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

State of New Mexico Energy Minerals and Natural Resources Department

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

)

Incident ID	nAPP2317052998
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.16494

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU Big Sinks 3-25-31 Battery	Site Type Tank Battery
Date Release Discovered 06/14/2023	API# (if applicable)

Unit Letter	Section	Township	Range	County
А	04	258	31E	Eddy

Surface Owner: State 🗵 Federal 🗌 Tribal 🗌 Private (Name: _

Nature and Volume of Release

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

✓ Crude Oil	Volume Released (bbls) 5.99	Volume Recovered (bbls) 0.00
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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)
	l ng valve and a circulating pump left on during shut-in c stem. No fluids were recovered. A third-party contrac	

Released to Imaging: 1/31/2024 3:13:52 PM

Received by OCD: 9/12/2023 2:53:20 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 2 of 18
Incident ID	nAPP2317052998
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🔀 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🔀 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🔀 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🗶 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🗶 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🔀 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🗶 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🔀 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🗶 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	Yes X No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🗶 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🗶 No

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

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

- \overline{X} Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- X Field data
- \mathbf{X} Data table of soil contaminant concentration data
- \underline{X} Depth to water determination
- X Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- X Boring or excavation logs
- X Photographs including date and GIS information
- X Topographic/Aerial maps
- X 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.

Page 3

Received by OCD: 9/12/2023 2:53 Form C-141 Page 4	^{20 PM} State of New Mexico Oil Conservation Division	Incident ID District RP Facility ID Application ID	Page 3 of 181 nAPP2317052998
regulations all operators are required public health or the environment. Th failed to adequately investigate and re	given above is true and complete to the best of my kn to report and/or file certain release notifications and e acceptance of a C-141 report by the OCD does not emediate contamination that pose a threat to groundy report does not relieve the operator of responsibility	perform corrective actions for rele relieve the operator of liability sh water, surface water, human health	eases which may endanger ould their operations have or the environment. In
Printed Name: Garrett Green	Title: <u>Env</u>	vironmental Coordinator	
Signature:	Date: <u>8/3</u>	1/2023	
email: <u>garrett.green@exxonmob</u>	il.com Telephone	e: <u>575-200-0729</u>	
OCD Only Received by: <u>Shelly Wells</u>	Da	te: <u>9/12/2023</u>	

Page 6

Oil Conservation Division

	Page 4 of 182
Incident ID	nAPP2317052998
District RP	
Facility ID	
Application ID	

Closure

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

Image: A scaled site and sampling diagram as described in 19.15.29.11 NMAC Image: A scaled site and sampling diagram as described in 19.15.29.11 NMAC Image: A scaled site and sampling of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) Image: A scaled site and sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Image: A scaled site and sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Image: A scaled site and sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Image: A scaled site 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 regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: Garrett Green Title: Environmental Coordinator Environmental Coordinator Signature: Addition Date: 8/31/2023 Telephone:	<u>Closure Report Attachment Checklist</u> : Each of the following	items must be included in the closure report.	
must be notified 2 days prior to liner inspection)			
Description of remediation activities Increby 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 responsibility for compliance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetate the impacted surface area to the conditions. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the COD when reclamation and re-vegetation are complete. Printed Name: Garrett Green Title: Environmental Coordinator Signature:		s of the finer integrity if applicable (Note: appropriate OCD District office	
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email: _garrett.green@exxonmobil.com Telephone: _575-200-0729 OCD Only Received by: Shelly Wells Date: 9/12/2023 Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations. Closure Approved by: Date: Date:	Printed Name: Garrett Green	Title: Environmental Coordinator	
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	remediate contamination that poses a threat to groundwater, surface	water, human health, or the environment nor does not relieve the responsible	
Printed Name: Title:	Closure Approved by:	Date:	
	Printed Name:	Title:	



Incident Number: nAPP2317052998

Release Assessment and Closure

PLU Big Sinks 3-25-31 Battery Section 04, Township 25 South, Range 31 East County: Eddy Vertex File Number: 23E-04103

Prepared for: XTO Energy

Prepared by: Vertex Resource Services Inc.

Date: August 2023 **XTO Energy** PLU Big Sinks 3-25-31 Battery

Release Assessment and Closure PLU Big Sinks 3-25-31 Battery Section 04, Township 25 South, Range 31 East County: Eddy

Prepared for: XTO Energy 3104 E Greene Street Carlsbad, New Mexico 88220

New Mexico Oil Conservation Division – District 2 811 S. 1st Street Artesia, New Mexico 88210

Prepared by: Vertex Resource Services Inc. 3101 Boyd Drive Carlsbad, New Mexico 88220

Fernando Rodrigue:

Fernando Rodriguez, B.Sc.

8/29/2023

Date

Chance Dixon

Chance Dixon, B.Sc. PROJECT MANAGER, REPORT REVIEW

Date

8/29/2023

XTO Energy	
PLU Big Sinks 3-25-31 Battery	

Table of Contents

1.0	Introduction	.1
2.0	Incident Description	. 1
	Site Characteristics	
4.0	Closure Criteria Determination	. 2
5.0	Remedial Actions Taken	. 4
6.0	Closure Request	. 5
7.0	References	. 6
8.0	Limitations	. 7

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XTO Energy PLU Big Sinks 3-25-31 Battery

In-text Tables

Table 1.Closure Criteria Determination

Table 2. Closure Criteria for Soils Impacted by a Release

List of Figures

Figure 1. Characterization Schematic

Figure 2. Confirmation Schematic PLU Big Sinks 3-25-31 Battery

List of Tables

 Table 3.
 Initial Characterization Sample Field Screen and Laboratory Results – Depth to Groundwater <50 feet bgs</th>

 Table 4.
 Confirmatory Sample Field Screen and Laboratory Results – Depth to Groundwater <50 feet bgs</th>

List of Appendices

- Appendix A. NMOCD C-141 Report
- Appendix B. Closure Criteria Research Documentation
- Appendix C. Daily Field Reports
- Appendix D. Notifications
- Appendix E. Laboratory Data Reports and Chain of Custody Forms

1.0 Introduction

XTO Energy (XTO) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a crude oil release that occurred on June 14, 2023, at PLU Big Sinks 3-25-31 Battery (hereafter referred to as the "site"). XTO submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 2 on June 19, 2023 (Appendix A). Incident ID number nAPP2317052998 was assigned to this incident. XTO also provided a 24-hour Notification of Release (NOR) to NMOCD on June 14, 2023 and is included in Appendix D.

This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for the closure of this release, with the understanding that the reclamation requirements of 19.15.29.13 NMAC have been obtained.

2.0 Incident Description

The release occurred on June 14, 2023, due to a leaking valve and a circulating pump left on during a shut-in, that caused a liquid loading event that carried over into the flare system. The incident was reported on June 19, 2023, and involved the release of approximately 5.99 barrels of crude oil onto areas near the flare infrastructure. No free fluid was removed during the initial clean-up. Additional details relevant to the release are presented in the C-141 Report. Daily Field Reports (DFRs) and site photographs are included in Appendix C.

3.0 Site Characteristics

The site is located approximately 17.7 miles southeast of Malaga, New Mexico (Google Inc., 2023). The legal location for the site is Section 04, Township 25 South, Range 31 East in Eddy County, New Mexico. The release area is located on Federal property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production and storage. The following sections specifically describe the release area surrounding the low-pressure flare on the constructed pad (Figure 1).

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2023) indicates the site's surface geology primarily comprises Qep – Piedmont alluvial deposits, which include deposits of higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slope, and alluvial fans. May locally include uppermost Pliocene deposits. The predominant soil texture on the site is sandy and loamy sand. Soil can be classified as well-drained with a low runoff class. The karst geology potential for the site is characterized as low (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with plains, alluvial fans, uplands, and fan piedmonts with elevations ranging between 2,800 and 5,000 feet. The climate is semiarid with average annual precipitation ranging between 8 and 13 inches. Using information from the United States Department of Agriculture, the historic plant community was

determined to be dominated by black grama (*Bouteloua eriopoda*), dropseeds (*Sporobolus* spp.), and bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), with scattered shinnery oak (*Quercus havardii*) and sand sage (*Artemisia filifolia*; United States Department of Agriculture, Natural Resources Conservation Service, 2023). Limited to no vegetation is allowed to grow near the flare system and the compacted production pad.

4.0 Closure Criteria Determination

The nearest depth to groundwater reference to the site is a New Mexico Office of the State Engineer (NMOSE) monitoring well (C 04593 POD1) located approximately 1.07 miles east of the site (United States Geological Survey, 2023). Data from 2022 shows the NMOSE borehole recorded a dry hole at 55 feet below ground surface (bgs). Information pertaining to the depth to groundwater determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is the Pecos River located approximately 11.14 miles east of the site (United States Fish and Wildlife Service, 2023).

At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Due to the size of the release, Vertex and XTO determined that the release area should be cleaned to NMOCD's strictest closure criteria in order to eliminate any long-term liabilities attached to the site.

Release Assessment and Closure August 2023

	Criteria Worksheet		
	e: PLU Big Sinks 3-25-31 Battery	× 645007	× 0550070
	rdinates: 32.16494, -103.77815	X: 615207	Y: 3559372
lite Spec	ific Conditions	Value	Unit
1	Depth to Groundwater	>55	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	58,855	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	2,668	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	21,974	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or	564	feet
	ii) Within 1000 feet of any fresh water well or spring		feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	8,249	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	500	year
11	Soil Type	Berino Complex, 0 to 3 percent slopes	
12	Ecological Classification	Loamy Sand and Sandy Sites	
13	Geology	Qep: Eolian and Piedmont deposits	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

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The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 2. The criteria was chosen based on the amount of impact in the area and to meet the requirements of 19.15.29.13 NMAC.

Table 2. Closure Criteria for Soils Impacted by a Release					
Minimum depth below any point within the horizontal boundary of the release to groundwater					
less than 10,000 mg/l TDS	Constituent	Limit			
	Chloride	600 mg/kg			
< 50 feet	TPH (GRO+DRO+MRO)	100 mg/kg			
	BTEX	50 mg/kg			
	Benzene	10 mg/kg			

TDS - total dissolved solids

TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

An initial site inspection of the release area began on July 10, 2023, which identified the area of the release specified in the initial C-141 Report and assessed the contaminant concentrations throughout the flare area. Horizontal delineation was completed on July 14, 2023. Vertical delineation was not obtained during characterization activities due to refusal being hit with hand excavation tools. Vertical delineation would later be obtained during remedial activities. A total of 15 sample points were established in the release area. From these points, 27 samples were collected and submitted to Eurofins Environment Testing for laboratory analysis. The main impacted area was determined to be approximately 33 feet long and 48 feet wide; the total affected area was 296 square feet. The other remediated area was an approximate 7 ft by 10 ft area that resulted from fluids passing through the flare system. Field screen and laboratory analysis results are presented in Table 3. The DFR associated with the site inspection is included in Appendix C.

Remediation efforts began on August 14, 2023, and were finalized on August 15, 2023. Vertex personnel supervised the excavation of impacted soils. Field screening was completed during excavation and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons), and Silver Nitrate titration (chlorides). Field screening results were used to identify areas requiring further remediation. The contaminated soil was removed to a depth of four feet bgs for the main impact area and two and a half feet bgs for the area near the flare stack. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility.

Notification that confirmatory samples were being collected was provided to the NMOCD on August 10, 2023, and is included in Appendix D. Confirmatory composite samples were collected from the base and walls of the excavation in 200-square-foot increments. A total of eight samples were collected for laboratory analysis following NMOCD soil sampling procedures (Figure 2). Samples were submitted to Eurofins Environment Testing under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D), and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data

reports are included in Appendix E. All confirmatory samples collected and analyzed were below NMOCD's strictest closure criteria for the site.

6.0 Closure Request

Vertex recommends no additional remedial action at the site. Laboratory analyses of confirmation samples collected at the site show final confirmatory values below NMOCD closure criteria for areas where depth to groundwater is below 50 feet bgs and also meet the reclamation requirements of 19.15.29.13 NMAC. There are no anticipated risks to human, ecological, or hydrological receptors at this site.

The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to meet the site's existing grade to prevent water ponding and erosion.

Vertex requests that this incident (nAPP2317052998) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. XTO certifies that all information in this report and the appendices are correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the site.

Should you have any questions or concerns, please do not hesitate to contact Chance Dixon at 575.988.1472 or cdixon@vertex.ca.

5

7.0 References

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6

8.0 Limitations

This report has been prepared for the sole benefit of XTO Energy. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division without the express written consent of Vertex Resource Services Inc. (Vertex) and XTO Energy. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

7

FIGURES



-04103).

Big

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23E-04103



Released to Imaging: 1/31/2024 3:13:52 PM

TABLES

Client Name: XTO Energy Site Name: PLU Big Sinks 3-25-31 Battery NMOCD Tracking #: nAPP2317052998 Project #: 23E-04103 Lab Report(sX): 890-4932-1, 890-4968-1

	Table 3. Initial Characterization Sample Field Scree						and Laboratory Results - Depth to Groundwater <50 feet bgs						
Sample Description				eld Screeni	ng			Petrole	um Hydro	arbons			
			ds			Vola	atile			Extractable	9		Inorganic
Sample ID	Depth (ft)	Sample Date	(PID) Volatile Organic Compounds	Extractable Organic Compounds (PetroFlag)	() () () () () () () () () () () () () (euseue Beuzeue (mg/kg)	영 (영국 (10tal)	3) 영제(GRO) 영제(GRO)	8) Diesel Range Organics (DRO)	월 Motor Oil Range Organics (MRO)	(erco + Drco) (mg/kg)	ଞ୍ଚି Total Petroleum ଅନ୍ଧି Hydrocarbons (TPH)	표) (호 (호) (호
SS23-01	0	2023-07-10	-	150	80	ND	ND	ND	53	ND	53	53	37
SS23-01	0	2023-07-10	-	80	101	ND	0.0499	ND	ND	ND	ND	ND	34
SS23-02	0	2023-07-10	-	7,150	67	ND	-	1100	9500	ND	10600	10600	29
SS23-04	0	2023-07-10	-	3,180	80	ND	0.109	ND	5720	ND	5720	5720	42
SS23-05	0	2023-07-10	-	9,130	67	ND	13.5	1440	13200	ND	14640	14640	39
BH23-01	0	2023-07-14	ND	31	ND	ND	ND	ND	50	ND	50	50	48
BH23-01	2	2023-07-14	ND	35	24	ND	ND	ND	ND	ND	ND	ND	63
BH23-02	0	2023-07-14	ND	18	ND	-	-	ND	ND	ND	ND	ND	59
BH23-02	2	2023-07-14	ND	20	1	ND	ND	ND	ND	ND	ND	ND	59
BH23-03	0	2023-07-14	ND	27	ND	ND	ND	ND	ND	ND	ND	ND	59
BH23-03	2	2023-07-14	ND	29	ND	ND	ND	ND	ND	ND	ND	ND	29
BH23-08	0	2023-07-14	ND	18	ND	ND	ND	ND	ND	ND	ND	ND	57
BH23-08	2	2023-07-14	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	20
BH23-10	0	2023-07-14	ND	25	ND	ND	ND	ND	ND	ND	ND	ND	67
BH23-10	2	2023-07-14	ND	22	ND	ND	ND	ND	ND	ND	ND	ND	63
BH23-11	0	2023-07-14	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	96
BH23-11	2	2023-07-14	ND	21	ND	ND	ND	ND	ND	ND	ND	ND	68
BH23-12	0	2023-07-14	ND	24	ND	ND	ND	ND	ND	ND	ND	ND	57
BH23-12	2	2023-07-14	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	63
BH23-13	0	2023-07-14	ND	16	ND	ND	ND	ND	ND	ND	ND	ND	64
BH23-13	2	2023-07-14	ND	18	5	ND	ND	ND	ND	ND	ND	ND	81
BH23-14	0	2023-07-14	10	2,540	ND	ND	0.0726	52	2550	91	2602	2692	63
BH23-14	2	2023-07-14	2	36	ND	ND	ND	ND	108	ND	108	108	65
BH23-15	0	2023-07-14	1,500	4,190	ND	0.241	19	583	4420	148	5003	5150	70
BH23-15	2	2023-07-14	1,000	6,410	ND	2	84	2650	5710	208	8360	8570	92
BH23-15	4	2023-08-15	0	19	0	ND	ND	ND	ND	ND	ND	ND	50
BH23-16	0	2023-07-14	1,000	4,620	ND	0.342	51	944	3940	159	4884	5040	44
BH23-16	2	2023-07-14	1,500	7,850	ND	3	216	2530	5810	208	8340	8550	56
BH23-16	4	2023-08-15	0	12	0	ND	ND	ND	ND	ND	ND	ND	50

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)



.

Client Name: XTO Energy Site Name: PLU 3-25-31 CTB NMOCD Tracking #: nAPP2317052998 Project #: 23E-04103 Lab Reports: 890-5105-1, 890-5107-1

	1	Table 4. Confirma	tory Samp	ole Field Sc	reen and	Laborator	y Results -	Depth to	Groundwa	ater <50 fe	et bgs		
9	Sample Description Field Screening					Petroleum Hydrocarbons							
			ds			Vol	atile		Extractable				Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
DEC22.04	2.5	0/44/2022	(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg) ND	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BES23-01	2.5	8/14/2023	0	16	0	ND	ND		ND	ND	ND	ND	62.3
BES23-03	4	8/15/2023	1	45	33	ND	ND	ND	ND	ND	ND	ND	70.2
BES23-05	4	8/15/2023	0	44	57	ND	ND	ND	ND	ND	ND	ND	54.9
WES23-01	0-2.5	8/14/2023				ND	ND	ND	ND	ND	ND	ND	58.8
WES23-02	0-2.5	8/14/2023	0	24	0	ND	ND	ND	ND	ND	ND	ND	59
WES23-04	0-4	8/15/2023	0	59	0	ND	ND	ND	63.5	ND	63.5	63.5	50
WES23-08	0-4	8/15/2023	2	74	0	ND	ND	ND	ND	ND	ND	ND	51.7
WES23-09	0-4	8/15/2023	0	21	0	ND	ND	ND	ND	ND	ND	ND	52.5

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

.

APPENDIX A - NMOCD C-141 Report

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Page 23 of 181

Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

)

Incident ID	nAPP2317052998
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.16494

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU Big Sinks 3-25-31 Battery	Site Type Tank Battery
Date Release Discovered 06/14/2023	API# (if applicable)

Unit Letter	Section	Township	Range	County
А	04	258	31E	Eddy

Surface Owner: State 🗵 Federal 🗌 Tribal 🗌 Private (Name: _

Nature and Volume of Release

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

▼ Crude Oil	Volume Released (bbls) 5.99	Volume Recovered (bbls) 0.00
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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)
	I ing valve and a circulating pump left on during shut-in or stem. No fluids were recovered. A third-party contrac	

Received by OCD: 9/12/2023 2:53:20 PM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

	ruge 24 0j 10
Incident ID	nAPP2317052998
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes X No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🕅 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🔀 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🗶 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🗶 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes X 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 X No
Are the lateral extents of the release overlying a subsurface mine?	Yes X 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 X No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🔀 No

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

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

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

Receiv Form Page 4	<i>ed by OCD: 9/12/2023 2:53:20 PM</i> State of New Mexico Oil Conservation Division		Incident ID District RP Facility ID Application ID	Page 25 of 181 nAPP2317052998
regu publ faile addi	reby certify that the information given above is true and complete to the lations all operators are required to report and/or file certain release not ic health or the environment. The acceptance of a C-141 report by the C d to adequately investigate and remediate contamination that pose a thre tion, OCD acceptance of a C-141 report does not relieve the operator of or regulations.	ifications and perform co OCD does not relieve the eat to groundwater, surface	rrective actions for rele operator of liability sho ce water, human health	ases which may endanger ould their operations have or the environment. In
Prin	ted Name: Garrett Green	Title: <u>Environmenta</u>	l Coordinator	
Sigr	nature:att Suam	Date: <u>8/31/2023</u>	_	
ema	il: <u>garrett.green@exxonmobil.com</u>	Telephone: <u>575-20</u>	0-0729	
00	D Only	-		
Rec	eived by:	Date:		

Page 6

Oil Conservation Division

	Page 26 of 181
Incident ID	nAPP2317052998
District RP	
Facility ID	
Application ID	

Closure

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

<u>Closure Report Attachment Checklist</u> : Each of the following a	items must be included in the closure report.							
A scaled site and sampling diagram as described in 19.15.29.11 NMAC								
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)								
Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)								
Description of remediation activities								
and regulations all operators are required to report and/or file certaid may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re- human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in							
OCD Only								
Received by:	Date:							
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.								
Closure Approved by:	Date:							
Printed Name:								

APPENDIX B – Closure Criteria Research Documentation

New Mexico Office of the State Engineer Point of Diversion Summary

			(quarters are 1=NW 2=NE 3=SW 4=SE (quarters are smallest to largest)							:) (NAD83 UTM in meters)		
Well Tag	PC	OD Number	Qe	64 G	216	Q4	Sec	Tws	Rng	Х	Y	
NA	С	04593 POD1	3	5	4	4	34	24S	31E	616903	3559674	9
Driller License: 1249 Driller Company: ATKINS ENGINEERING ASSOC. INC.								D.				
Driller Name	:	JACKIE ATKINS										
Drill Start Da	ate:	03/09/2022	Drill Fi	nis	h D	ate		03/1	0/2022	Plug	Date:	03/15/2022
Log File Dat	e:	04/04/2022	PCW R	cv	Dat	e:				Sour	rce:	
Pump Type:			Pipe Discharge Size:						Estir	Estimated Yield:		
Casing Size:	:		Depth	We	II:			55 f	eet	Dept	h Water:	

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

NMOSE 0.5-Mile Radius





9/6/2023, 2:44:16 PM GIS WATERS PODs

- Active
- Pending
- Plugged
- OSE District Boundary

New Mexico State Trust Lands

- Subsurface Estate
- Both Estates
- SiteBoundaries

1:18,056



U.S. Department of Energy Office of Legacy Management, Maxar, Esri Community Maps Contributors, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US U.S. Fish and Wildlife Service

National Wetlands Inventory

PLU Big Sinks 3-25-31 Battery Watercours

Page 30 of 181



Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- **Freshwater Pond**

Lake Other Riverine be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Released to Imaging: 1/31/2024 3:13:52 PM

National Wetlands Inventory (NWI) This page was produced by the NWI mapper



0/12/2022 2.52.20 PM Received by OCD:

U.S. Fish and Wildlife Service

National Wetlands Inventory

PLU Big Sinks 3-25-31 Battery Lake



Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

Released to Imaging: 1/31/2024 3:13:52 PM

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- **Freshwater Pond**

Lake Other Riverine Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI) This page was produced by the NWI mapper



12/2022 2.52.20 DL Received by OCD

U.S. Fish and Wildlife Service

National Wetlands Inventory

PLU Big Sinks 3-25-31 Battery Wetland

Page 34 of 181



July 11, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

Released to Imaging: 1/31/2024 3:13:52 PM

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- **Freshwater Pond**

Lake Other Riverine This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

PLU Big Sinks 3-25-31 Tank Battery Mines



7/13/2023, 11:11:25 AM



Maxar, Microsoft, Esri, HERE, Garmin, iPC

Received by OCD: 9/12/2023 2:53:20 PM National Flood Hazard Layer FIRMette



Legend

Page 36 of 181



Basemap Imagery Source: USGS National Map 2023
APPENDIX C – Daily Field Report



Client:	XTO Energy Inc. (US)	Inspection Date:	8/15/2023
Site Location Name:	PLU Big Sinks 3-25-31 Battery	Report Run Date:	8/15/2023 11:54 PM
Client Contact Name:	Garrett Green	API #:	
Client Contact Phone #:	575-200-0729	-	
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Fimes
Arrived at Site	8/15/2023 7:30 AM		
Departed Site	8/15/2023 3:00 PM		

Field Notes

9:56 Arrived at location and filled out safety paperwork. Met with Tex-Mex contractor, held safety meeting and PSMS procedures, and discussed the work plan for the day. Will continue to excavate areas outlined by the site schematic.

10:00 Two dump trucks have brought a load of topsoil materials for backfill. Collected some wall samples and a few more base samples. Started stepping out walls horizontally about a foot, will resample walls and retest. Base samples tested clean for both chlorides and TPH.

14:59 Collected a total of six wall and base samples that represent the current excavation. All samples tested under criteria for chlorides and TPH. Added samples into glass containers and will send in for laboratory analysis. Contractor will bring in trucks to haul off the stockpiled materials. It is estimated about five dump trucks will haul off materials to disposal. Three of those trucks will haul in materials for backfill.

Next Steps & Recommendations

1











Daily Site Visit Signature

Inspector: Fernando Rodriguez

Signature:

.

APPENDIX D – Notifications

From:	Collins, Melanie
To:	Chance Dixon
Subject:	FW: XTO Sampling Notification PLU Big Sinks 3-25-31 Week of August 14, 2023
Date:	August 10, 2023 7:31:02 AM
Attachments:	image001.png

Sent

Melaníe Collíns

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

From: Collins, Melanie
Sent: Thursday, August 10, 2023 8:24 AM
To: 'ocd.enviro@state.nm.us' <ocd.enviro@state.nm.us>; Hamlet, Robert, EMNRD
(Robert.Hamlet@emnrd.nm.gov) <Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD
(Jocelyn.Harimon@emnrd.nm.gov) <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; DelawareSpills /SM
<DelawareSpills@exxonmobil.com>
Subject: XTO Sampling Notification PLU Big Sinks 3-25-31 Week of August 14, 2023

All,

Please see the sampling notification for the PLU Big Sinks 3-25-31 Battery for the week of August 14, 2023. Please reach out if you have questions, concerns, or if you would like additional information.

Site Name	PLU Big Sinks 3-25-31 Battery
Location	A-04-25S-31E; Eddy County, NM
Incident ID	nAPP2317052998
Source & Description of Activities	Excavation and Sampling
Expected Duration for Activities	2 Days 08.14.2023 - 08.15.2023
Env Consultant	Vertex
Contractor	TexMex
Sampling Notification Required	Yes, 08.14.2023 – 08.18.2023 (NMOCD District 2)
Surface Owner	BLM

Thank you,

Melaníe Collíns



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

QUESTIONS

Uperator: C	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road A	Action Number:
Midland, TX 79707	230304
A	Action Type:
	[NOTIFY] Notification Of Release (NOR)
UESTIONS	

QU STIONS

Location of Release Source

Please answer all the questions in this group.	
Site Name	PLU Big Sinks 3-25-31 Battery
Date Release Discovered	06/14/2023
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	Νο
Has this release endangered or does it have a reasonable probability of endangering public health	Νο
Has this release substantially damaged or will it substantially damage property or the environment	Νο
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	Νο

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.		
Crude Oil Released (bbls) Details	Cause: Equipment Failure Pump Crude Oil Released: 6 BBL Recovered: 0 BBL Lost: 6 BBL.	
Produced Water Released (bbls) Details	Not answered.	
Is the concentration of dissolved chloride in the produced water >10,000 mg/l	Not answered.	
Condensate Released (bbls) Details	Not answered.	
Natural Gas Vented (Mcf) Details	Not answered.	
Natural Gas Flared (Mcf) Details	Not answered.	
Other Released Details	Not answered.	
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.	

QUESTIONS

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

QUESTIONS (continued)

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	230304
	Action Type:
	[NOTIEV] Notification Of Release (NOR)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by 19.15.29.7(A) NMAC	No, minor release.
Reasons why this would be considered a submission for a notification of a major release	
If YES, was immediate notice given to the OCD, by whom	Not answered.
If YES, was immediate notice given to the OCD, to whom	Not answered.
If YES, was immediate notice given to the OCD, when	Not answered.
If YES, was immediate notice given to the OCD, by what means (phone, email, etc.)	Not answered.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e	e. gas only) are to be submitted on the C-129 form.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.
	overy of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the curred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please prepare and attach all

information needed for closure evaluation in the follow-up C-141 submission.

QUESTIONS, Page 2

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

ACKNOWLEDGMENTS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	230304
	Action Type:
	[NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

$\overline{\checkmark}$	I acknowledge that I am authorized to submit notification of a releases on behalf of my operator.
M	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
	l acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
V	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.
V	I acknowledge the fact that 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.
	I acknowledge the fact that, 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.

