITIES

The Mobley Ranch release was mapped using a handheld Global Positioning System (GPS) unit. Photographic documentation is provided in the Photographic log in Appendix A. The release extent is depicted on Figure 2. The ARMS review was completed and confirmed the area had been previously surveyed and no cultural properties were identified in the vicinity of the release and potential disturbance areas. An NMSLO Cultural Resources Cover Sheet documenting the results of the ARMS review was submitted to the Cultural Resource Office (CRO) of NMSLO on September 21, 2023. In addition, ongoing pipeline operations at the Site delayed the start of excavation; however, XTO recognizes the importance of remediating impacted soil at the Site and as such, pipeline construction work has been postponed in order to complete the excavation of impacted soil.



XTO Energy, Inc. Remediation Work Plan Update BEU Connector PW Booster and Mobley Ranch

Ensolum personnel returned to the Site on October 17, 2023, to begin excavation of impacted soil. Currently, impacted soil has been excavated with the use of a track hoe and transport vehicles. Due to the extent of underground flowlines within the release extent, a hydrovac has been utilized to identify subsurface lines to prevent another environmental release, which has extended the excavation timeline. An area of approximately 16,200 square feet has been excavated at the time of this report, which includes the proper removal and disposal of approximately 1,000 cubic yards of soil. Photographic documentation of the excavation has been conducted and a Photographic Log is in Appendix A.

#### PROPOSED REMEDIATION WORK PLAN

XTO proposes to continue excavation to remove impacted soil identified at the Site. XTO proposes to address Incident Numbers NAPP2213151424 and NAPP2316045229 by completing the following approved remediation activities:

- Excavation of chloride impacted soil. The proposed excavation extent is depicted on Figure 2.
- Collect confirmation samples at the approved sampling frequency of one 5-point composite soil sample every 500 square feet along the excavation floor and sidewalls.
- A total estimated 1,500 cubic yards of chloride impacted soil will be excavated (1,000 cubic yards have been removed to-date). The excavated soil will be transported to a New Mexico approved landfill facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions and re-seeded with the recommended seed mixture as discussed below.

#### **PROPOSED SCHEDULE**

XTO will continue the excavation and confirmation soil sampling activities and will submit a *Closure Request* within 30 days following the receipt of final laboratory analytical results. If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely, Ensolum, LLC

Mouissey

Tacoma Morrissey, MS Senior Geologist

- Daniel R. Moir, PG Senior Managing Geologist
- cc: Garrett Green, XTO Tommee Lambert, XTO New Mexico State Land Office

Appendices:

Figure 1Site Location MapFigure 2Proposed Excavation Extent



XTO Energy, Inc. Remediation Work Plan Update BEU Connector PW Booster and Mobley Ranch

Appendix APhotographic LogAppendix BNMOCD Notifications/CorrespondenceAppendix CRemediation Work Plan October 24, 2022Appendix DProposed Reclamation Plan



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**FIGURES** 

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# APPENDIX A

Photographic Log

Released to Imaging: 3/12/2024 10:06:16 AM







# APPENDIX B

**NMOCD** Notifications

From:	Collins, Melanie
То:	Tacoma Morrissey; Ashley Ager
Cc:	Green, Garrett J; DelawareSpills /SM
Subject:	FW: The Oil Conservation Division (OCD) has approved the application, Application ID: 153127
Date:	Tuesday, February 28, 2023 12:19:07 PM
Attachments:	image001.png

#### [ \*\*EXTERNAL EMAIL\*\*]

Work Plan approval for BEU Connector PW Booster, released 4/27/22.

# Melaníe Collíns



Environmental Technician melanie.collins@exxonmobil.com 432-556-3756

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Tuesday, February 28, 2023 12:15 PM
To: Collins, Melanie <melanie.collins@exxonmobil.com>
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 153127

External Email - Think Before You Click

To whom it may concern (c/o Melanie Collins for XTO ENERGY, INC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2213151424, with the following conditions:

• The Remediation Plan is Conditionally Approved. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance for confirmation samples every 500 ft2 is approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. The work will need to occur in 90 days after the work plan has been approved.

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

From: To:	<u>Collins, Melanie</u> ocd.enviro (ocd.enviro@emnrd.nm.gov); <u>Hamlet, Robert, EMNRD (Robert.Hamlet@emnrd.nm.gov); Bratcher,</u> Michael, EMNRD (mike.bratcher@emnrd.nm.gov); Harimon, Jocelyn, EMNRD (Jocelyn.Harimon@emnrd.nm.gov)
Cc:	Tacoma Morrissey; Green, Garrett J; Ashley Ager; DelawareSpills /SM
Subject:	XTO - Extension Request - BEU Connector PW Booster - Incident Number NAPP2213151424
Date:	Friday, May 26, 2023 10:02:15 AM
Attachments:	image001.png

### [ \*\*EXTERNAL EMAIL\*\*]

All,

XTO is requesting an extension of the current deadline of May 29, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU Connector PW Booster (Incident Number NAPP2213151424). The release occurred on April 27, 2022, and fluids were released into a pipeline right-of-way (ROW). Initial site assessment and delineation sampling has been completed at the site. A work plan was submitted to the OCD on October 24, 2022 and approved by the NMOCD on February 28, 2023. A Right-of-Entry (ROE) permit must be executed and approved by the State Land Office (SLO) to access the ROW. In order to obtain the approved ROW, complete the remediation work and submit a closure report XTO requests a 90-day extension of this deadline until August 28, 2023.

Thank you,

Melaníe Collíns



Environmental Technician melanie.collins@exxonmobil.com 432-556-3756

From:	Wells, Shelly, EMNRD	
To:	Collins, Melanie; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD	
Cc:	<u>Green, Garrett J; Ben Belill; Tacoma Morrissey; Lambert, Tommee L; DelawareSpills /SM</u>	
Subject:	RE: [EXTERNAL] XTO - Sampling Notification (Week of 10/16/23 - 10/20/23)	
Date:	Thursday, October 12, 2023 3:26:07 PM	
Attachments:	image001.png	

Some people who received this message don't often get email from shelly.wells@emnrd.nm.gov. Learn why this is important

#### [ \*\*EXTERNAL EMAIL\*\*]

Hi Melanie,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. When reporting sampling at multiple locations it is required to provide the anticipated start time for each location. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

Thank you,

Shelly

Shelly Wells \* Environmental Specialist-Advanced Environmental Bureau EMNRD-Oil Conservation Division 1220 S. St. Francis Drive|Santa Fe, NM 87505 (505)469-7520<u>|Shelly.Wells@emnrd.nm.gov</u> http://www.emnrd.state.nm.us/OCD/

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, October 12, 2023 2:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Tacoma Morrissey
<tmorrissey@ensolum.com>; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>;
DelawareSpills /SM <DelawareSpills@exxonmobil.com>
Subject: [EXTERNAL] XTO - Sampling Notification (Week of 10/16/23 - 10/20/23)

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

All,

XTO plans to complete final sampling activities at the sites listed below for the week of October 16,

2023.

Monday – October 16, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229
- PLU 18 TWR Sat Battery / nAPP2230551957

Tuesday - October 17, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Wednesday - October 18, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Thursday - October 19, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229
- PLU 23 Dog Town Draw 154H / nAPP2316446382

Friday - October 20, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Thank you,

Melaníe Collins



Environmental Technician melanie.collins@exxonmobil.com 432-556-3756

From:	Wells, Shelly, EMNRD	
То:	Collins, Melanie; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD	
Cc:	<u>Green, Garrett J; Ben Belill; Lambert, Tommee L; DelawareSpills /SM; Tacoma Morrissey</u>	
Subject:	RE: [EXTERNAL] XTO Sampling notifications Week of 10.23.23-10.27.23	
Date:	Wednesday, October 18, 2023 4:58:27 PM	
Attachments:	image001.png	

Some people who received this message don't often get email from shelly.wells@emnrd.nm.gov. Learn why this is important

#### [ \*\*EXTERNAL EMAIL\*\*]

Hi Melanie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells \* Environmental Specialist-Advanced Environmental Bureau EMNRD-Oil Conservation Division 1220 S. St. Francis Drive|Santa Fe, NM 87505 (505)469-7520<u>|Shelly.Wells@emnrd.nm.gov</u> http://www.emnrd.state.nm.us/OCD/

From: Collins, Melanie <melanie.collins@exxonmobil.com>

Sent: Wednesday, October 18, 2023 3:16 PM

**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

**Cc:** Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Tacoma Morrissey <tmorrissey@ensolum.com>

Subject: [EXTERNAL] XTO Sampling notifications Week of 10.23.23-10.27.23

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

Ok, Shelly, ask and you shall receive—haha! Let me know if you'd like them sent individually in the future, or if it is ok to send in bulk like this.

XTO plans to complete final sampling activities at the sites listed below for the week of October 23.2023 between 8 a.m. and 5 p.m. Please reach out with questions or concerns. Thank you!

.

Site Name	BEU Connector PW Booster
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2213151424
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.23.23-10.27.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Mobley Ranch Pipeline
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2316045229
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.23.23-10.27.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	JRU 91 Flowline
Location	K-36-22S-30E; Eddy County, NM
Incident ID	NAB1515234386
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.23.2023
Env Consultant	Ensolum
Contractor	NA
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Remuda 4-24-20

.

Location	A-04-24S-30E; Eddy County, NM
Incident ID	nAPP2233351770
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.23.2023
Env Consultant	Ensolum
Contractor	NA
Sampling Notification Required	Yes
Surface Owner	BLM

Site Name	PLU CVX JV BS 008H
Location	N-14-25S-30E; Eddy County, NM
Incident ID	nAB1602154960
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.24.2023
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	BLM

Site Name	Poker Lake Unit 315H
Location	P-24-24S-30E; Eddy County, NM
Incident ID	nAPP2324233432
Source & Description of Activities	Sampling
Expected Duration for Activities	3 Days 10.25.23-10.27.23
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	BLM

Thank you,



From:	Hamlet, Robert, EMNRD
To:	Collins, Melanie Suzanne
Cc:	<u>Green, Garrett J; DelawareSpills /SM; Ben Belill; Ashley Ager; Tacoma Morrissey; Bratcher, Michael, EMNRD;</u> Wells, Shelly, EMNRD; Velez, Nelson, EMNRD
Subject:	Final Extension - XTO - BEU Connector PW Booster & Mobley Ranch Pipeline - Incident Numbers (nAPP2213151424 & nAPP2316045229)
Date:	Thursday, August 24, 2023 8:53:03 AM
Attachments:	image003.png

#### [ \*\*EXTERNAL EMAIL\*\*]

#### RE: Incident #NAPP2213151424 & NAPP2316045229

#### Melanie,

Your request for an extension to **October 27th, 2023** is approved. This will be the **Final Extension** for this release. 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: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, August 23, 2023 4:25 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] XTO - Extension Request - BEU Connector PW Booster & Mobley Ranch
Pipeline - Incident Numbers (nAPP2213151424 & nAPP2316045229)

From: Collins, Melanie <<u>melanie.collins@exxonmobil.com</u>>

Sent: Wednesday, August 23, 2023 3:02 PM

To: Enviro, OCD, EMNRD <<u>OCD.Enviro@emnrd.nm.gov</u>>

Cc: Green, Garrett J <<u>garrett.green@exxonmobil.com</u>>; DelawareSpills /SM

<<u>DelawareSpills@exxonmobil.com</u>>; <u>bbelill@ensolum.com</u>; Ashley Ager <<u>aager@ensolum.com</u>>; Tacoma Morrissey <<u>tmorrissey@ensolum.com</u>>

Subject: [EXTERNAL] XTO - Extension Request - BEU Connector PW Booster & Mobley Ranch Pipeline

- Incident Numbers (nAPP2213151424 & nAPP2316045229)

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

All,

XTO is requesting an extension of the current deadline of August 28, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU Connector PW Booster site (Incident Number nAPP2213151424) and an extension of the current deadline of August 25, 2023, for the Mobley Ranch pipeline release (Incident Number nAPP2316045229). The BEU Connector release occurred on April 27, 2022, and as a result, fluids were released into a pasture area off-pad. An initial site assessment and delineation sampling has been completed for this release. A Remediation Work Plan was submitted to the OCD on October 24, 2022, and approved by the division on February 28, 2023. The second release (Mobley Ranch Pipeline) occurred on May 27, 2023, and overlapped the BEU Connector PW Booster release. A Right-of-Entry (ROE) permit was approved by the State Land Office (SLO) for both releases on August 21, 2023, and an excavation has been scheduled with third-party contractors. In order to complete the excavation that now includes a second release, conduct confirmation sampling, review laboratory analytical data, and to submit a remediation work plan or closure report, XTO hereby requests a 60-day extension of the aforementioned deadlines to October 27, 2023.

Thank you,

# Melaníe Collíns



Environmental Technician melanie.collins@exxonmobil.com 432-556-3756





# APPENDIX C

Remediation Work Plan October 24, 2022

Released to Imaging: 3/12/2024 10:06:16 AM

# **E N S O L U M**

October 24, 2022

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

Re: Remediation Work Plan BEU Connector PW Booster Incident Number NAPP2213151424 Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan* to document the site assessment activities completed to date and propose a work plan to address impacted soil identified at the BEU Connector PW Booster (Site). The purpose of the site assessment activities was to delineate the lateral and vertical extent of impacted soil resulting from a release of produced water at the Site. The following Work Plan proposes to excavate impacted soil within the top 4 feet of the release extent.

### SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit H, Section 22, Township 23 South, Range 30 East, in Eddy County, New Mexico (32.29070° N, 103.86159° W) and is associated with oil and gas exploration and production operations on New Mexico State Land (SLO).

On April 27, 2022, a flanged-end fitting separated from a hose and resulted in the release of 296.34 barrels (bbls) of produced water onto the pipeline right-of-way (ROW) and pasture area. No fluids were recovered. XTO immediately reported the release to the NMOCD via email on April 28, 2022 and submitted a Release Notification Form C-141 on May 9, 2022. The release was assigned Incident Number NAPP2213151424.

### SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) 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 greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. On October 26, 2021, soil boring (C-4567) was advanced to a depth of 101 feet bgs utilizing a hollow stem auger rig. The location of the borehole is approximately 0.48 miles southwest of the release and is depicted on Figure 1. The well log recorded the boring as a dry hole. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 5,613 feet southwest of the Site. The Site is greater than 200 feet from a lakebed,

XTO Energy, Inc. Remediation Work Plan BEU Connector PW Booster

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 (medium 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

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

### SITE ASSESSMENT AND DELINEATION ACTIVITIES

On June 6, 2022 Ensolum personnel conducted a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Ensolum personnel collected nine soil samples (SS01 through SS09) within the release extent from a depth of 0.5 feet bgs to assess the extent of impacted soil. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach<sup>®</sup> chloride QuanTab<sup>®</sup> test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of 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

XTO submitted a Right-of-Entry request for land access on the SLO land. Following approval of the request, delineation activities were conducted at the Site to assess the lateral and vertical extent of impacted soil. On August 1, 2022, boreholes BH01 through BH09 were advanced via hand auger and hydrovacuum within the release extent. The boreholes were advanced to a maximum depth of 4 feet bgs. Discrete soil samples were collected from each pothole at depths ranging from 1-foot bgs to 4 feet bgs. Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix B. The soil samples were handled and analyzed as described above. The soil sample locations are depicted on Figure 2. Photographic documentation was completed during the Site visits and a photographic log is included in Appendix C.

### LABORATORY ANALYTICAL RESULTS



XTO Energy, Inc. Remediation Work Plan BEU Connector PW Booster

Laboratory analytical results for all soil samples collected indicated that Benzene, BTEX, and TPH concentrations were below the Site Closure Criteria. No hydrocarbon impacted soil was identified as a result of the release.

Laboratory analytical results for the delineation soil samples SS01/BH01 through SS06/BH06, and SS09/BH09 indicated that chloride concentrations exceeded the Closure Criteria at depths ranging from 0.5 feet to 1-foot bgs. The terminal depth sample from each borehole, collected at 4 feet bgs, was compliant with the Closure Criteria and reclamation requirement and successfully defined the vertical extent of impacted soil. Laboratory Analytical Reports & Chain-of-Custody Documentation are presented in Appendix D. NMOCD notifications are presented in Appendix E.

#### PROPOSED REMEDIATION WORK PLAN

The delineation soil sampling results indicate soil containing elevated chloride concentrations exists across an approximate 30,000 square foot area and extends to depths ranging from 0.5 feet to 1-foot bgs. XTO proposes to complete the following remediation activities:

- Excavation of chloride impacted soil to a depth of 1-foot bgs. Excavation will proceed laterally until sidewall samples confirm chloride concentrations are compliant with the Closure Criteria in the top four feet. The proposed excavation extent is depicted on Figure 3.
- Due to the estimated size of the excavation, XTO requests a variance for frequency of excavation confirmation samples. XTO proposes five-point composite samples to be collected at a sampling frequency of 500 square feet along the excavation floor and sidewalls. The proposed sampling frequency would reduce the total amount of samples from approximately 150 samples (200 square feet) to approximately 60 samples. In areas where the excavation is at 1-foot bgs or less, the sidewall will be incorporated into the floor sample aliquots. The soil samples will be handled as described above and analyzed for chloride. The soil samples will be analyzed for chloride only since benzene, BTEX, or TPH concentrations were not identified as a constituent of concern (COC) in the soil samples.
- An estimated 1,500 cubic yards of chloride impacted soil will be excavated. The excavated soil will be transferred a New Mexico approved landfill facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions and re-seeded with the recommended BLM seed mixture.

XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this Work Plan by the NMOCD.

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

Sincerely, Ensolum, LLC

Monissey

Tacoma Morrissey, MS



Ashley L. ager

Ashley Ager, PG, MS

XTO Energy, Inc. Remediation Work Plan BEU Connector PW Booster

#### Senior Geologist

Program Director

cc: Garrett Green, XTO Shelby Pennington, XTO New Mexico State Land Office

#### Appendices:

- Figure 1 Site Location Map
- Figure 2 Soil Sample Locations
- Figure 3 Proposed Excavation Extent
- Table 1Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Lithologic / Soil Sampling Logs
- Appendix C Photographic Log
- Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix E NMOCD Notifications/Correspondence



Page 4



**FIGURES** 

Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM









# TABLES
## E N S O L U M

	TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS XTO Energy, Inc. BEU Connector PW Booster 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 C	losure Criteria (	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000			
				Del	ineation Soil San	nples							
SS01	06/06/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	5,120			
BH01	08/01/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	107			
BH01	08/01/2022	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	41.5			
SS02	06/06/2022	0.5	<0.00200	<0.00401	<49.9	54.1	<49.9	54.1	54.1	4,270			
BH02	08/01/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,770			
BH02	08/01/2022	4	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	530			
SS03	06/06/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	6,140			
BH03	08/01/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	518			
BH03	08/01/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	17.6			
SS04	06/06/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	7,100			
BH04	08/01/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,570			
BH04	08/01/2022	4	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	25.6			
SS05	06/06/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5,020			
BH05	08/01/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	4,300			
BH05	08/01/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	18.2			
SS06	06/06/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	6,310			
BH06	08/01/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	34.5			
BH06	08/01/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	17.9			
SS07	06/06/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	17.3			
BH07	08/01/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	11.9			
BH07	08/01/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	30.7			
SS08	06/06/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	16.2			
BH08	08/01/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	6.59			
BH08	08/01/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	10.9			

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## E N S O L U M

	TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS XTO Energy, Inc. BEU Connector PW Booster Eddy County, New Mexico													
Sample I.D.	Sample I.D.     Sample Depth Date     Benzene (feet bgs)     Total BTEX (mg/kg)     TPH GRO (mg/kg)     TPH DRO (mg/kg)     TPH ORO (mg/kg)     GRO+DRO (mg/kg)     Total TPH (mg/kg)													
NMOCD Table 1 C	losure Criteria (l	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000				
SS09	06/06/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	3,970				
BH09	08/01/2022	1	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	3,250				
BH09	08/01/2022	4	<0.00200	<0.00399	<49.9	<49.9	<50.0	<49.9	<49.9	90.7				

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram NMOCD: New Mexico Oil Conservation Division BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

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

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# APPENDIX A

**Referenced Well Records** 



# WELL RECORD & LOG

# OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

NOL	OSE POD NO. POD1 (BH	H-01)			VELL TAG ID NO /a	).		OSE FILE NO(S C-4567				
OCAT	WELL OWNE Strata Produ							PHONE (OPTIC 575-622-112				
WELL I	WELL OWNE 1301 N. Syd							CITY Roswell		state NM	88201	ZIP
GENERAL AND WELL LOCATION	WELL LOCATION (FROM GPS	3)	TITUDE	32 103	MINUTES 17 52	SECOND: 8.70 2.55	s N W		REQUIRED: ONE TEN QUIRED: WGS 84	TH OF A SE	COND	
<b>1. GENE</b>		N RELATIN	NGITUDE NG WELL LOCATION TO T23S R30E, NMPN	STREET ADDRES				SS (SECTION, TO	WNSHJIP, RANGE) WH	IERE AVAII	ABLE	
	LICENSE NO. 124		NAME OF LICENSED		ckie D. Atkin	s			NAME OF WELL DR Atkins Eng		MPANY Associates, In	nc.
	DRILLING ST 10/26/2		DRILLING ENDED 10/26/2021	DEPTH OF COMP temporar	PLETED WELL (I		ORE HO	le depth (ft) 101	DEPTH WATER FIR	ST ENCOUR n/a	NTERED (FT)	
N	COMPLETED	WELL IS:	ARTESIAN	✓ DRY HOLE	SHALL	OW (UNCONF	INED)		STATIC WATER LE	VEL IN COM n/a	IPLETED WE	LL (FT)
VIIO	DRILLING FL	UID:	AIR	MUD	ADDITI	VES – SPECIF	Y:	_			_	
RM	DRILLING MI	ETHOD:	ROTARY	HAMMER	CABLE	TOOL	OTHE	R - SPECIFY:	Hollo	ow Stem	Auger	
2. DRILLING & CASING INFORMATION	DEPTH ( FROM	feet bgl) TO	BORE HOLE DIAM (inches)	(include ead	ATERIAL AN GRADE ch casing string ctions of screen	, and	CON	ASING NECTION TYPE	CASING INSIDE DIAM. (inches)	THIC	G WALL KNESS ches)	SLOT SIZE (inches)
ING & CA	0	101	±8.5		oring- HSA	<u> </u>	add coup				-	
2. DRILL												
	DEPTH (	feet bgl)	BORE HOLE	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	ANNULAR S				AMOUNT		METHO	
MATERIAL	FROM	то	DIAM. (inches)	GRAVI	EL PACK SIZI	E-RANGE E	Y INTI	ERVAL	(cubic feet)		PLACEN	AENT
ANNULAR MATERIAL									OSE OT KO	116 20	21 041'0	à
з.	OSE INTERI	NALUSE						WR-2	0 WELL RECORD	& LOG O	Version 06/3	0/17)