ACKNOWLEDGMENTS

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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	230304
	Action Type:
	[NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By	Condition	Condition Date
mcollins	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C- 141.	6/19/2023

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms

Received by OCD: 9/12/2023 2:53:20 PM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 7/28/2023 11:38:51 AM

JOB DESCRIPTION

PLU Big Sinks 3-25-31 SDG NUMBER 23E-04103

JOB NUMBER

890-4932-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information



Eurofins Carlsbad

Job Notes

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

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

Authorization

AMER

Generated 7/28/2023 11:38:51 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Page 52 of 181

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	15
Lab Chronicle	17
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22
Receipt Checklists	23

DLC

EDL

LOD

LOQ

MCL

MDA

MDC

MDL

ML MPN

MQL

NC

ND

NEG

POS

PQL PRES

QC

RER

RPD

TEF TEQ

TNTC

RL

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

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

Minimum Detectable Activity (Radiochemistry)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent

Positive / Present Practical Quantitation Limit

Presumptive

Quality Control

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Method Quantitation Limit

Limit of Quantitation (DoD/DOE)

	Definitions/Glossary	
Client: Vertex	Job ID: 890-493	
Project/Site: P	LU Big Sinks 3-25-31 SDG: 23E-04	103 2
Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	4
S1-	Surrogate recovery exceeds control limits, low biased.	
S1+	Surrogate recovery exceeds control limits, high biased.	5
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		
Qualifier	Qualifier Description	
*_	LCS and/or LCSD is outside acceptance limits, low biased.	7
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	8
HPLC/IC		
Qualifier	Qualifier Description	9
U	Indicates the analyte was analyzed for but not detected.	_
Glossary		— 10
Abbreviation	These commonly used abbreviations may or may not be present in this report.	11
¤	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	10
CNF	Contains No Free Liquid	13
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	

4

Job ID: 890-4932-1 SDG: 23E-04103

Job ID: 890-4932-1

Laboratory: Eurofins Carlsbad

Project/Site: PLU Big Sinks 3-25-31

Narrative

Client: Vertex

Job Narrative 890-4932-1

Receipt

The samples were received on 7/12/2023 10:04 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 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS23-01 0FT (890-4932-1), SS23-02 0FT (890-4932-2), SS23-03 0FT (890-4932-3), SS23-04 0FT (890-4932-4) and SS23-05 0FT (890-4932-5).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS23-03 0FT (890-4932-3) and SS23-05 0FT (890-4932-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS23-01 0FT (890-4932-1), SS23-03 0FT (890-4932-3), SS23-04 0FT (890-4932-4), SS23-05 0FT (890-4932-5), (MB 880-58171/1-A), (890-4932-A-1-D MS) and (890-4932-A-1-E MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

RL

0.00200

0.00200

0.00200

0.00401

0.00200

0.00401

Limits

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

07/14/23 14:36

07/14/23 14:36

07/14/23 14:36

07/14/23 14:36

07/14/23 14:36

07/14/23 14:36

Prepared

Job ID: 890-4932-1 SDG: 23E-04103

Client Sample ID: SS23-01 0FT

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

Result Qualifier

<0.00200 U

<0.00200 U

<0.00200 U

<0.00401 U

<0.00200 U

<0.00401 U

%Recovery Qualifier

Project/Site: PLU Big Sinks 3-25-31

Date Collected: 07/10/23 10:00 Date Received: 07/12/23 10:04

Sample Depth: 0 - 5

Client: Vertex

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Lab Sample ID: 890-4932-1

Analyzed

07/15/23 21:12

07/15/23 21:12

07/15/23 21:12

07/15/23 21:12

07/15/23 21:12

07/15/23 21:12

Analyzed

Matrix: Solid

Solid	
oona	
	5
Dil Fac	
1	
1	
1	
1	
1	8
1	
Dil Fac	9
1 1	
Dil Fac	
1	
Dil Fac	13

4-Bromofluorobenzene (Surr)	88		70 - 130			07/14/23 14:36	07/15/23 21:12	1
1,4-Difluorobenzene (Surr)	98		70 - 130			07/14/23 14:36	07/15/23 21:12	1
Method: TAL SOP Total BTEX - 1	Total BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/17/23 13:55	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	53.1		50.3	mg/Kg			07/28/23 11:50	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U *-	50.3	mg/Kg		07/20/23 15:49	07/27/23 21:19	1
Diesel Range Organics (Over C10-C28)	53.1		50.3	mg/Kg		07/20/23 15:49	07/27/23 21:19	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		07/20/23 15:49	07/27/23 21:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	139	S1+	70 - 130			07/20/23 15:49	07/27/23 21:19	1
o-Terphenyl	119		70 - 130			07/20/23 15:49	07/27/23 21:19	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solub	le					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.3		5.05	mg/Kg			07/14/23 18:18	1
lient Sample ID: SS23-02 0	FT					Lab Sar	nple ID: 890-	4932-2
Date Collected: 07/10/23 10:05							Matri	x: Solid
Date Received: 07/12/23 10:04								
Sample Depth: 0 - 5								
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/14/23 14:36	07/15/23 23:03	1
Toluene	0.0111		0.00199	mg/Kg		07/14/23 14:36	07/15/23 23:03	1
Ethylbenzene	0.00378		0.00199	mg/Kg		07/14/23 14:36	07/15/23 23:03	1
m-Xylene & p-Xylene	0.0270		0.00398	mg/Kg		07/14/23 14:36	07/15/23 23:03	1

m-Xylene & p-Xylene 0.0270 0.00398 mg/Kg 07/14/23 14:36 07/15/23 23:03 o-Xylene 0.00806 0.00199 mg/Kg 07/14/23 14:36 07/15/23 23:03 1 0.00398 07/14/23 14:36 07/15/23 23:03 0.0351 mg/Kg 1 **Xylenes**, Total Qualifier Limits Surrogate %Recovery Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 70 - 130 07/14/23 14:36 07/15/23 23:03 71 1

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Released to Imaging: 1/31/2024 3:13:52 PM

Client Sample Results

Job ID: 890-4932-1 SDG: 23E-04103

07/27/23 22:25

Lab Sample ID: 890-4932-3

Matrix: Solid

07/20/23 15:49

Client Sample ID: SS23-02 0FT

Project/Site: PLU Big Sinks 3-25-31

Date Collected: 07/10/23 10:05

Client: Vertex

Date Received: 07/12/23 10:04

Sampl	e Depth: 0 - 5	

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	94		70 - 130			07/14/23 14:36	07/15/23 23:03	
Method: TAL SOP Total BTEX - To	otal BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	0.0499		0.00398	mg/Kg			07/17/23 13:55	
Method: SW846 8015 NM - Diesel	Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	11	50.0	mg/Kg			07/28/23 11:50	
	-00.0	0	50.0	iiig/itg			01/20/20 11:00	
				mg/Kg			01120120 11:00	
Method: SW846 8015B NM - Dies	el Range Orga			Unit	D	Prepared	Analyzed	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	el Range Orga	nics (DRO) Qualifier	(GC)		<u>D</u>	Prepared 07/20/23 15:49		Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics GRO)-C6-C10	el Range Orga Result	nics (DRO) Qualifier U *-	(GC) RL	<u>Unit</u>	<u>D</u>	<u> </u>	Analyzed	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Orga Result <50.0 <50.0	nics (DRO) Qualifier U *- U	(GC) <u>RL</u> 50.0 50.0	Unit mg/Kg	<u> </u>	07/20/23 15:49 07/20/23 15:49	Analyzed 07/27/23 22:25 07/27/23 22:25	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Orga Result <50.0	nics (DRO) Qualifier U *- U	(GC) <u>RL</u> 50.0	Unit mg/Kg	<u> </u>	07/20/23 15:49	Analyzed 07/27/23 22:25	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	el Range Orga Result <50.0 <50.0	nics (DRO) Qualifier U *- U	(GC) <u>RL</u> 50.0 50.0	Unit mg/Kg mg/Kg	<u>D</u>	07/20/23 15:49 07/20/23 15:49	Analyzed 07/27/23 22:25 07/27/23 22:25	Dil Fa

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

106

10600

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.6	5.01	mg/Kg			07/14/23 18:23	1

70 - 130

Client Sample ID: SS23-03 0FT

Date Collected: 07/10/23 10:10 Date Received: 07/12/23 10:04 Sample Depth: 0 - 5

o-Terphenyl

Total TPH

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400	mg/Kg		07/14/23 14:36	07/16/23 01:46	20
Toluene	1.43		0.0400	mg/Kg		07/14/23 14:36	07/16/23 01:46	20
Ethylbenzene	1.45		0.0400	mg/Kg		07/14/23 14:36	07/16/23 01:46	20
m-Xylene & p-Xylene	9.11		0.0800	mg/Kg		07/14/23 14:36	07/16/23 01:46	20
o-Xylene	4.02		0.0400	mg/Kg		07/14/23 14:36	07/16/23 01:46	20
Xylenes, Total	13.1		0.0800	mg/Kg		07/14/23 14:36	07/16/23 01:46	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		S1+	70 - 130			07/14/23 14:36	07/16/23 01:46	20
1,4-Difluorobenzene (Surr)	2	S1-	70 - 130			07/14/23 14:36	07/16/23 01:46	20
- Method: TAL SOP Total BTEX - ⁻	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	16.0		0.0800	mg/Kg			07/17/23 13:55	1
_ Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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07/28/23 11:50

Page 56 of 181

Matrix: Solid

5

Lab Sample ID: 890-4932-2

Released to Imaging: 1/31/2024 3:13:52 PM

252

mg/Kg

1

Job ID: 890-4932-1 SDG: 23E-04103

Matrix: Solid

5

Lab Sample ID: 890-4932-3

Lab Sample ID: 890-4932-4

Matrix: Solid

Client Sample ID: SS23-03 0FT

Project/Site: PLU Big Sinks 3-25-31

Date Collected: 07/10/23 10:10 Date Received: 07/12/23 10:04

Sample Depth: 0 - 5

Client: Vertex

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	1100	*_	50.4	mg/Kg		07/20/23 15:49	07/27/23 23:30	1
Diesel Range Organics (Over C10-C28)	9500		252	mg/Kg		07/20/23 15:49	07/28/23 07:25	5
Oll Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		07/20/23 15:49	07/27/23 23:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	207	S1+	70 - 130			07/20/23 15:49	07/27/23 23:30	1
1-Chlorooctane	220	S1+	70 - 130			07/20/23 15:49	07/28/23 07:25	5
o-Terphenyl	98		70 - 130			07/20/23 15:49	07/27/23 23:30	1
o-Terphenyl	116		70 - 130			07/20/23 15:49	07/28/23 07:25	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.1	5.04	mg/Kg			07/14/23 18:28	1

Client Sample ID: SS23-04 0FT

Date Collected: 07/10/23 10:15 Date Received: 07/12/23 10:04 Sample Depth: 0 - 5

Method: SW846 8021B - Volatile Organic Compounds (GC) Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac <0.00198 U Benzene 07/14/23 14:36 07/15/23 23:23 0.00198 mg/Kg 1 0.00198 07/14/23 14:36 07/15/23 23:23 Toluene 0.0332 mg/Kg 0.00198 07/14/23 14:36 07/15/23 23:23 Ethylbenzene 0.00819 mg/Kg 1 m-Xylene & p-Xylene 0.0520 0.00396 mg/Kg 07/14/23 14:36 07/15/23 23:23 o-Xylene 0.0155 0.00198 mg/Kg 07/14/23 14:36 07/15/23 23:23 1 **Xylenes**, Total 0.0675 0.00396 mg/Kg 07/14/23 14:36 07/15/23 23:23 1 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 86 70 - 130 07/14/23 14:36 07/15/23 23:23 1 1,4-Difluorobenzene (Surr) 90 70 - 130 07/14/23 14:36 07/15/23 23:23 1 Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac **Total BTEX** 0.00396 mg/Kg 07/17/23 13:55 0.109 1 Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 50.5 07/28/23 11:50 **Total TPH** 5720 mg/Kg Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Dil Fac Analyzed <50.5 U *-Gasoline Range Organics 50.5 mg/Kg 07/20/23 15:49 07/27/23 23:52 (GRO)-C6-C10 **Diesel Range Organics (Over** 50 5 07/20/23 15:49 5720 mg/Kg 07/27/23 23:52 1 C10-C28) Oll Range Organics (Over C28-C36) <50.5 U 50.5 07/20/23 15:49 07/27/23 23:52 mg/Kg 1 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 137 S1+ 70 - 130 07/20/23 15:49

07/27/23 23:52

Eurofins Carlsbad

Niente Vertex		Olici	it Sample Re	Sulla				1022
Client: Vertex Project/Site: PLU Big Sinks 3-25-31							Job ID: 890 SDG: 23I	
Toject/Site. F LO big Sitiks 5-23-51								
lient Sample ID: SS23-04 0	FT					Lab San	nple ID: 890-	4932-
ate Collected: 07/10/23 10:15							Matri	ix: Soli
ate Received: 07/12/23 10:04								
ample Depth: 0 - 5								
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC) (Continued)					
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
o-Terphenyl	100		70 - 130			07/20/23 15:49	07/27/23 23:52	
-								
Method: EPA 300.0 - Anions, Ion								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Chloride	41.8		4.98	mg/Kg			07/14/23 18:33	
lient Sample ID: SS23-05 0	FT					Lab San	nple ID: 890-	4932.
ate Collected: 07/10/23 10:20							Matri	ix: Soli
ate Received: 07/12/23 10:04								
ample Depth: 0 - 5								
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Benzene	< 0.0402	U	0.0402	mg/Kg		07/14/23 14:36	07/16/23 02:07	
Toluene	1.10		0.0402	mg/Kg		07/14/23 14:36	07/16/23 02:07	
Ethylbenzene	1.09		0.0402	mg/Kg		07/14/23 14:36	07/16/23 02:07	
m-Xylene & p-Xylene	8.14		0.0805	mg/Kg		07/14/23 14:36	07/16/23 02:07	
o-Xylene	3.15		0.0402	mg/Kg		07/14/23 14:36	07/16/23 02:07	
Xylenes, Total	11.3		0.0805	mg/Kg		07/14/23 14:36	07/16/23 02:07	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
4-Bromofluorobenzene (Surr)	103		70 - 130			07/14/23 14:36	07/16/23 02:07	
1,4-Difluorobenzene (Surr)	3	S1-	70 - 130			07/14/23 14:36	07/16/23 02:07	
Method: TAL SOP Total BTEX - T Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Total BTEX	- <u>13.5</u>	Quaimer	0.0805	mg/Kg		Flepaleu	07/17/23 13:55	
	13.5		0.0803	ilig/Rg			07/17/23 13:33	
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Total TPH	14600		248	mg/Kg			07/28/23 11:50	
Method: SW846 8015B NM - Dies	ol Pango Orga	nice (DPO)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil F
Gasoline Range Organics	1440	-	49.6			07/20/23 15:49	07/27/23 23:09	
(GRO)-C6-C10	1440							
Diesel Range Organics (Over	13200		248	mg/Kg		07/20/23 15:49	07/28/23 07:03	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		07/20/23 15:49	07/27/23 23:09	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
1-Chlorooctane	279	S1+	70 - 130			07/20/23 15:49	07/27/23 23:09	
1-Chlorooctane	281	S1+	70 _ 130			07/20/23 15:49	07/28/23 07:03	
o-Terphenyl	149	S1+	70 - 130			07/20/23 15:49	07/27/23 23:09	

Mictilou. El A 000.0 - Allolis, lon o	moniatography - oolabic						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38.5	4.96	mg/Kg			07/14/23 18:38	1

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

-				Percent Surrogate Re
		BFB1	DFBZ1	-
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-4931-A-1-B MS	Matrix Spike	99	92	
890-4931-A-1-C MSD	Matrix Spike Duplicate	91	93	
890-4932-1	SS23-01 0FT	88	98	
890-4932-2	SS23-02 0FT	71	94	
890-4932-3	SS23-03 0FT	140 S1+	2 S1-	
890-4932-4	SS23-04 0FT	86	90	
890-4932-5	SS23-05 0FT	103	3 S1-	
LCS 880-57706/1-A	Lab Control Sample	97	92	
LCSD 880-57706/2-A	Lab Control Sample Dup	103	93	
MB 880-57706/5-A	Method Blank	91	110	
Surrogate Legend				

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Μ	latr	ix:	Sol	id

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4932-1	SS23-01 0FT	139 S1+	119
890-4932-1 MS	SS23-01 0FT	134 S1+	105
890-4932-1 MSD	SS23-01 0FT	131 S1+	99
890-4932-2	SS23-02 0FT	125	106
890-4932-3	SS23-03 0FT	207 S1+	98
890-4932-3	SS23-03 0FT	220 S1+	116
890-4932-4	SS23-04 0FT	137 S1+	100
890-4932-5	SS23-05 0FT	279 S1+	149 S1+
890-4932-5	SS23-05 0FT	281 S1+	159 S1+
LCS 880-58171/2-A	Lab Control Sample	104	98
LCSD 880-58171/3-A	Lab Control Sample Dup	102	93
MB 880-58171/1-A	Method Blank	171 S1+	156 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

Prep Type: Total/NA

5 6 7

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QC Sample Results

Client: Vertex Project/Site: PLU Big Sinks 3-25-31

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57706/5-A Matrix: Solid Analysis Batch: 57752						Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	Total/NA
	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
	МВ	МВ						
Surrogate %	&Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130			07/14/23 14:36	07/15/23 17:39	1
1,4-Difluorobenzene (Surr)	110		70 - 130			07/14/23 14:36	07/15/23 17:39	1

Lab Sample ID: LCS 880-57706/1-A Matrix: Solid

Analysis Batch: 57752

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08059		mg/Kg		81	70 - 130	
Toluene	0.100	0.09173		mg/Kg		92	70 - 130	
Ethylbenzene	0.100	0.07726		mg/Kg		77	70 - 130	
m-Xylene & p-Xylene	0.200	0.1625		mg/Kg		81	70 - 130	
o-Xylene	0.100	0.07434		mg/Kg		74	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-57706/2-A

Matrix: Solid Local Destail

Analysis Batch: 57752							Batch: 57706		
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08691		mg/Kg		87	70 - 130	8	35
Toluene	0.100	0.1013		mg/Kg		101	70 - 130	10	35
Ethylbenzene	0.100	0.08840		mg/Kg		88	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.1819		mg/Kg		91	70 - 130	11	35
o-Xylene	0.100	0.08739		mg/Kg		87	70 - 130	16	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-4931-A-1-B MS Matrix: Solid

Analysis Batch: 57752

Analysis Batch: 57752									Prep	Batch: 57706
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0994	0.09181		mg/Kg		92	70 - 130	
Toluene	<0.00202	U	0.0994	0.1034		mg/Kg		104	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

Trop Type. Total/INA									
		Prep Batch	n: 57706	5					
D	Prepared	Analyzed	Dil Fac						
_	07/14/23 14:36	07/15/23 17:39	1						
	07/14/23 14:36	07/15/23 17:39	1	_					
	07/14/23 14:36	07/15/23 17:39	1	7					
	07/14/23 14:36	07/15/23 17:39	1	_					
	07/14/23 14:36	07/15/23 17:39	1	8					
	07/14/23 14:36	07/15/23 17:39	1						
				9					
	Prepared	Analyzed	Dil Fac						
	07/14/23 14:36	07/15/23 17:39	1						
	07/14/23 14:36	07/15/23 17:39	1						
С	lient Sample I	D: Lab Control	Sample						
		Prep Type: 1	otal/NA						
		Prep Batch	n: 57706						
		%Rec							

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

QC Sample Results

MS MS

0.08545

0.1713

0.09163

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

Spike

Added

0.0994

0.199

0.0994

Limits 70 - 130

70 - 130

70 - 130

Client: Vertex Project/Site: PLU Big Sinks 3-25-31

Lab Sample ID: 890-4931-A-1-B MS

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 57752

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

Sample Sample

<0.00202

<0.00403 U

<0.00202 U

%Recovery

Result Qualifier

U

MS MS

99

92

93

156 S1+

Qualifier

	5
	7
	8
	9

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

Client Sample ID: Method Blank

07/27/23 20:13

Client Sample ID: Lab Control Sample

07/20/23 15:48

Prep Type: Total/NA

Prep Batch: 58171

%Rec

Limits

70 - 130

70 - 130

70 - 130

%Rec

86

86

92

D

Matrix: Solid Analysis Batch: 57752

1,4-Difluorobenzene (Surr)

Lab Sample ID: 890-4931-A-1-C MSD

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Batch: 57752									Prep	Batch:	57706	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	< 0.00202	U	0.0998	0.08348		mg/Kg		84	70 - 130	10	35	
Toluene	<0.00202	U	0.0998	0.09166		mg/Kg		92	70 - 130	12	35	ī
Ethylbenzene	<0.00202	U	0.0998	0.07256		mg/Kg		73	70 - 130	16	35	
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1499		mg/Kg		75	70 - 130	13	35	ī
o-Xylene	<0.00202	U	0.0998	0.08090		mg/Kg		81	70 - 130	12	35	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	91		70 - 130									

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

Lab Sample ID: MB 880-58171/1-A Matrix: Solid Analysis Batch: 58603

	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/20/23 15:48	07/27/23 20:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/20/23 15:48	07/27/23 20:13	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/20/23 15:48	07/27/23 20:13	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	171	S1+	70 - 130			07/20/23 15:48	07/27/23 20:13	1

70 - 130

o-Terphenyl Lab Sample ID: LCS 880-58171/2-A Matrix: Solid

Analysis Batch: 58603

Analysis Batch: 58603							Prep	Batch: 58171
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	592.9	*_	mg/Kg		59	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	936.9		mg/Kg		94	70 - 130	
C10-C28)								

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Prep Type: Total/NA

Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 57706

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1

QC Sample Results

Client: Vertex Project/Site: PLU Big Sinks 3-25-31

Lab Sample ID: LCS 880-58171/2-A

Matrix: Solid

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

Job ID: 890-4932-1					
SDG: 23E-04103					
Client Sample ID: Lab Control Sample					
Prep Type: Total/NA					
Prep Batch: 58171					
	5				

Page 62 of 181

Analysis Batch: 58603			
	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: LCSD 880-58171/3-A Matrix: Solid Analysis Batch: 58603				Clier	nt San	ple ID:		l Sampl ype: To Batch:	tal/NA
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	614.6	*_	mg/Kg		61	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	971.0		mg/Kg		97	70 - 130	4	20
LCSD LCSD									

LUUD	2002	
%Recovery	Qualifier	Limits
102		70 - 130
93		70 - 130
	%Recovery 102	

Lab Sample ID: 890-4932-1 MS Matrix: Solid Analysis Batch: 58603 Sample Sample Spike MS MS Analyte Result Qualifier Added Result Qualifier

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.3	U *-	992	1037		mg/Kg		103	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	53.1		992	1270		mg/Kg		123	70 - 130	
C10-C28)										
	MS	MS								

	103	1013	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	134	S1+	70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-4932-1 MSD Matrix: Solid

Analysis Batch: 58603									Prep	Batch:	58171
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.3	U *-	992	991.4		mg/Kg		98	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	53.1		992	1223		mg/Kg		118	70 - 130	4	20
	MSD	MSD									

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	99		70 - 130

Client Sample ID: SS23-01 0FT Prep Type: Total/NA

Client Sample ID: SS23-01 0FT

Prep Type: Total/NA

%Rec

Prep Batch: 58171

Project/Site: PLU Big Sinks 3-25-31

Client: Vertex

QC Sample Results

Job ID: 890-4932-1 SDG: 23E-04103

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57588/1-A									Client S	Sample ID:		
Matrix: Solid										Prep	Type: S	oluble
Analysis Batch: 57721												
	_	MB MB					_	_				
Analyte		esult Qualifier			<u>Unit</u>		D	PI	repared	Analy		Dil Fac
Chloride	<	<5.00 U		5.00	mg/ł	g				07/14/23	16:14	1
Lab Sample ID: LCS 880-57588/2-/	A						Cli	ent	Sample	ID: Lab C	ontrol S	ample
Matrix: Solid											Type: S	
Analysis Batch: 57721												
			Spike	LCS	LCS					%Rec		
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits		
Chloride			250	249.7		mg/Kg			100	90 _ 110		
Lab Sample ID: LCSD 880-57588/3	8- A					CI	ient S	Sam	nle ID: I	Lab Contro	ol Samol	le Dur
Matrix: Solid											Type: S	
Analysis Batch: 57721											.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
			Spike	LCSD	LCSD					%Rec		RPD
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride			250	250.0		mg/Kg		_	100	90 _ 110	0	20
- Lab Sample ID: 890-4931-A-6-B M	S								Client	Sample ID): Matrix	Spike
Matrix: Solid											Type: S	
Analysis Batch: 57721												
	Sample	Sample	Spike	MS	MS					%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit		D	%Rec	Limits		
Chloride	291		252	539.9		mg/Kg			99	90 - 110		
- Lab Sample ID: 890-4931-A-6-C M	SD						Clien	t Sa	mple IC): Matrix S	pike Dur	olicate
Matrix: Solid	- 1							•			Type: S	
Analysis Batch: 57721											100	
-	Sample	Sample	Spike	MSD	MSD					%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride	291		252		-			_			0	

QC Association Summary

Client: Vertex Project/Site: PLU Big Sinks 3-25-31

5 6

Job ID: 890-4932-1 SDG: 23E-04103

GC VOA

Prep Batch: 57706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4932-1	SS23-01 0FT	Total/NA	Solid	5035	
890-4932-2	SS23-02 0FT	Total/NA	Solid	5035	
890-4932-3	SS23-03 0FT	Total/NA	Solid	5035	
890-4932-4	SS23-04 0FT	Total/NA	Solid	5035	
890-4932-5	SS23-05 0FT	Total/NA	Solid	5035	
MB 880-57706/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57706/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57706/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4931-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4931-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 57752

Control Sample Dup x Spike x Spike Duplicate	Total/NA Total/NA Total/NA	Solid Solid	5035 5035		8
			5035		
Spike Duplicate	Total/NA	0 " 1			
		Solid	5035		9
					10
t Sample ID	Prep Type	Matrix	Method	Prep Batch	10
-01 0FT	Total/NA	Solid	8021B	57706	11
-02 0FT	Total/NA	Solid	8021B	57706	
-03 0FT	Total/NA	Solid	8021B	57706	12
-04 0FT	Total/NA	Solid	8021B	57706	
-05 0FT	Total/NA	Solid	8021B	57706	40
od Blank	Total/NA	Solid	8021B	57706	13
Control Sample	Total/NA	Solid	8021B	57706	
Control Sample Dup	Total/NA	Solid	8021B	57706	
x Spike	Total/NA	Solid	8021B	57706	
x Spike Duplicate	Total/NA	Solid	8021B	57706	
	-01 0FT -02 0FT -03 0FT -04 0FT -05 0FT od Blank control Sample control Sample Dup < Spike	-01 0FT Total/NA -02 0FT Total/NA -03 0FT Total/NA -04 0FT Total/NA -05 0FT Total/NA -05 0FT Total/NA control Sample Total/NA control Sample Dup Total/NA copike Total/NA	O1 0FTTotal/NASolid-02 0FTTotal/NASolid-03 0FTTotal/NASolid-04 0FTTotal/NASolid-05 0FTTotal/NASolid-05 0FTTotal/NASolidcontrol SampleTotal/NASolidcontrol Sample DupTotal/NASolidcopikeTotal/NASolid	Total/NASolid8021B-02 0FTTotal/NASolid8021B-02 0FTTotal/NASolid8021B-03 0FTTotal/NASolid8021B-04 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B-05 0FTTotal/NASolid8021B	Total/NASolid8021B57706-02 0FTTotal/NASolid8021B57706-03 0FTTotal/NASolid8021B57706-04 0FTTotal/NASolid8021B57706-05 0FTTotal/NASolid8021B57706-05 0FTTotal/NASolid8021B57706-05 0FTTotal/NASolid8021B57706control SampleTotal/NASolid8021B57706control Sample DupTotal/NASolid8021B57706control Sample DupTotal/NASolid8021B57706control Sample DupTotal/NASolid8021B57706control Sample DupTotal/NASolid8021B57706

Analysis Batch: 57846

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
SS23-01 0FT	Total/NA	Solid	Total BTEX	
SS23-02 0FT	Total/NA	Solid	Total BTEX	
SS23-03 0FT	Total/NA	Solid	Total BTEX	
SS23-04 0FT	Total/NA	Solid	Total BTEX	
SS23-05 0FT	Total/NA	Solid	Total BTEX	
	SS23-01 0FT SS23-02 0FT SS23-03 0FT SS23-04 0FT	SS23-01 0FT Total/NA SS23-02 0FT Total/NA SS23-03 0FT Total/NA SS23-04 0FT Total/NA	SS23-01 0FT Total/NA Solid SS23-02 0FT Total/NA Solid SS23-03 0FT Total/NA Solid SS23-04 0FT Total/NA Solid	SS23-01 0FT Total/NA Solid Total BTEX SS23-02 0FT Total/NA Solid Total BTEX SS23-03 0FT Total/NA Solid Total BTEX SS23-04 0FT Total/NA Solid Total BTEX

GC Semi VOA

Prep Batch: 58171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4932-1	SS23-01 0FT	Total/NA	Solid	8015NM Prep	
890-4932-2	SS23-02 0FT	Total/NA	Solid	8015NM Prep	
890-4932-3	SS23-03 0FT	Total/NA	Solid	8015NM Prep	
890-4932-4	SS23-04 0FT	Total/NA	Solid	8015NM Prep	
890-4932-5	SS23-05 0FT	Total/NA	Solid	8015NM Prep	
MB 880-58171/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58171/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58171/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4932-1 MS	SS23-01 0FT	Total/NA	Solid	8015NM Prep	
890-4932-1 MSD	SS23-01 0FT	Total/NA	Solid	8015NM Prep	
Analysis Batch: 58603					
-	Olivert Operation ID	D	Madada		Dury Datab

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4932-1	SS23-01 0FT	Total/NA	Solid	8015B NM	58171
890-4932-2	SS23-02 0FT	Total/NA	Solid	8015B NM	58171

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Page 64 of 181

QC Association Summary

Client: Vertex Project/Site: PLU Big Sinks 3-25-31

GC Semi VOA (Continued)

Analysis Batch: 58603 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4932-3	SS23-03 0FT	Total/NA	Solid	8015B NM	58171
890-4932-3	SS23-03 0FT	Total/NA	Solid	8015B NM	58171
890-4932-4	SS23-04 0FT	Total/NA	Solid	8015B NM	58171
890-4932-5	SS23-05 0FT	Total/NA	Solid	8015B NM	58171
890-4932-5	SS23-05 0FT	Total/NA	Solid	8015B NM	58171
MB 880-58171/1-A	Method Blank	Total/NA	Solid	8015B NM	58171
LCS 880-58171/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58171
LCSD 880-58171/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58171
890-4932-1 MS	SS23-01 0FT	Total/NA	Solid	8015B NM	58171
890-4932-1 MSD	SS23-01 0FT	Total/NA	Solid	8015B NM	58171

Analysis Batch: 58720

LC3 000-3017 1/2-A	Lab Control Sample	TOTAI/INA	Solid		50171	
LCSD 880-58171/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58171	8
890-4932-1 MS	SS23-01 0FT	Total/NA	Solid	8015B NM	58171	
890-4932-1 MSD	SS23-01 0FT	Total/NA	Solid	8015B NM	58171	9
Analysis Batch: 5872	0					10
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4932-1	SS23-01 0FT	Total/NA	Solid	8015 NM		44
890-4932-2	SS23-02 0FT	Total/NA	Solid	8015 NM		
890-4932-3	SS23-03 0FT	Total/NA	Solid	8015 NM		10
890-4932-4	SS23-04 0FT	Total/NA	Solid	8015 NM		12
890-4932-5	SS23-05 0FT	Total/NA	Solid	8015 NM		4.2
						13

HPLC/IC

Leach Batch: 57588

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4932-1	SS23-01 0FT	Soluble	Solid	DI Leach	
890-4932-2	SS23-02 0FT	Soluble	Solid	DI Leach	
890-4932-3	SS23-03 0FT	Soluble	Solid	DI Leach	
890-4932-4	SS23-04 0FT	Soluble	Solid	DI Leach	
890-4932-5	SS23-05 0FT	Soluble	Solid	DI Leach	
MB 880-57588/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57588/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57588/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4931-A-6-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4931-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 57721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4932-1	SS23-01 0FT	Soluble	Solid	300.0	57588
890-4932-2	SS23-02 0FT	Soluble	Solid	300.0	57588
890-4932-3	SS23-03 0FT	Soluble	Solid	300.0	57588
890-4932-4	SS23-04 0FT	Soluble	Solid	300.0	57588
890-4932-5	SS23-05 0FT	Soluble	Solid	300.0	57588
MB 880-57588/1-A	Method Blank	Soluble	Solid	300.0	57588
LCS 880-57588/2-A	Lab Control Sample	Soluble	Solid	300.0	57588
LCSD 880-57588/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57588
890-4931-A-6-B MS	Matrix Spike	Soluble	Solid	300.0	57588
890-4931-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	57588

Page 65 of 181

5

Job ID: 890-4932-1 SDG: 23E-04103

Released to Imaging: 1/31/2024 3:13:52 PM

Project/Site: PLU Big Sinks 3-25-31

Client Sample ID: SS23-01 0FT

5 6

9

Job ID: 890-4932-1 SDG: 23E-04103

Lab Sample ID: 890-4932-1 Matrix: Solid

Lab Sample ID: 890-4932-2

Lab Sample ID: 890-4932-3

Matrix: Solid

Matrix: Solid

Date Collected: 07/10/23 10:00 Date Received: 07/12/23 10:04

Client: Vertex

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 21:12	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57846	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58720	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/27/23 21:19	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 18:18	СН	EET MID

Client Sample ID: SS23-02 0FT

Date Collected: 07/10/23 10:05 Date Received: 07/12/23 10:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 23:03	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57846	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58720	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/27/23 22:25	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 18:23	СН	EET MID

Client Sample ID: SS23-03 0FT

Date Collected: 07/10/23 10:10 Date Received: 07/12/23 10:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	57752	07/16/23 01:46	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57846	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58720	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	58171	07/20/23 15:49	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/27/23 23:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	58171	07/20/23 15:49	ткс	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	58603	07/28/23 07:25	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 18:28	СН	EET MID

Project/Site: PLU Big Sinks 3-25-31

Client Sample ID: SS23-04 0FT

5 6

9

Job ID: 890-4932-1 SDG: 23E-04103

Lab Sample ID: 890-4932-4 Matrix: Solid

Lab Sample ID: 890-4932-5

Matrix: Solid

Date Collected: 07/10/23 10:15 Date Received: 07/12/23 10:04

Client: Vertex

	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	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 23:23	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57846	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58720	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	58171	07/20/23 15:49	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/27/23 23:52	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 18:33	СН	EET MID

Client Sample ID: SS23-05 0FT

Date Collected: 07/10/23 10:20 Date Received: 07/12/23 10:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	57752	07/16/23 02:07	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57846	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58720	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/27/23 23:09	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	58171	07/20/23 15:49	ТКС	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	58603	07/28/23 07:03	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 18:38	СН	EET MID

Laboratory References:

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

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Eurofins Carlsbad

Client: Vertex Project/Site: PLU Big S	inks 3-25-31			Job ID: 890-4932-1 SDG: 23E-04103	
Laboratory: Eurofi Unless otherwise noted, all a		vere covered under each acc	reditation/certification below.		3
Authority	F	Program	Identification Number	Expiration Date	4
Texas	1	NELAP	T104704400-23-26	06-30-24	5
The following analytes a the agency does not off		out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for which	
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		
					8
					9
					10
					13

Eurofins Carlsbad

Project/Site: PLU Big Sinks 3-25-31

Client: Vertex

Job ID: 890-4932-1 SDG: 23E-04103

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID
Protocol Refe	rences:		
ASTM = A	STM International		
EPA = US	Environmental Protection Agency		
SW846 = '	Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third E	Edition, November 1986 And Its Updates.	
TAL SOP :	- TestAmerica Laboratories, Standard Operating Procedure		

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Job ID: 890-4932-1 SDG: 23E-04103

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
90-4932-1	SS23-01 0FT	Solid	07/10/23 10:00	07/12/23 10:04	0-5	
90-4932-2	SS23-02 0FT	Solid	07/10/23 10:05	07/12/23 10:04	0 - 5	
90-4932-3	SS23-03 0FT	Solid	07/10/23 10:10	07/12/23 10:04	0 - 5	
90-4932-4	SS23-04 0FT	Solid	07/10/23 10:15	07/12/23 10:04	0 - 5	
90-4932-5	SS23-05 0FT	Solid	07/10/23 10:20	07/12/23 10:04	0 - 5	

Page / of	PST/UST RRC Superfund PST/UST RRP Level IV PST/UST VIRP Level IV Preservative Codes None: NO DI Water: H ₂ O Cool: Cool MeOH: Me H2S0 4: H2 NaOH: Na H ₃ PO 4: HP NaHSO 4: NABIS Na ₂ S ₂ O ₃ : NaSO 3	Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments	TI Sn U V Zn /7470 / 7471	Date/Time
Work Order No: _		Custody	Ig Min Mo Ni K Se Ag SiO ₂ Na Sr Se Ag TI U Hg: 1631/245.1. Agond the control ess previously negotiated.	ure) Received by: (Signature)
Chain of Custody Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlebad, NM (575) 988-3199	Bill to: (if different) Avvice A Company Name: XTO Exmon Company Name: XTO Exmon Address: Address: City. State ZIP: Email: City. State ZIP: Andry Sister ZIP: Program: Reporting: L Dirum Around Xinian REMARK Co. By UEST Num Around Xinian REMARK Co. By UEST Date: Analysis REQUEST Date: Analysis REQUEST Date: Analysis REQUEST Date: Analysis Request	BB0-4932 Chain of Custody	exas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K 010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U dient company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions far any losses or encourse for unor analyzed. These terms will be enforced unless previously regotiated	Date/Time Relinquished by: (Signature)
C110 Houston, TX (28' Midland, TX (432) 7 EL Paso, TX (915) Hobbs, NM (575)	Bill to: (if different) Company Name: Address: Address: City. State ZIP: Email: City. State ZIP: Email: City. State ZIP: Final: City. State ZIP: City. City. State ZIP: City. City. State ZIP: City. City.	Rei Depth Grah # of Cont	A 13PPM Texas 11 AI Sb A TCLP / SPLP 6010 : 8RCRA Sb urchase order from client company to Eurofins e any responsibility for any losses or expenses chance of 55 for each sumble submitted to Eurosis	
ofins Environment Testing Xenco	ANTO VIXON CV46X REDUCOS CV601 POPAL DN MAD CV601 POPAL DN MAD CV601 POPAL DN MAD CV60 NA NA MAD Tarris Ves No NA Constinue Poton Ves No NA Constinue Poton	Yes No With Matrix	200.8 / 6020: 8RCR 200.8 / 6020: 8RCR and mellinguishment of samples constitutes a valid the bable only for the cost of samples and shall not assum	y: (Signature) Received by Signature)
🐝 eurofins	Project Manager: Company Name: Address: City, State ZIP: Project Name: Project Number: Project Location: Sampler's Name: PO #: Samples Received Intact:	Sample Custody Seals: Total Containers: Sample Identification SSR25-01 SSR25-04 SSR25-04 SSR25-04	Total 200.7 / 6010 Circle Method(s) ar Notice: Signature of this docum	Relinquished by: (Signature)



14

Job Number: 890-4932-1 SDG Number: 23E-04103

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Vertex

<6mm (1/4").

Login Number: 4932 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	
Containers requiring zero headspace have no headspace or bubble is	N/A	

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14

Job Number: 890-4932-1 SDG Number: 23E-04103

List Source: Eurofins Midland

List Creation: 07/13/23 11:48 AM

Login Sample Receipt Checklist

Client: Vertex

Login Number: 4932 List Number: 2 Creator: Rodriguez, Leticia

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

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

Received by OCD: 9/12/2023 2:53:20 PM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 7/28/2023 11:36:54 AM

JOB DESCRIPTION

PLU BIG SINKS 3-25-31 Battery SDG NUMBER Carslbad NM

JOB NUMBER

890-4968-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information

Eurofins Carlsbad

Job Notes

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

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

Authorization

AMER

Generated 7/28/2023 11:36:54 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Laboratory Job ID: 890-4968-1

SDG: Carslbad NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	25
QC Sample Results	27
QC Association Summary	35
Lab Chronicle	41
Certification Summary	48
Method Summary	49
Sample Summary	50
Chain of Custody	51
Receipt Checklists	54

cervea by OCL	D: 9/12/2023 2:53:20 PM Page 77 0	, 101
	Definitions/Glossary	
Client: Vertex Project/Site: PL	LU BIG SINKS 3-25-31 Battery SDG: Carsibad Ni	
Qualifiers		- 3
GC VOA Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	-
S1-	Surrogate recovery exceeds control limits, low biased.	G
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		
Qualifier	Qualifier Description	
	Surrogate recovery exceeds control limits, high biased.	-
U	Indicates the analyte was analyzed for but not detected.	e
HPLC/IC		
Qualifier	Qualifier Description	e
F1	MS and/or MSD recovery exceeds control limits.	-
U	Indicates the analyte was analyzed for but not detected.	
Glossary		-
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	- 1
%R	Percent Recovery	
CFL	Contains Free Liquid	4
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	
NAL	Minimum Level (Dievin)	

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Minimum Level (Dioxin)

Most Probable Number Method Quantitation Limit

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

Not Calculated

Presumptive

Quality Control

Negative / Absent Positive / Present

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

ML

MPN

MQL

NC

ND NEG

POS PQL

PRES

QC

RER RL

RPD

TEF

TEQ TNTC

Project/Site: PLU BIG SINKS 3-25-31 Battery

Job ID: 890-4968-1 SDG: Carslbad NM

Job ID: 890-4968-1

Client: Vertex

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4968-1

Receipt

The samples were received on 7/20/2023 8:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-01 0FT (890-4968-1), BH23-01 2FT (890-4968-2), BH23-02 0FT (890-4968-3), BH23-02 2FT (890-4968-4), BH23-03 0FT (890-4968-5), BH23-03 2FT (890-4968-6), BH23-08 0FT (890-4968-7), BH23-08 2FT (890-4968-8), BH23-10 0FT (890-4968-9), BH23-10 2FT (890-4968-10), BH23-11 0FT (890-4968-11), BH23-11 2FT (890-4968-12), BH23-12 0FT (890-4968-13), BH23-12 2FT (890-4968-14), BH23-13 0FT (890-4968-15), BH23-13 2FT (890-4968-16), BH23-14 0FT (890-4968-17), BH23-14 2FT (890-4968-18), BH23-15 0FT (890-4968-19), BH23-15 2FT (890-4968-20), BH23-16 0FT (890-4968-21) and BH23-16 2FT (890-4968-22).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH23-01 2FT (890-4968-2), BH23-02 0FT (890-4968-3), BH23-08 0FT (890-4968-7), BH23-08 2FT (890-4968-8) and BH23-10 0FT (890-4968-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH23-11 2FT (890-4968-12), BH23-12 2FT (890-4968-14), BH23-13 2FT (890-4968-16), BH23-14 0FT (890-4968-17) and BH23-15 0FT (890-4968-19). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-58304 recovered above the upper control limit for m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-58304/2).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-58304 recovered above the upper control limit for Toluene and m-Xylene & p-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-58304/33).

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH23-15 2FT (890-4968-20) and BH23-16 0FT (890-4968-21). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-58294 and analytical batch 880-58509 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-58509/5). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH23-11 0FT (890-4968-11), BH23-13 0FT (890-4968-15), BH23-14 0FT (890-4968-17), BH23-15 0FT (890-4968-19), BH23-15 2FT (890-4968-20), BH23-16 2FT (890-4968-22) and (MB 880-58343/1-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.

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-58217 and analytical batch 880-58468 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because

Case Narrative

Client: Vertex	
Project/Site: PLU BIG SINKS 3-25-31 Battery	

Job ID: 890-4968-1 SDG: Carslbad NM

Job ID: 890-4968-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

4
5
8
9
13

Matrix: Solid

5

Lab Sample ID: 890-4968-1

Client Sample ID: BH23-01 0FT

Date Collected: 07/14/23 07:00 Date Received: 07/20/23 08:40

Client: Vertex

Sample Depth: 0

Project/Site: PLU BIG SINKS 3-25-31 Battery

Method: SW846 8021B - Volatile (Organic Compounds (GC)
A us a la sta	Descrift Occalifiers

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/24/23 08:43	07/24/23 12:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/24/23 08:43	07/24/23 12:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130			07/24/23 08:43	07/24/23 12:02	1
1,4-Difluorobenzene (Surr)	74		70 - 130			07/24/23 08:43	07/24/23 12:02	1
- Method: TAL SOP Total BTEX - 1	otal BTEX Cal	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/25/23 10:04	1
Method: SW846 8015 NM - Diese			C ()					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	50.3		49.9	mg/Kg			07/27/23 08:30	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/24/23 08:30	07/26/23 17:25	1
Diesel Range Organics (Over C10-C28)	50.3		49.9	mg/Kg		07/24/23 08:30	07/26/23 17:25	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/24/23 08:30	07/26/23 17:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			07/24/23 08:30	07/26/23 17:25	1
o-Terphenyl	97		70 - 130			07/24/23 08:30	07/26/23 17:25	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Chloride	48.4	4.99	mg/Kg	07/24/23 22:49 1
Client Sample ID: BH23-01 2FT				Lab Sample ID: 890-4968-2
Date Collected: 07/14/23 07:05				Matrix: Solid
Date Received: 07/20/23 08:40				

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:22	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/24/23 08:43	07/24/23 12:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 12:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/24/23 08:43	07/24/23 12:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			07/24/23 08:43	07/24/23 12:22	1

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Limits

70 - 130

RL

RL

49.9

RL

49.9

49.9

49.9

Limits

70 - 130

70 - 130

0.00398

Unit

Unit

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Job ID: 890-4968-1 SDG: Carslbad NM

Analyzed

07/24/23 12:22

Analyzed

07/25/23 10:04

Analyzed

07/27/23 08:30

Analyzed

Client Sample ID: BH23-01 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date	Collected:	07/14/23	07:05
Date	Received:	07/20/23	08:40

Sample Depth: 2

1,4-Difluorobenzene (Surr)

Gasoline Range Organics

Diesel Range Organics (Over

Oll Range Organics (Over C28-C36)

Client: Vertex

Surrogate

Analyte

Analyte

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

(GRO)-C6-C10

Total TPH

Total BTEX

Lab Sample ID: 890-4968-2

Prepared

07/24/23 08:43

Prepared

Prepared

Prepared

D

D

D

Matrix: Solid

Dil Fac

Dil Fac

Dil Fac

Dil Fac

		07/26/23 17:47	07/24/23 08:30	_
	I	07/20/23 17:47	07/24/23 08:30	
	1	07/26/23 17:47	07/24/23 08:30	
1	1	07/26/23 17:47	07/24/23 08:30	
	Dil Fac	Analyzed	Prepared	
	1	07/26/23 17:47	07/24/23 08:30	
	1	07/26/23 17:47	07/24/23 08:30	

Lab Sample ID: 890-4968-3

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

61 S1-

Result Qualifier

Ū

Result Qualifier

Result Qualifier

<49.9 U

<49.9 U

<49.9 U

<49.9 U

99

107

Qualifier

%Recovery

<0.00398

method. El A doute - Amona, fon omoniatography - colabie								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	62.9	5.00	mg/Kg			07/24/23 23:04	1

Client Sample ID: BH23-02 0FT

Date Collected: 07/14/23 07:10 Date Received: 07/20/23 08:40 Sample Depth: 0

Method: SW846 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00202 U 0.00202 mg/Kg 07/24/23 08:43 07/24/23 12:43 Toluene <0.00202 U 0.00202 07/24/23 08:43 07/24/23 12:43 mg/Kg 1 Ethylbenzene <0.00202 U 0.00202 07/24/23 08:43 07/24/23 12:43 mg/Kg 0.00404 07/24/23 12:43 m-Xylene & p-Xylene <0.00404 U 07/24/23 08:43 mg/Kg 1 o-Xylene <0.00202 U 0.00202 mg/Kg 07/24/23 08:43 07/24/23 12:43 Xylenes, Total <0.00404 U 0.00404 mg/Kg 07/24/23 08:43 07/24/23 12:43 1 %Recovery Qualifier Limits Surrogate Prepared Analvzed Dil Fac 70 - 130 4-Bromofluorobenzene (Surr) 93 07/24/23 08:43 07/24/23 12:43 1 1,4-Difluorobenzene (Surr) 53 S1-70 - 130 07/24/23 08:43 07/24/23 12:43 1 Method: TAL SOP Total BTEX - Total BTEX Calculation Analvte Result Qualifier RL D Unit Prepared Analvzed Dil Fac Total BTEX < 0.00404 Ū 0.00404 07/25/23 10:04 mg/Kg 1 Mathad: SW946 9045 NM Diesel Range Organics (DRO) (GC)

wethod. Swo46 6015 NW - Diesel Kange Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			07/28/23 12:21	1

Matrix: Solid

Dil Fac

1

Lab Sample ID: 890-4968-3

Analyzed

Lab Sample ID: 890-4968-4

Matrix: Solid

Prepared

07/24/23 10:22 07/27/23 21:19

D

Client Sample ID: BH23-02 0FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Collected:	07/14/23 07:10
Date Received:	07/20/23 08:40

Sample Depth: 0

Client: Vertex

- Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit				
Gasoline Range Organics	<50.3	U	50.3	mg/Kg				
(GRO)-C6-C10								

Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg	07/24/23 10:22	07/27/23 21:19	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg	07/24/23 10:22	07/27/23 21:19	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130		07/24/23 10:22	07/27/23 21:19	1
o-Terphenyl	112		70 - 130		07/24/23 10:22	07/27/23 21:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.7	4.98	mg/Kg			07/24/23 23:09	1

Client Sample ID: BH23-02 2FT

Date Collected: 07/14/23 07:15 Date Received: 07/20/23 08:40

Date Ne	cerveu.	01/20/20
Sample	Depth:	2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/24/23 08:43	07/24/23 13:03	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/24/23 08:43	07/24/23 13:03	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/24/23 08:43	07/24/23 13:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/24/23 08:43	07/24/23 13:03	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/24/23 08:43	07/24/23 13:03	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/24/23 08:43	07/24/23 13:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			07/24/23 08:43	07/24/23 13:03	1
1,4-Difluorobenzene (Surr)	75		70 - 130			07/24/23 08:43	07/24/23 13:03	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00402	U	0.00402	mg/Kg			07/25/23 10:04	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			07/28/23 12:21	1
Method: SW846 8015B NM - Diesel	Range Orga	nics (DRO) (GC)					

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/27/23 22:25	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/27/23 22:25	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/27/23 22:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			07/24/23 10:22	07/27/23 22:25	1
o-Terphenyl	108		70 - 130			07/24/23 10:22	07/27/23 22:25	1

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		Clien	t Sample Re	sults				
Client: Vertex Project/Site: PLU BIG SINKS 3-25-3	31 Battery						Job ID: 890 SDG: Cars	
						Lab Sar	nple ID: 890-	1060
Client Sample ID: BH23-02 2	F 1					Lap San		
Date Collected: 07/14/23 07:15							Matri	x: Soli
Date Received: 07/20/23 08:40								
Sample Depth: 2								
Method: EPA 300.0 - Anions, Ion	Chromatogram	hv - Soluble	9					
Analyte	· · ·	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	59.4		4.96	mg/Kg			07/24/23 23:14	
Client Sample ID: BH23-03 0	ст					Lab Sar	nple ID: 890-	1068
	F I							
Date Collected: 07/14/23 07:20							Watr	x: Soli
Date Received: 07/20/23 08:40								
Sample Depth: 0								
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 13:24	
Toluene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 13:24	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 13:24	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/24/23 08:43	07/24/23 13:24	
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 13:24	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/24/23 08:43	07/24/23 13:24	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
4-Bromofluorobenzene (Surr)	90		70 - 130			07/24/23 08:43	07/24/23 13:24	
1,4-Difluorobenzene (Surr)	70		70 - 130			07/24/23 08:43	07/24/23 13:24	
_ Method: TAL SOP Total BTEX - T	otal BTEX Cal	sulation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399		0.00399	<u></u>			07/25/23 10:04	
-								
Method: SW846 8015 NM - Diese								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.1	U	50.1	mg/Kg			07/28/23 12:21	
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<50.1		50.1	mg/Kg		07/24/23 10:22	07/27/23 22:47	
(GRO)-C6-C10				-33				
Diesel Range Organics (Over	<50.1	U	50.1	mg/Kg		07/24/23 10:22	07/27/23 22:47	
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		07/24/23 10:22	07/27/23 22:47	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil F
1-Chlorooctane	80		70 - 130			07/24/23 10:22	07/27/23 22:47	
o-Terphenyl	99		70 - 130			07/24/23 10:22	07/27/23 22:47	
Method: EPA 300.0 - Anions, Ion	Chromatogram	hy - Solubly	.					
Analyte		Qualifier	, RL	Unit	D	Prepared	Analyzed	Dil F
-			4.00			· · ·	07/24/22 22:10	

Eurofins Carlsbad

07/24/23 23:19

Chloride

4.99

mg/Kg

59.2

1

Lab Sample ID: 890-4968-6

Analyzed

07/24/23 13:44

07/24/23 13:44

07/24/23 13:44

07/24/23 13:44

07/24/23 13:44

07/24/23 13:44

Analyzed

07/24/23 13:44

Prepared

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

Prepared

07/24/23 08:43

07/24/23 08:43 07/24/23 13:44

D

mg/Kg

Client Sample ID: BH23-03 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Collected: 07/14/23 07:25

Sample Depth: 2

Client: Vertex

o-Xylene

Date Received: 07/20/23 08:40

Method: SW846 8021B - Volatile Organic Compounds (GC)								
Analyte	Result	Qualifier	RL	Unit				
Benzene	< 0.00198	U	0.00198	mg/Kg				
Toluene	<0.00198	U	0.00198	mg/Kg				
Ethylbenzene	<0.00198	U	0.00198	mg/Kg				
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg				

<0.00198 U

Xylenes, Total	<0.00396	U	0.00396	mg/Kg
Surrogate	%Recovery	Qualifier	Limits	
4-Bromofluorobenzene (Surr)	92		70 - 130	
1,4-Difluorobenzene (Surr)	74		70 - 130	

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total BTEX	<0.00396	U	0.00396	mg/Kg			07/25/23 10:04	1		

0.00198

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5	mg/Kg			07/28/23 12:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.5	U	49.5	mg/Kg		07/24/23 10:22	07/27/23 23:09	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.5	U	49.5	mg/Kg		07/24/23 10:22	07/27/23 23:09	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.5	U	49.5	mg/Kg		07/24/23 10:22	07/27/23 23:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			07/24/23 10:22	07/27/23 23:09	1
o-Terphenyl	105		70 - 130			07/24/23 10:22	07/27/23 23:09	1

Method: EPA 300.0 - Anions, Ion Cl	hromatograp	hy - Soluble	•					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.3		4.97	mg/Kg			07/24/23 23:34	1

Client Sample ID: BH23-08 0FT

Date Collected: 07/14/23 08:10	
Date Received: 07/20/23 08:40	
Sample Denth: 0	

Lab Sample ID: 890-4968-7 Matrix: Solid

Sample Deptn: U

Method: SW846 8021B - Volati	ile Organic Comp	ounds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 14:05	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 14:05	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 14:05	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		07/24/23 08:43	07/24/23 14:05	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 14:05	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		07/24/23 08:43	07/24/23 14:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			07/24/23 08:43	07/24/23 14:05	1

Eurofins Carlsbad

Matrix: Solid

Dil Fac

1

1

1

1

1

1

1

Dil Fac

5

Matrix: Solid

5

Lab Sample ID: 890-4968-7

Client Sample ID: BH23-08 0FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Collected: 07/14/23 08:10 Date Received: 07/20/23 08:40

Sample Depth: 0

Client: Vertex

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	58	S1-	70 - 130			07/24/23 08:43	07/24/23 14:05	
Method: TAL SOP Total BTEX - T	otal BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00403	U	0.00403	mg/Kg			07/25/23 10:04	
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0	mg/Kg			07/28/23 12:21	
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/27/23 23:30	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/27/23 23:30	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/27/23 23:30	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	92		70 - 130			07/24/23 10:22	07/27/23 23:30	
o-Terphenyl	120		70 - 130			07/24/23 10:22	07/27/23 23:30	
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	57.0		5.00	mg/Kg			07/24/23 23:39	
lient Sample ID: BH23-08 2	FT					l ah San	nple ID: 890-	1968-5

Sample Depth: 2

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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		07/24/23 08:43	07/24/23 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:25	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		07/24/23 08:43	07/24/23 14:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	56	S1-	70 - 130			07/24/23 08:43	07/24/23 14:25	1
1,4-Difluorobenzene (Surr)	78		70 - 130			07/24/23 08:43	07/24/23 14:25	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/25/23 10:04	1
Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	rtooun		••=	•	-		/	2

Lab Sample ID: 890-4968-9

Matrix: Solid

Client Sample ID: BH23-08 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Collected: 07/14/23 08:15	
Date Received: 07/20/23 08:40	

Sample Depth: 2

Client: Vertex

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC))
Analyta Basult Ovalifian	DI

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/27/23 23:52	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/27/23 23:52	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/27/23 23:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			07/24/23 10:22	07/27/23 23:52	1
o-Terphenyl	126		70 - 130			07/24/23 10:22	07/27/23 23:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.8	4.95	mg/Kg			07/24/23 23:44	1

Client Sample ID: BH23-10 0FT

Date Collected: 07/14/23 08:30

Date Received: 07/20/23 08:40 Sample Depth: 0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/24/23 08:43	07/24/23 14:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 14:46	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/24/23 08:43	07/24/23 14:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65	S1-	70 - 130			07/24/23 08:43	07/24/23 14:46	1
1,4-Difluorobenzene (Surr)	75		70 - 130			07/24/23 08:43	07/24/23 14:46	1

Method: TAL SOP	Total BTEX - Total BTEX Calculation
Analyte	Posult Qualifier

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			07/28/23 12:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/28/23 00:14	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/28/23 00:14	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		07/24/23 10:22	07/28/23 00:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			07/24/23 10:22	07/28/23 00:14	1
o-Terphenyl	109		70 - 130			07/24/23 10:22	07/28/23 00:14	1