FILE NO. 454	POD NO.	TRN NO. 70418	5
LOCATION 235.3	0E.22.431	WELL TAG ID NO.	PAGE 1 OF 2

	DEPTH (	feet bgl)		COLOR AND TYPE OF MATERIAL	ENCOUN	TERED -		WAT	ER	ESTIMATED YIELD FOR
	FROM	то	THICKNESS (feet)	INCLUDE WATER-BEARING CAVITIES (attach supplemental sheets to fully			8	BEAR	ING?	WATER- BEARING ZONES (gpm)
	0	19	19	Caliche, with fine-grained sand,	, White/ T	an		Y	√N	
	19	54	35	Sand, Fine-grained Poorly-graded,	Reddish E	Brown		Y	√N	
	54	90	36	Clay, with sand, fine-grained poorly	y-graded,I	Brown		Y	√N	
	90	101	11	Caliche, with with sand, fine-grained j	poorly-gra	ided, Tan		Y	√ N	
								Y	N	
T	·							Y	N	
WEI								Y	N	
4. HYDROGEOLOGIC LOG OF WELL								Y	N	
COG								Y	N	
ICI								Y	N	
TOC								Y	N	
GEO								Y	N	
RO								Y	N	
HYI								Y	N	
4								Y	N	
								Y	N	
								Y	N	
								Y	N	
			177 24					Y	N	
								Y	N	
								Y	N	
	METHOD U	ISED TO E	STIMATE YIELD	OF WATER-BEARING STRATA:			TOTA	L ESTIM	ATED	1000
	D PUM	P 🗆	AIR LIFT	BAILER OTHER – SPECIFY:			WEL	L YIELD	(gpm):	0.00
NOIS	WELL TES			ACH A COPY OF DATA COLLECTED DURING ME, AND A TABLE SHOWING DISCHARGE A						
TEST; RIG SUPERVISI	MISCELLA	NEOUS IN	FORMATION: Te fe	emporary well materials removed and the soil et below ground surface, then hydrated bento	boring b nite chip	backfilled usin s from ten fee	ng drill et belov	cuttings v ground	from to surface	tal depth to ten to surface.
rest;	PRINT NAM	AE(S) OF D	DRILL RIG SUPER	VISOR(S) THAT PROVIDED ONSITE SUPERV	VISION O	F WELL CON	STRUC	TION O	THER TH	IAN LICENSEE:
5.7	Shane Eldri	dge, Came	eron Pruitt, Came	rlo Trevino		0	3E DI	INCU	.5 202	1 PM1 (04
SIGNATURE	CORRECT	RECORD	OF THE ABOVE D	TIES THAT, TO THE BEST OF HIS OR HER KN DESCRIBED HOLE AND THAT HE OR SHE WI 0 DAYS AFTER COMPLETION OF WELL DRI	ILL FILE	GE AND BEL THIS WELL F	IEF, TH ECOR	IE FORE D WITH	GOING I THE STA	S A TRUE AND ATE ENGINEER
6. SIGN	Jack K	tkins		Jackie D. Atkins				11/15	5/2021	
		SIGNA	TURE OF DRILLE	R / PRINT SIGNEE NAME					DATE	
FO	R OSE INTER	NAL USE				WR-20 WE	LL REC	CORD &	LOG (Ve	rsion 06/30/2017)
FIL	E NO.			POD NO.		TRN NO.				
LO	CATION				WELL	TAG ID NO.				PAGE 2 OF 2





APPENDIX B

Lithologic Soil Sampling Logs

		1000		C				Sample Name: BH01 Date: 08/01/22	2
			N	>	OL			Site Name: BEU Connector PW Booster	
					ngineeri			Incident Number: nAPP2213151424	
		Hydro	geo	ologic C	onsultan	ts		Job Number: 03E1558045	
		LITHOL	OGI	C / SOIL S	SAMPLING	6 LOG		Logged By: Conner Shore Method: HVAC	C/Auger
Coo	rdinates: 32	2.29070,	-103.	86159				Hole Diameter: N/A Total Depth: 4	
			-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respectively. Chloride te	est
Moisture	<u>Content</u> Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
D	9,732	0.2	N	SS01	0.5'	L - -	SP-SM	0-1', SILTY SAND, dry, reddish brown, poo graded, fine grain, no stain, no odor.	orly
D	<168	0.0	Ν	BH01	1' _	- 1' -	SP-S	1'-3', SANDSTONE, dry, reddish brown, po graded, fine grain, poorly consolidated no odor.	
D	<168	0.0	Ν		2' _	2'			
D	<168	0.0	Ν		3' _	3'	CCHE	3'-4', CALICHE, dry, tan-off white, poorly consolidated, very silty, no stain, no od	lor.
D	<168	0.0	Ν	BH01	4'	4'	TD	Total depth at 4' bgs.	
					-	- - -			
					-	-			
					_	-			
					_	-			
					-	-			
					-	-			
					-	-			
						-			
					_	-			
					_	-			
						-			
						 -			
						-			
						_  -			

		1		~				Sample Name: BH02 Date: 08/01/22
			N	S	Ο		Μ	Site Name: BEU Connector PW Booster
					ngineeri			Incident Number: nAPP2213151424
		Hydro	geo	ologic C	onsultan	ts		Job Number: 03E1558045
		LITHOL	OGI			i log		Logged By: Conner Shore Method: HVAC/Auger
Coord	inates: 32	2.29070,	-103.8	86159				Hole Diameter: N/A Total Depth: 4'
			-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	7,672	0.5	N	SS02	0.5'	I - -	SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	2284	0.0	Ν	BH02	1' _	- 1' -	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain no odor.
Dry	240.8	0.0	N		2' _	2'		
Dry	324.8	0.0	N		3' _	- 3'		
Dry	532	0.0	N	BH02	4'	- 4'	TD	Total depth at 4' bgs.
					-	-		
					-	- - -		
					_	-		
					-	-		
					-	- - -		
					-	-		
					-	-		
					-	- - -		
					-	-		
					-	-		
					-	-		
					-	-		

		-		~				Sample Name: BH03 Date: 08/01/22
			N	S	Ο	<b>.</b> U	Μ	Site Name: BEU Connector PW Booster
					ngineeri			Incident Number: nAPP2213151424
					onsultan			Job Number: 03E1558045
		LITHOL	OGI		SAMPLING	i log		Logged By: Conner Shore Method: HVAC/Auger
Coord	inates: 32	2.29070,	-103.	86159				Hole Diameter: N/A Total Depth: 4'
			-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	9,732	1.9	N	SS03	0.5'	1 - -	SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	<168	0.0	Ν		1' _ -	1' 	SP-S	1'-2', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stai no odor.
Dry	532.0	0.0	N	BH03	2' _	2'	CCHE	2'-4', CALICHE, dry, tan-off white, poorly consolidated, very silty, no stain, no odor.
Dry	<168	0.0	N		3' _	3'		
Dry	<168	0.0	N	BH03	4'	4'	TD	Total depth at 4' bgs.
						· · · · · · · · · · · · · · · · · · ·		

				•				Sample Name: BH04	Date: 08/01/22
		E	N	S	ΟL	. U	Μ	Site Name: BEU Connector PW B	
					ngineeri			Incident Number: nAPP22131514	424
					onsultan			Job Number: 03E1558045	
		LITHOL	OGI			G LOG		Logged By: Conner Shore	Method: HVAC/Auger
Coord	inates: 32	2.29070,	-103.8	86159				Hole Diameter: N/A	Total Depth: 4'
			-		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	
D	8,299	1.1	N	SS04	0.5'	L - -	SP-SM	0-1', SILTY SAND, dry, redd graded, fine grain, no sta	lish brown, poorly ain, no odor.
Dry	1,864	0.0	Ν	BH04	1'	. 1'	SP-S	1'-3', SANDSTONE, dry, rec graded, fine grain, poorl no odor.	ddish brown, poorly y consolidated, no stain,
Dry	476.0	0.0	Ν		2' _	2'			
Dry	<168	0.1	Ν		3'	3'	CCHE	3'-4', CALICHE, dry, tan-off consolidated, very silty,	white, poorly no stain, no odor.
Dry	<168	0.1	Ν	BH04	4'	4'	TD	Total depth at 4' bgs.	
					-	-			
					-	- -			
					-	-  -			
					-	- - -			
					-	-  -			
					-	- - -			
					- - -	- - -			
					-				
						- - -			
					-	-			

		7-00		6				Sample Name: BH05	Date: 08/01/22
			N	>	OL			Site Name: BEU Connector PW B	ooster
					ngineeri			Incident Number: nAPP22131514	424
		Hydro	geo	ologic C	onsultan	ts		Job Number: 03E1558045	
		lithol	OGI	C / SOIL S	SAMPLING	i LOG		Logged By: Conner Shore	Method: HVAC/Auger
Coord	inates: 32	2.29070,	-103.8	86159				Hole Diameter: N/A	Total Depth: 4'
			-		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	
D	5,499	0.0	N	SS05	0.5'	L - -	SP-SM	0-1', SILTY SAND, dry, redd graded, fine grain, no sta	lish brown, poorly ain, no odor.
Dry	>3466	0.1	Ν	BH05	1' _	1' 	SP-S	1'-4', SANDSTONE, dry, rec graded, fine grain, poorl no odor.	ldish brown, poorly y consolidated, no stain,
Dry	2111	0.5	Ν		2' _	2'			
Dry	<168	0.5	N		3' _	3'			
Dry	<168	0.1	N	BH05	4'	4'	TD	Total depth at 4' bgs.	
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
						-			

				C				Sample Name: BH06 Date: 08/01/22	
			N	>	OL	. U		Site Name: BEU Connector PW Booster	
		Enviro	onm	ental, E	ngineeri	ng and		Incident Number: nAPP2213151424	
		Hydro	ogeo	ologic C	onsultan	ts		Job Number: 03E1558045	
		LITHOL	OGI	C / SOIL S	SAMPLING	i log		Logged By: Conner Shore Method: HVAC/Auger	
		2.29070,						Hole Diameter: N/A Total Depth: 4'	
			-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respectively. Chloride test	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
D	7,672	0.2	N	SS06	0.5'	L - -	SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.	
Dry	<168	0.0	Ν	BH06	1'	1' 	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no sta no odor.	in,
Dry	<168	0.1	Ν		2'	2'			
Dry	<168	0.1	N		3' _	3'			
Dry	<168	0.2	N	BH06	4'	4'	TD	Total depth at 4' bgs.	
					-	- - -			
					-	-  -			
					-	-			
					-	-			
					-	-			
					-	-  -			
						-			
					-	- -			
					- - -	-  -			
					-	-			

		-		C				Sample Name: BH07 Date: 08/01/22
			N	>	OL	. U	Μ	Site Name: BEU Connector PW Booster
		Enviro	onm	ental, E	ngineeri	ng and		Incident Number: nAPP2213151424
		Hydro	geo	ologic C	onsultan	ts		Job Number: 03E1558045
		LITHOL	OGI	C / SOIL S	SAMPLING	i LOG		Logged By: Conner Shore Method: HVAC/Auger
	inates: 32							Hole Diameter: N/A Total Depth: 4'
			-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	0.2	N	SS07	0.5'	I - -	SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	<168	0.0	Ν	BH07	1'	1'	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stai no odor.
Dry	<168	0.5	Ν		2' _	2'		
Dry	<168	0.1	N		3'	3'		
Dry	<168	0.4	N	BH07	4'	4'	TD	Total depth at 4' bgs.
					-	- - -		
					-	-  -		
					-	- - -		
					-	- -		
					-	-		
					-	-		
					-	-		
					-	-		
					-	-		
					-	-		

		-		6				Sample Name: BH08 Date: 08/01	/22
			N	5	OL	. U		Site Name: BEU Connector PW Booster	
		Enviro	onm	ental, E	ngineeri	ng and		Incident Number: nAPP2213151424	
					onsultan			Job Number: 03E1558045	
		LITHOL	OGI	C / SOIL S	SAMPLING	i LOG		Logged By: Conner Shore Method: HV	/AC/Auger
	inates: 32							Hole Diameter: N/A Total Depth	
			-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respectively. Chloride	e test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
D	<168	0.0	N	SS08	0.5'	L - -	SP-SM	0-1', SILTY SAND, dry, reddish brown, p graded, fine grain, no stain, no odor.	poorly
Dry	<168	0.1	Ν	BH08	1' _ -	1' 	SP-S	1'-4', SANDSTONE, dry, reddish brown, graded, fine grain, poorly consolidate no odor.	poorly ed, no stain,
Dry	<168	0.0	Ν		2' _	2'			
Dry	<168	0.3	Ν		3' _	3'			
Dry	<168	0.1	N	BH08	4'	4'	TD	Total depth at 4' bgs.	
					-	-			
					-	-			
					_	-			
					_	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
					-	-			
						-			
					-	-			

				C				Sample Name: BH09	Date: 08/01/22
	-		N	>		<b>.</b> U		Site Name: BEU Connector PW E	Booster
		Enviro	onm	ental, E	ngineeri	ing and		Incident Number: nAPP2213151	424
		Hydro	geo	ologic C	onsultan	its		Job Number: 03E1558045	
		LITHOL	OGI	C / SOIL S	SAMPLING	6 LOG		Logged By: Conner Shore	Method: HVAC/Auger
	inates: 32							Hole Diameter: N/A	Total Depth: 4'
			-		ith HACH Ch l to distilled		Strips and	PID for chloride and vapor, respe	ectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic D	escriptions
D	4,799	0.1	N	SS09	0.5'	-	SP-SM	0-1', SILTY SAND, dry, redo graded, fine grain, no st	dish brown, poorly ain, no odor.
Dry	3,225	0.2	Ν	BH09	1'	1'	SP-S	1'-4', SANDSTONE, dry, rec graded, fine grain, poorl no odor.	ddish brown, poorly ly consolidated, no stain,
Dry	1,002	0.1	Ν		2'	2'			
Dry	<168	0.1	Ν		3' _	3'			
Dry	<168	0.1	Ν	BH09	4'	4'	TD	Total depth at 4' bgs.	
					-	-			
					-	-			
					-	-			
					-	- - -			
					-	-			
					-	-			
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					-				





# APPENDIX C

Photographic Log

Released to Imaging: 3/12/2024 10:06:16 AM







# APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA

LINKS

EOL

Have a Question?

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🔅 eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

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

# Laboratory Job ID: 890-2704-1

Laboratory Sample Delivery Group: 03E1558045 Client Project/Site: BEU Connector PW Booster

# For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

Authorized for release by: 8/11/2022 7:08:33 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.

Client: Ensolum Project/Site: BEU Connector PW Booster Laboratory Job ID: 890-2704-1 SDG: 03E1558045

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Client Sample Results	6
Surrogate Summary	21
	23
QC Association Summary	32
Lab Chronicle	37
Certification Summary	43
Method Summary	44
Sample Summary	45
Chain of Custody	46
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	Definitions/Glossary		1
Client: Ensolum		Job ID: 890-2704-1	4
	EU Connector PW Booster	SDG: 03E1558045	
Qualifiers			3
GC VOA Qualifier	Qualifier Description		4
F1	MS and/or MSD recovery exceeds control limits.		
F2	MS/MSD RPD exceeds control limits		5
S1+	Surrogate recovery exceeds control limits, high biased.		
U	Indicates the analyte was analyzed for but not detected.		G
GC Semi VOA			
Qualifier	Qualifier Description		
F1	MS and/or MSD recovery exceeds control limits.		
S1-	Surrogate recovery exceeds control limits, low biased.		8
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC			C
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
Glossary			
Abbreviation	These commonly used abbreviations may or may not be present in this report.		
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis		
%R	Percent Recovery		
CFL	Contains Free Liquid		1
CFU	Colony Forming Unit		
CNF	Contains No Free Liquid		
DER	Duplicate Error Ratio (normalized absolute difference)		
Dil Fac			
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		

 POS
 Positive / Present

 PQL
 Practical Quantitation Limit

PRES Presumptive

ND

NEG

QC Quality Control

Negative / Absent

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

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

 TEF
 Toxicity Equivalent Factor (Dioxin)

 TEQ
 Toxicity Equivalent Quotient (Dioxin)

TEQ Toxicity Equivalent Quotient (E TNTC Too Numerous To Count

#### **Case Narrative**

Client: Ensolum Project/Site: BEU Connector PW Booster

#### Job ID: 890-2704-1

#### Laboratory: Eurofins Carlsbad

#### Narrative

Job Narrative 890-2704-1

#### Receipt

The samples were received on 8/2/2022 9:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

#### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH01 (890-2704-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH02 (890-2704-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31731 and analytical batch 880-31678 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: The matrix spike duplicate (MSD) recoveries for preparation batch 880-31767 and analytical batch 880-31850 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (CCV 880-31850/20), (CCV 880-31850/33), (LCS 880-31767/1-A) and (890-2704-A-1-I MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-31767/2-A). Evidence of matrix interferences is not obvious.

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

#### GC Semi VOA

Method 8015MOD\_NM: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) samples: (890-2704-A-1-C MS) and (890-2704-A-1-D MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: BH02 (890-2704-3). 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: BH02 (890-2704-4). 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: BH04 (890-2704-7) and BH04 (890-2704-8). 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: BH06 (890-2704-11). 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: BH08 (890-2704-15). 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: BH09 (890-2704-17) and BH09

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Case Narrative		
Client: Ensolum Project/Site: BEU Connector PW Booster	Job ID: 890-2704-1 SDG: 03E1558045	
Job ID: 890-2704-1 (Continued)		

o Norrativa

#### Laboratory: Eurofins Carlsbad (Continued)

(890-2704-18). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31470 and analytical batch 880-31531 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### HPLC/IC

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

Client: Ensolum Project/Site: BEU Connector PW Booster

### Client Sample ID: BH01

Date Collected: 08/01/22 09:00 Date Received: 08/02/22 09:53

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U F1	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:00	08/10/22 07:05	
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:00	08/10/22 07:05	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	129		70 - 130			08/08/22 13:00	08/10/22 07:05	
1,4-Difluorobenzene (Surr)	79		70 - 130			08/08/22 13:00	08/10/22 07:05	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1
Method: 8015B NM - Diesel Rang Analyte	• •	RO) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 12:07	
Diesel Range Organics (Over C10-C28)	<49.9		49.9	mg/Kg		08/04/22 09:22	08/05/22 12:07	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 12:07	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	72		70 - 130			08/04/22 09:22	08/05/22 12:07	
o-Terphenyl	81		70 - 130			08/04/22 09:22	08/05/22 12:07	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	107		4.98	mg/Kg			08/11/22 09:13	1
Client Sample ID: BH01						Lab San	nple ID: 890-	2704-2
ate Collected: 08/01/22 09:15 ate Received: 08/02/22 09:53 ample Depth: 4'							Matri	x: Solic
Method: 8021B - Volatile Organic	Compounde	(CC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	-	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	
		0	0.00200	iiiu/i\u			00103122 10.41	

method. 002 rb - volutile orga	nie oompounds (							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130			08/08/22 10:46	08/09/22 10:47	1

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Matrix: Solid

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Job ID: 890-2704-1 SDG: 03E1558045

Lab Sample ID: 890-2704-1

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**Released to Imaging: 3/12/2024 10:06:16 AM** 

Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

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Lab Sample ID: 890-2704-2

### **Client Sample ID: BH01**

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 09:15 Date Received: 08/02/22 09:53

Sample Depth: 4'

Client: Ensolum

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	93		70 - 130			08/08/22 10:46	08/09/22 10:47	
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 15:47	
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	
Method: 8015B NM - Diesel Rang	no Organice (D							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 13:13	·
GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 13:13	
C10-C28) Oll Range Organics (Over C28-C36)	<49.9		49.9	malla		08/04/22 09:22	08/05/22 13:13	
Oli Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/04/22 09.22	06/05/22 13:13	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	71		70 - 130			08/04/22 09:22	08/05/22 13:13	
p-Terphenyl	85		70 - 130			08/04/22 09:22	08/05/22 13:13	
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	41.5		4.99	mg/Kg			08/11/22 09:22	

Date Collected: 08/01/22 09:25 Date Received: 08/02/22 09:53 Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00199 U 0.00199 mg/Kg 08/08/22 10:46 08/09/22 11:14 Toluene <0.00199 U 0.00199 08/08/22 10:46 08/09/22 11:14 mg/Kg 1 Ethylbenzene <0.00199 U 0.00199 mg/Kg 08/08/22 10:46 08/09/22 11:14 08/09/22 11:14 m-Xylene & p-Xylene <0.00398 U 0.00398 08/08/22 10:46 mg/Kg 1 o-Xylene <0.00199 U 0.00199 mg/Kg 08/08/22 10:46 08/09/22 11:14 1 Xylenes, Total <0.00398 U 0.00398 mg/Kg 08/08/22 10:46 08/09/22 11:14 1 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 127 70 - 130 08/08/22 10:46 4-Bromofluorobenzene (Surr) 08/09/22 11:14 1 1,4-Difluorobenzene (Surr) 86 70 - 130 08/08/22 10:46 08/09/22 11:14 1 Method: Total BTEX - Total BTEX Calculation Analyte RL Unit D Dil Fac Result Qualifier Prepared Analyzed Total BTEX <0.00398 U 0.00398 08/09/22 15:47 mg/Kg 1 Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <50.0 U Total TPH 50.0 mg/Kg 08/08/22 11:58 1