5

Client Sample Results Job ID: 890-4968-1 **Client: Vertex** Project/Site: PLU BIG SINKS 3-25-31 Battery SDG: Carslbad NM Client Sample ID: BH23-10 0FT Lab Sample ID: 890-4968-9 Date Collected: 07/14/23 08:30 Matrix: Solid Date Received: 07/20/23 08:40 Sample Depth: 0 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier Dil Fac Analyte RL Unit D Prepared Analyzed 07/24/23 23:49 Chloride 67.3 5.04 mg/Kg Client Sample ID: BH23-10 2FT Lab Sample ID: 890-4968-10 Date Collected: 07/14/23 08:35 Matrix: Solid Date Received: 07/20/23 08:40 Sample Depth: 2 Method: SW846 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00201 U 0.00201 07/24/23 08:43 07/24/23 15:06 mg/Kg Toluene <0.00201 U 0.00201 07/24/23 08:43 07/24/23 15:06 mg/Kg Ethylbenzene <0.00201 U 0.00201 mg/Kg 07/24/23 08:43 07/24/23 15:06 1 m-Xylene & p-Xylene < 0.00402 U 0.00402 mg/Kg 07/24/23 08:43 07/24/23 15:06 o-Xylene <0.00201 U 0.00201 07/24/23 08:43 07/24/23 15:06 mg/Kg 1 Xylenes, Total <0.00402 U 0.00402 mg/Kg 07/24/23 08:43 07/24/23 15:06 %Recovery Surrogate Qualifier Limits Prepared Analyzed Dil Fac 70 - 130 07/24/23 08:43 4-Bromofluorobenzene (Surr) 94 07/24/23 15:06 1,4-Difluorobenzene (Surr) 81 70 - 130 07/24/23 08:43 07/24/23 15:06 Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac < 0.00402 Total BTEX Ū 0.00402 mg/Kg 07/25/23 10:04 1 Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac Total TPH <50.4 U 50.4 07/28/23 12:21 mg/Kg Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Result Qualifier Analyte RL D Prepared Unit Analyzed Dil Fac <50.4 U Gasoline Range Organics 50.4 mg/Kg 07/24/23 10:22 07/28/23 00:36 (GRO)-C6-C10 **Diesel Range Organics (Over** <50.4 U 50.4 mg/Kg 07/24/23 10:22 07/28/23 00:36 1 C10-C28) Oll Range Organics (Over C28-C36) <50.4 U 50 4 mg/Kg 07/24/23 10:22 07/28/23 00:36 1 Qualifier Analyzed Dil Fac Surrogate %Recovery Limits Prepared 07/24/23 10:22 1-Chlorooctane 82 70 - 130 07/28/23 00:36 99 70 - 130 07/24/23 10:22 07/28/23 00:36 o-Terphenyl 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.9		5.00	mg/Kg			07/24/23 23:54	1

RL

0.00200

0.00200

0.00200

0.00401

0.00200

0.00401

Limits

70 - 130

70 - 130

RL

0.00401

Job ID: 890-4968-1 SDG: Carslbad NM

Client Sample ID: BH23-11 0FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

Date Collected: 07/14/23 08:40 Date Received: 07/20/23 08:40

Sample Depth: 0

Client: Vertex

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Analyte

Total BTEX

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Lab Sample ID: 890-4968-11 Matrix: Solid

Analyzed

07/24/23 16:29

07/24/23 16:29

07/24/23 16:29

07/24/23 16:29

07/24/23 16:29

07/24/23 16:29

Analyzed

07/24/23 16:29

07/24/23 16:29

Analyzed

07/25/23 10:04

Dil Fac

1

1

1

1

1

1

Dil Fac

Dil Fac

5

	3

Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			07/28/23 12:21	
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		07/24/23 10:22	07/28/23 00:58	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		07/24/23 10:22	07/28/23 00:58	
Oll Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		07/24/23 10:22	07/28/23 00:58	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane			70 - 130			07/24/23 10:22	07/28/23 00:58	
o-Terphenyl	136	S1+	70 - 130			07/24/23 10:22	07/28/23 00:58	-
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.6		4.95	mg/Kg			07/24/23 23:59	

Client Sample ID: BH23-11 2F I

Date Collected: 07/14/23 08:45 Date Received: 07/20/23 08:40

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00198	U	0.00198	mg/Kg		07/24/23 08:43	07/24/23 16:50	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/24/23 08:43	07/24/23 16:50	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/24/23 08:43	07/24/23 16:50	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		07/24/23 08:43	07/24/23 16:50	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/24/23 08:43	07/24/23 16:50	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		07/24/23 08:43	07/24/23 16:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			07/24/23 08:43	07/24/23 16:50	1

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Matrix: Solid

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Unit

mg/Kg

D

D

Prepared

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

07/24/23 08:43

Prepared

07/24/23 08:43

07/24/23 08:43

Prepared

Result Qualifier

Qualifier

<0.00200 U

<0.00200 U

<0.00200 U

<0.00401 U

<0.00200 U

<0.00401 U

95

98

<0.00401 U

Result Qualifier

%Recovery

Lab Sample ID: 890-4968-12

Client Sample ID: BH23-11 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date	Collected:	07/14/23	08:45
Date	Received:	07/20/23	08:40

Client: Vertex

C10-C28)

Date Received: 07/20/23 08:40								
Sample Depth: 2								
Method: SW846 8021B - Volat	tile Organic Comp	ounds (GC) (Continued)					
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	58	S1-	70 - 130			07/24/23 08:43	07/24/23 16:50	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			07/25/23 10:04	1
	esel Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/28/23 12:21	1
	Diesel Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		07/24/23 10:22	07/28/23 01:19	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		07/24/23 10:22	07/28/23 01:19	1
C10-C28)								

Oll Range Organics (Over C28-C36)	<49.8 U	49.8	mg/Kg	07/24/23 10:22	07/28/23 01:19	1
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	82	70 - 130		07/24/23 10:22	07/28/23 01:19	1
o-Terphenyl	99	70 - 130		07/24/23 10:22	07/28/23 01:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67.8	4.99	mg/Kg			07/25/23 00:14	1

Client Sample ID: BH23-12 0FT

Date Collected: 07/14/23 08:50 Date Received: 07/20/23 08:40 Sample Depth: 0

Lab Sample ID: 890-4968-13

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 17:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 17:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 17:10	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/24/23 08:43	07/24/23 17:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 17:10	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/24/23 08:43	07/24/23 17:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			07/24/23 08:43	07/24/23 17:10	1
1,4-Difluorobenzene (Surr)	79		70 - 130			07/24/23 08:43	07/24/23 17:10	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399		0.00399	mg/Kg			07/25/23 10:04	1

Method: SW846 8015 NM - Diesel R	ange Organi	ics (DRO) (O	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/28/23 12:21	1

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Matrix: Solid

5

Matrix: Solid

5

Lab Sample ID: 890-4968-13

Lab Sample ID: 890-4968-14

Matrix: Solid

Client Sample ID: BH23-12 0FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date	Collected:	07/14/23	08:50
Date	Received:	07/20/23	08:40

Sample Depth: 0

Client: Vertex

_		
Method: SW846 8015B NM - Diesel Range	Organics (DRO) (GC)	
Analyta D	equit Qualifier	ы

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/28/23 02:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/28/23 02:03	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/28/23 02:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			07/24/23 10:22	07/28/23 02:03	1
o-Terphenyl	107		70 - 130			07/24/23 10:22	07/28/23 02:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.3	5.01	mg/Kg			07/25/23 00:19	1

Client Sample ID: BH23-12 2FT

Date Collected: 07/14/23 08:55 Date Received: 07/20/23 08:40

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 17:31	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 17:31	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 17:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/24/23 08:43	07/24/23 17:31	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/24/23 08:43	07/24/23 17:31	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/24/23 08:43	07/24/23 17:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			07/24/23 08:43	07/24/23 17:31	1
1,4-Difluorobenzene (Surr)	59	S1-	70 - 130			07/24/23 08:43	07/24/23 17:31	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/25/23 10:04	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/28/23 12:21	1
Method: SW846 8015B NM - Die	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/24/23 10:22	07/28/23 02:25	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		07/24/23 10:22	07/28/23 02:25	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/24/23 10:22	07/28/23 02:25	1
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil Fac

Client Sample Results

Job ID: 890-4968-1

ient Sample ID: BH23-12 2FT	•					Lab Sam	ple ID: 890-4	968-14
ate Collected: 07/14/23 08:55								x: Solid
Date Received: 07/20/23 08:40								A. 00110
Sample Depth: 2								
Method: EPA 300.0 - Anions, Ion Ch	ıromatograr	hy - Solubl	Ð					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.4		4.97	mg/Kg			07/25/23 00:33	1
Client Sample ID: BH23-13 0FT						Lab Sam	ple ID: 890-4	968-15
Date Collected: 07/14/23 09:00								x: Solid
Date Received: 07/20/23 08:40								
Sample Depth: 0								
-								
Method: SW846 8021B - Volatile Org Analyte		OUNDS (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200		0.00200	mg/Kg	_ <u>-</u>	07/24/23 08:43	07/24/23 17:51	
Toluene	<0.00200 0.00218	0	0.00200	mg/Kg		07/24/23 08:43	07/24/23 17:51	
Ethylbenzene	< 0.00210	Ц	0.00200	mg/Kg		07/24/23 08:43	07/24/23 17:51	
m-Xylene & p-Xylene	<0.00200		0.00400	mg/Kg		07/24/23 08:43	07/24/23 17:51	
o-Xylene	<0.00400		0.00200	mg/Kg		07/24/23 08:43	07/24/23 17:51	
Xylenes, Total	<0.00200		0.00400	mg/Kg		07/24/23 08:43	07/24/23 17:51	
Ayienes, rotai	<u>\0.00+00</u>	0	0.00400	myrry		01/24/20 00.40	01124/20 11.01	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	90		70 - 130			07/24/23 08:43	07/24/23 17:51	
1,4-Difluorobenzene (Surr)	80		70 - 130			07/24/23 08:43	07/24/23 17:51	
-								
Method: TAL SOP Total BTEX - Tota								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	<0.00400	U	0.00400	mg/Kg			07/25/23 10:04	
Total BTEX								
-	ange Organi	ics (DRO) ((20)					
_ Method: SW846 8015 NM - Diesel Ra		ics (DRO) (C Qualifier		Unit	D	Prepared	Analyzed	Dil Fa
-		Qualifier	GC)		D	Prepared	Analyzed 07/28/23 12:21	
Method: SW846 8015 NM - Diesel Ra Analyte	Result	Qualifier		Unit mg/Kg	<u>D</u>	Prepared		Dil Fac
Method: SW846 8015 NM - Diesel Ra Analyte	Result <49.7	Qualifier U	RL 49.7		<u> </u>	Prepared		
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH	Result <49.7 Range Orga	Qualifier U	RL 49.7		D	Prepared		
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics	Result <49.7 Range Orga	Qualifier U nics (DRO) Qualifier	(GC)	mg/Kg		<u>.</u>	07/28/23 12:21	
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.7 Range Orga Result <49.7	Qualifier U nics (DRO) Qualifier U	(GC) <u>RL</u> <u>49.7</u>	mg/Kg Unit mg/Kg		Prepared 07/24/23 10:22	07/28/23 12:21 Analyzed 07/28/23 02:46	Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.7 Range Orga Result	Qualifier U nics (DRO) Qualifier U	(GC)	mg/Kg Unit		Prepared	07/28/23 12:21 Analyzed	Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.7	Qualifier U nics (DRO) Qualifier U U	RL 49.7 (GC) RL 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 10:22 07/24/23 10:22	07/28/23 12:21 Analyzed 07/28/23 02:46 07/28/23 02:46	Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.7 Range Orga Result <49.7	Qualifier U nics (DRO) Qualifier U U	(GC) <u>RL</u> <u>49.7</u>	mg/Kg Unit mg/Kg		Prepared 07/24/23 10:22	07/28/23 12:21 Analyzed 07/28/23 02:46	Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.7	Qualifier U nics (DRO) Qualifier U U U	RL 49.7 (GC) RL 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 10:22 07/24/23 10:22	07/28/23 12:21 Analyzed 07/28/23 02:46 07/28/23 02:46	Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.7	Qualifier U nics (DRO) Qualifier U U U	RL 49.7 (GC) RL 49.7 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 10:22 07/24/23 10:22 07/24/23 10:22	07/28/23 12:21 Analyzed 07/28/23 02:46 07/28/23 02:46 07/28/23 02:46	Dil Fa Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <49.7	Qualifier U nics (DRO) Qualifier U U U	RL 49.7 (GC) RL 49.7 49.7 49.7 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 10:22 07/24/23 10:22 07/24/23 10:22 Prepared	07/28/23 12:21 Analyzed 07/28/23 02:46 07/28/23 02:46 07/28/23 02:46 Analyzed	Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result <49.7	Qualifier U nics (DRO) Qualifier U U U Qualifier S1+	RL 49.7 (GC) RL 49.7 49.7 49.7 1.000 0.7 2.000 1.000 70 - 130 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 10:22 07/24/23 10:22 07/24/23 10:22 Prepared 07/24/23 10:22	07/28/23 12:21 Analyzed 07/28/23 02:46 07/28/23 02:46 07/28/23 02:46 Analyzed 07/28/23 02:46	Dil Fa Dil Fa
Method: SW846 8015 NM - Diesel Ra Analyte Total TPH Method: SW846 8015B NM - Diesel Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.7	Qualifier U nics (DRO) Qualifier U U U Qualifier S1+	RL 49.7 (GC) RL 49.7 49.7 49.7 1.000 0.7 2.000 1.000 70 - 130 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 10:22 07/24/23 10:22 07/24/23 10:22 Prepared 07/24/23 10:22	07/28/23 12:21 Analyzed 07/28/23 02:46 07/28/23 02:46 07/28/23 02:46 Analyzed 07/28/23 02:46	Dil Fa Dil Fa

Client Sample ID: BH23-13 2FT

Date Collected: 07/14/23 09:05 Date

Sam

Client: Vertex

Lab Sample ID: 890-4968-16

Matrix: Solid

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1 1 1	
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C	13

e Received: 07/20/23 08:40	
nple Depth: 2	

Project/Site: PLU BIG SINKS 3-25-31 Battery

	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00198	U	0.00198	mg/Kg		07/24/23 08:43	07/24/23 18:12	
Foluene	<0.00198	U	0.00198	mg/Kg		07/24/23 08:43	07/24/23 18:12	
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/24/23 08:43	07/24/23 18:12	
n-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/24/23 08:43	07/24/23 18:12	
o-Xylene	<0.00198		0.00198	mg/Kg		07/24/23 08:43	07/24/23 18:12	
Kylenes, Total	<0.00396	U	0.00396	mg/Kg		07/24/23 08:43	07/24/23 18:12	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	99		70 - 130			07/24/23 08:43	07/24/23 18:12	
1,4-Difluorobenzene (Surr)	60	S1-	70 - 130			07/24/23 08:43	07/24/23 18:12	-
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			07/25/23 10:04	
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
otal TPH	<49.6	U	49.6	mg/Kg			07/28/23 12:21	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
nalyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics GRO)-C6-C10	<49.6	U	49.6	mg/Kg		07/24/23 10:22	07/28/23 03:08	
viesel Range Organics (Over 210-C28)	<49.6	U	49.6	mg/Kg		07/24/23 10:22	07/28/23 03:08	
DII Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		07/24/23 10:22	07/28/23 03:08	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	87		70 - 130			07/24/23 10:22	07/28/23 03:08	
p-Terphenyl	113		70 - 130			07/24/23 10:22	07/28/23 03:08	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Malaulala	80.5		4.98	mg/Kg			07/25/23 00:43	
Shioride						Lab Sam	ple ID: 890-4	060 47
Chloride lient Sample ID: BH23-14 0)FT					Lap Sam	pie ib. 030-4	900-17
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10)FT					Lab Sam		x: Solic
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40)FT					Lad Sain		
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0		ounds (GC)						
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0 Method: SW846 8021B - Volatile	Organic Comp			Unit	D		Matri	x: Solic
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0 Method: SW846 8021B - Volatile Analyte	Organic Comp Result	ounds (GC) Qualifier	RL	<u>Unit</u>	D	Prepared	Matri Analyzed	
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0 Method: SW846 8021B - Volatile Analyte Benzene	Organic Comp Result 0.00287		RL 0.00201	mg/Kg	<u>D</u>	Prepared 07/24/23 08:43	Matri Analyzed 07/24/23 18:32	x: Solic
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0 Method: SW846 8021B - Volatile malyte Benzene foluene	Organic Comp Result 0.00287 0.0260		RL 0.00201 0.00201	mg/Kg mg/Kg	D	Prepared 07/24/23 08:43 07/24/23 08:43	Matri Analyzed 07/24/23 18:32 07/24/23 18:32	Dil Fac
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0 Method: SW846 8021B - Volatile Analyte Benzene Foluene Ethylbenzene	Organic Comp Result 0.00287 0.0260 0.00571		RL 0.00201 0.00201 0.00201	mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43	Matri Analyzed 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32	Dil Fac
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0 Method: SW846 8021B - Volatile Analyte Benzene Foluene Ethylbenzene n-Xylene & p-Xylene	Organic Comp Result 0.00287 0.0260 0.00571 0.0296		RL 0.00201 0.00201 0.00201 0.00402	mg/Kg mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43	Matri 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32	x: Solic
lient Sample ID: BH23-14 0 ate Collected: 07/14/23 09:10 ate Received: 07/20/23 08:40 ample Depth: 0 Method: SW846 8021B - Volatile Analyte Benzene Foluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	Organic Comp Result 0.00287 0.0260 0.00571 0.0296 0.00838		RL 0.00201 0.00201 0.00201 0.00201 0.00402 0.00201	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	<u> </u>	Prepared 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43	Matri Analyzed 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32	Dil Fac
lient Sample ID: BH23-14 0	Organic Comp Result 0.00287 0.0260 0.00571 0.0296	Qualifier	RL 0.00201 0.00201 0.00201 0.00402	mg/Kg mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43 07/24/23 08:43	Matri 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32 07/24/23 18:32	x: Solic

Matrix: Solid

Dil Fac

Dil Fac

Dil Fac

Dil Fac

Dil Fac

Matrix: Solid

1

1

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1

1

Lab Sample ID: 890-4968-17

Analyzed

07/24/23 18:32

Analyzed

07/25/23 10:04

Analyzed

07/28/23 03:30

Analyzed

07/28/23 03:30

07/28/23 03:30

Analyzed

07/25/23 00:48

Lab Sample ID: 890-4968-18

Prepared

07/24/23 10:22

Prepared

07/24/23 10:22

07/24/23 10:22

Prepared

D

D

Client Sample ID: BH23-14 0FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Collected: 07/14/23 09:10 Date Received: 07/20/23 08:40

Sample Depth: 0

C10-C28)

C28-C36) Surrogate

1-Chlorooctane

o-Terphenyl

Oll Range Organics (Over

Client: Vertex

Surrogate	%Recovery	Qualifier	Limits			Prepared
1,4-Difluorobenzene (Surr)	95		70 - 130			07/24/23 08:43
Method: TAL SOP Total BTF)	(- Total BTEX Calc	ulation				
_ Method: TAL SOP Total BTE>	(- Total BTEX Calc	ulation				
Method: TAL SOP Total BTE>		Qualifier	RL	Unit	D	Prepared

91.1

115

143 S1+

Qualifier

%Recovery

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

Total TPH	2690	49.5	mg/Kg			07/28/23 12:21	1
Method: SW846 8015B NM - Dies	el Range Organics (DRO) (GC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	51.5	49.5	mg/Kg		07/24/23 10:22	07/28/23 03:30	1
Diesel Range Organics (Over	2550	49.5	mg/Kg		07/24/23 10:22	07/28/23 03:30	1

49.5

RL

5.00

Limits

70 - 130

70 - 130

RL

Unit

mg/Kg

Unit

mg/Kg

Method: EPA 300.0 - Anions, Ion (Chromatography - Solui			
Analyte	Result	Qualifier		
Chloride	62.5			

Client Sample ID: BH23-14 2FT

Date Collected: 07/14/23 09:15 Date Received: 07/20/23 08:40 Sample Depth: 2

Method: SW846 8021B - Volatil	e Organic Comp	ounds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 18:53	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 18:53	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 18:53	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/24/23 08:43	07/24/23 18:53	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/24/23 08:43	07/24/23 18:53	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/24/23 08:43	07/24/23 18:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			07/24/23 08:43	07/24/23 18:53	1
1,4-Difluorobenzene (Surr)	72		70 - 130			07/24/23 08:43	07/24/23 18:53	1
Method: TAL SOP Total BTEX -	Total BTEX Cal	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			07/25/23 10:04	1

5

Matrix: Solid

5

Lab Sample ID: 890-4968-18

Client Sample ID: BH23-14 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Collected: 07/14/23 09:15 Date Received: 07/20/23 08:40

Client: Vertex

Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	108		50.5	mg/Kg			07/28/23 12:21	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		07/24/23 10:22	07/28/23 03:51	1
Diesel Range Organics (Over C10-C28)	108		50.5	mg/Kg		07/24/23 10:22	07/28/23 03:51	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		07/24/23 10:22	07/28/23 03:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			07/24/23 10:22	07/28/23 03:51	1
_	119		70 - 130			07/24/23 10:22	07/28/23 03:51	1
o-Terphenyl	119		70 - 130			07/24/23 10.22	01720/20 00.01	,
Method: EPA 300.0 - Anions, Ion	Chromatograp		e	11-14				
Method: EPA 300.0 - Anions, Ion Analyte	Chromatograp Result	hy - Solubl Qualifier	e RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: EPA 300.0 - Anions, Ion	Chromatograp		e	Unit mg/Kg	<u>D</u>			
Method: EPA 300.0 - Anions, Ion Analyte Chloride	Chromatograp Result 64.8		e RL		<u>D</u>	Prepared	Analyzed	Dil Fac
Method: EPA 300.0 - Anions, Ion Analyte	Chromatograp Result 64.8		e RL		<u> </u>	Prepared	Analyzed 07/25/23 00:53 ple ID: 890-4	Dil Fac
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0	Chromatograp Result 64.8		e RL		<u>D</u>	Prepared	Analyzed 07/25/23 00:53 ple ID: 890-4	Dil Fac 1 968-19
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20	Chromatograp Result 64.8		e RL		D_	Prepared	Analyzed 07/25/23 00:53 ple ID: 890-4	Dil Fac 1 968-19
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40	Chromatograp Result 64.8		e RL		<u>D</u>	Prepared	Analyzed 07/25/23 00:53 ple ID: 890-4	Dil Fac 1 968-19
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40	Chromatograp Result 64.8	Qualifier	e RL		<u>D</u>	Prepared	Analyzed 07/25/23 00:53 ple ID: 890-4	Dil Fac 1 968-19
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40 Date Received: 07/20/23 08:40 Date Received: 07/20/23 08:40 Date Received: 07/20/23 08:40 Date Received: 07/20/23 08:40	Chromatograp Result 64.8 IFT Organic Comp	Qualifier	e 		D	Prepared	Analyzed 07/25/23 00:53 ple ID: 890-4 Matri Analyzed	Dil Fac 1 968-19 x: Solid
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40 Date Received: 07/20/23 08:40 Date Depth: 0 Method: SW846 8021B - Volatile Analyte	Chromatograp Result 64.8 IFT Organic Comp	Qualifier	RL 4.96	mg/Kg		Prepared Lab Sam	Analyzed 07/25/23 00:53 ple ID: 890-4 Matri Analyzed 07/24/23 19:13	Dil Fac 1 968-19 x: Solid Dil Fac 1
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40 Date Depth: 0 Method: SW846 8021B - Volatile Analyte Benzene	Chromatograp Result 64.8 DFT Organic Comp Result	Qualifier	e 	mg/Kg		Prepared Lab Sam	Analyzed 07/25/23 00:53 ple ID: 890-4 Matri Analyzed	Dil Fac 1 968-19 x: Solid Dil Fac
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40 Date Depth: 0 Method: SW846 8021B - Volatile Analyte Benzene Toluene	Chromatograp Result 64.8 PFT Organic Comp Result 0.241	Qualifier	RL 4.96	mg/Kg		Prepared Lab Sam	Analyzed 07/25/23 00:53 ple ID: 890-4 Matri Analyzed 07/24/23 19:13	Dil Fac 1 968-19 x: Solid Dil Fac 1
Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: BH23-15 0 Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40 Dample Depth: 0	Chromatograp Result 64.8 PFT Organic Comp Result 0.241 3.10	Qualifier	RL 4.96 0.00202 0.998	Unit mg/Kg mg/Kg mg/Kg		Prepared Lab Sam Prepared 07/24/23 08:43 07/24/23 17:46	Analyzed 07/25/23 00:53 ple ID: 890-4 Matri Analyzed 07/24/23 19:13 07/25/23 10:35	Dil Fac 1 968-19 500 Dil Fac 1 500

0.998 07/24/23 17:46 07/25/23 10:35 o-Xylene 2.44 mg/Kg **Xylenes**, Total 14.7 2.00 mg/Kg 07/24/23 17:46 07/25/23 10:35 500 Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed 4-Bromofluorobenzene (Surr) 510 S1+ 70 - 130 07/24/23 08:43 07/24/23 19:13 1 155 S1+ 70 - 130 07/24/23 08:43 07/24/23 19:13 1,4-Difluorobenzene (Surr) 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	19.4		2.00	mg/Kg			07/25/23 10:04	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GO)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5150		50.3	mg/Kg			07/28/23 12:21	1
		nics (DRO) (0					01720/20 12.21	
Method: SW846 8015B NM - Dies	sel Range Orga		SC)		_	Durana		D!! [
Method: SW846 8015B NM - Dies Analyte	sel Range Orga Result	nics (DRO) (C Qualifier	SC) RL	<u>Unit</u>	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga		SC)		<u>D</u>	Prepared 07/24/23 10:22		Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	sel Range Orga Result 583		GC) RL 50.3	Unit mg/Kg	<u>D</u>	07/24/23 10:22	Analyzed 07/28/23 04:13	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result		SC) RL	<u>Unit</u>	<u>D</u>	· · · · · · · · · · · · · · · · · · ·	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte	sel Range Orga Result 583		GC) RL 50.3	Unit mg/Kg	<u> </u>	07/24/23 10:22	Analyzed 07/28/23 04:13	Dil Fac

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Client: Vertex

3 4 5

Client Sample Results

Job ID: 890-4968-1 SDG: Carslbad NM

Client Sample ID: BH23-15 0	FT					l ah Sam	ple ID: 890-4	969-10
Date Collected: 07/14/23 09:20	F I					Lab Sam	-	x: Solid
Date Received: 07/20/23 08:40							Iviau	x. 30110
Sample Depth: 0								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			07/24/23 10:22	07/28/23 04:13	1
o-Terphenyl	136	S1+	70 - 130			07/24/23 10:22	07/28/23 04:13	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.4		5.05	mg/Kg			07/25/23 00:58	1
Client Sample ID: BH23-15 2	FT					Lab Sam	ple ID: 890-4	968-20
Date Collected: 07/14/23 09:25							Matri	x: Solid
Date Received: 07/20/23 08:40								
Sample Depth: 2								
_ Method: SW846 8021B - Volatile (Organic Comp	ounds (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.80		0.199	mg/Kg		07/24/23 17:46	07/25/23 10:55	100
Toluene	21.9		0.199	mg/Kg		07/24/23 17:46	07/25/23 10:55	100
Ethylbenzene	5.79		0.199	mg/Kg		07/24/23 17:46	07/25/23 10:55	100
m-Xylene & p-Xylene	40.0		0.398	mg/Kg		07/24/23 17:46	07/25/23 10:55	100
o-Xylene	14.7		0.199	mg/Kg		07/24/23 17:46	07/25/23 10:55	100
Xylenes, Total	54.7		0.398	mg/Kg		07/24/23 17:46	07/25/23 10:55	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130			07/24/23 17:46	07/25/23 10:55	100
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130			07/24/23 17:46	07/25/23 10:55	100
Method: TAL SOP Total BTEX - To	otal BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	84.2		0.398	mg/Kg			07/26/23 16:39	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	8570		50.1	mg/Kg			07/28/23 12:21	1
- Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	2650		50.1	mg/Kg		07/24/23 10:22	07/28/23 04:35	1
Diesel Range Organics (Over C10-C28)	5710		50.1	mg/Kg		07/24/23 10:22	07/28/23 04:35	1
Oll Range Organics (Over C28-C36)	208		50.1	mg/Kg		07/24/23 10:22	07/28/23 04:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	152	S1+	70 - 130			07/24/23 10:22	07/28/23 04:35	1
o-Terphenyl	157	S1+	70 - 130			07/24/23 10:22	07/28/23 04:35	1
_ Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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Client Sample Results

RL

0.199

0.199

0.199

0.398

0.199

0.398

RL

RL

50.0

0.398

Limits

70 - 130

70 - 130

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Unit

Unit

mg/Kg

mg/Kg

Page 96 of 181

Job ID: 890-4968-1 SDG: Carslbad NM

Client Sample ID: BH23-16 0FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

Result Qualifier

0.342

8.52

4.20

27.0

10.8

37.8

74

69

Result

50.9

5040

S1-

Result Qualifier

Qualifier

Qualifier

%Recovery

Date	Collected:	07/14/23	09:30
Dete	Dessived	07/00/00	00.40

Date Received: 07/20/23 08:40 Sample Depth: 0

Client: Vertex

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Analyte

Analyte

Total TPH

Total BTEX

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Sample	ID:	89	0	-4	9	6	B.	-2	1
		_	-				_		

Analyzed

07/25/23 07:19

07/25/23 07:19

07/25/23 07:19

07/25/23 07:19

07/25/23 07.19

07/25/23 07:19

Analyzed

07/25/23 07:19

07/25/23 07:19

Analyzed

07/26/23 16:39

Analyzed

07/28/23 12:21

Lab

Prepared

07/24/23 17:46

07/24/23 17:46

07/24/23 17:46

07/24/23 17:46

07/24/23 17:46

07/24/23 17:46

Prepared

07/24/23 17:46

07/24/23 17:46

Prepared

Prepared

D

D

D

Matrix: Solid

Dil Fac

100

100

100

100

100

100

100

100

Dil Fac

Dil Fac

Dil Fac

Dil Fac

1

1

1

1

1

Dil Fac

Dil Fac

890-4968-22

Matrix: Solid

1

	5
	8
	9
	3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed
Gasoline Range Organics	944		50.0	mg/Kg		07/24/23 10:22	07/28/23 04:57
(GRO)-C6-C10							
Diesel Range Organics (Over	3940		50.0	mg/Kg		07/24/23 10:22	07/28/23 04:57
C10-C28)							
Oll Range Organics (Over	159		50.0	mg/Kg		07/24/23 10:22	07/28/23 04:57
C28-C36)							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed
1-Chlorooctane	110		70 - 130			07/24/23 10:22	07/28/23 04:57
o-Terphenyl	120		70 - 130			07/24/23 10:22	07/28/23 04:57
Method: EPA 300.0 - Anions, I	on Chromatograp	hy - Solubl	e				
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed
Chloride	44.1	F1	5.01	mg/Kg			07/25/23 11:52

Date Collected: 07/14/23 09:35

Date Received: 07/20/23 08:40

Sample Depth: 2

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.29	0.990	mg/Kg		07/24/23 17:46	07/25/23 10:15	500
Toluene	52.1	0.990	mg/Kg		07/24/23 17:46	07/25/23 10:15	500
Ethylbenzene	17.8	0.990	mg/Kg		07/24/23 17:46	07/25/23 10:15	500
m-Xylene & p-Xylene	104	1.98	mg/Kg		07/24/23 17:46	07/25/23 10:15	500
o-Xylene	39.0	0.990	mg/Kg		07/24/23 17:46	07/25/23 10:15	500
Xylenes, Total	143	1.98	mg/Kg		07/24/23 17:46	07/25/23 10:15	500

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Client Sample ID: BH23-16 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date	Colle	ected	: 07/1	4/23	09:35

Date Received: 07/20/23 08:40 male Deaths 2

Sample	Deptn: 2	

Client: Vertex

•	~-							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			07/24/23 17:46	07/25/23 10:15	500
1,4-Difluorobenzene (Surr) -	79		70 - 130			07/24/23 17:46	07/25/23 10:15	500
- Method: TAL SOP Total BTEX -	Total BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	216		1.98	mg/Kg			07/26/23 16:39	1
- Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	8550		49.6	mg/Kg			07/28/23 12:21	1
	esel Range Orga	nics (DRO)	(60)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	2530		49.6	mg/Kg		07/24/23 10:22	07/28/23 05:19	1
(GRO)-C6-C10								
Diesel Range Organics (Over C10-C28)	5810		49.6	mg/Kg		07/24/23 10:22	07/28/23 05:19	1
Oll Range Organics (Over	208		49.6	mg/Kg		07/24/23 10:22	07/28/23 05:19	1
C28-C36)	200							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130			07/24/23 10:22	07/28/23 05:19	1
o-Terphenyl	138	S1+	70 - 130			07/24/23 10:22	07/28/23 05:19	1
Method: EPA 300.0 - Anions, lo	n Chromatogram	hv - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.3		4.98	mg/Kg			07/25/23 12:07	1

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Page 24 of 55

Lab Sample ID: 890-4968-22 Matrix: Solid

5

Surrogate Summary

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

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

		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130))
880-30749-A-1-C MS	Matrix Spike	90	97	_
880-30749-A-1-D MSD	Matrix Spike Duplicate	86	124	
890-4968-1	BH23-01 0FT	90	74	
890-4968-1 MS	BH23-01 0FT	119	104	
890-4968-1 MSD	BH23-01 0FT	118	104	
890-4968-2	BH23-01 2FT	92	61 S1-	
890-4968-3	BH23-02 0FT	93	53 S1-	
890-4968-4	BH23-02 2FT	116	75	
890-4968-5	BH23-03 0FT	90	70	
890-4968-6	BH23-03 2FT	92	74	
890-4968-7	BH23-08 0FT	87	58 S1-	
890-4968-8	BH23-08 2FT	56 S1-	78	
890-4968-9	BH23-10 0FT	65 S1-	75	
890-4968-10	BH23-10 2FT	94	81	
890-4968-11	BH23-11 0FT	95	98	
890-4968-12	BH23-11 2FT	88	58 S1-	
890-4968-13	BH23-12 0FT	93	79	
890-4968-14	BH23-12 2FT	94	59 S1-	
890-4968-15	BH23-13 0FT	90	80	
890-4968-16	BH23-13 2FT	99	60 S1-	
890-4968-17	BH23-14 0FT	66 S1-	95	
890-4968-18	BH23-14 0FT	87	93 72	
890-4968-19	BH23-14 21 1 BH23-15 0FT	510 S1+	155 S1+	÷
890-4968-20	BH23-15 2FT	72	63 S1-	
890-4968-21	BH23-16 0FT	72	69 S1-	
890-4968-22	BH23-16 2FT	101	79	
LCS 880-58296/1-A	Lab Control Sample	101	79 103	
LCS 880-58407/1-A	Lab Control Sample			
		104	98 102	
LCSD 880-58296/2-A	Lab Control Sample Dup	121	103	
LCSD 880-58407/2-A	Lab Control Sample Dup	96	99	
MB 880-58296/5-A	Method Blank	70	80	
MB 880-58305/5-A	Method Blank	93	105	
MB 880-58407/5-A	Method Blank	93	117	
Surrogate Legend				

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4964-A-23-E MS	Matrix Spike	101	103
890-4964-A-23-F MSD	Matrix Spike Duplicate	100	102
890-4968-1	BH23-01 0FT	91	97
890-4968-2	BH23-01 2FT	99	107
890-4968-3	BH23-02 0FT	87	112
890-4968-3 MS	BH23-02 0FT	83	96

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5 6

Prep Type: Total/NA

Prep Type: Total/NA

Client: Vertex

Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Prep	Type:	Total/NA

		1CO1	OTPH1	Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
390-4968-3 MSD	BH23-02 0FT		96		•
390-4968-4	BH23-02 2FT	86	108		
390-4968-5	BH23-03 0FT	80	99		
890-4968-6	BH23-03 2FT	84	105		
890-4968-7	BH23-08 0FT	92	120		
890-4968-8	BH23-08 2FT	104	126		
390-4968-9	BH23-10 0FT	87	109		
890-4968-10	BH23-10 2FT	82	99		
890-4968-11	BH23-11 0FT	114	136 S1+		
890-4968-12	BH23-11 2FT	82	99		
390-4968-13	BH23-12 0FT	86	107		
390-4968-14	BH23-12 2FT	80	97		
390-4968-15	BH23-13 0FT	112	137 S1+		
390-4968-16	BH23-13 2FT	87	113		
390-4968-17	BH23-14 0FT	115	143 S1+		
390-4968-18	BH23-14 2FT	91	119		
390-4968-19	BH23-15 0FT	120	136 S1+		
390-4968-20	BH23-15 2FT	152 S1+	157 S1+		
390-4968-21	BH23-16 0FT	110	120		
390-4968-22	BH23-16 2FT	151 S1+	138 S1+		
LCS 880-58294/2-A	Lab Control Sample	87	118		
LCS 880-58343/2-A	Lab Control Sample	90	116		
LCSD 880-58294/3-A	Lab Control Sample Dup	88	120		
_CSD 880-58343/3-A	Lab Control Sample Dup	93	119		
MB 880-58294/1-A	Method Blank	135 S1+	178 S1+		
MB 880-58343/1-A	Method Blank	143 S1+	175 S1+		
Surrogate Legend					

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Lab Sample ID: MB 880-58296/5-A

QC Sample Results

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Analysis Batch: 58304							Prep Type: 1 Prep Batch	
	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 11:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 11:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/24/23 08:43	07/24/23 11:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/24/23 08:43	07/24/23 11:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/24/23 08:43	07/24/23 11:40	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		70 - 130			07/24/23 08:43	07/24/23 11:40	1
1,4-Difluorobenzene (Surr)	80		70 - 130			07/24/23 08:43	07/24/23 11:40	1

Lab Sample ID: LCS 880-58296/1-A Matrix: Solid

Analysis Batch: 58304

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1108		mg/Kg		111	70 - 130	
Toluene	0.100	0.09485		mg/Kg		95	70 - 130	
Ethylbenzene	0.100	0.1102		mg/Kg		110	70 - 130	
m-Xylene & p-Xylene	0.200	0.2356		mg/Kg		118	70 - 130	
o-Xylene	0.100	0.1155		mg/Kg		116	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-58296/2-A

Matrix: Solid

Analysis Batch: 58304							Prep	Batch:	58296
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1104		mg/Kg		110	70 - 130	0	35
Toluene	0.100	0.09841		mg/Kg		98	70 - 130	4	35
Ethylbenzene	0.100	0.1155		mg/Kg		115	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2473		mg/Kg		124	70 - 130	5	35
o-Xylene	0.100	0.1211		mg/Kg		121	70 - 130	5	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-4968-1 MS Matrix: Solid

Analysia Bataby 59204

Analysis Batch: 58304									Prep	Batch: 58296
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0994	0.09944		mg/Kg		100	70 - 130	
Toluene	<0.00199	U	0.0994	0.08561		mg/Kg		86	70 - 130	

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Prep Type: Total/NA

Client Sample ID: BH23-01 0FT

Client Sample ID: Method Blank

Job ID: 890-4968-1 SDG: Carslbad NM

Prep Batch: 58296

13

7/28/2023

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

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Job ID: 890-4968-1 SDG: Carslbad NM

Lab Sample ID: 890-4968-1 MS	\$								Client S	Sample ID: BH2	23-01 OFT
Matrix: Solid										Prep Type:	: Total/NA
Analysis Batch: 58304										Prep Bat	ch: 58296
	Sample	Sam	ple	Spike	MS	MS				%Rec	
Analyte	Result		ifier	Added	Result	Qualifier	Unit		D %Rec	Limits	
thylbenzene	<0.00199	U		0.0994	0.09673		mg/Kg		97	70 - 130	
n-Xylene & p-Xylene	<0.00398	U		0.199	0.2016		mg/Kg		101	70 - 130	
-Xylene	<0.00199	U		0.0994	0.09797		mg/Kg		98	70 - 130	
	MS	мs									
Surrogate	%Recovery		lifior	Limits							
I-Bromofluorobenzene (Surr)		Quai		70 - 130							
,4-Difluorobenzene (Surr)	104			70 - 130							
_ab Sample ID: 890-4968-1 MS	3D								Client S	Sample ID: BH2	23-01 0FT
Matrix: Solid										Prep Type:	: Total/NA
Analysis Batch: 58304											ch: 58296
	Sample		•	Spike		MSD				%Rec	RPD
analyte	Result		ifier	Added		Qualifier	Unit		D %Rec		PD Limit
Benzene	<0.00199			0.0998	0.1007		mg/Kg		101	70 - 130	1 35
oluene	<0.00199			0.0998	0.08819		mg/Kg		88	70 - 130	3 35
thylbenzene	<0.00199			0.0998	0.1018		mg/Kg		102	70 - 130	5 35
n-Xylene & p-Xylene	<0.00398			0.200	0.2110		mg/Kg		106	70 - 130	5 35
-Xylene	<0.00199	U		0.0998	0.1023		mg/Kg		102	70 - 130	4 35
	MSD	MSD	,								
Surrogate	%Recovery	Qual	lifier	Limits							
l-Bromofluorobenzene (Surr)	118			70 - 130							
,4-Difluorobenzene (Surr)	104			70 - 130							
ab Sample ID: MB 880-58305	/ 5-A								Client Sa	ample ID: Meth	od Blank
Matrix: Solid											
Analysis Batch: 58347											: Total/NA
											: Total/NA ch: 58305
		МВ	MB								: Total/NA ch: 58305
nalyte	R		MB Qualifier	R	L	Unit		D	Prepared		
-			Qualifier			Unit mg/Kg	9		Prepared 07/24/23 08:56	Prep Bate	ch: 58305
Senzene	<0.0	esult	Qualifier U		0				•	Prep Bate	ch: 58305
Benzene Joluene	<0.00	esult 0200	Qualifier U U	0.0020	0	mg/Kg	9		07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58	ch: 58305
enzene oluene thylbenzene	<0.00 <0.00 <0.00	esult 0200 0200	Qualifier U U U	0.0020		mg/Kg	g g		07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58	ch: 58305
Benzene Foluene Ethylbenzene n-Xylene & p-Xylene	<0.00 <0.00 <0.00 <0.00	esult 0200 0200 0200	Qualifier U U U U	0.0020 0.0020 0.0020		mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305
Benzene Foluene Ethylbenzene n-Xylene & p-Xylene >-Xylene	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00	esult 0200 0200 0200 0200 0400	Qualifier U U U U U	0.0020 0.0020 0.0020 0.0040		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 1 1 1 1 1 1 1
Benzene Foluene Ethylbenzene n-Xylene & p-Xylene)-Xylene	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00	esult 0200 0200 0200 0200 0400 0200	Qualifier U U U U U U U	0.0020 0.0020 0.0020 0.0020 0.0040 0.0020		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 1 1 1 1 1 1 1
Senzene oluene thylbenzene n-Xylene & p-Xylene -Xylene (ylenes, Total	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00	esult 0200 0200 0200 0400 0200 0400 MB	Qualifier U U U U U U U U MB	0.0020 0.0020 0.0020 0.0020 0.0040 0.0020		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 1 1 1 1 1 1 1
ienzene oluene :thylbenzene n-Xylene & p-Xylene -Xylene (ylenes, Total	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00	esult 0200 0200 0200 0400 0200 0400 MB	Qualifier U U U U U U U U MB	0.0020 0.0020 0.0020 0.0040 0.0020 0.0040		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305
Senzene oluene Ethylbenzene n-Xylene & p-Xylene Xylene (ylenes, Total Surrogate I-Bromofluorobenzene (Surr)	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00	esult 0200 0200 0200 0400 0400 0400 MB overy	Qualifier U U U U U U U U MB	0.0020 0.0020 0.0020 0.0040 0.0020 0.0040 Limits		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 <u>Dil Fac</u> 1 1 1 1 1 2 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1
Benzene Foluene Ethylbenzene n-Xylene & p-Xylene o-Xylene Kylenes, Total Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 %Reco	esult 0200 0200 0400 0400 0400 0400 MB overy 93	Qualifier U U U U U U U U MB	0.0020 0.0020 0.0020 0.0040 0.0020 0.0040 0.0040 <u>Limits</u> 70 - 130		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 <u>Dil Fac</u> 1 1 1 1 1 1 1 2 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1
Benzene Toluene Ethylbenzene n-Xylene & p-Xylene p-Xylene (ylenes, Total Surrogate I-Bromofluorobenzene (Surr) y,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-58407	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 %Reco	esult 0200 0200 0400 0400 0400 0400 MB overy 93	Qualifier U U U U U U U U MB	0.0020 0.0020 0.0020 0.0040 0.0020 0.0040 0.0040 <u>Limits</u> 70 - 130		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 <u>Dil Fac</u> 1 1 1 1 1 1 1 1 2 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1
Benzene Toluene Thylbenzene n-Xylene & p-Xylene D-Xylene Kylenes, Total Surrogate I-Bromofluorobenzene (Surr) I,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-58407 Matrix: Solid	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 %Reco	esult 0200 0200 0400 0400 0400 0400 MB overy 93	Qualifier U U U U U U U U MB	0.0020 0.0020 0.0020 0.0040 0.0020 0.0040 0.0040 <u>Limits</u> 70 - 130		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 <u>Dil Fac</u> 1 1 1 1 1 1 1 1 2 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1
Senzene Soluene Sthylbenzene n-Xylene & p-Xylene -Xylene Surrogate -Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-58407 Matrix: Solid	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 %Reco	esult 0200 0200 0200 0400 0400 0400 0400 040	Qualifier U U U U U U U M B Qualifier	0.0020 0.0020 0.0020 0.0040 0.0020 0.0040 0.0040 <u>Limits</u> 70 - 130		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 <u>Dil Fac</u> 1 1 1 1 1 1 1 1 2 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1
Benzene Foluene Ethylbenzene n-Xylene & p-Xylene p-Xylene Kylenes, Total Surrogate H-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-58407 Matrix: Solid Analysis Batch: 58347	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 %Reco	esult 0200 0200 0400 0200 0400 0400 0400 040	Qualifier U U U U U U MB Qualifier	0.0020 0.0020 0.0040 0.0040 0.0040 <u>Limits</u> 70 - 130 70 - 130		mg/Kg mg/Kg mg/Kg mg/Kg	9 9 9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 <u>Dil Fac</u> 1 1 1 1 1 1 1 1 1
Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-58407 Matrix: Solid Analysis Batch: 58347 Analyte Benzene	<0.00 <0.00 <0.00 <0.00 <0.00 <0.00 % <i>Reco</i>	esult 0200 0200 0400 0200 0400 0400 0400 040	Qualifier U U U U U U MB Qualifier	0.0020 0.0020 0.0020 0.0040 0.0020 0.0040 0.0040 <u>Limits</u> 70 - 130	о о о о о о о о	mg/Kg mg/Kg mg/Kg mg/Kg	9		07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56 07/24/23 08:56	Prep Bate Analyzed 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58 07/24/23 13:58	ch: 58305 <u>Dil Fac</u> 1 1 1 1 1 1 1 1 1

Benzene	<0.00200 U	0.00200	mg/Kg	07/25/23 01:36	1
Toluene	<0.00200 U	0.00200	mg/Kg	07/25/23 01:36	1
Ethylbenzene	<0.00200 U	0.00200	mg/Kg	07/25/23 01:36	1
m-Xylene & p-Xylene	<0.00400 U	0.00400	mg/Kg	07/25/23 01:36	1

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

Lab Sample ID: MB 880-584	07/5-A								Client S	ample ID: Metho	d Blank
Matrix: Solid										Prep Type: 1	Total/NA
Analysis Batch: 58347											
	MB	MB									
Analyte	Result	Qualifier	RL		Unit		D	Pr	repared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/k	ίg				07/25/23 01:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/k	ζg				07/25/23 01:36	1
	МВ	MB									
Surrogate	%Recovery	Qualifier	Limits					Pr	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 _ 130							07/25/23 01:36	1
1,4-Difluorobenzene (Surr)	117		70 - 130							07/25/23 01:36	1
Lab Sample ID: LCS 880-584	407/1-A						Clie	ent	Sample	ID: Lab Control	Sample
Matrix: Solid										Prep Type: 1	
Analysis Batch: 58347										Prep Batch	
			Spike	LCS	LCS					%Rec	
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits	
Benzene			0.100	0.1110		mg/Kg			111	70 - 130	
Toluene			0.100	0.1041		mg/Kg			104	70 - 130	
Ethylbenzene			0.100	0.1018		mg/Kg			102	70 - 130	
m-Xylene & p-Xylene			0.200	0.2248		mg/Kg			112	70 - 130	
o-Xylene			0.100	0.1083		mg/Kg			108	70 - 130	
	LCS LCS	3									
Surrogate	%Recovery Qua	alifier	Limits								
4-Bromofluorobenzene (Surr)	104		70 - 130								
1,4-Difluorobenzene (Surr)	98		70 - 130								
Lab Sample ID: LCSD 880-5	8407/2-A					CI	ient S	am	ple ID: I	Lab Control Sam	ple Dup
Matrix: Solid										Prep Type: 1	
Analysis Batch: 58347										Prep Batch	

Analysis Batch: 58347							Ргер	Batch:	58407
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1104		mg/Kg		110	70 - 130	0	35
Toluene	0.100	0.1015		mg/Kg		101	70 - 130	3	35
Ethylbenzene	0.100	0.1005		mg/Kg		101	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130	5	35
o-Xylene	0.100	0.1014		mg/Kg		101	70 - 130	7	35

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

Lab Sample ID: 880-30749-A-1-C MS Matrix: Solid

Analysis Batch: 58347 Prep Batch: 58407 Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier %Rec Limits Unit D <0.00198 U 0.0994 0.08101 81 Benzene 70 - 130 mg/Kg Toluene <0.00198 UF1 0.0994 0.07726 mg/Kg 78 70 - 130 0.0994 Ethylbenzene <0.00198 UF1 0.06019 F1 mg/Kg 61 70 - 130 m-Xylene & p-Xylene <0.00396 UF1 0.199 0.1293 F1 mg/Kg 65 70 - 130 o-Xylene <0.00198 UF1 0.0994 0.07050 mg/Kg 71 70 - 130

Job ID: 890-4968-1 SDG: Carslbad NM

5 7 8

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

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Lab Sample ID: 880-30749-A-1-C MS

Matrix: Solid Analysis Batch: 58347

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-30749-A-1-D MSD Matrix: Solid

Analysis Batch: 58347									Prep	Batch:	58407
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00198	U	0.0992	0.08268		mg/Kg		83	70 - 130	2	35
Toluene	<0.00198	U F1	0.0992	0.05680	F1	mg/Kg		57	70 - 130	31	35
Ethylbenzene	<0.00198	U F1	0.0992	0.04895	F1	mg/Kg		49	70 - 130	21	35
m-Xylene & p-Xylene	<0.00396	U F1	0.198	0.1317	F1	mg/Kg		66	70 - 130	2	35
o-Xylene	<0.00198	U F1	0.0992	0.06187	F1	mg/Kg		62	70 - 130	13	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	86		70 - 130								
1,4-Difluorobenzene (Surr)	124		70 - 130								

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

_ Lab Sample ID: MB 880-58294/1-A								Client Sa	ample ID: Metho	d Blank
Matrix: Solid									Prep Type:	Total/NA
Analysis Batch: 58509									Prep Batc	h: 58294
	MB	MB								
Analyte	Result	Qualifier	RL		Unit		D P	repared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/K	g	07/2	24/23 08:30	07/26/23 07:53	1
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	50.0		mg/K	g	07/2	24/23 08:30	07/26/23 07:53	1
C10-C28)										
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/K	g	07/2	24/23 08:30	07/26/23 07:53	1
	МВ	МВ								
Surrogate	%Recovery	Qualifier	Limits				F	Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130				07/2	24/23 08:30	07/26/23 07:53	1
o-Terphenyl	178	S1+	70 - 130				07/2	24/23 08:30	07/26/23 07:53	1
_ Lab Sample ID: LCS 880-58294/2-A							Client	t Sample	ID: Lab Control	Sample
Matrix: Solid									Prep Type:	
Analysis Batch: 58509									Prep Batcl	
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			1000	1057		mg/Kg		106	70 - 130	
(GRO)-C6-C10										

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	118		70 - 130

Furofins	Carlsbad

Page 103 of 181

SDG: Carslbad NM

Prep Type: Total/NA

Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 58407

Client Sample ID: Matrix Spike Duplicate

Diesel Range Organics (Over

C10-C28)

1000

935.7

mg/Kg

94

70 - 130

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Lab Sample ID: LCSD 880-5 Matrix: Solid	8294/3-A					Cile	nt San	ipie ID:	Lab Contro	-	
Analysis Batch: 58509										Type: To Batch:	
Analysis Batch. 50505			Spike		LCSD				%Rec	Datch.	RPI
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Gasoline Range Organics			1000	1051	quantor	mg/Kg		105	70 - 130	1	2
(GRO)-C6-C10			1000	1001				100	10 - 100		-
Diesel Range Organics (Over			1000	952.9		mg/Kg		95	70 - 130	2	2
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	88		70 - 130								
o-Terphenyl	120		70 - 130								
Lab Sample ID: 890-4964-A-	-23-E MS							Client	Sample ID		
Matrix: Solid										Type: To	
Analysis Batch: 58509	0	0	0		MS					Batch:	5829
Analuto	•	Sample Qualifier	Spike Added	MS	Qualifier	Unit	D	%Rec	%Rec Limits		
Analyte Gasoline Range Organics			998	1286	Quaimer	mg/Kg		122	70 - 130		
(GRO)-C6-C10	00.2		550	1200		mg/itg		122	10-100		
Diesel Range Organics (Over	150		998	1195		mg/Kg		105	70 - 130		
C10-C28)											
	MS	MS									
Surrogate	%Recovery		Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	103		70 - 130								
Lab Sample ID: 890-4964-A-	-23-F MSD					С	lient Sa	ample IE): Matrix S		
Matrix: Solid										Гуре: То	
Analysis Batch: 58509										Batch:	
	-	Sample	Spike		MSD		_	~ -	%Rec		RPI
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Gasoline Range Organics (GRO)-C6-C10	68.2		997	1277		mg/Kg		121	70 - 130	1	20
Diesel Range Organics (Over	150		997	974.1		mg/Kg		83	70 - 130	20	20
C10-C28)											
	MSD	MSD									
Surrogate	%Recovery		Limits								
1-Chlorooctane	<u></u>		70 - 130								
o-Terphenyl	102		70 _ 130								
Lab Sample ID: MB 880-583	43/1-A							Client S	Sample ID:		
Matrix: Solid										Гуре: То	
Analysis Batch: 58605									Prep	Batch:	5834
		MB MB									
Analyte	R	esult Qualifier		RL	Unit		D P	repared	Analyz	zed	Dil Fac

	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		07/24/23 10:22	07/27/23 20:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/27/23 20:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/24/23 10:22	07/27/23 20:13	1

Job ID: 890-4968-1

SDG: Carslbad NM

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Job ID: 890-4968-1 SDG: Carslbad NM