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Matrix: Solid

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**Client Sample Results** 

Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

Lab Sample ID: 890-2704-3

Lab Sample ID: 890-2704-4

### Client Sample ID: BH02

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 09:25 Date Received: 08/02/22 09:53

Sample Depth: 1'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 13:34	,
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 13:34	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 13:34	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	65	S1-	70 - 130			08/04/22 09:22	08/05/22 13:34	1
o-Terphenyl	76		70 - 130			08/04/22 09:22	08/05/22 13:34	1

	atography -	e e la bie						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1770		25.0	mg/Kg			08/11/22 09:31	5

#### Client Sample ID: BH02

Date Collected: 08/01/22 09:40

### Date Received: 08/02/22 09:53

Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130			08/08/22 10:46	08/09/22 11:40	1
1,4-Difluorobenzene (Surr)	91		70 - 130			08/08/22 10:46	08/09/22 11:40	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			08/09/22 15:47	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			08/08/22 11:58	1
Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 13:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 13:56	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 13:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130			08/04/22 09:22	08/05/22 13:56	1
o-Terphenyl	70		70 - 130			08/04/22 09:22	08/05/22 13:56	

Client: Ensolum

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**Client Sample Results** 

Job ID: 890-2704-1 SDG: 03E1558045

ient Sample ID: BH02						Lab San	nple ID: 890-2	2704-4
ate Collected: 08/01/22 09:40							-	x: Solid
ate Received: 08/02/22 09:53								
ample Depth: 4'								
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	530		4.95	mg/Kg			08/11/22 09:40	1
						Lab Oan		
Client Sample ID: BH03						Lap San	nple ID: 890-2	
Date Collected: 08/01/22 10:15							Matri	x: Solid
Date Received: 08/02/22 09:53								
Sample Depth: 2'								
Method: 8021B - Volatile Organic								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200		0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Toluene	<0.00200		0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Ethylbenzene	<0.00200		0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
m-Xylene & p-Xylene	< 0.00399		0.00399	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
o-Xylene	< 0.00200		0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130	<u> </u>	70 - 130			08/08/22 10:46	08/09/22 12:06	1
1,4-Difluorobenzene (Surr)	84		70 - 130			08/08/22 10:46	08/09/22 12:06	1
· -								
Method: Total BTEX - Total BTEX		Quellifier	DI DI	11-14		Destroyed	A huma al	
Analyte Total BTEX	- Result <0.00399	Qualifier	RL 0.00399	Unit mg/Kg	D	Prepared	Analyzed 08/09/22 15:47	Dil Fac
	<u><u>\</u>0.00393</u>	0	0.00355	Illynxy			00/08/22 13.41	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1
	<b>O</b>							
Method: 8015B NM - Diesel Rang			Ы	Unit	<b>_</b>	Dremored	Archurod	Dil Fac
	Result	Qualifier	RL	Unit	D	Prepared 08/04/22 09:22	Analyzed 08/05/22 14:18	
Analyte			50.0	ma/ka		06/04/22 03.22	00/03/22 14.10	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg				
			50.0	mg/Kg mg/Kg		08/04/22 09:22	08/05/22 14:18	1
Gasoline Range Organics (GRO)-C6-C10	<50.0					08/04/22 09:22	08/05/22 14:18	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0	U				08/04/22 09:22 08/04/22 09:22	08/05/22 14:18 08/05/22 14:18	1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 <50.0 <50.0	U U	50.0 50.0	mg/Kg		08/04/22 09:22	08/05/22 14:18	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0 <50.0 <50.0 <b>%Recovery</b>	U U	50.0	mg/Kg		08/04/22 09:22 <b>Prepared</b>	08/05/22 14:18 Analyzed	
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 <50.0 <50.0	U U	50.0 50.0 	mg/Kg		08/04/22 09:22	08/05/22 14:18	1 Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<50.0 <50.0 <50.0 <i>%Recovery</i> 86 101	U U Qualifier	50.0 50.0 <u>Limits</u> 70 - 130	mg/Kg		08/04/22 09:22 Prepared 08/04/22 09:22	08/05/22 14:18 Analyzed 08/05/22 14:18	1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 <50.0 <50.0 <u>%Recovery</u> 86 101 omatography -	U U Qualifier	50.0 50.0 <u>Limits</u> 70 - 130	mg/Kg	D	08/04/22 09:22 Prepared 08/04/22 09:22	08/05/22 14:18 Analyzed 08/05/22 14:18	1 1

Client: Ensolum Project/Site: BEU Connector PW Booster

### Client Sample ID: BH03

Date Collected: 08/01/22 10:25 Date Received: 08/02/22 09:53

Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:33	
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:33	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	125		70 - 130			08/08/22 10:46	08/09/22 12:33	
1,4-Difluorobenzene (Surr)	92		70 - 130			08/08/22 10:46	08/09/22 12:33	
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	
Method: 8015B NM - Diesel Rang	o Organice (D							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0		50.0	mg/Kg		08/04/22 09:22	08/05/22 14:40	·
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:40	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:40	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	90		70 - 130			08/04/22 09:22	08/05/22 14:40	
o-Terphenyl	105		70 - 130			08/04/22 09:22	08/05/22 14:40	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	17.6		5.02	mg/Kg	_		08/11/22 10:17	
lient Sample ID: BH04						Lab Sar	nple ID: 890-	2704-7
ate Collected: 08/01/22 10:40							Matri	x: Solid
ate Received: 08/02/22 09:53								
ample Depth: 1'								
Method: 8021B - Volatile Organic	: Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
	<0.00201		0.00201	malka			09/00/22 12:50	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130			08/08/22 10:46	08/09/22 12:59	1

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Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

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Lab Sample ID: 890-2704-6

Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

5

Lab Sample ID: 890-2704-7

### **Client Sample ID: BH04**

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 10:40 Date Received: 08/02/22 09:53

Sample Depth: 1'

Client: Ensolum

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	95		70 - 130			08/08/22 10:46	08/09/22 12:59	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	1
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1
Method: 8015B NM - Diesel Range	Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 15:01	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 15:01	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 15:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130			08/04/22 09:22	08/05/22 15:01	1
o-Terphenyl	83		70 - 130			08/04/22 09:22	08/05/22 15:01	1
Method: 300.0 - Anions, Ion Chro	natography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1570		25.3	mg/Kg			08/11/22 10:27	5

Date Collected: 08/01/22 10:55 Date Received: 08/02/22 09:53 Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 08/08/22 13:11 08/11/22 03:28 Toluene <0.00200 U 0.00200 08/08/22 13:11 08/11/22 03:28 mg/Kg 1 Ethylbenzene <0.00200 U 0.00200 mg/Kg 08/08/22 13:11 08/11/22 03:28 m-Xylene & p-Xylene <0.00399 U 0.00399 08/08/22 13:11 08/11/22 03:28 mg/Kg 1 o-Xylene <0.00200 U 0.00200 mg/Kg 08/08/22 13:11 08/11/22 03:28 Xylenes, Total <0.00399 U 0.00399 mg/Kg 08/08/22 13:11 08/11/22 03:28 1 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 70 - 130 08/08/22 13:11 4-Bromofluorobenzene (Surr) 99 08/11/22 03:28 1 1,4-Difluorobenzene (Surr) 98 70 - 130 08/08/22 13:11 08/11/22 03:28 1 Method: Total BTEX - Total BTEX Calculation Analyte RL D Dil Fac **Result Qualifier** Unit Prepared Analyzed Total BTEX <0.00399 U 0.00399 08/09/22 15:47 mg/Kg 1 Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <49.8 U Total TPH 49.8 mg/Kg 08/08/22 11:58 1

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**Client Sample Results** 

Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

Lab Sample ID: 890-2704-8

Lab Sample ID: 890-2704-9

### Client Sample ID: BH04

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 10:55 Date Received: 08/02/22 09:53

Sample Depth: 4'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 15:23	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 15:23	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 15:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	64	S1-	70 - 130			08/04/22 09:22	08/05/22 15:23	1
o-Terphenyl	75		70 - 130			08/04/22 09:22	08/05/22 15:23	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.6		4.99	mg/Kg			08/11/22 10:36	1

#### Client Sample ID: BH05

#### Date Collected: 08/01/22 12:00

Date Received: 08/02/22 09:53

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:07	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			08/08/22 13:11	08/11/22 03:07	1
1,4-Difluorobenzene (Surr)	97		70 - 130			08/08/22 13:11	08/11/22 03:07	1
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
· · · · · · · · · · · · · · · · · · ·		<mark>O) (GC)</mark> Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte		Qualifier	<b>RL</b> 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/08/22 11:58	Dil Fac
Analyte Total TPH	Result <49.9	Qualifier U			<u>D</u>	Prepared		Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang	result <49.9 ge Organics (D	Qualifier U			<u>D</u> 	Prepared Prepared		Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	result <49.9 ge Organics (D	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg			08/08/22 11:58	1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D Result	Qualifier U RO) (GC) Qualifier U	49.9 RL	mg/Kg Unit		Prepared	08/08/22 11:58 Analyzed	1 <b>Dil Fac</b> 1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (D Result Result <49.9	Qualifier U RO) (GC) Qualifier U U	49.9 <b>RL</b> 49.9	mg/Kg Unit mg/Kg		Prepared 08/04/22 09:22	08/08/22 11:58 Analyzed 08/05/22 15:45	1 Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result           <49.9	Qualifier U RO) (GC) Qualifier U U U	49.9 <b>RL</b> 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 08/04/22 09:22 08/04/22 09:22	08/08/22 11:58 Analyzed 08/05/22 15:45 08/05/22 15:45	1 Dil Fac 1

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08/05/22 15:45

08/04/22 09:22

o-Terphenyl

70 - 130

94

1

# Zoho Sign Document ID: 316041F4-TCXLSMRSMA -RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

Client: Ensolum

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**Client Sample Results** 

Job ID: 890-2704-1

					Lab Sar	nple ID: 890-	2704-9
					Euro Gui.	-	ix: Solid
							A. 00114
	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4300		50.1	mg/Kg			08/11/22 10:45	10
					Lab Sam	nle ID: 890-2	704-10
						-	ix: Solid
							Ai ecita
		RL	Unit	D	Prepared	Analyzed	Dil Fac
		0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:48	1
		0.00199	mg/Kg		08/08/22 13:11		1
		0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:48	1
		0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:48	1
							1
<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:48	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
		70 - 130			08/08/22 13:11	08/11/22 03:48	1
95		70 - 130			08/08/22 13:11	08/11/22 03:48	1
	· ···			_			
				D	Prepared		Dil Fac
<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1
Organics (DR	O) (GC)						
		RL	Unit	D	Prepared	Analyzed	Dil Fac
		49.9	mg/Kg			08/08/22 11:58	1
Je Organics (D	RO) (GC)						
		RL	Unit	D	Prepared	Analyzed	Dil Fac
<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 16:07	1
<49 9	11	49 9	ma/Ka		08/04/22 09.22	08/05/22 16:07	1
10.0	0	-0.0	119/119		00,04/22 00.22	00/00/22 10:01	
<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 16:07	1
_							
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
		70 - 130			08/04/22 09:22	08/05/22 16:07	1
73					20/04/00 00.00	20/05/00 40.07	4
73		70 - 130			08/04/22 09:22	08/05/22 16:07	1
	Soluble				08/04/22 09:22	08/05/22 16:07	1
	Result           4300           c Compounds ( Result           <0.00199	Result         Qualifier           <0.00199	Result         Qualifier         RL           4300         50.1 $4300$ 50.1           Result         Qualifier         RL           <0.00199	Result         Qualifier         RL         Unit           4300         50.1 $mg/Kg$ c         Compounds (GC) $mg/Kg$ <0.00199	Result         Qualifier         RL         Unit         D           4300         50.1         mg/Kg         D           c: Compounds (GC)         Result         Qualifier         RL         Unit         D $< 0.00199$ U         0.00199         mg/Kg         D $< 0.00199$ U         0.00199         mg/Kg         D $< 0.00199$ U         0.00199         mg/Kg         D $< 0.00398$ U         0.00398         mg/Kg         D $< 95$ 70 - 130         S         To - 130         S $< 0.00398$ U         0.00398         mg/Kg         D $< 0.00398$ U         0.00398         mg/Kg         D $< 0.00398$ U         0.00398         mg/Kg         D $< 0.00398$ </td <td>Result         Qualifier         RL         Unit         D         Prepared           4300         50.1         mg/Kg         D         Prepared           4300         50.1         mg/Kg         D         Prepared           c Compounds (GC)         Rt         Unit         D         Prepared           &lt;0.00199</td> 0.00199         mg/Kg         08/08/22 13:11           <0.00199	Result         Qualifier         RL         Unit         D         Prepared           4300         50.1         mg/Kg         D         Prepared           4300         50.1         mg/Kg         D         Prepared           c Compounds (GC)         Rt         Unit         D         Prepared           <0.00199	Presult         Qualifier         RL         Unit         D         Prepared         Analyzed           4300         50.1         mg/Kg         D         Prepared         Analyzed         08/11/22 10.45           Lab Sample ID: 890-2? Matri           Compounds (GC)           Result         Qualifier         RL         Unit         D         Prepared         Analyzed           <0.00199

Client: Ensolum Project/Site: BEU Connector PW Booster

### **Client Sample ID: BH06**

Date Collected: 08/01/22 12:20 Date Received: 08/02/22 09:53

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 04:09	
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 04:09	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	99		70 - 130			08/08/22 13:11	08/11/22 04:09	
1,4-Difluorobenzene (Surr)	99		70 - 130			08/08/22 13:11	08/11/22 04:09	
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	
Gasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	<50.0		50.0	mg/Kg		08/04/22 09:22	08/05/22 16:50	
(GRO)-C6-C10	~50.0		50.0	ma/Ka		08/04/22 00.22	08/05/22 16.50	
C10-C28)	~50.0		50.0			00/04/22 00:22	00/05/00 46.50	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 16:50	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	65	S1-	70 - 130			08/04/22 09:22	08/05/22 16:50	
o-Terphenyl	78		70 - 130			08/04/22 09:22	08/05/22 16:50	
Method: 300.0 - Anions, Ion Chro								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	34.5		4.96	mg/Kg			08/11/22 11:22	
lient Sample ID: BH06						Lab Sam	ple ID: 890-2	704-12
ate Collected: 08/01/22 12:35							Matri	ix: Solid
ate Received: 08/02/22 09:53								
ample Depth: 4'								
Method: 8021B - Volatile Organic	c Compounds (	(GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
D	< 0.00200		0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	
Benzene	<b>\0.00200</b>	0	0.00200	iiig/itg		00/00/22 13.11	00/11/22 04.29	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			08/08/22 13:11	08/11/22 04:29	1

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Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

5

Lab Sample ID: 890-2704-11

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**Client Sample Results** 

Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

5

Lab Sample ID: 890-2704-12

Lab Sample ID: 890-2704-13

Matrix: Solid

#### Client Sample ID: BH06

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 12:35 Date Received: 08/02/22 09:53

Sample Depth: 4'

Client: Ensolum

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130			08/08/22 13:11	08/11/22 04:29	
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			08/09/22 15:47	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	-
Method: 8015B NM - Diesel Rang	o Organice (D							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<50.0		50.0	mg/Kg		08/04/22 09:22	08/05/22 17:11	
(GRO)-C6-C10		-						
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:11	
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:11	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	73		70 - 130			08/04/22 09:22	08/05/22 17:11	
o-Terphenyl	89		70 - 130			08/04/22 09:22	08/05/22 17:11	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	17.9		4.95	mg/Kg			08/11/22 11:31	

#### **Client Sample ID: BH07**

Date Collected: 08/01/22 12:45 Date Received: 08/02/22 09:53 Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 08/08/22 13:11 08/11/22 04:49 Toluene <0.00200 U 0.00200 08/08/22 13:11 08/11/22 04:49 mg/Kg 1 Ethylbenzene <0.00200 U 0.00200 mg/Kg 08/08/22 13:11 08/11/22 04:49 m-Xylene & p-Xylene <0.00399 U 0.00399 08/08/22 13:11 08/11/22 04:49 mg/Kg 1 o-Xylene <0.00200 U 0.00200 mg/Kg 08/08/22 13:11 08/11/22 04:49 1 Xylenes, Total <0.00399 U 0.00399 mg/Kg 08/08/22 13:11 08/11/22 04:49 1 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 101 70 - 130 08/08/22 13:11 4-Bromofluorobenzene (Surr) 08/11/22 04:49 1 1,4-Difluorobenzene (Surr) 98 70 - 130 08/08/22 13:11 08/11/22 04:49 1 Method: Total BTEX - Total BTEX Calculation Analyte RL D Dil Fac Result Qualifier Unit Prepared Analyzed Total BTEX <0.00399 U 0.00399 08/09/22 15:47 mg/Kg 1 Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Total TPH <50.0 U 50.0 mg/Kg 08/08/22 11:58 1

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Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

Lab Sample ID: 890-2704-13

### **Client Sample ID: BH07**

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 12:45 Date Received: 08/02/22 09:53

Sample Depth: 1'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:33	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			08/04/22 09:22	08/05/22 17:33	1
o-Terphenyl	91		70 - 130			08/04/22 09:22	08/05/22 17:33	1

#### Chloride 11.9 4.95 mg/Kg 08/11/22 11:59 1

#### **Client Sample ID: BH07**

#### Date Collected: 08/01/22 13:00 Date Received: 08/02/22 09:53

Sample Depth: 4'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			08/08/22 13:11	08/11/22 05:10	1
1,4-Difluorobenzene (Surr)	97		70 - 130			08/08/22 13:11	08/11/22 05:10	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1
Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 17:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 17:55	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 17:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			08/04/22 09:22	08/05/22 17:55	1

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		Clien	t Sample Res	sults				
Client: Ensolum							Job ID: 890	
Project/Site: BEU Connector PW B	Booster						SDG: 03E1	558045
Client Sample ID: BH07						Lab Sam	ple ID: 890-2	704-14
Date Collected: 08/01/22 13:00							•	x: Solid
Date Received: 08/02/22 09:53								
Sample Depth: 4'								
-								
Method: 300.0 - Anions, Ion Chr	• • • •							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.7		5.03	mg/Kg			08/11/22 12:08	1
Client Sample ID: BH08						Lab Sam	ple ID: 890-2	704-15
Date Collected: 08/01/22 14:00							-	x: Solid
Date Received: 08/02/22 09:53								
Sample Depth: 1'								
-								
Method: 8021B - Volatile Organi					_			
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00198		0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Toluene	< 0.00198		0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Ethylbenzene	< 0.00198		0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
m-Xylene & p-Xylene	< 0.00396		0.00396	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
o-Xylene	< 0.00198		0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			08/08/22 13:11	08/11/22 05:30	1
1,4-Difluorobenzene (Surr)	97		70 - 130			08/08/22 13:11	08/11/22 05:30	1
- Methods Tetal RTEX - Tetal RTE	X Coloulation							
Method: Total BTEX - Total BTE Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396		0.00396	mg/Kg		Fiepaieu	08/09/22 15:47	1
	40.00000	0	0.00000	iiig/itg			00/00/22 10.47	
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1
- Mathadi 2015D NM - Dissai Dan								
Method: 8015B NM - Diesel Ran Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics			50.0	mg/Kg		08/04/22 09:22	08/05/22 18:16	1
(GRO)-C6-C10	-00.0	5	00.0	mgnyg		50107122 03.2Z	50,00,22 10.10	'
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 18:16	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 18:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane		S1-	70 - 130			08/04/22 09:22	08/05/22 18:16	1
o-Terphenyl		S1-	70 - 130			08/04/22 09:22	08/05/22 18:16	1
-								
		Salubla						
Method: 300.0 - Anions, Ion Chr Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client: Ensolum Project/Site: BEU Connector PW Booster

### **Client Sample ID: BH08**

Date Collected: 08/01/22 14:15 Date Received: 08/02/22 09:53

Sample Depth: 4'