Lab Sample ID: MB 880-58343/1	- A							Client Sa	ample ID:		
Matrix: Solid									Prep ⁻	Type: To	otal/N/
Analysis Batch: 58605									Prep	Batch:	5834
		MB MB									
Surrogate	%Reco		Limits					repared	Analy	700	Dil Fa
1-Chlorooctane		143 S1+	70 - 130					24/23 10:22			Diria
o-Terphenyl		175 S1+	70 - 130					24/23 10:22			
		110 01	10 - 100				01/2	<i>"</i> 20 70.22	0//2//20	20.70	
Lab Sample ID: LCS 880-58343/	2-A						Client	Sample	ID: Lab C	ontrol S	ampl
Matrix: Solid										Type: To	
Analysis Batch: 58605										Batch:	
-			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics			1000	920.8		mg/Kg		92	70 - 130		
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	881.8		mg/Kg		88	70 - 130		
C10-C28)											
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	90		70 - 130								
o-Terphenyl	116		70 - 130								
			Spiko	LCOD	LCOD					Batch:	
			Spike	LCSD	LCSD				%Rec		
			Added	Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RP Lim
Gasoline Range Organics			•			Unit mg/Kg	<u>D</u>	%Rec	%Rec		RP Lim
Gasoline Range Organics (GRO)-C6-C10			Added	Result 938.8		mg/Kg	D	94	%Rec Limits 70 - 130	RPD	RP Lim
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over			Added	Result			<u>D</u>		%Rec Limits	RPD	RP Lim
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over			Added	Result 938.8		mg/Kg	<u>D</u>	94	%Rec Limits 70 - 130	RPD	RP Lim
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	LCSD		Added	Result 938.8		mg/Kg	<u> </u>	94	%Rec Limits 70 - 130	RPD	RP Lim
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	%Recovery	LCSD Qualifier	Added 1000 1000 <i>Limits</i>	Result 938.8		mg/Kg	<u> </u>	94	%Rec Limits 70 - 130	RPD	RP Lim 2
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	%Recovery 93		Added 1000 1000 Limits 70 - 130	Result 938.8		mg/Kg	<u>D</u>	94	%Rec Limits 70 - 130	RPD	RP Lim
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	%Recovery		Added 1000 1000 <i>Limits</i>	Result 938.8		mg/Kg	<u> </u>	94	%Rec Limits 70 - 130	RPD	RP Lim
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl	%Recovery 93		Added 1000 1000 Limits 70 - 130	Result 938.8		mg/Kg	<u>D</u>	94 97	%Rec Limits 70 - 130 70 - 130	2 9	RP 2 2
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS	%Recovery 93		Added 1000 1000 Limits 70 - 130	Result 938.8		mg/Kg	<u> </u>	94 97	%Rec Limits 70 - 130 70 - 130 Sample ID	RPD 2 9	RP
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid	%Recovery 93		Added 1000 1000 Limits 70 - 130	Result 938.8		mg/Kg	<u>D</u>	94 97	%Rec Limits 70 - 130 70 - 130 Sample ID Prep	 9 : BH23- Type: To	RP Lim 2 2 02 0F otal/N
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid	%Recovery 93 119		Added 1000 1000 Limits 70 - 130	Result 938.8 965.3		mg/Kg	<u>D</u>	94 97	%Rec Limits 70 - 130 70 - 130 Sample ID Prep	RPD 2 9	RP
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid Analysis Batch: 58605	%Recovery 93 119 Sample	Qualifier	Added 1000 1000 <u>Limits</u> 70 - 130 70 - 130	Result 938.8 965.3 MS	Qualifier	mg/Kg	D	94 97	%Rec Limits 70 - 130 70 - 130 Sample ID Prep Prep	 9 : BH23- Type: To	RP
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid Analysis Batch: 58605 Analyte Gasoline Range Organics	%Recovery 93 119 Sample	Qualifier	Added 1000 1000 <u>Limits</u> 70 - 130 70 - 130 Spike	Result 938.8 965.3 MS	Qualifier	mg/Kg		94 97 Client S	%Rec Limits 70 - 130 70 - 130 70 - 130 Sample ID Prep %Rec	 9 : BH23- Type: To	RP Lim 2 2 02 0F otal/N
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid Analysis Batch: 58605 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 93 119 Sample Result	Qualifier	Added 1000 1000 <u>Limits</u> 70 - 130 70 - 130 Spike Added	Result 938.8 965.3 MS Result	Qualifier	mg/Kg mg/Kg		94 97 Client S	%Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 Sample ID Prep %Rec Limits	 9 : BH23- Type: To	RP Lim 2 2 02 0F otal/N
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid Analysis Batch: 58605 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 93 119 Sample Result <50.3	Qualifier	Added 1000 1000 <u>Limits</u> 70 - 130 70 - 130 70 - 130 Spike Added 997	Result 938.8 965.3 MS Result 1121	Qualifier	mg/Kg mg/Kg <u>Unit</u> mg/Kg		94 97 Client S <u>%Rec</u> 109	%Rec Limits 70 - 130 70 - 130 70 - 130 Sample ID Prep %Rec Limits 70 - 130	 9 : BH23- Type: To	RP
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid Analysis Batch: 58605 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	%Recovery 93 119 Sample Result <50.3	Qualifier Sample Qualifier U U MS	Added 1000 1000 <u>Limits</u> 70 - 130 70 - 130 70 - 130 Spike Added 997	Result 938.8 965.3 MS Result 1121	Qualifier	mg/Kg mg/Kg <u>Unit</u> mg/Kg		94 97 Client S <u>%Rec</u> 109	%Rec Limits 70 - 130 70 - 130 70 - 130 Sample ID Prep %Rec Limits 70 - 130	 9 : BH23- Type: To	RP
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-4968-3 MS Matrix: Solid Analysis Batch: 58605 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	%Recovery 93 119 Sample Result <50.3	Qualifier Sample Qualifier U U MS	Added 1000 1000 1000 1000 Limits 70 - 130 70 - 130 Spike Added 997 997	Result 938.8 965.3 MS Result 1121	Qualifier	mg/Kg mg/Kg <u>Unit</u> mg/Kg		94 97 Client S <u>%Rec</u> 109	%Rec Limits 70 - 130 70 - 130 70 - 130 Sample ID Prep %Rec Limits 70 - 130	 9 : BH23- Type: To	RP

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

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

Job ID: 890-4968-1 SDG: Carslbad NM

	MSD								Client	Sample ID		
Matrix: Solid											Туре: То	
Analysis Batch: 58605										Prep	Batch:	5834
	Sample	Sample	Spike	MSD	MSD					%Rec		RPI
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Lim
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	997	1175		mg/Kg			115	70 - 130	5	2
Diesel Range Organics (Over C10-C28)	<50.3	U	997	778.8		mg/Kg			78	70 - 130	2	2
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	85		70 - 130									
o-Terphenyl	96		70 - 130									
ethod: 300.0 - Anions,	Ion Chromat	ography										
Lab Sample ID: MB 880-582 Matrix: Solid	16/1-A								Client S	ample ID: Prep	Method Type: S	
Analysis Batch: 58393		МВ МВ								, i		
Analyte	R	esult Qualifier		RL	Unit		D	Pr	repared	Analyz	zed	Dil Fa
Chloride		<5.00 U		5.00		a			opulou	07/24/23		Dirte
Associate Details FOOD												
Analysis Batch: 58393			Spike	LCS	LCS					%Rec		
-			Spike Added		LCS Qualifier	Unit		D	%Rec	%Rec Limits		
Analyte						Unit mg/Kg		D	%Rec 98			
Analyte Chloride Lab Sample ID: LCSD 880-5	 8216/3-A		Added	Result		mg/Kg	ient S		98	Limits 90 - 110 Lab Contro		
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid	8216/3-A		Added 250	Result 245.9	Qualifier	mg/Kg	ient S		98	Limits 90 - 110 Lab Contro Prep	ol Sampl Type: S	olub
Analysis Batch: 58393 Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393	 8216/3-A		Added 250 Spike	Result 245.9 LCSD	Qualifier	mg/Kg Cli	ient S	am	98 ple ID:	Limits 90 - 110 Lab Contro Prep %Rec	Type: S	olubi RP
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte			Added 250 Spike Added	Result 245.9 LCSD Result	Qualifier LCSD Qualifier	mg/Kg Cli	ient S		98 ple ID: %Rec	Limits 90 - 110 Lab Contro Prep %Rec Limits	Type: S	olubi RP Lim
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte	 8216/3-A 		Added 250 Spike	Result 245.9 LCSD	Qualifier LCSD Qualifier	mg/Kg Cli	ient S	am	98 ple ID:	Limits 90 - 110 Lab Contro Prep %Rec	Type: S	olub RP Lim
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1			Added 250 Spike Added	Result 245.9 LCSD Result	Qualifier LCSD Qualifier	mg/Kg Cli	ient S	am	98 ple ID: %Rec 98	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID	Type: S RPD 0 : BH23-0	Olubi
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1			Added 250 Spike Added	Result 245.9 LCSD Result	Qualifier LCSD Qualifier	mg/Kg Cli	ient S	am	98 ple ID: %Rec 98	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID	Type: S RPD 0	Olubl RP Lim 2 01 0F
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1			Added 250 Spike Added 250	Result 245.9 LCSD Result 246.2	Qualifier LCSD Qualifier	mg/Kg Cli	ient S	am	98 ple ID: %Rec 98	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep	Type: S RPD 0 : BH23-0	Olubl RP Lim 2 01 0F
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1 I Matrix: Solid Analysis Batch: 58393	— — — — — — — — — — — — — — — — — — —	Sample Qualifier	Added 250 Spike Added 250 Spike	Result 245.9 LCSD Result 246.2 MS	Qualifier LCSD Qualifier MS	Unit mg/Kg	ient S	D .	98 ple ID: 1 %Rec 98 Client	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec	Type: S RPD 0 : BH23-0	Olubi RP Lim 2 01 0F
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1 I Matrix: Solid Analysis Batch: 58393 Analyte	— — — — — — — — — — — — — — — — — — —	Sample Qualifier	Added 250 Spike Added 250	Result 245.9 LCSD Result 246.2 MS	Qualifier LCSD Qualifier	mg/Kg Cli	S	am	98 ple ID: %Rec 98	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep	Type: S RPD 0 : BH23-0	Olubl RP Lim 2 01 0F
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1	MS Sample Result 48.4	-	Added 250 Spike Added 250 Spike Added	Result 245.9 LCSD Result 246.2 MS Result	Qualifier LCSD Qualifier MS	Unit Unit Unit		D .	98 ple ID: 1 %Rec 98 Client %Rec 91	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID %Rec Limits 90 - 110 Sample ID	RPD 0 : BH23-0 Type: S	olub RF
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1 I Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1 I Matrix: Solid	MS Sample Result 48.4	-	Added 250 Spike Added 250 Spike Added	Result 245.9 LCSD Result 246.2 MS Result	Qualifier LCSD Qualifier MS	Unit Unit Unit		D .	98 ple ID: 1 %Rec 98 Client %Rec 91	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID %Rec Limits 90 - 110 Sample ID	RPD 0 : BH23-0 Type: S	olubi RP Lim 2 01 0F olubi
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1 I Matrix: Solid Analysis Batch: 58393 Analyte Chloride Lab Sample ID: 890-4968-1 I Matrix: Solid	MS Sample <u>Result</u> 48.4 MSD	-	Added 250 Spike Added 250 Spike Added	Result 245.9 LCSD Result 246.2 MS Result 275.6	Qualifier LCSD Qualifier MS	Unit Unit Unit		D .	98 ple ID: 1 %Rec 98 Client %Rec 91	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID %Rec Limits 90 - 110 Sample ID	RPD 0 : BH23-0 Type: S	olubi RP Lim 2 01 0F olubi
Analyte Chloride Lab Sample ID: LCSD 880-5 Matrix: Solid	MS Sample Result 48.4 MSD Sample	Qualifier	Added 250 Spike Added 250 Spike Added 250	Result 245.9 LCSD Result 246.2 MS Result 275.6	Qualifier LCSD Qualifier MS Qualifier	Unit Unit Unit		D .	98 ple ID: 1 %Rec 98 Client %Rec 91	Limits 90 - 110 Lab Contro Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits 90 - 110 Sample ID Prep	RPD 0 : BH23-0 Type: S	olubi RP Lim 2 01 0F olubi

Project/Site: PLU BIG SINKS 3-25-31 Battery

Client: Vertex

Job ID: 890-4968-1 SDG: Carslbad NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

· · · ·											
- Lab Sample ID: 890-4968-11 MS								Client	Sample ID	: BH23-'	11 OFT
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 58393											
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	95.6		248	328.1		mg/Kg		94	90 - 110		
-											
Lab Sample ID: 890-4968-11 MSD								Client	Sample ID		
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 58393											
	-	Sample	Spike		MSD				%Rec		RPD
Analyte		Qualifier	Added		Qualifier	Unit	D		Limits	RPD	Limi
Chloride	95.6		248	328.5		mg/Kg		94	90 _ 110	0	20
Lab Sample ID: MB 880-58217/1-A								Client	Sample ID:	Method	Blank
Matrix: Solid								Chent		Type: S	
									Fiep	Type. 3	oluble
Analysis Batch: 58468		МВ МВ									
Analyte	Б	Result Qualifier		RL	Unit		D	Prepared	Analyz	od	Dil Fa
Chloride		<5.00 U		5.00	mg/Kg		<u> </u>	Flepaleu	07/25/23		Dirra
		-5.00 0		5.00	nig/Kg	9			01/25/25	11.57	
Lab Sample ID: LCS 880-58217/2-A							Clier	nt Sample	e ID: Lab C	ontrol S	ample
Matrix: Solid										Type: S	
Analysis Batch: 58468										.,,	
· ·····, ··· · ··· · · · · · · · · · ·			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250	242.2		mg/Kg		97	90 - 110		
Lab Sample ID: LCSD 880-58217/3-	•					CII	ant Ca	mple ID:	Lab Contro	ol Sampl	e Dur
· · · · · · · · · · · · · · · · · · ·	-A						ent Sa				
Matrix: Solid	-A					CII	ent Sa			Type: S	
-	- A					CI	ent Sa				
Matrix: Solid	-A		Spike	LCSD	LCSD	Cii	ent Sa				oluble
Matrix: Solid	-A		Spike Added		LCSD Qualifier	Unit		%Rec	Prep		
Matrix: Solid Analysis Batch: 58468 Analyte	-A 							-	Prep %Rec	Type: S	oluble RPI Limi
Matrix: Solid Analysis Batch: 58468 Analyte Chloride	-A		Added	Result		Unit		% Rec 97	Prep %Rec Limits 90 - 110	Type: S	oluble RPI Limi 20
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS	-A		Added	Result		Unit		% Rec 97	Prep %Rec Limits 90 - 110 Sample ID	Type: S <u>RPD</u> 0 : BH23-1	oluble RPI Limi 20
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid	-A		Added	Result		Unit		% Rec 97	Prep %Rec Limits 90 - 110 Sample ID	Type: S	oluble RPE Limi 20
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS		Sample	Added 250	Result 242.6	Qualifier	Unit		% Rec 97	Prep %Rec Limits 90 - 110 Sample ID Prep	Type: S <u>RPD</u> 0 : BH23-1	oluble RPE Limi 20
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid Analysis Batch: 58468	Sample	Sample	Added 250 Spike	Result 242.6	Qualifier	Unit mg/Kg	<u> </u>	%Rec 97 Client	Prep %Rec Limits 90 - 110 Sample ID Prep %Rec	Type: S <u>RPD</u> 0 : BH23-1	oluble RPD Limit 20
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid Analysis Batch: 58468 Analyte	Sample	Qualifier	Added 250	Result 242.6 MS Result	Qualifier MS Qualifier	Unit		%Rec 97 Client	Prep %Rec Limits 90 - 110 Sample ID Prep	Type: S <u>RPD</u> 0 : BH23-1	oluble RPE Limi 20
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid Analysis Batch: 58468 Analyte Chloride	Sample Result	Qualifier	Added 250 Spike Added	Result 242.6	Qualifier MS Qualifier	Unit mg/Kg Unit	<u> </u>	%Rec 97 Client	Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits	Type: S <u>RPD</u> 0 : BH23-1	oluble RPI Limi 20
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid Analysis Batch: 58468 Analyte Chloride	Sample Result	Qualifier	Added 250 Spike Added	Result 242.6 MS Result	Qualifier MS Qualifier	Unit mg/Kg Unit	<u> </u>	%Rec 97 Client %Rec 114	Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits	RPD 0 : BH23-1 Type: S	oluble RPI Limi 20 16 0F1 oluble
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MSD	Sample Result	Qualifier	Added 250 Spike Added	Result 242.6 MS Result	Qualifier MS Qualifier	Unit mg/Kg Unit	<u> </u>	%Rec 97 Client %Rec 114	Prep %Rec Limits 90 - 110 Sample ID %Rec Limits 90 - 110 Sample ID	RPD 0 : BH23-1 Type: S	01uble RPI Limi 20 16 0F1 01uble
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid	Sample Result	Qualifier	Added 250 Spike Added	Result 242.6 MS Result	Qualifier MS Qualifier	Unit mg/Kg Unit	<u> </u>	%Rec 97 Client %Rec 114	Prep %Rec Limits 90 - 110 Sample ID %Rec Limits 90 - 110 Sample ID	RPD 0 : BH23-1 Type: S	0luble RPE Limi 20 16 0F1 0luble
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MSD Matrix: Solid	Sample Result 44.1	Qualifier	Added 250 Spike Added	Result 242.6 MS Result 328.6	Qualifier MS Qualifier	Unit mg/Kg Unit	<u> </u>	%Rec 97 Client %Rec 114	Prep %Rec Limits 90 - 110 Sample ID %Rec Limits 90 - 110 Sample ID	RPD 0 : BH23-1 Type: S	eluble RPC Limit 20 16 0FT oluble
Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MS Matrix: Solid Analysis Batch: 58468 Analyte Chloride Lab Sample ID: 890-4968-21 MSD Matrix: Solid	Sample Result 44.1 Sample	Qualifier F1 Sample Qualifier	Added 250 Spike Added 251	Result 242.6 MS Result 328.6 MSD	Qualifier MS Qualifier F1	Unit mg/Kg Unit	<u> </u>	%Rec 97 Client	Prep %Rec Limits 90 - 110 Sample ID Prep %Rec Limits 90 - 110 Sample ID Prep	RPD 0 : BH23-1 Type: S	oluble RPC Limit 20 16 0FT oluble

QC Association Summary

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

GC VOA

Prep Batch: 58296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4968-1	BH23-01 0FT	Total/NA	Solid	5035		
890-4968-2	BH23-01 2FT	Total/NA	Solid	5035		5
890-4968-3	BH23-02 0FT	Total/NA	Solid	5035		
890-4968-4	BH23-02 2FT	Total/NA	Solid	5035		
890-4968-5	BH23-03 0FT	Total/NA	Solid	5035		
890-4968-6	BH23-03 2FT	Total/NA	Solid	5035		
890-4968-7	BH23-08 0FT	Total/NA	Solid	5035		
890-4968-8	BH23-08 2FT	Total/NA	Solid	5035		8
890-4968-9	BH23-10 0FT	Total/NA	Solid	5035		
890-4968-10	BH23-10 2FT	Total/NA	Solid	5035		9
890-4968-11	BH23-11 0FT	Total/NA	Solid	5035		
890-4968-12	BH23-11 2FT	Total/NA	Solid	5035		
890-4968-13	BH23-12 0FT	Total/NA	Solid	5035		
890-4968-14	BH23-12 2FT	Total/NA	Solid	5035		
890-4968-15	BH23-13 0FT	Total/NA	Solid	5035		
890-4968-16	BH23-13 2FT	Total/NA	Solid	5035		
890-4968-17	BH23-14 0FT	Total/NA	Solid	5035		
890-4968-18	BH23-14 2FT	Total/NA	Solid	5035		
890-4968-19	BH23-15 0FT	Total/NA	Solid	5035		13
MB 880-58296/5-A	Method Blank	Total/NA	Solid	5035		
LCS 880-58296/1-A	Lab Control Sample	Total/NA	Solid	5035		
LCSD 880-58296/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		
890-4968-1 MS	BH23-01 0FT	Total/NA	Solid	5035		
890-4968-1 MSD	BH23-01 0FT	Total/NA	Solid	5035		

Analysis Batch: 58304

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4968-1	BH23-01 0FT	Total/NA	Solid	8021B	58296
890-4968-2	BH23-01 2FT	Total/NA	Solid	8021B	58296
890-4968-3	BH23-02 0FT	Total/NA	Solid	8021B	58296
890-4968-4	BH23-02 2FT	Total/NA	Solid	8021B	58296
890-4968-5	BH23-03 0FT	Total/NA	Solid	8021B	58296
890-4968-6	BH23-03 2FT	Total/NA	Solid	8021B	58296
890-4968-7	BH23-08 0FT	Total/NA	Solid	8021B	58296
890-4968-8	BH23-08 2FT	Total/NA	Solid	8021B	58296
890-4968-9	BH23-10 0FT	Total/NA	Solid	8021B	58296
890-4968-10	BH23-10 2FT	Total/NA	Solid	8021B	58296
890-4968-11	BH23-11 0FT	Total/NA	Solid	8021B	58296
890-4968-12	BH23-11 2FT	Total/NA	Solid	8021B	58296
890-4968-13	BH23-12 0FT	Total/NA	Solid	8021B	58296
890-4968-14	BH23-12 2FT	Total/NA	Solid	8021B	58296
890-4968-15	BH23-13 0FT	Total/NA	Solid	8021B	58296
890-4968-16	BH23-13 2FT	Total/NA	Solid	8021B	58296
890-4968-17	BH23-14 0FT	Total/NA	Solid	8021B	58296
890-4968-18	BH23-14 2FT	Total/NA	Solid	8021B	58296
890-4968-19	BH23-15 0FT	Total/NA	Solid	8021B	58296
MB 880-58296/5-A	Method Blank	Total/NA	Solid	8021B	58296
LCS 880-58296/1-A	Lab Control Sample	Total/NA	Solid	8021B	58296
LCSD 880-58296/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	58296
890-4968-1 MS	BH23-01 0FT	Total/NA	Solid	8021B	58296
890-4968-1 MSD	BH23-01 0FT	Total/NA	Solid	8021B	58296

Eurofins Carlsbad

Page 108 of 181

Job ID: 890-4968-1 SDG: Carslbad NM
Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery 0 1

Job ID: 890-4968-1 SDG: Carslbad NM

GC VOA

Prep Batch: 58305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-58305/5-A	Method Blank	Total/NA	Solid	5035	
nalysis Batch: 58347					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4968-19	BH23-15 0FT	Total/NA	Solid	8021B	58407
890-4968-20	BH23-15 2FT	Total/NA	Solid	8021B	58407
890-4968-21	BH23-16 0FT	Total/NA	Solid	8021B	58407
890-4968-22	BH23-16 2FT	Total/NA	Solid	8021B	58407
MB 880-58305/5-A	Method Blank	Total/NA	Solid	8021B	58305
MB 880-58407/5-A	Method Blank	Total/NA	Solid	8021B	
LCS 880-58407/1-A	Lab Control Sample	Total/NA	Solid	8021B	58407
LCSD 880-58407/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	58407
380-30749-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	58407
880-30749-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	58407

Prep Batch: 58407

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4968-19	BH23-15 0FT	Total/NA	Solid	5035	
890-4968-20	BH23-15 2FT	Total/NA	Solid	5035	
890-4968-21	BH23-16 0FT	Total/NA	Solid	5035	
890-4968-22	BH23-16 2FT	Total/NA	Solid	5035	
LCS 880-58407/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-58407/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30749-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-30749-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 58456

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4968-1	BH23-01 0FT	Total/NA	Solid	Total BTEX	
890-4968-2	BH23-01 2FT	Total/NA	Solid	Total BTEX	
890-4968-3	BH23-02 0FT	Total/NA	Solid	Total BTEX	
890-4968-4	BH23-02 2FT	Total/NA	Solid	Total BTEX	
890-4968-5	BH23-03 0FT	Total/NA	Solid	Total BTEX	
890-4968-6	BH23-03 2FT	Total/NA	Solid	Total BTEX	
890-4968-7	BH23-08 0FT	Total/NA	Solid	Total BTEX	
890-4968-8	BH23-08 2FT	Total/NA	Solid	Total BTEX	
890-4968-9	BH23-10 0FT	Total/NA	Solid	Total BTEX	
890-4968-10	BH23-10 2FT	Total/NA	Solid	Total BTEX	
890-4968-11	BH23-11 0FT	Total/NA	Solid	Total BTEX	
890-4968-12	BH23-11 2FT	Total/NA	Solid	Total BTEX	
890-4968-13	BH23-12 0FT	Total/NA	Solid	Total BTEX	
890-4968-14	BH23-12 2FT	Total/NA	Solid	Total BTEX	
890-4968-15	BH23-13 0FT	Total/NA	Solid	Total BTEX	
890-4968-16	BH23-13 2FT	Total/NA	Solid	Total BTEX	
890-4968-17	BH23-14 0FT	Total/NA	Solid	Total BTEX	
890-4968-18	BH23-14 2FT	Total/NA	Solid	Total BTEX	
890-4968-19	BH23-15 0FT	Total/NA	Solid	Total BTEX	
890-4968-20	BH23-15 2FT	Total/NA	Solid	Total BTEX	
890-4968-21	BH23-16 0FT	Total/NA	Solid	Total BTEX	
890-4968-22	BH23-16 2FT	Total/NA	Solid	Total BTEX	

Eurofins Carlsbad

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

GC Semi VOA

Prep Batch: 58294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4968-1	BH23-01 0FT	Total/NA	Solid	8015NM Prep	
890-4968-2	BH23-01 2FT	Total/NA	Solid	8015NM Prep	
MB 880-58294/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58294/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4964-A-23-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4964-A-23-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 58343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4968-3	BH23-02 0FT	Total/NA	Solid	8015NM Prep	
890-4968-4	BH23-02 2FT	Total/NA	Solid	8015NM Prep	
890-4968-5	BH23-03 0FT	Total/NA	Solid	8015NM Prep	
890-4968-6	BH23-03 2FT	Total/NA	Solid	8015NM Prep	
890-4968-7	BH23-08 0FT	Total/NA	Solid	8015NM Prep	
890-4968-8	BH23-08 2FT	Total/NA	Solid	8015NM Prep	
890-4968-9	BH23-10 0FT	Total/NA	Solid	8015NM Prep	
890-4968-10	BH23-10 2FT	Total/NA	Solid	8015NM Prep	
890-4968-11	BH23-11 0FT	Total/NA	Solid	8015NM Prep	
890-4968-12	BH23-11 2FT	Total/NA	Solid	8015NM Prep	
890-4968-13	BH23-12 0FT	Total/NA	Solid	8015NM Prep	
890-4968-14	BH23-12 2FT	Total/NA	Solid	8015NM Prep	
890-4968-15	BH23-13 0FT	Total/NA	Solid	8015NM Prep	
890-4968-16	BH23-13 2FT	Total/NA	Solid	8015NM Prep	
890-4968-17	BH23-14 0FT	Total/NA	Solid	8015NM Prep	
890-4968-18	BH23-14 2FT	Total/NA	Solid	8015NM Prep	
890-4968-19	BH23-15 0FT	Total/NA	Solid	8015NM Prep	
890-4968-20	BH23-15 2FT	Total/NA	Solid	8015NM Prep	
890-4968-21	BH23-16 0FT	Total/NA	Solid	8015NM Prep	
890-4968-22	BH23-16 2FT	Total/NA	Solid	8015NM Prep	
MB 880-58343/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58343/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58343/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4968-3 MS	BH23-02 0FT	Total/NA	Solid	8015NM Prep	
890-4968-3 MSD	BH23-02 0FT	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58509

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4968-1	BH23-01 0FT	Total/NA	Solid	8015B NM	58294
890-4968-2	BH23-01 2FT	Total/NA	Solid	8015B NM	58294
MB 880-58294/1-A	Method Blank	Total/NA	Solid	8015B NM	58294
LCS 880-58294/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58294
LCSD 880-58294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58294
890-4964-A-23-E MS	Matrix Spike	Total/NA	Solid	8015B NM	58294
890-4964-A-23-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	58294

Analysis Batch: 58605

Lab Sample ID 890-4968-3	Client Sample ID BH23-02 0FT	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 58343
890-4968-4	BH23-02 2FT	Total/NA	Solid	8015B NM	58343
890-4968-5	BH23-03 0FT	Total/NA	Solid	8015B NM	58343

Eurofins Carlsbad

Page 110 of 181

Job ID: 890-4968-1 SDG: Carslbad NM

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

GC Semi VOA (Continued)

Analysis Batch: 58605 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4968-6	BH23-03 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-7	BH23-08 0FT	Total/NA	Solid	8015B NM	58343	0
890-4968-8	BH23-08 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-9	BH23-10 0FT	Total/NA	Solid	8015B NM	58343	Ó
890-4968-10	BH23-10 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-11	BH23-11 0FT	Total/NA	Solid	8015B NM	58343	
890-4968-12	BH23-11 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-13	BH23-12 0FT	Total/NA	Solid	8015B NM	58343	8
890-4968-14	BH23-12 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-15	BH23-13 0FT	Total/NA	Solid	8015B NM	58343	9
890-4968-16	BH23-13 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-17	BH23-14 0FT	Total/NA	Solid	8015B NM	58343 🧹	
890-4968-18	BH23-14 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-19	BH23-15 0FT	Total/NA	Solid	8015B NM	58343	
890-4968-20	BH23-15 2FT	Total/NA	Solid	8015B NM	58343	
890-4968-21	BH23-16 0FT	Total/NA	Solid	8015B NM	58343	
890-4968-22	BH23-16 2FT	Total/NA	Solid	8015B NM	58343	
MB 880-58343/1-A	Method Blank	Total/NA	Solid	8015B NM	58343	
LCS 880-58343/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58343	5
LCSD 880-58343/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58343	
890-4968-3 MS	BH23-02 0FT	Total/NA	Solid	8015B NM	58343	
890-4968-3 MSD	BH23-02 0FT	Total/NA	Solid	8015B NM	58343	

Analysis Batch: 58626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4968-1	BH23-01 0FT	Total/NA	Solid	8015 NM	
890-4968-2	BH23-01 2FT	Total/NA	Solid	8015 NM	
890-4968-3	BH23-02 0FT	Total/NA	Solid	8015 NM	
890-4968-4	BH23-02 2FT	Total/NA	Solid	8015 NM	
890-4968-5	BH23-03 0FT	Total/NA	Solid	8015 NM	
890-4968-6	BH23-03 2FT	Total/NA	Solid	8015 NM	
890-4968-7	BH23-08 0FT	Total/NA	Solid	8015 NM	
890-4968-8	BH23-08 2FT	Total/NA	Solid	8015 NM	
890-4968-9	BH23-10 0FT	Total/NA	Solid	8015 NM	
890-4968-10	BH23-10 2FT	Total/NA	Solid	8015 NM	
890-4968-11	BH23-11 0FT	Total/NA	Solid	8015 NM	
890-4968-12	BH23-11 2FT	Total/NA	Solid	8015 NM	
890-4968-13	BH23-12 0FT	Total/NA	Solid	8015 NM	
890-4968-14	BH23-12 2FT	Total/NA	Solid	8015 NM	
890-4968-15	BH23-13 0FT	Total/NA	Solid	8015 NM	
890-4968-16	BH23-13 2FT	Total/NA	Solid	8015 NM	
890-4968-17	BH23-14 0FT	Total/NA	Solid	8015 NM	
890-4968-18	BH23-14 2FT	Total/NA	Solid	8015 NM	
890-4968-19	BH23-15 0FT	Total/NA	Solid	8015 NM	
890-4968-20	BH23-15 2FT	Total/NA	Solid	8015 NM	
890-4968-21	BH23-16 0FT	Total/NA	Solid	8015 NM	
890-4968-22	BH23-16 2FT	Total/NA	Solid	8015 NM	