	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 05:51	
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 05:51	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	106		70 - 130			08/08/22 13:11	08/11/22 05:51	
1,4-Difluorobenzene (Surr)	90		70 - 130			08/08/22 13:11	08/11/22 05:51	
Method: Total BTEX - Total BTEX	Calculation							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics	- · ·	Qualifier	<b>RL</b> 49.9	Unit mg/Kg	<u>D</u>	Prepared 08/04/22 09:22	Analyzed 08/05/22 18:38	Dil Fa
(GRO)-C6-C10	~49.9	0	70.0	mg/rxg		JUINTIZZ UJ.ZZ	00/00/22 10.00	
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 18:38	
	<49.9 <49.9		49.9 49.9	mg/Kg mg/Kg		08/04/22 09:22 08/04/22 09:22	08/05/22 18:38 08/05/22 18:38	
Diesel Range Organics (Over C10-C28)								
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9	U	49.9			08/04/22 09:22	08/05/22 18:38	
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.9 <b>%Recovery</b>	U	49.9 Limits			08/04/22 09:22 Prepared	08/05/22 18:38 Analyzed	Dil Fa
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.9 % <b>Recovery</b> 72 86	U Qualifier	49.9 			08/04/22 09:22 Prepared 08/04/22 09:22	08/05/22 18:38 Analyzed 08/05/22 18:38	Dil Fa
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<49.9 - <u>%Recovery</u> 72 86 matography -	U Qualifier	49.9 		D	08/04/22 09:22 Prepared 08/04/22 09:22	08/05/22 18:38 Analyzed 08/05/22 18:38	Dil Fa
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Chro	<49.9 - <u>%Recovery</u> 72 86 matography -	U Qualifier Soluble	49.9 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	08/04/22 09:22 <b>Prepared</b> 08/04/22 09:22 08/04/22 09:22	08/05/22 18:38 Analyzed 08/05/22 18:38 08/05/22 18:38	Dil Fa
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Chron Analyte Chloride	<49.9 <u>%Recovery</u> 72 86 matography - Result	U Qualifier Soluble	49.9 	mg/Kg Unit	D	08/04/22 09:22 Prepared 08/04/22 09:22 08/04/22 09:22 Prepared	08/05/22 18:38 Analyzed 08/05/22 18:38 08/05/22 18:38 Analyzed	Dil Fau
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Chroo Analyte	<49.9 <u>%Recovery</u> 72 86 matography - Result	U Qualifier Soluble	49.9 	mg/Kg Unit	D	08/04/22 09:22 Prepared 08/04/22 09:22 08/04/22 09:22 Prepared	08/05/22 18:38 <u>Analyzed</u> 08/05/22 18:38 08/05/22 18:38 <u>Analyzed</u> 08/11/22 12:27 ple ID: 890-2	Dil Fau
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Chron Analyte Chloride Client Sample ID: BH09 Date Collected: 08/01/22 13:30 Date Received: 08/02/22 09:53 Sample Depth: 1'	<49.9 <b>%Recovery</b> 72 86 matography - <u>Result</u> 10.9	U Qualifier Soluble Qualifier	49.9 	mg/Kg Unit	D	08/04/22 09:22 Prepared 08/04/22 09:22 08/04/22 09:22 Prepared	08/05/22 18:38 <u>Analyzed</u> 08/05/22 18:38 08/05/22 18:38 <u>Analyzed</u> 08/11/22 12:27 ple ID: 890-2	Dil Fau Dil Fau
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Chron Analyte Chloride Client Sample ID: BH09 Date Collected: 08/01/22 13:30 Date Received: 08/02/22 09:53	<49.9 - <u>%Recovery</u> 72 86 matography - <u>Result</u> 10.9	U Qualifier Soluble Qualifier	49.9 	mg/Kg Unit	D	08/04/22 09:22 Prepared 08/04/22 09:22 08/04/22 09:22 Prepared	08/05/22 18:38 <u>Analyzed</u> 08/05/22 18:38 08/05/22 18:38 <u>Analyzed</u> 08/11/22 12:27 ple ID: 890-2	Dil Fau Dil Fau

method. 0021D - Volutie Organic Compounds (CO)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1		
Toluene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1		
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1		
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/08/22 13:11	08/11/22 06:11	1		
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1		
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/08/22 13:11	08/11/22 06:11	1		
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	103		70 _ 130			08/08/22 13:11	08/11/22 06:11	1		

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Job ID: 890-2704-1

Matrix: Solid

5

SDG: 03E1558045

Lab Sample ID: 890-2704-16
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## **Client Sample Results**

Job ID: 890-2704-1 SDG: 03E1558045

Lab Sample ID: 890-2704-17

## Client Sample ID: BH09

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 13:30 Date Received: 08/02/22 09:53

Sample Depth: 1'

Client: Ensolum

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130			08/08/22 13:11	08/11/22 06:11	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			08/09/22 15:47	1
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1
Method: 8015B NM - Diesel Rang	o Organics (D							
Analyte	• • •	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 19:00	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 19:00	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 19:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	63	S1-	70 - 130			08/04/22 09:22	08/05/22 19:00	1
o-Terphenyl	73		70 - 130			08/04/22 09:22	08/05/22 19:00	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3250		25.0	mg/Kg			08/11/22 12:36	5

#### **Client Sample ID: BH09**

Date Collected: 08/01/22 13:40 Date Received: 08/02/22 09:53 Sample Depth: 4' Lab Sample ID: 890-2704-18 Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			08/08/22 13:11	08/11/22 08:01	1
1,4-Difluorobenzene (Surr)	98		70 - 130			08/08/22 13:11	08/11/22 08:01	1
Method: Total BTEX - Total B	TEX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 15:47	1
Method: 8015 NM - Diesel Rai	nge Organics (DR	O) (GC)						
mourou. ou ru min Brootr ru					_			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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Matrix: Solid

5

## Released to Imaging: 3/12/2024 10:06:16 AM

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## **Client Sample Results**

Job ID: 890-2704-1 SDG: 03E1558045

Matrix: Solid

5

Lab Sample ID: 890-2704-18

## Client Sample ID: BH09

Project/Site: BEU Connector PW Booster

Date Collected: 08/01/22 13:40 Date Received: 08/02/22 09:53

Date Received: 08/02/22
Sample Depth: 4'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 19:22	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 19:22	1
C10-C28) Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130			08/04/22 09:22	08/05/22 19:22	1
o-Terphenyl	81		70 - 130			08/04/22 09:22	08/05/22 19:22	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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## **Surrogate Summary**

Client: Ensolum Project/Site: BEU Connector PW Booster

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

_				Per	cent Surrogate Re
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
820-5243-A-121-D MS	Matrix Spike	109	83		
820-5243-A-121-E MSD	Matrix Spike Duplicate	101	89		
890-2704-1	BH01	129	79		
890-2704-1 MS	BH01	130	85		
890-2704-1 MSD	BH01	140 S1+	84		
890-2704-2	BH01	131 S1+	93		
890-2704-3	BH02	127	86		
890-2704-4	BH02	139 S1+	91		
890-2704-5	BH03	130	84		
890-2704-6	BH03	125	92		
890-2704-7	BH04	128	95		
890-2704-8	BH04	99	98		
890-2704-9	BH05	109	97		
890-2704-9 MS	BH05	105	93		
890-2704-9 MSD	BH05	100	103		
890-2704-10	BH05	98	95		
890-2704-11	BH05 BH06	99	99		
890-2704-12	BH06	103	100		
890-2704-13 890-2704-14	BH07 BH07	101 101	98		
			97		
890-2704-15	BH08	100	97		
890-2704-16	BH08	106	90		
890-2704-17	BH09	103	100		
890-2704-18	BH09	104	98		
LCS 880-31731/1-A	Lab Control Sample	125	85		
LCS 880-31767/1-A	Lab Control Sample	136 S1+	81		
LCS 880-31768/1-A	Lab Control Sample	111	92		
LCSD 880-31731/2-A	Lab Control Sample Dup	111	83		
LCSD 880-31767/2-A	Lab Control Sample Dup	131 S1+	84		
LCSD 880-31768/2-A	Lab Control Sample Dup	104	92		
MB 880-31523/5-A	Method Blank	92	80		
MB 880-31731/5-A	Method Blank	92	80		
MB 880-31767/5-A	Method Blank	103	75		
MB 880-31768/5-A	Method Blank	94	97		
MB 880-31769/5-A	Method Blank	94	102		
MB 880-31850/8	Method Blank	99	77		
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** 890-2704-1 BH01 72 81 890-2704-1 MS BH01 60 S1-63 S1-890-2704-1 MSD BH01 67 S1-66 S1-

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 Job ID: 890-2704-1
 2

 SDG: 03E1558045
 3

 Prep Type: Total/NA
 4

 \_\_\_\_\_\_\_
 5

 6

8/11/2022

## Prep Type: Total/NA

#### Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

**Surrogate Summary** 

Client: Ensolum

Project/Site: BEU Connector PW Booster

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

				Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1		_
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
890-2704-2	BH01	71	85		
890-2704-3	BH02	65 S1-	76		6
890-2704-4	BH02	61 S1-	70		O
890-2704-5	BH03	86	101		
890-2704-6	BH03	90	105		
890-2704-7	BH04	69 S1-	83		
890-2704-8	BH04	64 S1-	75		8
890-2704-9	BH05	77	94		
890-2704-10	BH05	73	87		9
890-2704-11	BH06	65 S1-	78		
890-2704-12	BH06	73	89		
890-2704-13	BH07	83	91		
890-2704-14	BH07	83	93		
890-2704-15	BH08	51 S1-	54 S1-		
890-2704-16	BH08	72	86		
890-2704-17	BH09	63 S1-	73		
890-2704-18	BH09	68 S1-	81		13
LCS 880-31470/2-A	Lab Control Sample	92	97		
LCSD 880-31470/3-A	Lab Control Sample Dup	88	95		
MB 880-31470/1-A	Method Blank	88	108		
Surragata Lagand					

### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-2704-1 SDG: 03E1558045

Prep Type: Total/NA

Client: Ensolum Project/Site: BEU Connector PW Booster

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

						Client Sa	mple ID: Metho	d Blank
Matrix: Solid							Prep Type: 1	
Analysis Batch: 31678							Prep Batch	
-	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			08/04/22 16:53	08/08/22 11:35	1
1,4-Difluorobenzene (Surr)	80		70 - 130			08/04/22 16:53	08/08/22 11:35	1
 Lab Sample ID: MB 880-31731/5-A						Client Sa	mple ID: Metho	d Blank
Matrix: Solid							Prep Type: 1	Total/NA
Analysis Batch: 31678							Prep Batch	
-	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

%Recovery	Quaimer	Limits
92		70 - 130
80		70 - 130
	92	

#### Lab Sample ID: LCS 880-31731/1-A Matrix: Solid

Analysis Batch: 31678							Prep E	Batch: 31731
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08288		mg/Kg		83	70 - 130	
Toluene	0.100	0.08549		mg/Kg		85	70 - 130	
Ethylbenzene	0.100	0.08686		mg/Kg		87	70 - 130	
m-Xylene & p-Xylene	0.200	0.1774		mg/Kg		89	70 _ 130	
o-Xylene	0.100	0.09732		mg/Kg		97	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: LCSD 880-31731/2-A Matrix: Solid			Clier	nt San	nple ID:	Lab Contro Prep 1	l Sampl Type: To		
Analysis Batch: 31678							Prep	Batch:	31731
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08517		mg/Kg		85	70 - 130	3	35

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1

1

08/08/22 10:46

08/08/22 10:46

08/09/22 01:11

08/09/22 01:11

Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

ink

Job ID: 890-2704-1

SDG: 03E1558045

## **QC Sample Results**

Client: Ensolum Project/Site: BEU Connector PW Booster

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

Lab Sample ID: LCSD 880-31731/2-A Matrix: Solid Analysis Batch: 31678				Clier	nt Sam	ple ID:		I Sampl Type: To Batch:	tal/NA
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.09048		mg/Kg		90	70 - 130	6	35
Ethylbenzene	0.100	0.08974		mg/Kg		90	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1833		mg/Kg		92	70 - 130	3	35
o-Xylene	0.100	0.09907		mg/Kg		99	70 - 130	2	35
LCSD LCSD									

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

## Lab Sample ID: 820-5243-A-121-D MS Matrix: Solid

## Analysis Batch: 31678

Analysis Batch: 31678									Pre	p Batch: 31731
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U F1 F2	0.101	0.007984	F1	mg/Kg		8	70 - 130	
Toluene	<0.00199	U F1 F2	0.101	0.009017	F1	mg/Kg		9	70 - 130	
Ethylbenzene	<0.00199	U F1 F2	0.101	0.009234	F1	mg/Kg		9	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.202	0.01864	F1	mg/Kg		9	70 - 130	
o-Xylene	<0.00199	U F1 F2	0.101	0.01047	F1	mg/Kg		10	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

#### Lab Sample ID: 820-5243-A-121-E MSD Matrix: Solid Analysis Batch: 31678

Analysis Daton. 01010									1100	Duton.	01701
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U F1 F2	0.101	0.004525	F1 F2	mg/Kg		4	70 - 130	55	35
Toluene	<0.00199	U F1 F2	0.101	0.003980	F1 F2	mg/Kg		4	70 - 130	78	35
Ethylbenzene	<0.00199	U F1 F2	0.101	0.004221	F1 F2	mg/Kg		4	70 - 130	75	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.201	0.008636	F1 F2	mg/Kg		4	70 - 130	73	35
o-Xylene	<0.00199	U F1 F2	0.101	0.005003	F1 F2	mg/Kg		5	70 - 130	71	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

#### Lab Sample ID: MB 880-31767/5-A Matrix: Solid Analysis Batch: 31850

	MB	мв						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:00	08/10/22 06:38	1

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## Job ID: 890-2704-1 SDG: 03E1558045

## **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

**Client Sample ID: Matrix Spike** 

Prep Type: Total/NA

## Prep Batch: 31731

**Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 31767

Client: Ensolum Project/Site: BEU Connector PW Booster

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

Lab Sample ID: MB 880-31767/5-A						Client Sa	mple ID: Metho	d Blank
Matrix: Solid							Prep Type: 1	Total/NA
Analysis Batch: 31850							Prep Batch	n: 31767
	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			08/08/22 13:00	08/10/22 06:38	1
1,4-Difluorobenzene (Surr)	75		70 - 130			08/08/22 13:00	08/10/22 06:38	1
Lab Sample ID: LCS 880-31767/1-A					c	lient Sample I	D: Lab Control	Sample
Matrix: Solid							Prep Type: 1	Total/NA
Analysis Batch: 31850							Prep Batch	n: 31767

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08434		mg/Kg		84	70 - 130	
Toluene	0.100	0.08825		mg/Kg		88	70 - 130	
Ethylbenzene	0.100	0.08741		mg/Kg		87	70 - 130	
m-Xylene & p-Xylene	0.200	0.1767		mg/Kg		88	70 - 130	
o-Xylene	0.100	0.09757		mg/Kg		98	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

#### Lab Sample ID: LCSD 880-31767/2-A Matrix: Solid

#### Analysis Batch: 31850

#### Prep Batch: 31767 LCSD LCSD Spike %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 0.08734 87 35 Benzene 0.100 mg/Kg 70 - 130 3 Toluene 0.100 0.08876 mg/Kg 89 70 - 130 1 35 Ethylbenzene 0.100 0.08917 mg/Kg 89 70 - 130 2 35 m-Xylene & p-Xylene 0.200 0.1831 mg/Kg 92 70 - 130 4 35 o-Xylene 0.100 0.09964 mg/Kg 100 70 - 130 2 35 1000

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

#### Lab Sample ID: 890-2704-1 MS Matrix: Solid Analysis Batch: 31850

Analysis Batch: 31850									Prep	Batch: 31767
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	< 0.00199	U F1	0.100	0.09552		mg/Kg		95	70 - 130	
Toluene	<0.00199	U	0.100	0.09509		mg/Kg		95	70 - 130	
Ethylbenzene	<0.00199	U	0.100	0.09336		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1888		mg/Kg		94	70 - 130	
o-Xylene	<0.00199	U	0.100	0.1014		mg/Kg		101	70 - 130	

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Job ID: 890-2704-1 SDG: 03E1558045

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

**Client Sample ID: BH01** 

Prep Type: Total/NA

## QC Sample Results

Client: Ensolum Project/Site: BEU Connector PW Booster

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

#### Lab Sample ID: 890-2704-1 MS Matrix: Solid Analysis Batch: 31850

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

## Lab Sample ID: 890-2704-1 MSD Matrix: Solid

								Prep	Batch:	31767
Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
<0.00199	U F1	0.0998	0.06812	F1	mg/Kg		68	70 - 130	33	35
<0.00199	U	0.0998	0.07008		mg/Kg		70	70 - 130	30	35
<0.00199	U	0.0998	0.07097		mg/Kg		71	70 - 130	27	35
<0.00398	U	0.200	0.1453		mg/Kg		73	70 - 130	26	35
<0.00199	U	0.0998	0.08021		mg/Kg		80	70 - 130	23	35
MSD	MSD									
	Result           <0.00199	Sample         Sample           Result         Qualifier           <0.00199	Result         Qualifier         Added           <0.00199	Result         Qualifier         Added         Result           <0.00199	Result         Qualifier         Added         Result         Qualifier           <0.00199	Result         Qualifier         Added         Result         Qualifier         Unit           <0.00199	Result         Qualifier         Added         Result         Qualifier         Unit         D           <0.00199	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           <0.00199	Sample         Sample         Spike         MSD         MSD         MSD         %Rec           Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits           <0.00199	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           <0.00199

RL

0.00200

0.00200

0.00200

0.00400

0.00200

0.00400

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

08/08/22 13:11

08/08/22 13:11

08/08/22 13:11

08/08/22 13:11

08/08/22 13:11

08/08/22 13:11

Prepared

08/08/22 13:11

08/08/22 13:11

	พรม	WSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	140	S1+	70 _ 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: MB 880-31768/5-A

Matrix: Solid

Analyte

Benzene

Toluene

Analysis Batch: 31904

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

MB MB

<0.00200 U

<0.00200 U

<0.00200 U

<0.00400 U

<0.00200 U

<0.00400 U

Result Qualifier

#### Lab Sample ID: LCS 880-31768/1-A Matrix: Solid Analysis Batch: 31904

-			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene			0.100	0.07179		mg/Kg		72	70 - 130	
Toluene			0.100	0.08341		mg/Kg		83	70 - 130	
Ethylbenzene			0.100	0.08799		mg/Kg		88	70 - 130	
m-Xylene & p-Xylene			0.200	0.1838		mg/Kg		92	70 - 130	
o-Xylene			0.100	0.09228		mg/Kg		92	70 - 130	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	111		70 - 130							

## Job ID: 890-2704-1 SDG: 03E1558045

**Client Sample ID: BH01** 

**Client Sample ID: BH01** 

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 31767

#### Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 31768

Analyzed

08/11/22 02:38

08/11/22 02:38

08/11/22 02:38

08/11/22 02:38

08/11/22 02:38

08/11/22 02:38

Analyzed

08/11/22 02:38

08/11/22 02:38

Prep Type: Total/NA

Prep Batch: 31768

**Client Sample ID: Lab Control Sample** 

Dil Fac

1

1

1

1

1

1

1

Dil Fac

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#### Zoho Sign Document ID: 316041F4-TCXLSMRSMA -RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

**QC Sample Results** 

Client: Ensolum Project/Site: BEU Connector PW Booster

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

Lab Sample ID: LCS 880-3176	58/1 <b>-A</b>						Client	Sample	e ID: Lab Co		
Matrix: Solid										ype: To	
Analysis Batch: 31904									Prep	Batch:	31768
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1,4-Difluorobenzene (Surr)	92		70 - 130								
											_
Lab Sample ID: LCSD 880-31	768/2-A					Clie	nt San	ple ID:	Lab Contro		
Matrix: Solid										ype: To	
Analysis Batch: 31904										Batch:	
			Spike		LCSD		_		%Rec		RPD
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.100	0.07256		mg/Kg		73	70 _ 130	1	35
Toluene			0.100	0.08266		mg/Kg		83	70 - 130	1	35
Ethylbenzene			0.100	0.08687		mg/Kg		87	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1804		mg/Kg		90	70 - 130	2	35
o-Xylene			0.100	0.09054		mg/Kg		91	70 - 130	2	35
	LCSD	LCSD									
Surrogate	%Recovery		Limits								
4-Bromofluorobenzene (Surr)	104		70 - 130								
1,4-Difluorobenzene (Surr)	92		70 - 130								
Lab Sample ID: 890-2704-9 M	S								Client Sar	nple ID:	BH05
Matrix: Solid										ype: To	
Analysis Batch: 31904										Batch:	
······,	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	•	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	<0.00199	U	0.0998	0.08508		mg/Kg		85	70 - 130		
Toluene	<0.00199		0.0998	0.09438		mg/Kg		95	70 - 130		
Ethylbenzene	<0.00199		0.0998	0.09810		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene	<0.00398		0.200	0.2010		mg/Kg		101	70 - 130		
o-Xylene	< 0.00199		0.0998	0.09903		mg/Kg		99	70 - 130		
e xylene	0.00100	•	0.0000	0.00000							
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	106		70 - 130								
1,4-Difluorobenzene (Surr)	93		70 - 130								
									Olivert Dev		DUAS
Lab Sample ID: 890-2704-9 M	50								Client Sar		
Matrix: Solid										ype: To	
Analysis Batch: 31904		<b>.</b> .	• •							Batch:	
	•	Sample	Spike		MSD		_	a/ <del>-</del>	%Rec		RPD
Analyte		Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	< 0.00199		0.100	0.1022		mg/Kg		102	70 - 130	18	35
Toluene	<0.00199		0.100	0.09599		mg/Kg		96	70 - 130	2	35
Ethylbenzene	<0.00199		0.100	0.09685		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398		0.201	0.1954		mg/Kg		97	70 - 130	3	35
o-Xylene	<0.00199	U	0.100	0.09572		mg/Kg		95	70 - 130	3	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	102		70 _ 130								

Job ID: 890-2704-1 SDG: 03E1558045

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Client: Ensolum Project/Site: BEU Connector PW Booster

Lab Sample ID: MB 880-31769/5-A

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

						Prep Type: 1 Prep Batch	
MB	МВ						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
<0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
<0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
МВ	МВ						
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
94		70 - 130			08/08/22 13:23	08/10/22 14:40	1
102		70 - 130			08/08/22 13:23	08/10/22 14:40	1
	Result           <0.00200	Result         Qualifier           <0.00200	Result         Qualifier         RL           <0.00200	Result         Qualifier         RL         Unit           <0.00200	Result         Qualifier         RL         Unit         D           <0.00200	Result         Qualifier         RL         Unit         D         Prepared           <0.00200	MB         MB           Result         Qualifier         RL         Unit         D         Prepared         Analyzed           <0.00200

#### Lab Sample ID: MB 880-31850/8 Matrix: Solid

#### Analysis Batch: 31850

	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
Toluene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			08/09/22 16:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			08/09/22 16:48	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		-		08/09/22 16:48	1
1,4-Difluorobenzene (Surr)	77		70 - 130				08/09/22 16:48	1

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

Lab Sample ID: MB 880-31470/1- Matrix: Solid Analysis Batch: 31531	Α					Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	Total/NA
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 11:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 11:01	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 11:01	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			08/04/22 09:22	08/05/22 11:01	1
o-Terphenyl	108		70 _ 130			08/04/22 09:22	08/05/22 11:01	1

Job ID: 890-2704-1 SDG: 03E1558045

**Client Sample ID: Method Blank** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

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3

Client: Ensolum Project/Site: BEU Connector PW Booster

## Job ID: 890-2704-1

SDG: 03E1558045

	170/2-A						Client	Sample	ID: Lab Co	ontrol Sa	ample
Aatrix: Solid										ype: Tot	
analysis Batch: 31531										Batch:	
			Spike	LCS	LCS				%Rec		
nalyte			Added		Qualifier	Unit	D	%Rec	Limits		
asoline Range Organics			1000	1009		mg/Kg		101	70 - 130		
GRO)-C6-C10			1000	1000		iiig/itg		101	70 - 100		
iesel Range Organics (Over 10-C28)			1000	981.4		mg/Kg		98	70 - 130		
		LCS									
urrogate	%Recovery	Qualifier	Limits								
-Chlorooctane	92		70 - 130								
-Terphenyl	97		70 - 130								
ab Sample ID: LCSD 880-3	1470/3-4					Clier	nt Sam	nle ID:	Lab Contro		e Dui
Aatrix: Solid						- Chick	it ouii			ype: Tot	
Analysis Batch: 31531			Calles	1.000	1.060					Batch:	
nalita			Spike		LCSD	11# !4	-	0/ <b>D</b> -	%Rec		RP
nalyte			Added		Qualifier	Unit	<u>D</u>	%Rec	Limits	RPD	Limi
asoline Range Organics			1000	969.8		mg/Kg		97	70 - 130	4	20
GRO)-C6-C10 iesel Range Organics (Over :10-C28)			1000	894.9		mg/Kg		89	70 - 130	9	20
	1000	1.000									
		LCSD	1								
urrogate	%Recovery	Qualifier	Limits								
-Chlorooctane	88		70 - 130								
-Terphenyl	95		70 - 130								
ab Sample ID: 890-2704-1 M Aatrix: Solid	MS								Client Sar Prep 1	nple ID: ype: Tot	
Analysis Batch: 31531									Prep	Batch:	31470
	Sample	Sample	Spike	MS	MS				%Rec		
nalyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
asoline Range Organics GRO)-C6-C10	<49.9	U	999	766.4		mg/Kg		75	70 - 130		
iesel Range Organics (Over 10-C28)	<49.9	U F1	999	620.6	F1	mg/Kg		62	70 - 130		
	MS	MS									
urrogate	%Recovery		Limits								
-Chlorooctane	60		70 - 130								
-Terphenyl		S1-	70 - 130 70 - 130								
Terphenyi		01	101100								
ab Sample ID: 890-2704-1	MSD								<b>Client Sar</b>	nple ID:	BH0 <sup>,</sup>
Aatrix: Solid										· ype: Tot	
Analysis Batch: 31531										Batch:	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPI
nalyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
-			999	861.7	Quaimer				70 - 130	12	2
asoline Range Organics GRO)-C6-C10	<49.9	J	333	001.7		mg/Kg		84	10 - 130	12	20
iesel Range Organics (Over 10-C28)	<49.9	U F1	999	671.9	F1	mg/Kg		67	70 - 130	8	20
	MSD	MSD									
			Limits								
urrogate	%Recovery										

#### Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

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Job ID: 890-2704-1

SDG: 03E1558045

## QC Sample Results

Client: Ensolum Project/Site: BEU Connector PW Booster

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

Lab Sample ID: 890-2704-1 Matrix: Solid Analysis Batch: 31531	MSD			Client Sample ID: BH01 Prep Type: Total/NA Prep Batch: 31470
	MSD	MSD		
Surrogate	%Recovery	Qualifier	Limits	
o-Terphenyl	67	S1-	70 - 130	
Method: 300.0 - Anions,	Ion Chromat	ography		
Lab Sample ID: MB 880-314	46/1-A			Client Sample ID: Method Blank
Matrix: Solid				Prep Type: Soluble
Analysis Batch: 31668				

	N	IB MB									
Analyte	Res	ult Qualifier		RL	Unit		D F	repared	Analyze	ed	Dil Fac
Chloride	<5.	00 U		5.00	mg/K	g			08/11/22 0	8:18	1
Lab Sample ID: LCS 880-31446/2-A							Clien	t Sample	ID: Lab Co	ntrol S	ample
Matrix: Solid									Prep 1	Type: S	oluble
Analysis Batch: 31668											
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250	244.6		mg/Kg		98	90 - 110		
Lab Sample ID: LCSD 880-31446/3	- <b>A</b>					Cli	ient San	nple ID: I	_ab Control	Sampl	e Dup
Matrix: Solid									Prep 1	Гуре: S	oluble
Analysis Batch: 31668											
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	249.4		mg/Kg		100	90 - 110	2	20
Lab Sample ID: 880-17639-A-1-B N	IS							Client	Sample ID:	Matrix	Spike
Matrix: Solid										Гуре: S	
Analysis Batch: 31668											
	Sample S	ample	Spike	MS	MS				%Rec		
Analyte	Result Q	ualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		

Lab Sample ID: 880-17639-A-1- Matrix: Solid Analysis Batch: 31668	C MSD						Client Sa	ample II	D: Matrix Sj Prep	oike Dup Type: S	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	1050		2490	3565		mg/Kg		101	90 - 110	1	20
Lab Sample ID: 890-2704-10 MS Matrix: Solid Analysis Batch: 31668	5								Client Sa Prep	mple ID: Type: S	
Allalysis Batch. 51000	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	•	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Chloride	18.2		250	277.6		mg/Kg		104	90 - 110		

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## **QC Sample Results**

Client: Ensolum Project/Site: BEU Connector PW Booster

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2704-10 MSD Matrix: Solid									Client Sa Prep	mple ID: Type: S	
Analysis Batch: 31668											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	18.2		250	274.0		mg/Kg		102	90 - 110	1	20

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 Job ID: 890-2704-1
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Client: Ensolum Project/Site: BEU Connector PW Booster

GC VOA

## Prep Batch: 31523

Lab Sample ID MB 880-31523/5-A	Client Sample ID Method Blank	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
Analysis Batch: 3167	8				

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-2	BH01	Total/NA	Solid	8021B	31731
390-2704-3	BH02	Total/NA	Solid	8021B	31731
90-2704-4	BH02	Total/NA	Solid	8021B	31731
90-2704-5	BH03	Total/NA	Solid	8021B	31731
90-2704-6	BH03	Total/NA	Solid	8021B	31731
90-2704-7	BH04	Total/NA	Solid	8021B	31731
IB 880-31523/5-A	Method Blank	Total/NA	Solid	8021B	31523
IB 880-31731/5-A	Method Blank	Total/NA	Solid	8021B	31731
CS 880-31731/1-A	Lab Control Sample	Total/NA	Solid	8021B	31731
CSD 880-31731/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31731
20-5243-A-121-D MS	Matrix Spike	Total/NA	Solid	8021B	31731
20-5243-A-121-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31731

#### Prep Batch: 31731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-2	BH01	Total/NA	Solid	5035	
890-2704-3	BH02	Total/NA	Solid	5035	
890-2704-4	BH02	Total/NA	Solid	5035	
890-2704-5	BH03	Total/NA	Solid	5035	
890-2704-6	BH03	Total/NA	Solid	5035	
890-2704-7	BH04	Total/NA	Solid	5035	
MB 880-31731/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31731/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31731/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-5243-A-121-D MS	Matrix Spike	Total/NA	Solid	5035	
820-5243-A-121-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Prep Batch: 31767

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	5035	
MB 880-31767/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31767/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31767/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2704-1 MS	BH01	Total/NA	Solid	5035	
890-2704-1 MSD	BH01	Total/NA	Solid	5035	

#### Prep Batch: 31768

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2704-8	BH04	Total/NA	Solid	5035	
890-2704-9	BH05	Total/NA	Solid	5035	
890-2704-10	BH05	Total/NA	Solid	5035	
890-2704-11	BH06	Total/NA	Solid	5035	
890-2704-12	BH06	Total/NA	Solid	5035	
890-2704-13	BH07	Total/NA	Solid	5035	
890-2704-14	BH07	Total/NA	Solid	5035	
890-2704-15	BH08	Total/NA	Solid	5035	
890-2704-16	BH08	Total/NA	Solid	5035	

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Job ID: 890-2704-1 SDG: 03E1558045

Client: Ensolum Project/Site: BEU Connector PW Booster

## GC VOA (Continued)

## Prep Batch: 31768 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-17	BH09	Total/NA	Solid	5035	
890-2704-18	BH09	Total/NA	Solid	5035	
MB 880-31768/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2704-9 MS	BH05	Total/NA	Solid	5035	
890-2704-9 MSD	BH05	Total/NA	Solid	5035	
Prep Batch: 31769					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31769/5-A	Method Blank	Total/NA	Solid	5035	

#### Analysis Batch: 31850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-2704-1	BH01	Total/NA	Solid	8021B	31767	
MB 880-31767/5-A	Method Blank	Total/NA	Solid	8021B	31767	
MB 880-31850/8	Method Blank	Total/NA	Solid	8021B		
LCS 880-31767/1-A	Lab Control Sample	Total/NA	Solid	8021B	31767	
LCSD 880-31767/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31767	
890-2704-1 MS	BH01	Total/NA	Solid	8021B	31767	
890-2704-1 MSD	BH01	Total/NA	Solid	8021B	31767	

#### Analysis Batch: 31860

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	Total BTEX	
890-2704-2	BH01	Total/NA	Solid	Total BTEX	
890-2704-3	BH02	Total/NA	Solid	Total BTEX	
890-2704-4	BH02	Total/NA	Solid	Total BTEX	
890-2704-5	BH03	Total/NA	Solid	Total BTEX	
890-2704-6	BH03	Total/NA	Solid	Total BTEX	
890-2704-7	BH04	Total/NA	Solid	Total BTEX	
890-2704-8	BH04	Total/NA	Solid	Total BTEX	
890-2704-9	BH05	Total/NA	Solid	Total BTEX	
890-2704-10	BH05	Total/NA	Solid	Total BTEX	
890-2704-11	BH06	Total/NA	Solid	Total BTEX	
890-2704-12	BH06	Total/NA	Solid	Total BTEX	
890-2704-13	BH07	Total/NA	Solid	Total BTEX	
890-2704-14	BH07	Total/NA	Solid	Total BTEX	
890-2704-15	BH08	Total/NA	Solid	Total BTEX	
890-2704-16	BH08	Total/NA	Solid	Total BTEX	
890-2704-17	BH09	Total/NA	Solid	Total BTEX	
890-2704-18	BH09	Total/NA	Solid	Total BTEX	

#### Analysis Batch: 31904

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2704-8	BH04	Total/NA	Solid	8021B	31768
890-2704-9	BH05	Total/NA	Solid	8021B	31768
890-2704-10	BH05	Total/NA	Solid	8021B	31768
890-2704-11	BH06	Total/NA	Solid	8021B	31768
890-2704-12	BH06	Total/NA	Solid	8021B	31768
890-2704-13	BH07	Total/NA	Solid	8021B	31768

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### Job ID: 890-2704-1 SDG: 03E1558045

Client: Ensolum Project/Site: BEU Connector PW Booster

## GC VOA (Continued)

## Analysis Batch: 31904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-14	BH07	Total/NA	Solid	8021B	31768
890-2704-15	BH08	Total/NA	Solid	8021B	31768
890-2704-16	BH08	Total/NA	Solid	8021B	31768
890-2704-17	BH09	Total/NA	Solid	8021B	31768
890-2704-18	BH09	Total/NA	Solid	8021B	31768
MB 880-31768/5-A	Method Blank	Total/NA	Solid	8021B	31768
MB 880-31769/5-A	Method Blank	Total/NA	Solid	8021B	31769
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	8021B	31768
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31768
890-2704-9 MS	BH05	Total/NA	Solid	8021B	31768
890-2704-9 MSD	BH05	Total/NA	Solid	8021B	31768

## GC Semi VOA

### Prep Batch: 31470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	8015NM Prep	
890-2704-2	BH01	Total/NA	Solid	8015NM Prep	
890-2704-3	BH02	Total/NA	Solid	8015NM Prep	
890-2704-4	BH02	Total/NA	Solid	8015NM Prep	
890-2704-5	BH03	Total/NA	Solid	8015NM Prep	
890-2704-6	BH03	Total/NA	Solid	8015NM Prep	
890-2704-7	BH04	Total/NA	Solid	8015NM Prep	
890-2704-8	BH04	Total/NA	Solid	8015NM Prep	
890-2704-9	BH05	Total/NA	Solid	8015NM Prep	
890-2704-10	BH05	Total/NA	Solid	8015NM Prep	
890-2704-11	BH06	Total/NA	Solid	8015NM Prep	
890-2704-12	BH06	Total/NA	Solid	8015NM Prep	
890-2704-13	BH07	Total/NA	Solid	8015NM Prep	
890-2704-14	BH07	Total/NA	Solid	8015NM Prep	
890-2704-15	BH08	Total/NA	Solid	8015NM Prep	
890-2704-16	BH08	Total/NA	Solid	8015NM Prep	
890-2704-17	BH09	Total/NA	Solid	8015NM Prep	
890-2704-18	BH09	Total/NA	Solid	8015NM Prep	
MB 880-31470/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31470/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31470/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2704-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-2704-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 31531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	8015B NM	31470
890-2704-2	BH01	Total/NA	Solid	8015B NM	31470
890-2704-3	BH02	Total/NA	Solid	8015B NM	31470
890-2704-4	BH02	Total/NA	Solid	8015B NM	31470
890-2704-5	BH03	Total/NA	Solid	8015B NM	31470
890-2704-6	BH03	Total/NA	Solid	8015B NM	31470
890-2704-7	BH04	Total/NA	Solid	8015B NM	31470
890-2704-8	BH04	Total/NA	Solid	8015B NM	31470
890-2704-9	BH05	Total/NA	Solid	8015B NM	31470

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#### Job ID: 890-2704-1 SDG: 03E1558045

Client: Ensolum Project/Site: BEU Connector PW Booster

## GC Semi VOA (Continued)

## Analysis Batch: 31531 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-10	BH05	Total/NA	Solid	8015B NM	31470
890-2704-11	BH06	Total/NA	Solid	8015B NM	31470
890-2704-12	BH06	Total/NA	Solid	8015B NM	31470
890-2704-13	BH07	Total/NA	Solid	8015B NM	31470
890-2704-14	BH07	Total/NA	Solid	8015B NM	31470
890-2704-15	BH08	Total/NA	Solid	8015B NM	31470
890-2704-16	BH08	Total/NA	Solid	8015B NM	31470
890-2704-17	BH09	Total/NA	Solid	8015B NM	31470
890-2704-18	BH09	Total/NA	Solid	8015B NM	31470
MB 880-31470/1-A	Method Blank	Total/NA	Solid	8015B NM	31470
LCS 880-31470/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31470
LCSD 880-31470/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31470
890-2704-1 MS	BH01	Total/NA	Solid	8015B NM	31470
890-2704-1 MSD	BH01	Total/NA	Solid	8015B NM	31470

#### Analysis Batch: 31749

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	8015 NM	
890-2704-2	BH01	Total/NA	Solid	8015 NM	
890-2704-3	BH02	Total/NA	Solid	8015 NM	
890-2704-4	BH02	Total/NA	Solid	8015 NM	
890-2704-5	BH03	Total/NA	Solid	8015 NM	
890-2704-6	BH03	Total/NA	Solid	8015 NM	
890-2704-7	BH04	Total/NA	Solid	8015 NM	
890-2704-8	BH04	Total/NA	Solid	8015 NM	
890-2704-9	BH05	Total/NA	Solid	8015 NM	
890-2704-10	BH05	Total/NA	Solid	8015 NM	
890-2704-11	BH06	Total/NA	Solid	8015 NM	
890-2704-12	BH06	Total/NA	Solid	8015 NM	
890-2704-13	BH07	Total/NA	Solid	8015 NM	
890-2704-14	BH07	Total/NA	Solid	8015 NM	
890-2704-15	BH08	Total/NA	Solid	8015 NM	
890-2704-16	BH08	Total/NA	Solid	8015 NM	
890-2704-17	BH09	Total/NA	Solid	8015 NM	
890-2704-18	BH09	Total/NA	Solid	8015 NM	
890-2704-17	BH09	Total/NA	Solid	8015 NM	

#### HPLC/IC

#### Leach Batch: 31446

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2704-1	BH01	Soluble	Solid	DI Leach	
890-2704-2	BH01	Soluble	Solid	DI Leach	
890-2704-3	BH02	Soluble	Solid	DI Leach	
890-2704-4	BH02	Soluble	Solid	DI Leach	
890-2704-5	BH03	Soluble	Solid	DI Leach	
890-2704-6	BH03	Soluble	Solid	DI Leach	
890-2704-7	BH04	Soluble	Solid	DI Leach	
890-2704-8	BH04	Soluble	Solid	DI Leach	
890-2704-9	BH05	Soluble	Solid	DI Leach	
890-2704-10	BH05	Soluble	Solid	DI Leach	
890-2704-11	BH06	Soluble	Solid	DI Leach	

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### Job ID: 890-2704-1 SDG: 03E1558045

Client: Ensolum Project/Site: BEU Connector PW Booster

## HPLC/IC (Continued)

## Leach Batch: 31446 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-12	BH06	Soluble	Solid	DI Leach	
890-2704-13	BH07	Soluble	Solid	DI Leach	
890-2704-14	BH07	Soluble	Solid	DI Leach	
890-2704-15	BH08	Soluble	Solid	DI Leach	
890-2704-16	BH08	Soluble	Solid	DI Leach	
890-2704-17	BH09	Soluble	Solid	DI Leach	
890-2704-18	BH09	Soluble	Solid	DI Leach	
MB 880-31446/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31446/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31446/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17639-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17639-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2704-10 MS	BH05	Soluble	Solid	DI Leach	
890-2704-10 MSD	BH05	Soluble	Solid	DI Leach	

#### Analysis Batch: 31668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Soluble	Solid	300.0	31446
890-2704-2	BH01	Soluble	Solid	300.0	31446
890-2704-3	BH02	Soluble	Solid	300.0	31446
890-2704-4	BH02	Soluble	Solid	300.0	31446
890-2704-5	BH03	Soluble	Solid	300.0	31446
890-2704-6	BH03	Soluble	Solid	300.0	31446
890-2704-7	BH04	Soluble	Solid	300.0	31446
890-2704-8	BH04	Soluble	Solid	300.0	31446
890-2704-9	BH05	Soluble	Solid	300.0	31446
890-2704-10	BH05	Soluble	Solid	300.0	31446
890-2704-11	BH06	Soluble	Solid	300.0	31446
890-2704-12	BH06	Soluble	Solid	300.0	31446
890-2704-13	BH07	Soluble	Solid	300.0	31446
890-2704-14	BH07	Soluble	Solid	300.0	31446
890-2704-15	BH08	Soluble	Solid	300.0	31446
890-2704-16	BH08	Soluble	Solid	300.0	31446
890-2704-17	BH09	Soluble	Solid	300.0	31446
890-2704-18	BH09	Soluble	Solid	300.0	31446
MB 880-31446/1-A	Method Blank	Soluble	Solid	300.0	31446
LCS 880-31446/2-A	Lab Control Sample	Soluble	Solid	300.0	31446
LCSD 880-31446/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31446
880-17639-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	31446
880-17639-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31446
890-2704-10 MS	BH05	Soluble	Solid	300.0	31446
890-2704-10 MSD	BH05	Soluble	Solid	300.0	31446

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### Job ID: 890-2704-1 SDG: 03E1558045

Client: Ensolum Project/Site: BEU Connector PW Booster

## **Client Sample ID: BH01**

Date Collected: 08/01/22 09:00 Date Received: 08/02/22 09:53

	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	31767	08/08/22 13:00	MR	EET MID
Total/NA	Analysis	8021B		1			31850	08/10/22 07:05	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 12:07	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 09:13	СН	EET MID

## **Client Sample ID: BH01**

## Date Collected: 08/01/22 09:15

Date Received: 08/02/22 09:53

	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	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 10:47	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 13:13	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 09:22	СН	EET MID

## **Client Sample ID: BH02**

## Date Collected: 08/01/22 09:25

Date Received: 08/02/22 09:53

	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	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 11:14	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 13:34	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		5			31668	08/11/22 09:31	СН	EET MID

#### **Client Sample ID: BH02** Date Collected: 08/01/22 09:40 Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 11:40	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID

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Matrix: Solid

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Job ID: 890-2704-1 SDG: 03E1558045

## Lab Sample ID: 890-2704-1 Matrix: Solid

5 6 9

Lab Sample ID: 890-2704-2

Lab Sample ID: 890-2704-3

Lab Sample ID: 890-2704-4

Matrix: Solid

ET MID	
ET MID	

Matrix: Solid

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Job ID: 890-2704-1

SDG: 03E1558045

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-2704-4

Lab Sample ID: 890-2704-5

Lab Chronicle

Client: Ensolum Project/Site: BEU Connector PW Booster

## Client Sample ID: BH02

Date Collected: 08/01/22 09:40 Date Received: 08/02/22 09:53

	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			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 13:56	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 09:40	СН	EET MID

#### Client Sample ID: BH03 Date Collected: 08/01/22 10:15

## Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 12:06	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 14:18	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 10:08	СН	EET MID

## **Client Sample ID: BH03**

Date Collected: 08/01/22 10:25 Date Received: 08/02/22 09:53

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 31731 08/08/22 10:46 EL EET MID Total/NA 8021B 31678 08/09/22 12:33 MR EET MID Analysis 1 Total/NA Analysis Total BTEX 1 31860 08/09/22 15:47 SM EET MID EET MID Total/NA Analysis 8015 NM 31749 08/08/22 11:58 SM 1 Total/NA Prep 8015NM Prep 10.01 g 10 mL 31470 08/04/22 09:22 DM EET MID Total/NA Analysis 8015B NM 31531 08/05/22 14:40 SM EET MID 1 Soluble Leach DI Leach 4.98 g 50 mL 31446 08/03/22 17:09 SMC EET MID Soluble Analysis 300.0 31668 08/11/22 10:17 СН EET MID 1