Job ID: 890-4968-1

SDG: Carslbad NM

Page 111 of 181

Eurofins Carlsbad

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

HPLC/IC

Leach Batch: 58216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4968-1	BH23-01 0FT	Soluble	Solid	DI Leach	
890-4968-2	BH23-01 2FT	Soluble	Solid	DI Leach	5
890-4968-3	BH23-02 0FT	Soluble	Solid	DI Leach	
890-4968-4	BH23-02 2FT	Soluble	Solid	DI Leach	
890-4968-5	BH23-03 0FT	Soluble	Solid	DI Leach	
890-4968-6	BH23-03 2FT	Soluble	Solid	DI Leach	
890-4968-7	BH23-08 0FT	Soluble	Solid	DI Leach	
890-4968-8	BH23-08 2FT	Soluble	Solid	DI Leach	8
890-4968-9	BH23-10 0FT	Soluble	Solid	DI Leach	
890-4968-10	BH23-10 2FT	Soluble	Solid	DI Leach	9
890-4968-11	BH23-11 0FT	Soluble	Solid	DI Leach	
890-4968-12	BH23-11 2FT	Soluble	Solid	DI Leach	
890-4968-13	BH23-12 0FT	Soluble	Solid	DI Leach	
890-4968-14	BH23-12 2FT	Soluble	Solid	DI Leach	
890-4968-15	BH23-13 0FT	Soluble	Solid	DI Leach	
890-4968-16	BH23-13 2FT	Soluble	Solid	DI Leach	
890-4968-17	BH23-14 0FT	Soluble	Solid	DI Leach	
890-4968-18	BH23-14 2FT	Soluble	Solid	DI Leach	
890-4968-19	BH23-15 0FT	Soluble	Solid	DI Leach	
890-4968-20	BH23-15 2FT	Soluble	Solid	DI Leach	
MB 880-58216/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-58216/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-58216/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4968-1 MS	BH23-01 0FT	Soluble	Solid	DI Leach	
890-4968-1 MSD	BH23-01 0FT	Soluble	Solid	DI Leach	
890-4968-11 MS	BH23-11 0FT	Soluble	Solid	DI Leach	
890-4968-11 MSD	BH23-11 0FT	Soluble	Solid	DI Leach	

Leach Batch: 58217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4968-21	BH23-16 0FT	Soluble	Solid	DI Leach	
890-4968-22	BH23-16 2FT	Soluble	Solid	DI Leach	
MB 880-58217/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-58217/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-58217/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4968-21 MS	BH23-16 0FT	Soluble	Solid	DI Leach	
890-4968-21 MSD	BH23-16 0FT	Soluble	Solid	DI Leach	

Analysis Batch: 58393

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4968-1	BH23-01 0FT	Soluble	Solid	300.0	58216
890-4968-2	BH23-01 2FT	Soluble	Solid	300.0	58216
890-4968-3	BH23-02 0FT	Soluble	Solid	300.0	58216
890-4968-4	BH23-02 2FT	Soluble	Solid	300.0	58216
890-4968-5	BH23-03 0FT	Soluble	Solid	300.0	58216
890-4968-6	BH23-03 2FT	Soluble	Solid	300.0	58216
890-4968-7	BH23-08 0FT	Soluble	Solid	300.0	58216
890-4968-8	BH23-08 2FT	Soluble	Solid	300.0	58216
890-4968-9	BH23-10 0FT	Soluble	Solid	300.0	58216
890-4968-10	BH23-10 2FT	Soluble	Solid	300.0	58216
890-4968-11	BH23-11 0FT	Soluble	Solid	300.0	58216

Eurofins Carlsbad

Page 112 of 181

Job ID: 890-4968-1 SDG: Carslbad NM

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

HPLC/IC (Continued)

Analysis Batch: 58393 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4968-12	BH23-11 2FT	Soluble	Solid	300.0	58216
890-4968-13	BH23-12 0FT	Soluble	Solid	300.0	58216
890-4968-14	BH23-12 2FT	Soluble	Solid	300.0	58216
890-4968-15	BH23-13 0FT	Soluble	Solid	300.0	58216
890-4968-16	BH23-13 2FT	Soluble	Solid	300.0	58216
890-4968-17	BH23-14 0FT	Soluble	Solid	300.0	58216
890-4968-18	BH23-14 2FT	Soluble	Solid	300.0	58216
890-4968-19	BH23-15 0FT	Soluble	Solid	300.0	58216
890-4968-20	BH23-15 2FT	Soluble	Solid	300.0	58216
MB 880-58216/1-A	Method Blank	Soluble	Solid	300.0	58216
LCS 880-58216/2-A	Lab Control Sample	Soluble	Solid	300.0	58216
LCSD 880-58216/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	58216
890-4968-1 MS	BH23-01 0FT	Soluble	Solid	300.0	58216
890-4968-1 MSD	BH23-01 0FT	Soluble	Solid	300.0	58216
890-4968-11 MS	BH23-11 0FT	Soluble	Solid	300.0	58216
890-4968-11 MSD	BH23-11 0FT	Soluble	Solid	300.0	58216
Analysis Batch: 58468					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4968-21	BH23-16 0FT	Soluble	Solid	300.0	58217
890-4968-22	BH23-16 2FT	Soluble	Solid	300.0	58217
MB 880-58217/1-A	Method Blank	Soluble	Solid	300.0	58217
LCS 880-58217/2-A	Lab Control Sample	Soluble	Solid	300.0	58217
LCSD 880-58217/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	58217
890-4968-21 MS	BH23-16 0FT	Soluble	Solid	300.0	58217
890-4968-21 MSD	BH23-16 0FT	Soluble	Solid	300.0	58217

Page 113 of 181

5 6 7

Client Sample ID: BH23-01 0FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Job ID: 890-4968-1 SDG: Carslbad NM

Lab Sample ID: 890-4968-1 Matrix: Solid

Lab Sample ID: 890-4968-2

Date Collected: 07/14/23 07:00 Date Received: 07/20/23 08:40

Client: Vertex

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 12:02	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/27/23 08:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	58294	07/24/23 08:30	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58509	07/26/23 17:25	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 22:49	СН	EET MID

Client Sample ID: BH23-01 2FT

Date Collected: 07/14/23 07:05 Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 12:22	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/27/23 08:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	58294	07/24/23 08:30	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58509	07/26/23 17:47	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:04	СН	EET MID

Client Sample ID: BH23-02 0FT

Date Collected: 07/14/23 07:10

Date Received: 07/20/23 08:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 12:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	58343	07/24/23 10:22	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 21:19	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:09	CH	EET MID

Client Sample ID: BH23-02 2FT Date Collected: 07/14/23 07:15 Date Received: 07/20/23 08:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 13:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID

Eurofins Carlsbad

Lab Sample ID: 890-4968-3

Lab Sample ID: 890-4968-4

Matrix: Solid

Matrix: Solid

5

9

Released to Imaging: 1/31/2024 3:13:52 PM

Client Sample ID: BH23-02 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Job ID: 890-4968-1 SDG: Carslbad NM

Lab Sample ID: 890-4968-4 Matrix: Solid

Lab Sample ID: 890-4968-5

Date Collected: 07/14/23 07:15 Date Received: 07/20/23 08:40

Client: Vertex

	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			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	58343	07/24/23 10:22	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 22:25	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:14	СН	EET MID

Client Sample ID: BH23-03 0FT

Date Collected: 07/14/23 07:20 Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 13:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 22:47	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:19	СН	EET MID

Client Sample ID: BH23-03 2FT

Date Collected: 07/14/23 07:25 Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 13:44	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 23:09	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:34	СН	EET MID

Client Sample ID: BH23-08 0FT

Date Collected: 07/14/23 08:10 Date Received: 07/20/23 08:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 14:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 23:30	AJ	EET MID

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Lab Sample ID: 890-4968-6

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4968-7 Matrix: Solid

Lab Chronicle

Job ID: 890-4968-1 SDG: Carslbad NM

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4968-7

Lab Sample ID: 890-4968-8

Client Sample ID: BH23-08 0FT Date Collected: 07/14/23 08:10

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Received: 07/20/23 08:40

Client: Vertex

	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 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:39	СН	EET MID

Client Sample ID: BH23-08 2FT Date Collected: 07/14/23 08:15 Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 14:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 23:52	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:44	СН	EET MID

Client Sample ID: BH23-10 0FT Date Collected: 07/14/23 08:30 Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 14:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	58343	07/24/23 10:22	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 00:14	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:49	СН	EET MID

Client Sample ID: BH23-10 2FT Date Collected: 07/14/23 08:35

Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 15:06	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 00:36	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/24/23 23:54	CH	EET MID

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9

Lab Sample ID: 890-4968-9 Matrix: Solid

Lab Sample ID: 890-4968-10

Client Sample ID: BH23-11 0FT

Date Collected: 07/14/23 08:40

Date Received: 07/20/23 08:40

Project/Site: PLU BIG SINKS 3-25-31 Battery

Batch

Туре

Prep

Analysis

Analysis

Analysis

Analysis

Analysis

Leach

Client Sample ID: BH23-11 2FT

Prep

Batch

Method

5035

8021B

Total BTEX

8015NM Prep

8015B NM

DI Leach

DI Leach

300.0

300.0

8015 NM

Client: Vertex

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Soluble

Soluble

Soluble

Soluble

Initial

Amount

4.99 g

5 mL

9.93 g

1 uL

5.05 g

5.01 g

Final

Amount

5 mL

5 mL

10 mL

1 uL

50 mL

50 mL

Batch

58296

58304

58456

58626

58343

58605

58216

58393

58216

58393

Number

Dil

1

1

1

1

1

Factor

Run

Job ID: 890-4968-1 SDG: Carslbad NM

Lab Sample ID: 890-4968-11

Analyst

AJ

SM

SM

SM

ткс

AJ

ĸs

СН

KS

СН

Lab Sample ID: 890-4968-13

Lab Sample ID: 890-4968-14

Prepared

or Analyzed

07/24/23 08:43

07/24/23 16:29

07/25/23 10:04

07/28/23 12:21

07/24/23 10:22

07/28/23 00:58

07/21/23 09:36

07/24/23 23:59

07/21/23 09:36

07/25/23 00:14

Matrix: Solid

Lab

EET MID

EET MID

EET MID

EET MID

EET MID

EET MID

FFT MID

EET MID

Lab Sample ID: 890-4968-12

Matrix: Solid

Lab

EET MID

Matrix: Solid

	: 07/14/23 08:4 : 07/20/23 08:4	-							
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared	
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst
Total/NA	Prep	5035			5.04 g	5 mL	58296	07/24/23 08:43	AJ
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 16:50	SM
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	58343	07/24/23 10:22	ткс
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 01:19	AJ

1

Client Sample ID: BH23-12 0FT

Leach

Analysis

Date Collected: 07/14/23 08:50

Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 17:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 02:03	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/25/23 00:19	СН	EET MID

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 17:31	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID

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Client Sample ID: BH23-12 2FT Date Collected: 07/14/23 08:55 Date Received: 07/20/23 08:40

Released to Imaging: 1/31/2024 3:13:52 PM

7/28/2023

Client Sample ID: BH23-12 2FT

Project/Site: PLU BIG SINKS 3-25-31 Battery

Job ID: 890-4968-1 SDG: Carslbad NM

Lab Sample ID: 890-4968-14 Matrix: Solid

Lab Sample ID: 890-4968-15

Date Collected: 07/14/23 08:55 Date Received: 07/20/23 08:40

Client: Vertex

	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			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	58343	07/24/23 10:22	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 02:25	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/25/23 00:33	СН	EET MID

Client Sample ID: BH23-13 0FT Date Collected: 07/14/23 09:00

Date Received: 07/20/23 08:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 17:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 02:46	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/25/23 00:38	CH	EET MID

Client Sample ID: BH23-13 2FT

Date Collected: 07/14/23 09:05 Date Received: 07/20/23 08:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 18:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 03:08	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/25/23 00:43	СН	EET MID

Client Sample ID: BH23-14 0FT

Date Collected: 07/14/23 09:10 Date Received: 07/20/23 08:40

	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	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 18:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 03:30	AJ	EET MID

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5

9

Lab Sample ID: 890-4968-16

Lab Sample ID: 890-4968-17

Matrix: Solid

Matrix: Solid

Job ID: 890-4968-1 SDG: Carslbad NM

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4968-17

Lab Sample ID: 890-4968-18

Client Sample ID: BH23-14 0FT Date Collected: 07/14/23 09:10

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Received: 07/20/23 08:40

Client: Vertex

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analvst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/25/23 00:48	СН	EET MID

Client Sample ID: BH23-14 2FT Date Collected: 07/14/23 09:15 Date Received: 07/20/23 08:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	58296	07/24/23 08:43	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/24/23 18:53	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	58343	07/24/23 10:22	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 03:51	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	58216	07/21/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			58393	07/25/23 00:53	СН	EET MID

Client Sample ID: BH23-15 0FT Date Collected: 07/14/23 09:20 Date Received: 07/20/23 08:40

Dil Batch Batch 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 58407 07/24/23 17:46 AJ EET MID Total/NA 8021B 07/25/23 10:35 EET MID Analysis 500 5 mL 5 mL 58347 SM Total/NA Prep 5035 4.96 g 5 mL 58296 07/24/23 08:43 AJ EET MID 8021B Total/NA Analysis 1 5 mL 5 mL 58304 07/24/23 19:13 SM EET MID Total/NA Analysis Total BTEX 58456 07/25/23 10:04 SM EET MID 1 8015 NM Total/NA Analysis 1 58626 07/28/23 12:21 SM EET MID 9.95 g Total/NA Prep 8015NM Prep 10 mL 58343 07/24/23 10:22 ткс EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 58605 07/28/23 04:13 AJ EET MID 1 Soluble DI Leach 4.95 g 50 mL 58216 07/21/23 09:36 ĸs FFT MID Leach Soluble Analysis 300.0 1 58393 07/25/23 00:58 СН EET MID

Client Sample ID: BH23-15 2FT

Date Collected: 07/14/23 09:25 Date Received: 07/20/23 08:40

	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	58407	07/24/23 17:46	AJ	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	58347	07/25/23 10:55	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/26/23 16:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	9.99 g 1 uL	10 mL 1 uL	58343 58605	07/24/23 10:22 07/28/23 04:35	TKC AJ	EET MID EET MID

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Matrix: Solid

Lab Sample ID: 890-4968-19 Matrix: Solid

Lab Sample ID: 890-4968-20

Job ID: 890-4968-1 SDG: Carslbad NM

Matrix: Solid

Matrix: Solid

Matrix: Solid

9

Lab Sample ID: 890-4968-20

Lab Sample ID: 890-4968-21

Lab Sample ID: 890-4968-22

Client Sample ID: BH23-15 2FT Date Collected: 07/14/23 09:25

Project/Site: PLU BIG SINKS 3-25-31 Battery

Date Received: 07/20/23 08:40

Client: Vertex

Dren Tyres	Batch	Batch	Dura	Dil	Initial	Final	Batch	Prepared	Analyse	Lab
Prep Type Soluble	Leach	Method DI Leach	Run	Factor	Amount 4.98 g	50 mL	- Number 58216	or Analyzed 07/21/23 09:36	Analyst KS	EET MID
Soluble	Analysis	300.0		1			58393	07/25/23 01:03	СН	EET MID

Client Sample ID: BH23-16 0FT Date Collected: 07/14/23 09:30

Date Received: 07/20/23 08:40

	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	58407	07/24/23 17:46	AJ	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	58347	07/25/23 07:19	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/26/23 16:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 04:57	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	58217	07/21/23 09:38	KS	EET MID
Soluble	Analysis	300.0		1			58468	07/25/23 11:52	СН	EET MID

Client Sample ID: BH23-16 2FT Date Collected: 07/14/23 09:35 Date Received: 07/20/23 08:40

	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	58407	07/24/23 17:46	AJ	EET MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	58347	07/25/23 10:15	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58456	07/26/23 16:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			58626	07/28/23 12:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	58343	07/24/23 10:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/28/23 05:19	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	58217	07/21/23 09:38	KS	EET MID
Soluble	Analysis	300.0		1			58468	07/25/23 12:07	СН	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

Laboratory: Eurofins Midland

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

hority	P	rogram	Identification Number	Expiration Date	
as		IELAP	T104704400-23-26	06-30-24	
0,		out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for	
the agency does not or	fer certification.				
Analysis Method	fer certification . Prep Method	Matrix	Analyte		
0,		Matrix Solid	Analyte Total TPH		

Job ID: 890-4968-1 SDG: Carslbad NM

Page 121 of 181

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Method Summary

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery Job ID: 890-4968-1 SDG: Carslbad NM

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	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
EPA = US	STM International Environmental Protection Agency		
SW846 = '	Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edi	ion, November 1986 And Its Updates.	
TAL SOP :	 TestAmerica Laboratories, Standard Operating Procedure 		
Laboratory Re			
EET MID =	Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

Eurofins Carlsbad

Sample Summary

Client: Vertex Project/Site: PLU BIG SINKS 3-25-31 Battery

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
390-4968-1	BH23-01 0FT	Solid	07/14/23 07:00	07/20/23 08:40	0
390-4968-2	BH23-01 2FT	Solid	07/14/23 07:05	07/20/23 08:40	2
390-4968-3	BH23-02 0FT	Solid	07/14/23 07:10	07/20/23 08:40	0
390-4968-4	BH23-02 2FT	Solid	07/14/23 07:15	07/20/23 08:40	2
390-4968-5	BH23-03 0FT	Solid	07/14/23 07:20	07/20/23 08:40	0
390-4968-6	BH23-03 2FT	Solid	07/14/23 07:25	07/20/23 08:40	2
390-4968-7	BH23-08 0FT	Solid	07/14/23 08:10	07/20/23 08:40	0
390-4968-8	BH23-08 2FT	Solid	07/14/23 08:15	07/20/23 08:40	2
390-4968-9	BH23-10 0FT	Solid	07/14/23 08:30	07/20/23 08:40	0
390-4968-10	BH23-10 2FT	Solid	07/14/23 08:35	07/20/23 08:40	2
390-4968-11	BH23-11 0FT	Solid	07/14/23 08:40	07/20/23 08:40	0
390-4968-12	BH23-11 2FT	Solid	07/14/23 08:45	07/20/23 08:40	2
390-4968-13	BH23-12 0FT	Solid	07/14/23 08:50	07/20/23 08:40	0
390-4968-14	BH23-12 2FT	Solid	07/14/23 08:55	07/20/23 08:40	2
390-4968-15	BH23-13 0FT	Solid	07/14/23 09:00	07/20/23 08:40	0
390-4968-16	BH23-13 2FT	Solid	07/14/23 09:05	07/20/23 08:40	2
390-4968-17	BH23-14 0FT	Solid	07/14/23 09:10	07/20/23 08:40	0
390-4968-18	BH23-14 2FT	Solid	07/14/23 09:15	07/20/23 08:40	2
390-4968-19	BH23-15 0FT	Solid	07/14/23 09:20	07/20/23 08:40	0
390-4968-20	BH23-15 2FT	Solid	07/14/23 09:25	07/20/23 08:40	2
390-4968-21	BH23-16 0FT	Solid	07/14/23 09:30	07/20/23 08:40	0
390-4968-22	BH23-16 2FT	Solid	07/14/23 09:35	07/20/23 08:40	2

Job ID: 890-4968-1 SDG: Carslbad NM

Pageof	er Comments Brownfields RRC Superfund PST/UST TRRP Level IV Anor Other	Pres	ool: Cool CL: HC \$90 4: H 2 \$0 4: N aSO 3 Accetate NaOH: Accetate NaOH Accorbic Ac Sample Corr Sample Corr Sn U V Zn 470 / 7471	e) Date/Time
Work Order No: . www.xenco.com	Work Order Comments Program: UST/PST PRP Brownfields State of Project: Reporting: Level III Level III PST/UST		B30-4968 Chain of Custody B30-4968 Chain of Custody NN NN NN NN NN NN NN NN NN N	e) Received by: (Signature)
Chain of Custody Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199		211	A:30pm A:30pm	Date/Time Relinquished by: (Signature)
Ch Houston, TX (2 Midland, TX (432 EL Paso, TX (91: Hobbs, NM (57)	Bill to: (if different) Gov Company Name: X:TO Address: City, State ZIP:	OTURN Around	Due Date: Comp Due Date: Due Date: Nat starts the day received by the lab, if received by the lab, if received by wer t.e: Part starts the day received by the lab, if received by the lab Dio: TW NO<	2
Control Environment Testing Xenco	KUM Dr Br	10 matter 2010	And Decision Constrained Constrained <thconstrained< th=""> <thconstrained< th=""></thconstrained<></thconstrained<>	Relinquished by: (Signature) Received by: (Signature)

7/28/2023

Page 124 of 181

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Page 2 of 3	ients		Other:	Preservative Codes	None: NO DI Water: H ₂ O	Cool: Cool MeOH: Me HCI · HC HND · · HN	7	H ₃ PO ₄ : HP	NaHSO 2: NABIS	Zn Acetate+NaOH: Zn	NaOH+Ascorbic Acid: SAPC	Sample Comments								Sn U V Zn 470 /7471		Date/Time		Revised Date: 08/25/2020 Rev. 2020.2
Work Order No:	Work Order Comments am: UST/PST PRP Brownfields	ject:				HC COC	H	H	Nar	Zu	NaC									Ii K Se Ag SiO ₂ Na Sr Tl Hg: 1631 / 245.1 / 7	itions ntroi negotiated.	Received by: (Signature)		
Chain of Custody Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	erent) erent Program:			ANALYSIS REQUEST	Pres. Code			jerei san	Parar	8:	E H L	Grab/ #of Comp Cont SC	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	× × ×						A 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K TCLP/SPLP6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	client company to Eurofins Yenco, its affiliates and subcontractors. It assigns standard terms and conditions for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated	U U	7 30 33 846	 >
 Eurofins Environment Testing Xenco He 	Project Manager: Bill to: (if different) Company Name: Company Name:		City, State ZIP: City, State ZIP: Email: Email:	2	Der:		Sampler's Name: PO #: the lab, if received by 4:30pm	DLE RECEIPT Temp Blank:	Samples Received Intact: Yes No Netmoneter ID:	Yes No N/A	Total Containers: Corrected Temperature:	Sample Identification Matrix Date Time Depth Grab/ Comp	2413-11 0 Gt 2011 -1/4 8:40 0 64	4	2412-12 DCF 9:00 0	3-13 24 9:05	BH13-14 0 Ct 9:10 V	211-2-14 CV+ 1 1 9.10 1/	V V V	Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8R	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affilates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously nego	Relinquished by: (Signature)	E RULL	

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Page 2 of 2	er Comments Brownfields RRC Superfund	PST/UST TRRP Level IV	Preservative Codes			e) Date/Time Revied Date 08/25/2020 Rev 2020.2
Work Order No:	Work Order Comments Program: UST/PST PRP Brownfields	el II 🗌 Level III 🗍 EDD 🗍 AD		Соо! Соо! Соо! Соо! НС: НС H.50 4: H 9 H.30 4: H 9 NaHSO 4: NABIS Na,5 20; NaSO Zn Acetate-NaO NaOH+Ascorbic Sample Cc Sample Cc Ma N MO Ni K Se Ag SiO ₂ Na Sr TI Sn U V Zn Mn Mo Ni K Se Ag SiO ₂ Na Sr TI Sn U V Zn	is and conditions ond the control is previously negotiated.	Ire) Received by: (Signature)
stody s, TX (214) 902-0300 onio, TX (210) 509-3334 ck, TX (806) 794-1296 id, NM (575) 988-3199			ANALYSIS REQUEST	creived by by 4:30pm constructors fes No fes Stable fes No	nd subcontractors. It assigns standard term t if such losses are due to circumstances bey nalyzed. These terms will be enforced unless	Relinquished by: (Signature)
Chain of Custody Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-343, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	o: (if different) pany Name:	e ZIP:	Pres.	No Series Contractors Series A Series Contractors Series Contra	company to Eurofins Xenco, its affiliates a ny losses or expenses incurred by the clien ole submitted to Eurofins Xenco, but not ai	Date/Time
Environment Testing Xenco	Bill to: (if differen Company Name	City, State ZIP:		Table Date: Due Date: Temp Blank:: Ves No Yes No Theynonheter ID: Yes No NA Temperature Reading: Yes No Yes No NA Temperature Reading: Corrected Temperature: Yes No NA Temperature Reading: Corrected Temperature: Yes No NA Temperature Reading: Corrected Temperature: Astrix Date Time Depth Goine Jate Corrected Temperature: Astrix Sampled Date Time Date<	Notice: Stgmature of this document and relimptishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco, will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of service. 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 applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Received by: (Signature)
🐝 eurofins	Project Manager: Company Name:	Address: City, State ZIP:	Project Name:	Project Number: Project Location: Sampler's Name: PO #: Sampler's Name: PO #: Sampler's Name: Folder Location: Samples Received Intact: Sample Custody Seals: Yes Sample Custody Seals: Yes Sample Received Intact: Sample Received Intact: Sample Custody Seals: Yes Sample Custody Seals: Yes Sample Custody Seals: Yes Sample Identification Matrix Sample Identification Riccle Method(s) and Metal(s) to be analyzed	Notice: Signature of this document and refine of service. Eurofins Xenco will be llable only of Eurofins Xenco. Aminimum charge of 885	Relinquished by: (Signature)

Page 126 of 181

Login Sample Receipt Checklist

Client: Vertex

Login Number: 4968 List Number: 1 Creator: Clifton, Cloe

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

Job Number: 890-4968-1

SDG Number: Carslbad NM

14

Job Number: 890-4968-1 SDG Number: Carslbad NM

List Source: Eurofins Midland

List Creation: 07/21/23 10:58 AM

Login Sample Receipt Checklist

Client: Vertex

Login Number: 4968 List Number: 2 Creator: Rodriguez, Leticia

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

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

Received by OCD: 9/12/2023 2:53:20 PM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 8/21/2023 2:54:39 PM

JOB DESCRIPTION

PLU Big Sinks 3-25-31 Battery SDG NUMBER 23J-04103

JOB NUMBER

890-5107-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information

Eurofins Carlsbad

Job Notes

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

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

Authorization

AMER

Generated 8/21/2023 2:54:39 PM

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

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2

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
	5
	6
Surrogate Summary	10
QC Sample Results	11
	15
Lab Chronicle	17
Certification Summary	19
Method Summary	20
Sample Summary	21
	22
	23

	Definitions/Glossary		
Client: Verte Project/Site:	x PLU Big Sinks 3-25-31 Battery	Job ID: 890-5107-1 SDG: 23J-04103	2
Qualifiers			
GC VOA Qualifier	Qualifier Description		
*-	LCS and/or LCSD is outside acceptance limits, low biased. LCS/LCSD RPD exceeds control limits.		
F1	MS and/or MSD recovery exceeds control limits.		
S1- U	Surrogate recovery exceeds control limits, low biased. Indicates the analyte was analyzed for but not detected.		
GC Semi VO Qualifier	OA Qualifier Description		
F1	MS and/or MSD recovery exceeds control limits.		8
S1+ U	Surrogate recovery exceeds control limits, high biased. Indicates the analyte was analyzed for but not detected.		
HPLC/IC Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		

Glossary

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

Job ID: 890-5107-1 SDG: 23J-04103

Job ID: 890-5107-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-5107-1

Receipt

The samples were received on 8/16/2023 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BS23-01 (890-5107-1), WS23-01 (890-5107-2), WS23-02 (890-5107-3) and BH23-14 (890-5107-4).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-60466 and analytical batch 880-60525 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: The matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-60466 and analytical batch 880-60525 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-60466 and analytical batch 880-60525 recovered outside control limits for the following analytes: Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-60525 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-60525/20) and (CCV 880-60525/33).

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

GC Semi VOA

Method 8015MOD NM: The surrogate recovery for the blank associated with preparation batch 880-60575 and analytical batch 880-60627 was outside the upper control limits.