## **Client Sample ID: BH04**

#### Date Collected: 08/01/22 10:40 Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 12:59	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 15:01	SM	EET MID

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## Lab Sample ID: 890-2704-6

Lab Sample ID: 890-2704-7

Matrix: Solid

Matrix: Solid

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Lab Chronicle

Client: Ensolum Project/Site: BEU Connector PW Booster

## Client Sample ID: BH04

Date Collected: 08/01/22 10:40 Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		5			31668	08/11/22 10:27	СН	EET MID

#### Client Sample ID: BH04

#### Date Collected: 08/01/22 10:55 Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 03:28	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 15:23	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 10:36	СН	EET MID

### Client Sample ID: BH05 Date Collected: 08/01/22 12:00

Date Received: 08/02/22 09:53

	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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 03:07	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 15:45	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		10			31668	08/11/22 10:45	СН	EET MID

#### Client Sample ID: BH05 Date Collected: 08/01/22 12:15 Date Received: 08/02/22 09:53

Date Received: 08/02/22 09:53

## Lab Sample ID: 890-2704-10

Matrix: Solid

Matrix: Solid

_	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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 03:48	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 16:07	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 10:54	СН	EET MID

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Job ID: 890-2704-1 SDG: 03E1558045

## Lab Sample ID: 890-2704-7 Matrix: Solid

Lab Sample ID: 890-2704-8

Lab Sample ID: 890-2704-9

Lab 5 EET MID 6 890-2704-8 Matrix: Solid 8 \_ Lab 9 EET MID 9

Client: Ensolum Project/Site: BEU Connector PW Booster

## Client Sample ID: BH06

Date Collected: 08/01/22 12:20 Date Received: 08/02/22 09:53

	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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 04:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 11:22	СН	EET MID

## Client Sample ID: BH06

## Date Collected: 08/01/22 12:35

Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 04:29	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 17:11	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 11:31	СН	EET MID

## Client Sample ID: BH07

## Date Collected: 08/01/22 12:45

Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 04:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 17:33	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 11:59	CH	EET MID

#### Client Sample ID: BH07 Date Collected: 08/01/22 13:00 Date Received: 08/02/22 09:53

	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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 05:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID

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Job ID: 890-2704-1 SDG: 03E1558045

## Lab Sample ID: 890-2704-11 Matrix: Solid

Lab Sample ID: 890-2704-12

Lab Sample ID: 890-2704-13

Lab Sample ID: 890-2704-14

Matrix: Solid

Matrix: Solid

Matrix: Solid

Client: Ensolum Project/Site: BEU Connector PW Booster

## **Client Sample ID: BH07**

Date Collected: 08/01/22 13:00 Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 17:55	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:08	СН	EET MID

## **Client Sample ID: BH08**

#### Date Collected: 08/01/22 14:00 Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 05:30	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 18:16	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:17	СН	EET MID

## **Client Sample ID: BH08**

Date Collected: 08/01/22 14:15 Date Received: 08/02/22 09:53

	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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 05:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 18:38	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:27	СН	EET MID

## **Client Sample ID: BH09**

#### Date Collected: 08/01/22 13:30 Date Received: 08/02/22 09:53

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 06:11	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 19:00	SM	EET MID

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Matrix: Solid

Job ID: 890-2704-1 SDG: 03E1558045

## Lab Sample ID: 890-2704-14

Lab Sample ID: 890-2704-15

5 9

## Lab Sample ID: 890-2704-16

Lab Sample ID: 890-2704-17

Matrix: Solid

Matrix: Solid

# Matrix: Solid

Client: Ensolum Project/Site: BEU Connector PW Booster

## Client Sample ID: BH09

Date Collected: 08/01/22 13:30 Date Received: 08/02/22 09:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		5			31668	08/11/22 12:36	СН	EET MID

### Client Sample ID: BH09

#### Date Collected: 08/01/22 13:40 Date Received: 08/02/22 09:53

	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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 08:01	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 19:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:45	СН	EET MID

#### Laboratory References:

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

SDG: 03E1558045

Matrix: Solid

Job ID: 890-2704-1

## Lab Sample ID: 890-2704-17 Matrix: Solid

Lab Sample ID: 890-2704-18

Eurofins Carlsbad

**Accreditation/Certification Summary** 

Client: Ensolum Job ID: 890-2704-1 Project/Site: BEU Connector PW Booster SDG: 03E1558045 Laboratory: Eurofins Midland Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. Authority **Identification Number** Expiration Date Program T104704400-22-24 06-30-23 Texas NELAP 5 The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification. Analysis Method Prep Method Matrix Analyte 8015 NM Total TPH Solid Total BTEX Solid Total BTEX

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## **Method Summary**

Client: Ensolum Project/Site: BEU Connector PW Booster Job ID: 890-2704-1 SDG: 03E1558045

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	B
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 Refe	rences:			8
ASTM = A	STM International			
MCAWW =	= "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March	1983 And Subsequent Revisions.		S S
SW846 = '	'Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Editio	n, 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

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Released to Imaging: 3/12/2024 10:06:16 AM

## Sample Summary

Client: Ensolum Project/Site: BEU Connector PW Booster

_ab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
390-2704-1	BH01	Solid	08/01/22 09:00	08/02/22 09:53	1'	_
390-2704-2	BH01	Solid	08/01/22 09:15	08/02/22 09:53	4'	
390-2704-3	BH02	Solid	08/01/22 09:25	08/02/22 09:53	1'	
390-2704-4	BH02	Solid	08/01/22 09:40	08/02/22 09:53	4'	
390-2704-5	BH03	Solid	08/01/22 10:15	08/02/22 09:53	2'	
390-2704-6	BH03	Solid	08/01/22 10:25	08/02/22 09:53	4'	
390-2704-7	BH04	Solid	08/01/22 10:40	08/02/22 09:53	1'	
390-2704-8	BH04	Solid	08/01/22 10:55	08/02/22 09:53	4'	
390-2704-9	BH05	Solid	08/01/22 12:00	08/02/22 09:53	1'	
390-2704-10	BH05	Solid	08/01/22 12:15	08/02/22 09:53	4'	
390-2704-11	BH06	Solid	08/01/22 12:20	08/02/22 09:53	1'	- 1
390-2704-12	BH06	Solid	08/01/22 12:35	08/02/22 09:53	4'	
390-2704-13	BH07	Solid	08/01/22 12:45	08/02/22 09:53	1'	
390-2704-14	BH07	Solid	08/01/22 13:00	08/02/22 09:53	4'	
390-2704-15	BH08	Solid	08/01/22 14:00	08/02/22 09:53	1'	
390-2704-16	BH08	Solid	08/01/22 14:15	08/02/22 09:53	4'	
390-2704-17	BH09	Solid	08/01/22 13:30	08/02/22 09:53	1'	
390-2704-18	BH09	Solid	08/01/22 13:40	08/02/22 09:53	4'	

#### Job ID: 890-2704-1 SDG: 03E1558045

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Name:	BEU Connector PW Booster	tor PW	Booster	Turr	Turn Around						ANALYS		IS REQUEST		-			1
ä	03E1	03E1558045		Routine	🗆 Rush	Pres. Code	e ."		╞	-		-		_	┝	╞	+	None: NO
Project Location:				Due Date:					-									Cool: Cool
Sampler's Name:	Conn	Conner Shore	œ	TAT starts th	TAT starts the day received by	Ą				-							_	HCL: HC
PO #:				the lab, if rec	the lab, if received by 4:30pm	1												H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub>
SAMPLE RECEIPT	Temp Blank:	lank:	Yes No	Wet Ice:	(Yes No	nete	.0)		_	=								H <sub>3</sub> PO <sub>4</sub> : HP
Samples Received Intact:	t: (Yes	No	Thermometer ID:	er ID:	VIN DOJ		300			_							_	NaHSO4: NABIS
Cooler Custody Seals:	Yes	NO NIN	Correction Factor:	actor:	-0-0	P	PA			968	0-2704 C	890-2704 Chain of Custody	ustody				-	Na25203: Na503
Sample Custody Seals:	Yes No	NIA	Temperature Reading:	e Reading:	6.0		S (E		1	-						.4	-	Zn Acetate+NaOH: Zn
Total Containers:			Corrected Temperature:	emperature:	5.0		RIDE	015	802									NaURTASCOIDIC ACIU, SAF C
Sample Identification	tion	Matrix	Date Sampled	Time Sampled	Depth Co	Grab/ # of Comp Cont	CHLO	TPH (8	BTEX									Sample Comments
BH01		s	08.01.22	006	1' (	G 1	×	×	×			-			-	+	+	nAPP2213151424
BH01		s	08.01.22	915	4	G 1	×	×	×						-	$\vdash$		1
BH02		s	08.01.22	925	- <u>-</u>	G 	×	×	×			+-	T		+	┢	┢	Cost Center: 1081711001
BH02		s	08.01.22	940	4.	G 1	×	×	×			$\left  \right $			+	+-		+
BH03		s	08.01.22	1015	2'	G -1	×	×	×			-			-	+		AFE
BH03		s	08.01.22	1025	4	G 1	×	×	×			-			┝	┝	-	1
BH04			08.01.22	1040	1.	G 	×	×	×						+-	+	+	API: 30-015-40660
BH04		s	08.01.22	1055	4	G 1	×	×	×			$\left  \right $			-	+-	+	1
BH05		s	08.01.22	1200	1'	G 	×	×	×			-				-	-	
BH05		s	08.01.22	1215	4'	G 1	×	×	×	-		-				-		
Total 200.7 / 6010	200.8 / 6020:	020:	8	8RCRA 13F	13PPM Texas	511 A	- co 11	s Ba Be	e B Cd	Ca Cr	Co Cu F	Fe Pb	Mg M	Mn Mo Ni	I K Se	Ы	SiO <sub>2</sub> N	Na Sr
Circle Method(s) and Metal(s) to be analyzed	Metal(s) to be	analyz	red	TCLP / S	TCLP / SPLP 6010: 8RCRA	8RCR/	Sb /	As Ba	Be Cd	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag	Cu Pb	Mn Mo	Ni Se	Ag TI U		ĿН	Hg: 1631 / 245.1 / 7470 / 7471	1245
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 contro of for fine to 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 for fine 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 for fine 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 for fine 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 fine cost of samples and such are of samples and such as the cost of samples and such as the cost of sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be enforced unless previously negotiated to circumstances beyond the cost of samples and such as the cost of samples and such as the cost of samples and such as the cost of samples and the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are due to circumstances beyond the cost of samples are	ment and relinguing the liable only function of the liable only function of \$85.0	ilshment c or the cos	of samples con t of samples a applied to each	stitutes a valid nd shall not ass project and a c	purchase order ume any respor harge of \$5 for	from clien Isibility for each sam	r any loss ple submi	y to Eurof es or expe tted to Eu	lins Xenco enses incu rofins Xen	, its affiliate irred by the co, but not	s and sub client if su analyzed.	contractors ich losses These term	. It assign the due to s will be e	tractors. It assigns standard terms and conditions losses are due to circumstances beyond the control se terms will be enforced unless previously negotiated.	terms i nces bey less prev	ind cond ond the ( riously n	ditions control legotiated	-
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Chain of Custody

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	337.257.8307			Email:	Email: tmorrissey@ensolum.com	@ensol	um.com	Ĺ					Deliven	Deliverables: EDD			ADaPT		Other:	
Project Name:	BEU Connector PW Booster	or PW B	Sooster	Turn	Turn Around	-	_				ANAI	ANALYSIS REQUEST	UEST					Prese	rvative	Preservative Codes
Project Number:	03E15	03E1558045		Routine	Rush	Pres. Code	le s.										Z X	None: NO	D	DI Water: H <sub>2</sub> O
Project Location:				Due Date:						-							C	Cool: Cool	Z	MeOH: Me
Sampler's Name:	Conne	Conner Shore		TAT starts the	e day received	by											H	HCL: HC	Т	HNO3: HN
PO #				the lab, if rec	the lab, if received by 4:30pm	L						_					H	H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub>	z	NaOH: Na
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Sample Custody Seals:	: Yes No	NIA TO	emperature	Temperature Reading:	U	[	S (E	)	1	+				_			21	Zn Acetate+NaUH: Zn	+NaOH:	
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## 8/11/2022

Chain of Custody

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14

Job Number: 890-2704-1 SDG Number: 03E1558045

List Source: Eurofins Carlsbad

## Login Sample Receipt Checklist

Client: Ensolum

#### Login Number: 2704 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.	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	

N/A

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

Eurofins Carlsbad Released to Imaging: 3/12/2024 10:06:16 AM

## Login Sample Receipt Checklist

Client: Ensolum

Login Number: 2704 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").

14

Job Number: 890-2704-1 SDG Number: 03E1558045

List Source: Eurofins Midland List Creation: 08/03/22 10:15 AM

-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Zoho Sign Document ID: 3 Received by OCD: 10

eurofins 🚯

# **Environment Testing** America

# **ANALYTICAL REPORT**

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

## Laboratory Job ID: 890-2380-1

Laboratory Sample Delivery Group: 03E1558045 Client Project/Site: BEU Connector PW Booster Revision: 1

## For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

Authorized for release by: 10/10/2022 3:17:14 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.

LINKS **Review your project** results through EOL **Have a Question?** Ask-The Expert Visit us at: www.eurofinsus.com/Env

Released to Imaging: 3/12/2024 10:06:16 AM

Client: Ensolum Project/Site: BEU Connector PW Booster Laboratory Job ID: 890-2380-1 SDG: 03E1558045

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Certification Summary	24
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Sample Summary	26
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#### :43

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	Definitions/Glossary		
Client: Ensolu Project/Site: B	-	Job ID: 890-2380-1 SDG: 03E1558045	
Qualifiers			
GC VOA			
Qualifier	Qualifier Description		
F1	MS and/or MSD recovery exceeds control limits.		
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VO	Α		
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC			
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
Glossary			ī
Abbreviation	These commonly used abbreviations may or may not be present in this report.		
<u>¤</u>	Listed under the "D" column to designate that the result is reported on a dry weight basis		
%R	Percent Recovery		
CFL	Contains Free Liquid		
CFU	Colony Forming Unit		
CNF	Contains No Free Liquid		
DER	Duplicate Error Ratio (normalized absolute difference)		
Dil Fac	Dilution Factor		
DL	Detection Limit (DoD/DOE)		
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample		
DLC	Decision Level Concentration (Radiochemistry)		
EDL	Estimated Detection Limit (Dioxin)		
LOD	Limit of Detection (DoD/DOE)		
LOQ	Limit of Quantitation (DoD/DOE)		
MCL	EPA recommended "Maximum Contaminant Level"		
MDA	Minimum Detectable Activity (Radiochemistry)		
MDC	Minimum Detectable Concentration (Radiochemistry)		
MDL	Method Detection Limit		
ML	Minimum Level (Dioxin)		
MPN	Most Probable Number		
MQL	Method Quantitation Limit		
NC ND	Not Calculated		
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)		
TNITO	Teo Numerous Te Count		

TNTC Too Numerous To Count

**Eurofins Carlsbad** 

Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

## **Case Narrative**

Client: Ensolum Project/Site: BEU Connector PW Booster

## Job ID: 890-2380-1

## Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2380-1

#### REVISION

The report being provided is a revision of the original report sent on 6/10/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID changes.

Report revision history

#### Receipt

The samples were received on 6/6/2022 12:24 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 29.4°C

#### GC VOA

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-27017 and analytical batch 880-26971 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.

#### GC Semi VOA

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

#### HPLC/IC

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

Job ID: 890-2380-1 SDG: 03E1558045

## **Client Sample Results**

Client: Ensolum Project/Site: BEU Connector PW Booster

### Client Sample ID: SS06 Date Collected: 06/06/22 08:25 Date Received: 06/06/22 12:24

Sample Depth: 0.5'

Method: SW846 8021B - Vo	Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Benzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:32	1			
Toluene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:32	1			
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:32	1			
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:32	1			
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:32	1			
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:32	1			
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	107		70 - 130			06/07/22 14:58	06/08/22 01:32	1			
1,4-Difluorobenzene (Surr)	97		70 - 130			06/07/22 14:58	06/08/22 01:32	1			

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg	·		06/08/22 15:52	1	

Method:         SW846 8015 NM - Diesel Range Organics (DRO) (GC)           Analyte         Result Qualifier         RL         Unit         D         Prepared         Analyzed         Dil Fac									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg			06/10/22 09:57	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 11:31	1		
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 11:31	1		
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 11:31	1		
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
1-Chlorooctane	113		70 - 130			06/08/22 17:15	06/09/22 11:31	1		
o-Terphenyl	111		70 - 130			06/08/22 17:15	06/09/22 11:31	1		

	Method: MCAWW 300.0 - Anions, I	on Chr	omatography	y - Soluble					
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
L	Chloride	6310		49.8	mg/Kg			06/09/22 22:16	10

### Client Sample ID: SS07 Date Collected: 06/06/22 08:30 Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Method: SW846 8021B - Vo	-				_	<b>_</b> .		
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			06/07/22 14:58	06/08/22 01:52	1

Eurofins Carlsbad

Matrix: Solid

Lab Sample ID: 890-2380-2

Matrix: Solid

5

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Job ID: 890-2380-1 SDG: 03E1558045

# Lab Sample ID: 890-2380-1

Released to Imaging: 3/12/2024 10:06:16 AM
Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

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

%Recovery Qualifier

**Client Sample Results** 

Limits

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Job ID: 890-2380-1 SDG: 03E1558045

## **Client Sample ID: SS07** Date Collected: 06/06/22 08:30

Project/Site: BEU Connector PW Booster

**Client: Ensolum** 

Surrogate

Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Lab Sample	ID:	890-2380-2
		Matrix: Solid

Analyzed

Lab Sample ID: 890-2380-3

Matrix: Solid

Prepared

5

Dil Fac

<b>J</b>								
1,4-Difluorobenzene (Surr)	99		70 - 130			06/07/22 14:58	06/08/22 01:52	1
	( - Total BTE	X Calculat	tion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/08/22 15:52	1
	esel Range	Organics (	(DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			06/10/22 09:57	1
Method: SW846 8015B NM - E	Diesel Range	Organics	s (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:34	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			06/08/22 17:15	06/09/22 12:34	1
o-Terphenyl	85		70 - 130			06/08/22 17:15	06/09/22 12:34	1
Method: MCAWW 300.0 - Anio	ons, Ion Chr	omatogra	phy - Soluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.3		4.96	mg/Kg			06/09/22 22:25	1

## **Client Sample ID: SS08** Date Collected: 06/06/22 08:35

Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			06/07/22 14:58	06/08/22 02:12	1
1,4-Difluorobenzene (Surr)	100		70 - 130			06/07/22 14:58	06/08/22 02:12	1
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			06/08/22 15:52	1
Method: SW846 8015 NM -	Diesel Range	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0		50.0	mg/Kg			06/10/22 09:57	

**Eurofins Carlsbad** 

Released to Imaging: 3/12/2024 10:06:16 AM

## **Client Sample Results**

**Client: Ensolum** Project/Site: BEU Connector PW Booster

## **Client Sample ID: SS08** Date Collected: 06/06/22 08:35

Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:55	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			06/08/22 17:15	06/09/22 12:55	1
o-Terphenyl	101		70 - 130			06/08/22 17:15	06/09/22 12:55	1

Analyte	Result	Qualifier	RL	Un	it	D	Prepared	Analyzed	Dil Fac
Chloride	16.2		4.99	mg	/Kg			06/09/22 22:53	1

## **Client Sample ID: SS09**

#### Date Collected: 06/06/22 08:40 Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/07/22 14:58	06/08/22 02:33	1
1,4-Difluorobenzene (Surr)	92		70 - 130			06/07/22 14:58	06/08/22 02:33	1
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			06/08/22 15:52	1
Method: SW846 8015 NM -	Diesel Range	Organics (	DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Roodit						· · · · · <b>,</b> - · · ·	

#### Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analvte Result Qualifier RL

7 analyto	nooun	quanner		<b>U</b>	Bilopaioa	/ mary zoa	Diriao
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	06/08/22 17:15	06/09/22 13:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	06/08/22 17:15	06/09/22 13:16	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	06/08/22 17:15	06/09/22 13:16	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130		06/08/22 17:15	06/09/22 13:16	1
o-Terphenyl	102		70 - 130		06/08/22 17:15	06/09/22 13:16	1

Unit

D

Prepared

## **Eurofins Carlsbad**

Dil Fac

Analyzed

Job ID: 890-2380-1 SDG: 03E1558045

## Lab Sample ID: 890-2380-3 Matrix: Solid

Lab Sample ID: 890-2380-4

Matrix: Solid

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Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

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Job ID: 890-2380-1

SDG: 03E1558045

Matrix: Solid

Dil Fac

5

Lab Sample ID: 890-2380-4

## **Client Sample Results**

Client: Ensolum Project/Site: BEU Connector PW Booster

## Client Sample ID: SS09 Date Collected: 06/06/22 08:40 Date Received: 06/06/22 12:24

Method: MCAWW 300		· · ·	ny - Soluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3970		24.9	mg/Kg			06/09/22 23:02	5
Client Sample ID: S	S04					Lab Samp	le ID: 890-2	380-5
Date Collected: 06/06/2	2 08:45					-	Matrix	: Solid
Date Received: 06/06/2	2 12:24							
Sample Depth: 0.5'								
	B - Volatile Organic	Compound	s (GC)					
Method: SW846 80211			DI.	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	Unit	U	Fiepaieu	Analyzeu	Dirruc
	Result <0.00200		0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:53	1

Toldono	-0.00200	0	0.00200	iiig/ixg	00/01/22 14.00	00/00/22 02:00	•	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	06/07/22 14:58	06/08/22 02:53	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	06/07/22 14:58	06/08/22 02:53	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg	06/07/22 14:58	06/08/22 02:53	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	06/07/22 14:58	06/08/22 02:53	1	2
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	112		70 - 130		06/07/22 14:58	06/08/22 02:53	1	
1,4-Difluorobenzene (Surr)	100		70 - 130		06/07/22 14:58	06/08/22 02:53	1	

Method: TAL SOP Total BTEX -	- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	0
Total BTEX	<0.00400	U	0.00400	mg/Kg			06/08/22 15:52	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			06/10/22 09:57	1
Method: SW846 8015B NM - D	iesel Range	• Organics	(DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:38	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			06/08/22 17:15	06/09/22 13:38	1
o-Terphenyl	103		70 - 130			06/08/22 17:15	06/09/22 13:38	1

Method. MOANN JUU Allo	ns, ion onionatograpi	ly - Soluble					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7100	50.2	mg/Kg			06/09/22 23:11	10

**Eurofins Carlsbad** 

## **Client Sample Results**

Client: Ensolum Project/Site: BEU Connector PW Booster

#### Client Sample ID: SS03 Date Collected: 06/06/22 08:50 Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Sample Depth: 0.5'								
	latile Organic	Compound	ds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
Toluene	<0.00201	U	0.00201	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/07/22 14:58	06/08/22 03:14	1
1,4-Difluorobenzene (Surr)	95		70 - 130			06/07/22 14:58	06/08/22 03:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total BTEX	<0.00402	U	0.00402	mg/Kg			06/08/22 15:52	1		

Method: SW846 8015 NM - Dies	el Range (	Organics (D	RO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			06/10/22 09:57	1

Method: SW846 8015B NM - D	iesel Range	e Organics	(DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:59	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			06/08/22 17:15	06/09/22 13:59	1
o-Terphenyl	110		70 - 130			06/08/22 17:15	06/09/22 13:59	1

	Method: MCAWW 300.0 - Anion	s, Ion Chr	omatograph	y - Soluble					
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
L	Chloride	6140		50.1	mg/Kg			06/09/22 23:20	10

## Client Sample ID: SS02 Date Collected: 06/06/22 08:55 Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Method: SW846 8021B - Vo	latile Organic	Compoun	ds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			06/07/22 14:58	06/08/22 03:34	1

**Eurofins Carlsbad** 

Matrix: Solid

Lab Sample ID: 890-2380-7

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Job ID: 890-2380-1 SDG: 03E1558045

# Lab Sample ID: 890-2380-6

Matrix: Solid

Zoho Sign Document ID: 316041F4-TCXLSMRSMA\_-RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

%Recovery Qualifier

**Result Qualifier** 

Result Qualifier

Result Qualifier

<49.9 U

54.1

<49.9 U

%Recovery Qualifier

106

105

93

<0.00401 U

54.1

**Client Sample Results** 

Limits

70 - 130

RL

RL

49.9

RL

49.9

49.9

49.9

Limits 70 - 130

70 - 130

0.00401

Unit

Unit

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

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Job ID: 890-2380-1 SDG: 03E1558045

#### Client Sample ID: SS02 Date Collected: 06/06/22 08:55

Project/Site: BEU Connector PW Booster

Client: Ensolum

Surrogate

Analyte

Analyte

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

(GRO)-C6-C10

Total TPH

Total BTEX

1,4-Difluorobenzene (Surr)

Gasoline Range Organics

**Diesel Range Organics (Over** 

Oll Range Organics (Over C28-C36)

Date Received: 06/06/22 12:24 Sample Depth: 0.5'

#### Lab Sample ID: 890-2380-7 Matrix: Solid

Analyzed

Analyzed

06/08/22 15:52

06/07/22 14:58 06/08/22 03:34

06/08/22 17:15 06/09/22 14:21

Lab Sample ID: 890-2380-8

Prepared

Prepared

D

D

D

Dil Fac

Dil Fac

1

Matrix: Solid

Prepared	Analyzed	Dil Fac	3
	06/10/22 09:57	1	
Prepared	Analyzed	Dil Fac	
06/08/22 17:15	06/09/22 14:21	1	
06/08/22 17:15	06/09/22 14:21	1	12
06/08/22 17:15	06/09/22 14:21	1	13
Prepared	Analyzed	Dil Fac	
06/08/22 17:15	06/09/22 14:21	1	

Method: MCAWW 300 0	- Anions	Ion Chromatogran	hy - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4270	49.9	mg/Kg	·		06/09/22 23:29	10

## **Client Sample ID: SS01** Date Collected: 06/06/22 09:00 Date Received: 06/06/22 12:24

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			06/07/22 14:58	06/08/22 03:55	1
1,4-Difluorobenzene (Surr)	98		70 - 130			06/07/22 14:58	06/08/22 03:55	1
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			06/08/22 15:52	1
Method: SW846 8015 NM -	Diesel Range	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			06/10/22 09:57	1

**Eurofins Carlsbad** 

Released to Imaging: 3/12/2024 10:06:16 AM

10/10/2022 (Rev. 1)

## **Client Sample Results**

**Client: Ensolum** Project/Site: BEU Connector PW Booster

#### **Client Sample ID: SS01** Date Collected: 06/06/22 09:00 Date Received: 06/06/22 12:24 Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 14:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 14:44	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 14:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			06/08/22 17:15	06/09/22 14:44	1
o-Terphenyl	94		70 - 130			06/08/22 17:15	06/09/22 14:44	1

Method. MOAWW JUU Allo	ns, ion onionatograpi	ly - Soluble					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5120	50.5	mg/Kg			06/09/22 23:39	10

## **Client Sample ID: SS05** Date Collected: 06/06/22 09:05 Date Received: 06/06/22 12:24

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			06/07/22 14:58	06/08/22 05:45	1
1,4-Difluorobenzene (Surr)	98		70 - 130			06/07/22 14:58	06/08/22 05:45	1
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			06/08/22 15:52	1
Method: SW846 8015 NM -	Diesel Range	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			06/10/22 09:57	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 15:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 15:06	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 15:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			06/08/22 17:15	06/09/22 15:06	1
o-Terphenyl	118		70 - 130			06/08/22 17:15	06/09/22 15:06	1

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Job ID: 890-2380-1 SDG: 03E1558045

# Lab Sample ID: 890-2380-8 Matrix: Solid

Lab Sample ID: 890-2380-9 Matrix: Solid

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Job ID: 890-2380-1

<b>Client Sample I</b>	Results
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Client: Ensolum
Project/Site: BEU Connector PW Booster

Client Sample ID: SS05 Date Collected: 06/06/22 09:05 Date Received: 06/06/22 12:24 Sample Depth: 0.5'

## SDG: 03E1558045 Lab Sample ID: 890-2380-9 Matrix: Solid

	A							
Dil Fac	Analyzed	Prepared	D	Unit	RL	Qualifier	Result	Analyte
10	06/09/22 23:48			mg/Kg	50.3		5020	Chloride
	06/09/22 23:48			mg/Kg	50.3		5020	- Chloride

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## **Surrogate Summary**

Client: Ensolum Project/Site: BEU Connector PW Booster

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

			Perce	nt Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-2374-A-5-C MS	Matrix Spike	108	100		-
890-2374-A-5-D MSD	Matrix Spike Duplicate	110	100		
890-2380-1	SS06	107	97		
890-2380-2	SS07	107	99		
890-2380-3	SS08	116	100		
890-2380-4	SS09	112	92		
890-2380-5	SS04	112	100		
890-2380-6	SS03	116	95		
890-2380-7	SS02	108	93		
890-2380-8	SS01	110	98		
890-2380-9	SS05	112	98		
LCS 880-27017/1-A	Lab Control Sample	108	99		
LCSD 880-27017/2-A	Lab Control Sample Dup	108	97		
MB 880-26988/5-A	Method Blank	98	100		
MB 880-27017/5-A	Method Blank	99	95		
Surrogate Legend					
BFB = 4-Bromofluorob	enzene (Surr)				
DFBZ = 1,4-Difluorobe	nzene (Surr)				

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

			Percent Surro	gate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2380-1	SS06	113	111	
890-2380-1 MS	SS06	95	82	
890-2380-1 MSD	SS06	101	89	
890-2380-2	SS07	85	85	
890-2380-3	SS08	107	101	
890-2380-4	SS09	106	102	
890-2380-5	SS04	106	103	
890-2380-6	SS03	109	110	
890-2380-7	SS02	106	105	
890-2380-8	SS01	96	94	
890-2380-9	SS05	115	118	
LCS 880-27115/2-A	Lab Control Sample	118	109	
LCSD 880-27115/3-A	Lab Control Sample Dup	106	99	
MB 880-27115/1-A	Method Blank	95	98	

#### Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl Job ID: 890-2380-1 SDG: 03E1558045

Prep Type: Total/NA

Prep Type: Total/NA

## **QC Sample Results**

**Client: Ensolum** Project/Site: BEU Connector PW Booster

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

Lab Sample ID: MB 880-26988/5-A
Matrix: Solid
Analysis Batch: 26971

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/07/22 08:57	06/07/22 12:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 08:57	06/07/22 12:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 08:57	06/07/22 12:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/07/22 08:57	06/07/22 12:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 08:57	06/07/22 12:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/07/22 08:57	06/07/22 12:43	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			06/07/22 08:57	06/07/22 12:43	1
1,4-Difluorobenzene (Surr)	100		70 - 130			06/07/22 08:57	06/07/22 12:43	1

#### Lab Sample ID: MB 880-27017/5-A Matrix: Solid Analysis Batch: 26971

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 00:22	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 00:22	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 00:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/07/22 14:58	06/08/22 00:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 00:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/07/22 14:58	06/08/22 00:22	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			06/07/22 14:58	06/08/22 00:22	1
1,4-Difluorobenzene (Surr)	95		70 - 130			06/07/22 14:58	06/08/22 00:22	1

#### Lab Sample ID: LCS 880-27017/1-A Matrix: Solid Analysis Batch: 26971

Analysis Batch: 26971							Prep Batch	n: 27017
-	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09392		mg/Kg		94	70 - 130	
Toluene	0.100	0.09786		mg/Kg		98	70 - 130	
Ethylbenzene	0.100	0.09108		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	0.200	0.2075		mg/Kg		104	70 - 130	
o-Xylene	0.100	0.1041		mg/Kg		104	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-27017/2-A Matrix: Solid			C	Client Sa	mple	ID: Lat	Control S Prep Ty		
Analysis Batch: 26971							Prep B		
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08291		mg/Kg		83	70 - 130	12	35

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SDG: 03E1558045

Prep Batch: 26988

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# **Client Sample ID: Method Blank** Prep Type: Total/NA

**Client Sample ID: Method Blank** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** Prep Batch: 27017

**Prep Type: Total/NA** 

## **QC Sample Results**

**Client: Ensolum** Project/Site: BEU Connector PW Booster

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

Lab Sample ID: LCSD 880-27017/2-A Matrix: Solid Analysis Batch: 26971			•	Client Sa	mple	ID: Lat	o Control Prep Ty Prep E	pe: Tot	tal/N
	Spike	LCSD	LCSD				%Rec		R
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Li
Toluene	0.100	0.09423		mg/Kg		94	70 - 130	4	
Ethylbenzene	0.100	0.08889		mg/Kg		89	70 - 130	2	
m-Xylene & p-Xylene	0.200	0.2054		mg/Kg		103	70_130	1	
o-Xylene	0.100	0.1029		mg/Kg		103	70 - 130	1	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

## Lab Sample ID: 890-2374-A-5-C MS Matrix: Solid Analysis Batch: 26971

Analysis Baton. Loor i									The Button Eron
	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00201	U F1	0.100	0.05763	F1	mg/Kg		58	70 - 130
Toluene	<0.00201	U	0.100	0.07360		mg/Kg		73	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.07003		mg/Kg		70	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1634		mg/Kg		82	70 - 130
o-Xylene	<0.00201	U	0.100	0.08332		mg/Kg		83	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

#### Lab Sample ID: 890-2374-A-5-D MSD Matrix: Solid Analysis Batch: 26971

1,4-Difluorobenzene (Surr)

Analysis Batch: 26971									Prep E	atch: 2	27017
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F1	0.0990	0.07694		mg/Kg		78	70 - 130	29	35
Toluene	<0.00201	U	0.0990	0.08291		mg/Kg		84	70 - 130	12	35
Ethylbenzene	<0.00201	U	0.0990	0.07812		mg/Kg		79	70 - 130	11	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1796		mg/Kg		91	70 - 130	9	35
o-Xylene	<0.00201	U	0.0990	0.09055		mg/Kg		91	70 - 130	8	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	110		70 - 130								

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

100

Lab Sample ID: MB 880-27115/ Matrix: Solid Analysis Batch: 27121	1-A						le ID: Methoo Prep Type: To Prep Batch	otal/NA
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 10:28	1
(GRO)-C6-C10								

70 - 130

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Job ID: 890-2380-1 SDG: 03E1558045

Dup /NA 017 RPD .imit 35 35 35 35 **Client Sample ID: Matrix Spike** 

Prep Type: Total/NA Prep Batch: 27017

**Client Sample ID: Matrix Spike Duplicate** 

Prep Type: Total/NA

Client: Ensolum Project/Site: BEU Connector PW Booster

## Method: 8015B NM - Diesel Pange Organics (DPO) (GC) (Continued)

Lab Sample ID: MB 880-271	15/1-A								Clie	nt Samp	le ID: Met		
Matrix: Solid											Prep Type		
Analysis Batch: 27121											Prep Ba	tch:	27115
			MB										
Analyte			Qualifier	RL		Unit		D		epared	Analyzed		Dil Fac
Diesel Range Organics (Over C10-C28)	<	50.0	U	50.0		mg/ł	Κg		06/08	3/22 17:15	06/09/22 10	:28	1
Oll Range Organics (Over C28-C36)	) <	50.0	U	50.0		mg/ł	٢g		06/08	3/22 17:15	06/09/22 10	:28	1
		MВ	MB										
Surrogate	%Reco	very	Qualifier	Limits					Pr	repared	Analyzed	1	Dil Fac
1-Chlorooctane		95		70 - 130					06/08	8/22 17:15	06/09/22 10	:28	1
o-Terphenyl		98		70 - 130					06/08	8/22 17:15	06/09/22 10	:28	1
Lab Sample ID: LCS 880-27	'115/2-A						Cli	ent	San	nple ID:	Lab Contr	ol Sa	ample
Matrix: Solid											Prep Type	: To	tal/NA
Analysis Batch: 27121											Prep Ba	tch:	27115
				Spike	LCS	LCS					%Rec		
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10				1000	1105		mg/Kg			111	70 - 130		
Diesel Range Organics (Over C10-C28)				1000	1128		mg/Kg			113	70 - 130		
	LCS	LCS	;										
Surrogate	%Recovery	Qua	lifier	Limits									
1-Chlorooctane	118			70 - 130									
o-Terphenyl	109			70 - 130									
Lab Sample ID: LCSD 880-2	27115/3-A						Client S	am	ple	ID: Lab	Control Sa	mpl	e Dup
Matrix: Solid											Prep Type	: Tot	tal/NA
Analysis Batch: 27121											Prep Ba		
				Spike	LCSD	LCSD					%Rec		RPD
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10				1000	928.0		mg/Kg			93	70 - 130	17	20
Diesel Range Organics (Over C10-C28)				1000	1017		mg/Kg			102	70 - 130	10	20
	LCSD	LCS	SD										
Surrogate	%Recoverv	Qua	lifier	Limits									

	LOOD	LUUD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	99		70 - 130

#### Lab Sample ID: 890-2380-1 MS Matrix: Solid Analysis Batch: 27121

Matrix: Solid Analysis Batch: 27121									Prep Ty	/pe: Total/N/ Batch: 2711	4
· ·····, ····· ··· ··· ··· ··· ···	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	869.3		mg/Kg		83	70 - 130		-
Diesel Range Organics (Over C10-C28)	<49.9	U	997	783.0		mg/Kg		77	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	82		70 - 130

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Job ID: 890-2380-1

SDG: 03E1558045

Client Sample ID: SS06

Job ID: 890-2380-1

SDG: 03E1558045

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Prep Type: Soluble

**Client Sample ID: Matrix Spike** 

## **QC Sample Results**

**Client: Ensolum** Project/Site: BEU Connector PW Booster

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

Lab Sample ID: 890-2380	-1 MSD							С	lient Sam	•	
Matrix: Solid Analysis Batch: 27121									Prep Ty Prep E		
	Sample	Sample	Spike	MSD	MSD				%Rec		RPI
Analyte	•	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1012		mg/Kg		97	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	855.9		mg/Kg		84	70 - 130	9	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	89		70 - 130								
Method: 300.0 - Anior Lab Sample ID: MB 880-2 Matrix: Solid Analysis Batch: 27220		omatogra	aphy				Clie	ent Sam	nple ID: M Prep Ty		

	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/09/22 19:11	1

Lab Sample ID: LCS 880-27034/2-A
Matrix: Solid
Analysis Batch: 27220

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	264.6		mg/Kg		106	90 - 110	

#### Lab Sample ID: LCSD 880-27034/3-A Matrix: Solid Analysis Batch: 27220

Analysis Balch: 27220									
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	254.6		mg/Kg		102	90 - 110	4	20

### Lab Sample ID: 880-15527-A-2-C MS Matrix: Solid

Analysis Batch: 27220											
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	53.2		250	305.9		mg/Kg		101	90 - 110		
Lab Sample ID: 880-15527 Matrix: Solid Analysis Batch: 27220	'-A-2-D MSE	)				Client S	Samp	ole ID: N	Aatrix Spi Prep T		
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	53.2		250	312.8		mg/Kg		104	90 - 110	2	20

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#### Zoho Sign Document ID: 316041F4-TCXLSMRSMA -RYMVWPYZ5N65-VBDSLNCKFXVFE4AUDA Received by OCD: 10/26/2023 12:15:26 PM

**Client Sample ID** 

## **QC Association Summary**

Prep Type

Matrix

Client: Ensolum Project/Site: BEU Connector PW Booster

## GC VOA

Lab Sample ID

## Analysis Batch: 26971

890-2380-1	SS06	Total/NA	Solid	8021B	27017
890-2380-2	SS07	Total/NA	Solid	8021B	27017
890-2380-3	SS08	Total/NA	Solid	8021B	27017
890-2380-4	SS09	Total/NA	Solid	8021B	27017
890-2380-5	SS04	Total/NA	Solid	8021B	27017
890-2380-6	SS03	Total/NA	Solid	8021B	27017
890-2380-7	SS02	Total/NA	Solid	8021B	27017
890-2380-8	SS01	Total/NA	Solid	8021B	27017
890-2380-9	SS05	Total/NA	Solid	8021B	27017
MB 880-26988/5-A	Method Blank	Total/NA	Solid	8021B	26988
MB 880-27017/5-A	Method Blank	Total/NA	Solid	8021B	27017
LCS 880-27017/1-A	Lab Control Sample	Total/NA	Solid	8021B	27017
LCSD 880-27017/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27017
890-2374-A-5-C MS	Matrix Spike	Total/NA	Solid	8021B	27017
890-2374-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27017
Prep Batch: 26988					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
•	•				
MB 880-26988/5-A	Method Blank	Total/NA	Solid	5035	
MB 880-26988/5-A	•				
MB 880-26988/5-A	•				Prep Batch
MB 880-26988/5-A Prep Batch: 27017	Method Blank	Total/NA	Solid	5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID	Method Blank Client Sample ID	Total/NA Prep Type	Solid Matrix	5035 Method	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1	Method Blank Client Sample ID SS06	Total/NA Prep Type Total/NA	Solid Matrix Solid	5035 Method 5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2	Method Blank Client Sample ID SS06 SS07	Total/NA Prep Type Total/NA Total/NA	Solid Matrix Solid Solid	5035 Method 5035 5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3	Method Blank Client Sample ID SS06 SS07 SS08	Total/NA Prep Type Total/NA Total/NA Total/NA Total/NA	Solid Matrix Solid Solid Solid Solid	5035 Method 5035 5035 5035 5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-4	Method Blank Client Sample ID SS06 SS07 SS08 SS09	Total/NA Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Matrix Solid Solid Solid Solid Solid	5035 Method 5035 5035 5035 5035 5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-4 890-2380-5	Method Blank Client Sample ID SS06 SS07 SS08 SS09 SS04	Total/NA Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Matrix Solid Solid Solid Solid Solid Solid Solid	5035           Method           5035           5035           5035           5035           5035           5035           5035           5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-4 890-2380-5 890-2380-6	Method Blank Client Sample ID SS06 SS07 SS08 SS09 SS04 SS03	Total/NAPrep TypeTotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NA	Solid Matrix Solid Solid Solid Solid Solid Solid Solid	5035 Method 5035 5035 5035 5035 5035 5035 5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-4 890-2380-5 890-2380-5 890-2380-6 890-2380-7	Method Blank Client Sample ID SS06 SS07 SS08 SS09 SS04 SS03 SS02	Total/NAPrep TypeTotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NA	Solid Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	5035 Method 5035 5035 5035 5035 5035 5035 5035 5035 5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-4 890-2380-5 890-2380-6 890-2380-7 890-2380-7 890-2380-8	Client Sample ID         SS06         SS07         SS08         SS09         SS03         SS02         SS01	Total/NAPrep TypeTotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NA	Solid Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	5035 Method 5035 5035 5035 5035 5035 5035 5035 5035 5035 5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-4 890-2380-5 890-2380-6 890-2380-7 890-2380-7 890-2380-8 890-2380-9	Client Sample ID         SS06         SS07         SS08         SS09         SS04         SS02         SS01         SS05	Total/NAPrep TypeTotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NA	Solid Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	5035           Method           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-3 890-2380-4 890-2380-5 890-2380-6 890-2380-6 890-2380-7 890-2380-8 890-2380-9 MB 880-27017/5-A	Method Blank Client Sample ID SS06 SS07 SS08 SS09 SS04 SS03 SS02 SS01 SS05 Method Blank	Total/NAPrep TypeTotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NA	Solid Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	5035           Method           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035	
MB 880-26988/5-A Prep Batch: 27017 Lab Sample ID 890-2380-1 890-2380-2 890-2380-3 890-2380-4 890-2380-5 890-2380-6 890-2380-7 890-2380-7 890-2380-7 890-2380-9 MB 880-27017/5-A LCS 880-27017/1-A	Method Blank Client Sample ID SS06 SS07 SS08 SS09 SS04 SS03 SS02 SS01 SS05 Method Blank Lab Control Sample	Total/NAPrep TypeTotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NATotal/NA	Solid         Matrix         Solid	5035           Method           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035           5035	

#### Analysis Batch: 27106

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	Total BTEX	
890-2380-2	SS07	Total/NA	Solid	Total BTEX	
890-2380-3	SS08	Total/NA	Solid	Total BTEX	
890-2380-4	SS09	Total/NA	Solid	Total BTEX	
890-2380-5	SS04	Total/NA	Solid	Total BTEX	
890-2380-6	SS03	Total/NA	Solid	Total BTEX	
890-2380-7	SS02	Total/NA	Solid	Total BTEX	
890-2380-8	SS01	Total/NA	Solid	Total BTEX	
890-2380-9	SS05	Total/NA	Solid	Total BTEX	

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Prep Batch

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## Job ID: 890-2380-1 SDG: 03E1558045

Method

## **QC** Association Summary

Client: Ensolum Project/Site: BEU Connector PW Booster

## GC Semi VOA

## Prep Batch: 27115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	8015NM Prep	
890-2380-2	SS07	Total/NA	Solid	8015NM Prep	
890-2380-3	SS08	Total/NA	Solid	8015NM Prep	
890-2380-4	SS09	Total/NA	Solid	8015NM Prep	
890-2380-5	SS04	Total/NA	Solid	8015NM Prep	
890-2380-6	SS03	Total/NA	Solid	8015NM Prep	
890-2380-7	SS02	Total/NA	Solid	8015NM Prep	
890-2380-8	SS01	Total/NA	Solid	8015NM Prep	
890-2380-9	SS05	Total/NA	Solid	8015NM Prep	
MB 880-27115/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27115/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27115/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2380-1 MS	SS06	Total/NA	Solid	8015NM Prep	
890-2380-1 MSD	SS06	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 27121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	8015B NM	27115
890-2380-2	SS07	Total/NA	Solid	8015B NM	27115
890-2380-3	SS08	Total/NA	Solid	8015B NM	27115
890-2380-4	SS09	Total/NA	Solid	8015B NM	27115
890-2380-5	SS04	Total/NA	Solid	8015B NM	27115
890-2380-6	SS03	Total/NA	Solid	8015B NM	27115
890-2380-7	SS02	Total/NA	Solid	8015B NM	27115
890-2380-8	SS01	Total/NA	Solid	8015B NM	27115
890-2380-9	SS05	Total/NA	Solid	8015B NM	27115
MB 880-27115/1-A	Method Blank	Total/NA	Solid	8015B NM	27115
LCS 880-27115/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27115
LCSD 880-27115/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27115
890-2380-1 MS	SS06	Total/NA	Solid	8015B NM	27115
890-2380-1 MSD	SS06	Total/NA	Solid	8015B NM	27115

## Analysis Batch: 27276

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	8015 NM	
890-2380-2	SS07	Total/NA	Solid	8015 NM	
890-2380-3	SS08	Total/NA	Solid	8015 NM	
890-2380-4	SS09	Total/NA	Solid	8015 NM	
890-2380-5	SS04	Total/NA	Solid	8015 NM	
890-2380-6	SS03	Total/NA	Solid	8015 NM	
890-2380-7	SS02	Total/NA	Solid	8015 NM	
890-2380-8	SS01	Total/NA	Solid	8015 NM	
890-2380-9	SS05	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 27034

Lab Sample ID 890-2380-1	Client Sample ID SS06	Prep Type Soluble	Matrix Solid	DI Leach	Prep Batch
890-2380-2	SS07	Soluble	Solid	DI Leach	
890-2380-3	SS08	Soluble	Solid	DI Leach	

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Job ID: 890-2380-1 SDG: 03E1558045

## **QC** Association Summary

Client: Ensolum Project/Site: BEU Connector PW Booster

## HPLC/IC (Continued)

## Leach Batch: 27034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-4	SS09	Soluble	Solid	DI Leach	
890-2380-5	SS04	Soluble	Solid	DI Leach	
890-2380-6	SS03	Soluble	Solid	DI Leach	
890-2380-7	SS02	Soluble	Solid	DI Leach	
890-2380-8	SS01	Soluble	Solid	DI Leach	
890-2380-9	SS05	Soluble	Solid	DI Leach	
MB 880-27034/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27034/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27034/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15527-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15527-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 27220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Soluble	Solid	300.0	27034
890-2380-2	SS07	Soluble	Solid	300.0	27034
890-2380-3	SS08	Soluble	Solid	300.0	27034
890-2380-4	SS09	Soluble	Solid	300.0	27034
890-2380-5	SS04	Soluble	Solid	300.0	27034
890-2380-6	SS03	Soluble	Solid	300.0	27034
890-2380-7	SS02	Soluble	Solid	300.0	27034
890-2380-8	SS01	Soluble	Solid	300.0	27034
890-2380-9	SS05	Soluble	Solid	300.0	27034
MB 880-27034/1-A	Method Blank	Soluble	Solid	300.0	27034
LCS 880-27034/2-A	Lab Control Sample	Soluble	Solid	300.0	27034
LCSD 880-27034/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27034
880-15527-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	27034
880-15527-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27034

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## Job ID: 890-2380-1 SDG: 03E1558045

## Lab Chronicle

Client: Ensolum Project/Site: BEU Connector PW Booster

## Client Sample ID: SS06 Date Collected: 06/06/22 08:25 Date Received: 06/06/22 12:24

	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	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 01:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 11:31	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 22:16	СН	EET MID

## Client Sample ID: SS07 Date Collected: 06/06/22 08:30

Date Received: 06/06/22 12:24

Prep Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab	
Total/NA	Prep	5035			5.02 g	5 mL	27017	06/07/22 14:58	MNR	EET MID	
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 01:52	MNR	EET MID	
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID	
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID	
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	27115 27121	06/08/22 17:15 06/09/22 12:34		EET MID EET MID	
Soluble Soluble	Leach Analysis	DI Leach 300.0		1	5.04 g	50 mL	27034 27220	06/07/22 16:09 06/09/22 22:25	SMC CH	EET MID EET MID	

## Client Sample ID: SS08 Date Collected: 06/06/22 08:35 Date Received: 06/06/22 12:24

	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	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 02:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 12:55	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		1			27220	06/09/22 22:53	СН	EET MID

## Client Sample ID: SS09 Date Collected: 06/06/22 08:40 Date Received: 06/06/22 12:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 02:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID

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Job ID: 890-2380-1 SDG: 03E1558045

# Lab Sample ID: 890-2380-1

Lab Sample ID: 890-2380-2

Lab Sample ID: 890-2380-3

Matrix: Solid

Matrix: Solid

Matrix: Solid

Released to Imaging: 3/12/2024 10:06:16 AM

Lab Sample ID: 890-2380-4 Matrix: Solid **Client: Ensolum** Project/Site: BEU Connector PW Booster

#### **Client Sample ID: SS09** Date Collected: 06/06/22 08:40 Date Received: 06/06/22 12:24

Prep Type Total/NA	<b>Type</b> Analysis	8015 NM	Run	Factor	Amount	Amount	<b>Number</b> 27276	or Analyzed 06/10/22 09:57	Analyst AJ	Lab EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	27115 27121	06/08/22 17:15 06/09/22 13:16	DM	EET MID EET MID
Soluble	Leach	DI Leach		I	5.02 g	50 mL	27034	06/07/22 15:10		EET MID
Soluble	Analysis	300.0		5			27220	06/09/22 23:02	СН	EET MID

## Client Sample ID: SS04 Date Collected: 06/06/22 08:45 Date Received: 06/06/22 12:24

	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	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 02:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 13:38	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:11	СН	EET MID

## **Client Sample ID: SS03**

Date Collected: 06/06/22 08:50 Date Received: 06/06/22 12:24

	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	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 03:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 13:59	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:20	СН	EET MID

#### **Client Sample ID: SS02** Date Collected: 06/06/22 08:55 Date Received: 06/06/22 12:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 03:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	27115 27121	06/08/22 17:15 06/09/22 14:21	DM AJ	EET MID EET MID

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Job ID: 890-2380-1 SDG: 03E1558045

## Lab Sample ID: 890-2380-4 Matrix: Solid

Lab Sample ID: 890-2380-6

Lab Sample ID: 890-2380-7

Matrix: Solid

Matrix: Solid

Matrix: Solid

10/10/2022 (Rev. 1)

## Lab Chronicle

Client: Ensolum Project/Site: BEU Connector PW Booster

## Client Sample ID: SS02 Date Collected: 06/06/22 08:55 Date Received: 06/06/22 12:24

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:29	СН	EET MID

## Client Sample ID: SS01 Date Collected: 06/06/22 09:00 Date Received: 06/06/22 12:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 03:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 14:44	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:39	СН	EET MID

## Client Sample ID: SS05 Date Collected: 06/06/22 09:05 Date Received: 06/06/22 12:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 05:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 15:06	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:48	СН	EET MID

#### Laboratory References:

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

Job ID: 890-2380-1 SDG: 03E1558045

# Lab Sample ID: 890-2380-7

Lab Sample ID: 890-2380-8

Matrix: Solid

Matrix: Solid

Matrix: Solid

**Accreditation/Certification Summary** 

Page 127 of 139

	Ace	creditation/Ce	ertification Summary		
Client: Ensolum Project/Site: BEU Cor	nnector PW Booster			Job ID: 890-2380-1 SDG: 03E1558045	2
Laboratory: Euro Unless otherwise noted, all		ory were covered under e	each accreditation/certification below.		
Authority		rogram	Identification Number	Expiration Date	
Texas		ELAP	T104704400-22-24	06-30-22 This list may include analytes for which	5
the agency does not c	•		lot optimed by the governing durinity.		
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		
					8
					9
					10

**Eurofins Carlsbad** 

## **Method Summary**

Client: Ensolum Project/Site: BEU Connector PW Booster Job ID: 890-2380-1 SDG: 03E1558045

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

#### **Protocol References:**

ASTM = ASTM International

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

#### Laboratory References:

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

## Sample Summary

Client: Ensolum Project/Site: BEU Connector PW Booster

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2380-1	SS06	Solid	06/06/22 08:25	06/06/22 12:24	0.5'
890-2380-2	SS07	Solid	06/06/22 08:30	06/06/22 12:24	0.5'
890-2380-3	SS08	Solid	06/06/22 08:35	06/06/22 12:24	0.5'
890-2380-4	SS09	Solid	06/06/22 08:40	06/06/22 12:24	0.5'
890-2380-5	SS04	Solid	06/06/22 08:45	06/06/22 12:24	0.5'
890-2380-6	SS03	Solid	06/06/22 08:50	06/06/22 12:24	0.5'
890-2380-7	SS02	Solid	06/06/22 08:55	06/06/22 12:24	0.5'
890-2380-8	SS01	Solid	06/06/22 09:00	06/06/22 12:24	0.5'
890-2380-9	SS05	Solid	06/06/22 09:05	06/06/22 12:24	0.5'

💠 eurofins		Environm Xenco	Environment Testing Xenco	g	Hous EL Pas Hobb	ton, TX (281) 2 4, TX (432) 704- 10, TX (915) 585 5, NM (575) 392	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	TX (214) 902-0 hio, TX (210) 50 , TX (806) 794-1 , NM (575) 988-	300 9-3334 296 3199		Worł	Work Order No:	Page_	11 1
Project Manager:	Ren Re	Relill		8	Bill to: (if different)		1d Sear	Bler				Work Order Comments	mments	
Company Name:	ñ L	Jan .		0	Company Name:		111			Program:			Brownfields RRC	
Address:				A	Address:					State of Project:	ō.			
City, State ZIP:				0	City, State ZIP:					Reporting	Reporting: Level II Level III		PST/UST TRRP	-
Phone:				Email:	6helil	NO Chs	chalum. com	'n		Deliverables:	ples: EDD		ADaPT  Other:	· · · ·
Project Name:	BELI CONPLICA	PW	Busiel	Turn Around	ound				ANALYSIS REQ	EQUEST		-	Preservative Codes	
Project Number:	036155	34	-	Routine	Rush	Pres. Code							None: NO	
		-103.6K	15	Due Date:			_	_	_				Cool: Cool	
Sampler's Name:	Kesse Pa	Packel		starts the da lab, if receiv	TAT starts the day received by the lab, if received by 4:30pm								HCL: HC	
SAMPI F RECEIPT	Temp Blank		VACING WE	Wet Ice.	Yes (No)	ters	-						H <sub>3</sub> PO <sub>4</sub> : HP	
Samples Received Intact:	-		ter		1-74,00	rame	_						NaHSO 4: NABIS	-
Cooler Custody Seals:	Ye	NIA CO	Correction Factor:		-0.2	Pa	-5		890-2380 Chain of Cu	Custody			Na 2S 2O3: NaSO 3	S
Sample Custody Seals:	Yes No	N/A Tei	Temperature Reading:	ding:	7.06	r.	ide	_	_	_		+	Zn Acetate+NaOH: Zn	1
Total Containers:		Co	Corrected Temperature:	rature:	7. 4	5	2H		)				NaOH+Ascorbic Acid: SAPC	I g
Sample Identification	ication	Matrix Sa	Date T Sampled San	Time Sampled	Depth Grab/	Cont BT	BT. Tr		HP	1000	Vi BUI	Ssanded	Sample Comments	10
Sjies /		5 6	122 08	0825 1	5.S#	X	8						Incident	#:
5502			101	0830		-							1/4102213/5/42	2
5503			02 35	35								+	(CIUNTION	N
Ssoul			8	0840										
505			0845	34										1
5506		-	6	0850				-						
5507			0855	55										
5508			1 09	0400										1
5504		4	8	XIOS	<	4	V V					Ko		
			-			-	ļ							111
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	) 200.8 / 6020: nd Metal(s) to be a	020: be analyze	8RCR.	13PPM CLP / SPLF	Texas 11 6010 : 8F	Al Sb As Ba Be B CRA Sb As Ba Be (	3a Be B Cd Ba Be Cd (	Ca Cr Co Cr Co Cu P		Mg Mn Mo Ni Ni Se Ag TI U	vi K Se	Ag SiO <sub>2</sub> Na Sr Tl Sn Hg: 1631 / 245.1 / 7470	TI SN U V Z /7470 /7471	1 <sup>7</sup> N
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 lable 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 nego	ment and relinquishme be liable only for the c n charge of \$85.00 will	nt of samples co ost of samples au be applied to eau	nstitutes a valid pui nd shall not assume th project and a cha	rchase order f any responsil arge of \$5 for	rom client company bility for any losses o each sample submi	/ to Eurofins Xend or expenses Incur tted to Eurofins X	o, Its affiliates and red by the client if enco, but not ana	subcontractors. such losses are d lyzed. These term	it assigns standard ter ue to circumstances b is will be enforced unk	rd terms and conditions ces beyond the control d unless previously negotiated.	otiated.			
Retingyished by: (Signature)	Signature)	Re	Received by: (Signature)	gnature)		Date	Date/Time	Relinqui	Relinquished by: (Signature)	ure)		Received by: (Signature)		
Mund A.	rue (	ma	mounda	Alie	A	610/20	D	Pay						

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14

## Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

#### Login Number: 2380 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	

Job Number: 890-2380-1 SDG Number: 03E1558045

List Source: Eurofins Carlsbad

Job Number: 890-2380-1 SDG Number: 03E1558045

List Source: Eurofins Midland

List Creation: 06/07/22 12:08 PM

## Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

#### Login Number: 2380 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	

Eurofins Carlsbad Released to Imaging: 3/12/2024 10:06:16 AM





# APPENDIX E

**NMOCD** Notifications

From:	Hamlet, Robert, EMNRD
To:	Collins, Melanie
Cc:	<u>DelawareSpills /SM; Pennington, Shelby G; Green, Garrett J; Ben Belill; Tacoma Morrissey; Kalei Jennings;</u> Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD
Subject:	(Extension Approval) - XTO - BEU Connector PW Booster / NAPP2213151424
Date:	Friday, July 22, 2022 4:42:46 PM
Attachments:	image002.jpg image003.png

## [ \*\*EXTERNAL EMAIL\*\*]

## RE: Incident #NAPP2213151424

## Melanie,

Your request for an extension to **October 24th, 2022** is approved. Please keep us up to date on the Right of Entry (ROE) Permit. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced Environmental Bureau EMNRD - Oil Conservation Division 811 S. First Street | 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: Friday, July 22, 2022 1:56 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Bratcher, Mike, EMNRD
<mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Pennington, Shelby G
<shelby.g.pennington@exxonmobil.com>; Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Tacoma Morrissey <tmorrissey@ensolum.com>; Kalei Jennings
<kjennings@ensolum.com>

Subject: [EXTERNAL] XTO - Extension Request - BEU Connector PW Booster / NAPP2213151424

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

## All,

XTO is requesting an extension of the current deadline of July 26, 2022, for submitting a

remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU Connector PW Booster (Incident Number NAPP2213151424). The release occurred on April 27, 2022 and an initial site assessment of the release was conducted. Fluids were released into the pasture area due to a flanged-end fitting separating from a hose while moving produced water. Initial assessment and sampling was conducted and excavation is pending. A Right of Entry (ROE) Permit was submitted to the State Land Office (SLO) in July 2022 and the executed permit has yet to be received. In order to complete the remediation work and submit a remediation work plan or closure report XTO requests a 90-day extension of this deadline until October 24, 2022.

Thank you, Melaníe Collíns



Environmental Technician melanie.collins@exxonmobil.com 432-556-3756

From:	Green, Garrett J
To:	ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD
Cc:	<u>Tacoma Morrissey; Kalei Jennings; DelawareSpills /SM</u>
Subject:	XTO - Sampling Notification (Week of 8/1/22 - 8/5/22)
Date:	Friday, July 29, 2022 4:11:00 PM

## [ \*\*EXTERNAL EMAIL\*\*]

All,

XTO plans to complete final sampling activities at the following sites the week of August 1, 2022.

## Monday

- PLU C1 Frac Pond / NAPP2207743395
- BEU Connector PW Booster / nAPP2213151424

## Tuesday

- BEU Connector PW Booster / nAPP2213151424
- Goldenchild CTB / nAPP2035256230, nAPP2102237559, nAPP2101335437, &

nAPP2101331137

## Wednesday

- BEU Connector PW Booster / nAPP2213151424
- Ross Draw 25 NW Battery / NAPP2201444794

#### Thursday

- PLU 89 / NRM1932350962

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





# APPENDIX D

Proposed Reclamation Plan

XTO Energy, Inc. Remediation Work Plan Update BEU Connector PW Booster and Mobley Ranch

## **PROPOSED RECLAMATION PLAN**

The release occurred off pad in the pasture within the pipeline ROW and as such, a reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the off pad area that was impacted by the release per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation. The following Reclamation Plan addresses reclamation of the off-pad area:

- The excavation will be backfilled with locally sourced caliche and topsoil to match surrounding grade. Topsoil will be placed on top of the caliche to support vegetative growth within the disturbed area;
- Soil and vegetation will be assessed during excavation activities to determine the proper weedfree seed mix designed by the NMSLO to meet reclamation standards for this region;
- The seed mixture will be distributed with one or more of the following mechanisms: push broadcaster seed spreader / tractor operated broadcast seed spreader / drill seeding / other means;
- Application of the seed mixture will be at a coverage of 10 pounds of seeds per acre of reclaimed pasture with distribution by a drilling method or 20 pounds of seeds per acre of reclaimed pasture with distribution by a broadcast method;
- Erosion control management will potentially include:
  - o The placement of waddles in areas with a propensity for high run off rates;
  - Straw cover if high winds are anticipated to support moisture retention and limit wind from blowing seeds away before they have had time to germinate; and/or
  - Other erosional control best management practices (BMP) as necessary to support timely and healthy regrowth of vegetation in disturbed areas;
- Backfilling of the excavation will be completed following receipt of confirmation soil samples indicating all chemicals of concern concentrations are in compliance with the Closure Criteria and/or the reclamation requirement;
- Seeding is anticipated to be completed in when temperatures and precipitation is most conducive for vegetation growth. In general, seeding should occur approximately one month after the last frost in the Spring up until approximately one month prior to the first fall frost. NMSLO has recognized the optimal time to seed is between July and early September, which will be adhered to for this Site;
- If seeding occurs outside of the 180 days approved in the current fully executed ROE Permit, a new ROE Permit will be executed prior to entering the pasture for reclamation activities;
- Annual inspections (at a minimum) will take place on the location until revegetation is consistent with local natural vegetation density. The Site will be inspected the following Spring/Fall to assess the success of regrowth. If necessary, an additional application of the NMSLO-approved pure live seed mixture will be applied as well as any needed BMPs will be installed to support growth and limit erosion;
- Upon completion of revegetation, a copy of the C-103 submitted to NMOCD will also be submitted to NMSLO for final inspection and release.



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	279690
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
bhall	The Remediation Plan is Conditionally Approved. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site Assessment/characterization/proven depth to water determination. Sidewall samples need to be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance for confirmation samples every 500 ft2 is approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. The work will need to occur in 90 days after the work plan has been approved.	3/12/2024
bhall	Submit a complete remediation and reclamation report through the OCD Permitting website by 6/12/2024. The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer; and a revegetation plan.	3/12/2024
bhall	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	3/12/2024

Action 279690