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60627/31), (CCV 880-60627/47), (CCV 880-60627/58) and (LCSD 880-60575/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: WS23-01 (890-5107-2), WS23-02 (890-5107-3) and BH23-14 (890-5107-4). 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: (890-5105-A-1-C) and (890-5105-A-1-D) MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD NM: The matrix spike (MS) recoveries for preparation batch 880-60575 and analytical batch 880-60627 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Job ID: 890-5107-1 SDG: 23J-04103

Matrix: Solid

5

Lab Sample ID: 890-5107-1

Client Sample ID: BS23-01

Date Collected: 08/14/23 12:00 Date Received: 08/16/23 09:55

Sample Depth: 2.5

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00198	U	0.00198	mg/Kg		08/17/23 13:00	08/18/23 15:08	
Toluene	<0.00198	U *- *1	0.00198	mg/Kg		08/17/23 13:00	08/18/23 15:08	
Ethylbenzene	<0.00198	U *- *1	0.00198	mg/Kg		08/17/23 13:00	08/18/23 15:08	
m-Xylene & p-Xylene	<0.00397	U *- *1	0.00397	mg/Kg		08/17/23 13:00	08/18/23 15:08	
o-Xylene	<0.00198	U *- *1	0.00198	mg/Kg		08/17/23 13:00	08/18/23 15:08	
Xylenes, Total	<0.00397	U *- *1	0.00397	mg/Kg		08/17/23 13:00	08/18/23 15:08	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	76		70 - 130			08/17/23 13:00	08/18/23 15:08	
1,4-Difluorobenzene (Surr)	120		70 - 130			08/17/23 13:00	08/18/23 15:08	
Method: TAL SOP Total BTEX - Tota	al BTEX Calc	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	< 0.00397	U	0.00397	mg/Kg			08/21/23 11:05	
Гоtal ТРН Method: SW846 8015B NM - Diesel	<50.4 Range Orga		50.4	mg/Kg			08/21/23 13:36	
Method: SW846 8015B NM - Diesei Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<50.4		50.4	0mt mg/Kg		08/18/23 14:14	08/20/23 23:58	
(GRO)-C6-C10	-00.4	-						
Diesel Range Organics (Over	<50.4	U	50.4	mg/Kg		08/18/23 14:14	08/20/23 23:58	
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/18/23 14:14	08/20/23 23:58	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	129		70 - 130			08/18/23 14:14	08/20/23 23:58	
p-Terphenyl	112		70 - 130			08/18/23 14:14	08/20/23 23:58	
		hv - Solubi	e					
Method: EPA 300.0 - Anions, Ion Ch	iromatograp	,				. .		
Method: EPA 300.0 - Anions, Ion Cl Analyte	•••	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

Date Collected: 08/14/23 12:05 Date Received: 08/16/23 09:55

Sample Depth: 2.5

Г

Method: SW846 8021B - Volati	le Organic Comp	ounds (GC))					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 16:32	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 16:32	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 16:32	1
m-Xylene & p-Xylene	<0.00400	U *- *1	0.00400	mg/Kg		08/17/23 13:00	08/18/23 16:32	1
o-Xylene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 16:32	1
Xylenes, Total	<0.00400	U *- *1	0.00400	mg/Kg		08/17/23 13:00	08/18/23 16:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130			08/17/23 13:00	08/18/23 16:32	1

Eurofins Carlsbad

Released to Imaging: 1/31/2024 3:13:52 PM

Client Sample Results

Job ID: 890-5107-1 SDG: 23J-04103

Lab Sample ID: 890-5107-2

Client Sample ID: WS23-01

Date Collected: 08/14/23 12:05

Date Received: 08/16/23 09:55

Sample Depth: 2.5

Client: Vertex

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	115		70 - 130			08/17/23 13:00	08/18/23 16:32	
Method: TAL SOP Total BTEX - T	otal BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00400	U	0.00400	mg/Kg			08/21/23 11:05	
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
							00/01/00 10 00	
Total TPH Method: SW846 8015B NM - Dies	<50.1		50.1	mg/Kg			08/21/23 13:36	
	sel Range Orga	nics (DRO)		mg/Kg			08/21/23 13:36	1
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga	nics (DRO) Qualifier		mg/Kg <mark>Unit</mark> mg/Kg	<u>D</u>	Prepared 08/18/23 14:14	Analyzed 08/21/23 13:36	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga Result	nics (DRO) Qualifier	(GC) RL	Unit	D		Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics GRO)-C6-C10	sel Range Orga Result	nics (DRO) Qualifier	(GC) RL	Unit	<u>D</u>		Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Orga Result <50.1	nics (DRO) Qualifier	(GC) <u>RL</u> 50.1	Unit mg/Kg	<u>D</u>	08/18/23 14:14	Analyzed 08/21/23 00:19	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Orga Result <50.1	nics (DRO) Qualifier U	(GC) <u>RL</u> 50.1	Unit mg/Kg	<u> </u>	08/18/23 14:14	Analyzed 08/21/23 00:19	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) DII Range Organics (Over C28-C36)	sel Range Orga Result <50.1	nics (DRO) Qualifier U U	(GC) <u>RL</u> 50.1 50.1	Unit mg/Kg mg/Kg	D	08/18/23 14:14 08/18/23 14:14	Analyzed 08/21/23 00:19 08/21/23 00:19	1
Method: SW846 8015B NM - Dies Analyte	sel Range Orga Result <50.1 <50.1	nics (DRO) Qualifier U U	(GC) <u>RL</u> 50.1 50.1 50.1	Unit mg/Kg mg/Kg	<u>D</u>	08/18/23 14:14 08/18/23 14:14 08/18/23 14:14	Analyzed 08/21/23 00:19 08/21/23 00:19 08/21/23 00:19	Dil Fac

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.8		4.97	mg/Kg			08/18/23 01:59	1

Client Sample ID: WS23-02

Date Collected: 08/14/23 12:10 Date Received: 08/16/23 09:55 Sample Depth: 2.5

Lab Sample ID: 890-5107-3

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/17/23 13:00	08/18/23 17:08	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		08/17/23 13:00	08/18/23 17:08	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		08/17/23 13:00	08/18/23 17:08	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		08/17/23 13:00	08/18/23 17:08	1
o-Xylene	<0.00199	U *- *1	0.00199	mg/Kg		08/17/23 13:00	08/18/23 17:08	1
Xylenes, Total	<0.00398	U *- *1	0.00398	mg/Kg		08/17/23 13:00	08/18/23 17:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130			08/17/23 13:00	08/18/23 17:08	1
1,4-Difluorobenzene (Surr)	120		70 - 130			08/17/23 13:00	08/18/23 17:08	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/21/23 11:05	1
 Method: SW846 8015 NM - Di	esel Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			08/21/23 13:36	1

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Matrix: Solid

Job ID: 890-5107-1 SDG: 23J-04103

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-5107-3

Client Sample ID: WS23-02

Date Collected: 08/14/23 12:10 Date Received: 08/16/23 09:55

Sample Depth: 2.5

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		08/18/23 14:14	08/21/23 00:40	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		08/18/23 14:14	08/21/23 00:40	1
Oll Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		08/18/23 14:14	08/21/23 00:40	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	140	S1+	70 - 130			08/18/23 14:14	08/21/23 00:40	1
o-Terphenyl	120		70 - 130			08/18/23 14:14	08/21/23 00:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	66.6	5.00	mg/Kg			08/18/23 02:20	1

Client Sample ID: BH23-14

Date Collected: 08/14/23 12:15 Date Received: 08/16/23 09:55

Sample Depth: 2.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 17:29	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 17:29	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 17:29	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399	mg/Kg		08/17/23 13:00	08/18/23 17:29	1
o-Xylene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 17:29	1
Xylenes, Total	<0.00399	U *- *1	0.00399	mg/Kg		08/17/23 13:00	08/18/23 17:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			08/17/23 13:00	08/18/23 17:29	1
1,4-Difluorobenzene (Surr)	120		70 - 130			08/17/23 13:00	08/18/23 17:29	1
Method: TAL SOP Total BTEX	- Total BTEX Cal							
Method: TAL SOP Total BTEX Analyte Total BTEX	- Total BTEX Cal	Qualifier	RL	Unit ma/Ka	D	Prepared	Analyzed 08/21/23 11:05	Dil Fac
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die	- Total BTEX Cale Result <0.00399 sel Range Organ	Qualifier U ics (DRO) (RL 0.00399	mg/Kg		Prepared	Analyzed 08/21/23 11:05	1
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte	- Total BTEX Cale Result <0.00399 sel Range Organ Result	Qualifier U ics (DRO) (Qualifier	RL 0.00399 GC) RL	mg/Kg Unit	D		Analyzed 08/21/23 11:05 Analyzed	1
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die	- Total BTEX Cale Result <0.00399 sel Range Organ	Qualifier U ics (DRO) (Qualifier	RL 0.00399	mg/Kg		Prepared	Analyzed 08/21/23 11:05	Dil Fac
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH	- Total BTEX Cale Result <0.00399 sel Range Organ Result <49.8	Qualifier U ics (DRO) (Qualifier U	RL 0.00399 GC) RL 49.8	mg/Kg Unit		Prepared	Analyzed 08/21/23 11:05 Analyzed	1
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D	- Total BTEX Cale Result <0.00399 sel Range Organ Result <49.8 iesel Range Orga	Qualifier U ics (DRO) (Qualifier U	RL 0.00399 GC) RL 49.8	mg/Kg Unit		Prepared	Analyzed 08/21/23 11:05 Analyzed	1
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte	- Total BTEX Cale Result <0.00399 sel Range Organ Result <49.8 iesel Range Orga	Qualifier U ics (DRO) (Qualifier U enics (DRO) Qualifier	RL 0.00399 GC) RL 49.8 (GC)	mg/Kg Unit mg/Kg	D	Prepared Prepared	Analyzed 08/21/23 11:05 Analyzed 08/21/23 13:36	1 Dil Fac

	OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	08/18/23 14:14	08/21/23 01:23	1
	Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
	1-Chlorooctane	131	S1+	70 - 130		08/18/23 14:14	08/21/23 01:23	1
l	o-Terphenyl	118		70 - 130		08/18/23 14:14	08/21/23 01:23	1

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Released to Imaging: 1/31/2024 3:13:52 PM

		Client	Sample Res	sults					1
Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Ba	attery						Job ID: 890 SDG: 23		2
Client Sample ID: BH23-14 Date Collected: 08/14/23 12:15						Lab Sa	mple ID: 890- Matri	•5107-4 ix: Solid	
Date Received: 08/16/23 09:55 Sample Depth: 2.5									4
Method: EPA 300.0 - Anions, Ion Ch Analyte		hy - Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	5
Chloride	56.3		4.99	mg/Kg			08/18/23 02:27	1	
									8
									9
									13

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Job ID: 890-5107-1 SDG: 23J-04103

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Client: Vertex

_				Percent Surrogate Recovery (Acceptance Limits)	
Lab Comula ID	Client Comple ID	BFB1 (70-130)	DFBZ1 (70-130)		
Lab Sample ID 880-32224-A-1-B MS	Client Sample ID Matrix Spike	87	106		
880-32224-A-1-C MSD	Matrix Spike Duplicate	83	108		
890-5107-1	BS23-01	76	120		- 5
890-5107-2	WS23-01	73	115		
890-5107-3	WS23-02	84	120		
890-5107-4	BH23-14	82	120		
LCS 880-60466/1-A	Lab Control Sample	46 S1-	79		
LCSD 880-60466/2-A	Lab Control Sample Dup	90	103		
MB 880-60466/5-A	Method Blank	74	94		
Surrogate Legend					

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Γ				Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-5105-A-1-D MS	Matrix Spike	143 S1+	114		
890-5105-A-1-E MSD	Matrix Spike Duplicate	130	103		
890-5107-1	BS23-01	129	112		
890-5107-2	WS23-01	131 S1+	109		
890-5107-3	WS23-02	140 S1+	120		
890-5107-4	BH23-14	131 S1+	118		
LCS 880-60575/2-A	Lab Control Sample	119	102		
LCSD 880-60575/3-A	Lab Control Sample Dup	154 S1+	136 S1+		
MB 880-60575/1-A	Method Blank	176 S1+	162 S1+		

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Lab Sample ID: MB 880-60466/5-A

QC Sample Results

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid							Prep Type: 1	Total/NA
Analysis Batch: 60525							Prep Batch	n: 60466
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130			08/17/23 13:00	08/18/23 11:39	1
1,4-Difluorobenzene (Surr)	94		70 - 130			08/17/23 13:00	08/18/23 11:39	1

Lab Sample ID: LCS 880-60466/1-A Matrix: Solid

Analysis Batch: 60525

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1085		mg/Kg		108	70 - 130	
Toluene	0.100	0.05476	*_	mg/Kg		55	70 - 130	
Ethylbenzene	0.100	0.04346	*_	mg/Kg		43	70 - 130	
m-Xylene & p-Xylene	0.200	0.08777	*-	mg/Kg		44	70 - 130	
o-Xylene	0.100	0.04199	*_	mg/Kg		42	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	46	S1-	70 - 130
1,4-Difluorobenzene (Surr)	79		70 - 130

Lab Sample ID: LCSD 880-60466/2-A

Matrix: Solid

Analysis Batch: 60525							Prep	Batch:	60466
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1110		mg/Kg		111	70 - 130	2	35
Toluene	0.100	0.1022	*1	mg/Kg		102	70 - 130	60	35
Ethylbenzene	0.100	0.08722	*1	mg/Kg		87	70 - 130	67	35
m-Xylene & p-Xylene	0.200	0.1836	*1	mg/Kg		92	70 - 130	71	35
o-Xylene	0.100	0.09055	*1	mg/Kg		91	70 - 130	73	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 880-32224-A-1-B MS

Matrix: Solid

Analysis Batch: 60525									Prep	Batch: 60466
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U	0.0996	0.1128		mg/Kg		113	70 - 130	
Toluene	<0.00198	U *- *1	0.0996	0.09537		mg/Kg		96	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

13

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 60466

Sample	Spike	MS MS	

QC Sample Results

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery

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

Job ID: 890-5107-1	
SDG: 23J-04103	

Page 140 of 181

Lab Sample ID: 880-32224-	A-1-B MS							Client	Sample ID		
Matrix: Solid										Type: To	
Analysis Batch: 60525	Sampla	Sample	Spike	MS	мѕ				%Rec	Batch:	00400
Analyte	•	Qualifier	Added	Result		Unit	D	%Rec	Limits		
Ethylbenzene		U *- *1 F1	0.0996	0.07643	Quaimer	mg/Kg		77	70 - 130		
n-Xylene & p-Xylene		U *- *1 F1	0.199	0.1569		mg/Kg		79	70 - 130		
p-Xylene		U *- *1 F1	0.0996	0.07842		mg/Kg		79	70 - 130 70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	106		70 _ 130								
Matrix: Solid Analysis Batch: 60525									Prep	Type: To Batch:	6046
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Benzene	<0.00198	U	0.100	0.1098		mg/Kg		110	70 - 130	3	3
Toluene	<0.00198	U *- *1	0.100	0.09026		mg/Kg		90	70 - 130	6	3
Ethylbenzene	<0.00198	U *- *1 F1	0.100	0.06801		mg/Kg		68	70 - 130	12	35
m-Xylene & p-Xylene	<0.00396	U *- *1 F1	0.200	0.1347	F1	mg/Kg		67	70 - 130	15	3
o-Xylene	<0.00198	U *- *1 F1	0.100	0.06743	F1	mg/Kg		67	70 - 130	15	3
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	83		70 - 130								
1,4-Difluorobenzene (Surr)	108		70 - 130								
lethod: 8015B NM - Die	esel Range O	rganics (D	RO) (GC)								
iethou. 8015B MM - Die	sel Kallye O	games (D									

Matrix: Solid Analysis Batch: 60627

Analysis Batch: 60627							Prep Batch	n: 60575
	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/18/23 14:14	08/20/23 19:33	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/18/23 14:14	08/20/23 19:33	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/18/23 14:14	08/20/23 19:33	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	176	S1+	70 - 130			08/18/23 14:14	08/20/23 19:33	1

70 - 130

o-Terphenyl	162	S1+
_ Lab Sample ID: LCS 880-60575/2-A Matrix: Solid		

Analysis Batch: 60627

Analysis Batch: 60627							Prep	Batch: 60575
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1005		mg/Kg		100	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	961.3		mg/Kg		96	70 - 130	
C10-C28)								

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Prep Type: Total/NA

08/18/23 14:14 08/20/23 19:33

Client Sample ID: Lab Control Sample

QC Sample Results

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery

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

Lab Sample ID: LCS 880-60)575/2-A						Client	Sample	ID: Lab Co		
Matrix: Solid									Prep T	ype: Tot	al/N/
Analysis Batch: 60627									Prep	Batch:	6057
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	119		70 - 130								
o-Terphenyl	102		70 - 130								
Lab Sample ID: LCSD 880-	60575/3-A					Clier	nt Sam	ple ID: I	Lab Contro	I Sample	e Du
Matrix: Solid									Prep T	ype: Tot	al/N
Analysis Batch: 60627									Prep	Batch:	6057
			Spike	LCSD	LCSD				%Rec		RP
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Gasoline Range Organics (GRO)-C6-C10			1000	1199		mg/Kg		120	70 - 130	18	2
Diesel Range Organics (Over			1000	1136		mg/Kg		114	70 - 130	17	2
C10-C28)						55					-
	LCSD	1000									
Surrogate	%Recovery		Limits								
1-Chlorooctane		S1+	70 - 130								
p-Terphenyl		S1+	70 - 130 70 - 130								
Lab Sample ID: 890-5105-A	-1-D MS							Client	Sample ID:		
Matrix: Solid										ype: Tot	
Analysis Batch: 60627									Prep	Batch:	6057
	•	Sample	Spike	MS	MS				%Rec		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	999	1028		mg/Kg		103	70 - 130		
	<50.3	U F1	999	1417	F1	mg/Kg		140	70 - 130		
	-00.0		333	1417							
		MS	333	1417							
Diesel Range Organics (Over C10-C28) Surrogate			Limits	1417							
C10-C28)	MS %Recovery			1417							
C10-C28) Surrogate -Chlorooctane	MS %Recovery	Qualifier	Limits								
C10-C28) Surrogate I-Chlorooctane D-Terphenyl	MS %Recovery 	Qualifier	Limits 70 - 130			CI	ient Sa	ample ID): Matrix Sp	oike Dup	lica
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-5105-A	MS %Recovery 	Qualifier	Limits 70 - 130			CI	ient Sa	ample IC		bike Dup Type: Tot	
C10-C28) Surrogate 1-Chlorooctane p-Terphenyl Lab Sample ID: 890-5105-A Matrix: Solid	MS %Recovery 	Qualifier	Limits 70 - 130			CI	ient Sa	ample ID	Prep T		al/N
C10-C28) Surrogate 1-Chlorooctane 5-Terphenyl Lab Sample ID: 890-5105-A Matrix: Solid	MS <u>%Recovery</u> 143 114 A-1-E MSD	Qualifier	Limits 70 - 130		MSD	CI	ient Sa	ample ID	Prep T	ype: Tot	al/N 6057
C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-5105-A Matrix: Solid Analysis Batch: 60627	MS %Recovery 143 114 A-1-E MSD Sample	Qualifier S1+	<u>Limits</u> 70 - 130 70 - 130	MSD	MSD Qualifier	Cl	ient Sa	ample ID %Rec	Prep T Prep	ype: Tot	al/N 6057 RP
C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-5105-A Matrix: Solid Analysis Batch: 60627 Analyte Gasoline Range Organics	MS %Recovery 143 114 A-1-E MSD Sample	Qualifier S1+ Sample Qualifier	Limits 70 - 130 70 - 130 Spike	MSD					Prep T Prep %Rec	ype: Tot Batch: (al/N 6057 RF Lin
C10-C28) Surrogate C-Chlorooctane C-Terphenyl Lab Sample ID: 890-5105-A Matrix: Solid Analysis Batch: 60627 Analyte Gasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	MS %Recovery 143 114 A-1-E MSD Sample Result	Qualifier S1+ Sample Qualifier U	Limits 70 - 130 70 - 130 Spike Added	MSD Result		Unit		%Rec	Prep T Prep %Rec Limits	Batch:	al/N 6057 RF Lin
C10-C28) Surrogate 1-Chlorooctane b-Terphenyl Lab Sample ID: 890-5105-A Matrix: Solid Analysis Batch: 60627 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	MS %Recovery 143 114 A-1-E MSD Sample Result <50.3 <50.3	Qualifier S1+ Sample Qualifier U	Limits 70 - 130 70 - 130 Spike Added 999	MSD Result 920.4		- <mark>Unit</mark> mg/Kg		%Rec 92	Prep T Prep %Rec Limits 70 - 130	ype: Tot Batch: (RPD 11	cal/N 6057 RP Lim
C10-C28) Surrogate 1-Chlorooctane 0-Terphenyl Lab Sample ID: 890-5105-A Matrix: Solid Analysis Batch: 60627 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	MS %Recovery 143 114 A-1-E MSD Sample Result <50.3 <50.3	Qualifier S1+ Sample Qualifier U U F1 MSD	Limits 70 - 130 70 - 130 Spike Added 999	MSD Result 920.4		- <mark>Unit</mark> mg/Kg		%Rec 92	Prep T Prep %Rec Limits 70 - 130	ype: Tot Batch: (RPD 11	al/N 6057 RP Lim 2
C10-C28)	MS %Recovery 143 114 A-1-E MSD Sample <u>Result</u> <50.3 <50.3 <i>Solution</i>	Qualifier S1+ Sample Qualifier U U F1 MSD	Limits 70 - 130 70 - 130 Spike Added 999	MSD Result 920.4		- <mark>Unit</mark> mg/Kg		%Rec 92	Prep T Prep %Rec Limits 70 - 130	ype: Tot Batch: (RPD 11	al/N

Client: Vertex

QC Sample Results

Job ID: 890-5107-1 SDG: 23J-04103

Project/Site: PLU Big Sinks 3-25-31 Battery
Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-60467/1-A										Client S	Sample ID:		
Matrix: Solid											Prep	Type: S	
Analysis Batch: 60528			_										
	_	MB ME			_ .			_	_				
Analyte			Jalifier		RL	Unit		D	P	repared	Analy		Dil Fa
Chloride	<	5.00 U			5.00	mg/k	g				08/17/23	23:57	
Lab Sample ID: LCS 880-60467/2-A								Cli	ient	Sample	D: Lab C	ontrol S	ample
Matrix: Solid											Prep	Type: S	olubl
Analysis Batch: 60528													
-				Spike	LCS	LCS					%Rec		
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits		
Chloride				250	258.1		mg/Kg		_	103	90 - 110		
Lab Sample ID: LCSD 880-60467/3-/	^						0	iont (Lab Contro		
Matrix: Solid	•							ient c	Jain	ipie iD. i		Type: S	
Analysis Batch: 60528											Frep	Type: S	olubi
Analysis Datch. 00520													
-				Spike	LCSD	LCSD					%Rec		RPI
				Spike Added		LCSD Qualifier	Unit		D	%Rec	%Rec Limits	RPD	RPC Limi
Analyte						Qualifier	_ <mark>Unit</mark> mg/Kg		D	% Rec		RPD	Limi
Analyte Chloride				Added	Result	Qualifier			<u>D</u>	104	Limits 90 - 110	1	Limi 20
Analyte Chloride Lab Sample ID: 890-5107-2 MS				Added	Result	Qualifier			<u>D</u>	104	Limits 90 - 110 ient Samp	1 le ID: WS	Limi 20 523-01
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid				Added	Result	Qualifier			<u>D</u>	104	Limits 90 - 110 ient Samp	1	Limi 20 523-01
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid	Sample	Sample		Added	Result	Qualifier			D	104	Limits 90 - 110 ient Samp	1 le ID: WS	Limi 20 523-01
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid Analysis Batch: 60528		Sample Qualifie		Added 250	Result 259.8	Qualifier			D	104	Limits 90 - 110 ient Samp Prep	1 le ID: WS	Limi 20 523-01
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid Analysis Batch: 60528 Analyte		•		Added 250 Spike	Result 259.8	Qualifier MS Qualifier	mg/Kg		_	104	Limits 90 - 110 ient Samp Prep %Rec	1 le ID: WS	Limi 20 523-01
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid Analysis Batch: 60528 Analyte Chloride	Result	•		Added 250 Spike Added	Result 259.8 MS Result	Qualifier MS Qualifier	mg/Kg		_	104 Cli	Limits 90 - 110 ient Samp Prep %Rec Limits 90 - 110	le ID: WS Type: S	Limi 20 S23-0 Soluble
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid Analysis Batch: 60528 Analyte Chloride Lab Sample ID: 890-5107-2 MSD	Result	•		Added 250 Spike Added	Result 259.8 MS Result	Qualifier MS Qualifier	mg/Kg		_	104 Cli	Limits 90 - 110 ient Samp Prep %Rec Limits 90 - 110 ient Samp	le ID: WS Type: S	Limi 20 S23-0' Soluble
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid Analysis Batch: 60528 Analyte Chloride Lab Sample ID: 890-5107-2 MSD Matrix: Solid	Result	•		Added 250 Spike Added	Result 259.8 MS Result	Qualifier MS Qualifier	mg/Kg		_	104 Cli	Limits 90 - 110 ient Samp Prep %Rec Limits 90 - 110 ient Samp	le ID: WS Type: S	Limi 20 S23-0' Soluble
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid Analysis Batch: 60528 Analyte Chloride Lab Sample ID: 890-5107-2 MSD Matrix: Solid	Result	Qualifie	r	Added 250 Spike Added	Result 259.8 MS Result	Qualifier MS Qualifier	mg/Kg		_	104 Cli	Limits 90 - 110 ient Samp Prep %Rec Limits 90 - 110 ient Samp	le ID: WS Type: S	Limi 20 S23-0' Soluble
Analyte Chloride Lab Sample ID: 890-5107-2 MS Matrix: Solid Analysis Batch: 60528 Analyte Chloride	Result 58.8 Sample	Qualifie	<u>r</u>	Added 250 Spike Added 249	Result 259.8 MS Result 309.3	Qualifier MS Qualifier	mg/Kg		_	104 Cli	Limits 90 - 110 ient Samp Prep %Rec Limits 90 - 110 ient Samp Prep	le ID: WS Type: S	Limi 20 S23-01 Soluble

Eurofins Carlsbad

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery

Job ID: 890-5107-1 SDG: 23J-04103

GC VOA

Prep Batch: 60466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-5107-1	BS23-01	Total/NA	Solid	5035	
890-5107-2	WS23-01	Total/NA	Solid	5035	
890-5107-3	WS23-02	Total/NA	Solid	5035	
890-5107-4	BH23-14	Total/NA	Solid	5035	
MB 880-60466/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60466/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60466/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-32224-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-32224-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 60525

LCSD 880-60466/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		
880-32224-A-1-B MS	Matrix Spike	Total/NA	Solid	5035		8
880-32224-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035		
Analysis Batch: 60525						9
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	10
890-5107-1	BS23-01	Total/NA	Solid	8021B	60466	
890-5107-2	WS23-01	Total/NA	Solid	8021B	60466	44
890-5107-3	WS23-02	Total/NA	Solid	8021B	60466	
890-5107-4	BH23-14	Total/NA	Solid	8021B	60466	12
MB 880-60466/5-A	Method Blank	Total/NA	Solid	8021B	60466	
LCS 880-60466/1-A	Lab Control Sample	Total/NA	Solid	8021B	60466	40
LCSD 880-60466/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60466	13
880-32224-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	60466	
880-32224-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	60466	14

Analysis Batch: 60698

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-5107-1	BS23-01	Total/NA	Solid	Total BTEX	
890-5107-2	WS23-01	Total/NA	Solid	Total BTEX	
890-5107-3	WS23-02	Total/NA	Solid	Total BTEX	
890-5107-4	BH23-14	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 60575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5107-1	BS23-01	Total/NA	Solid	8015NM Prep	
890-5107-2	WS23-01	Total/NA	Solid	8015NM Prep	
890-5107-3	WS23-02	Total/NA	Solid	8015NM Prep	
890-5107-4	BH23-14	Total/NA	Solid	8015NM Prep	
MB 880-60575/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60575/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60575/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5105-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-5105-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5107-1	BS23-01	Total/NA	Solid	8015B NM	60575
890-5107-2	WS23-01	Total/NA	Solid	8015B NM	60575
890-5107-3	WS23-02	Total/NA	Solid	8015B NM	60575
890-5107-4	BH23-14	Total/NA	Solid	8015B NM	60575
MB 880-60575/1-A	Method Blank	Total/NA	Solid	8015B NM	60575
LCS 880-60575/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60575

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Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery

GC Semi VOA (Continued)

Analysis Batch: 60627 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-60575/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60575
890-5105-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	60575
890-5105-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	60575

Analysis Batch: 60739

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-5107-1	BS23-01	Total/NA	Solid	8015 NM	
890-5107-2	WS23-01	Total/NA	Solid	8015 NM	
890-5107-3	WS23-02	Total/NA	Solid	8015 NM	
890-5107-4	BH23-14	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 60467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5107-1	BS23-01	Soluble	Solid	DI Leach	
890-5107-2	WS23-01	Soluble	Solid	DI Leach	
890-5107-3	WS23-02	Soluble	Solid	DI Leach	
890-5107-4	BH23-14	Soluble	Solid	DI Leach	
MB 880-60467/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60467/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60467/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5107-2 MS	WS23-01	Soluble	Solid	DI Leach	
890-5107-2 MSD	WS23-01	Soluble	Solid	DI Leach	

Analysis Batch: 60528

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-5107-1	BS23-01	Soluble	Solid	300.0	60467
890-5107-2	WS23-01	Soluble	Solid	300.0	60467
890-5107-3	WS23-02	Soluble	Solid	300.0	60467
890-5107-4	BH23-14	Soluble	Solid	300.0	60467
MB 880-60467/1-A	Method Blank	Soluble	Solid	300.0	60467
LCS 880-60467/2-A	Lab Control Sample	Soluble	Solid	300.0	60467
LCSD 880-60467/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60467
890-5107-2 MS	WS23-01	Soluble	Solid	300.0	60467
890-5107-2 MSD	WS23-01	Soluble	Solid	300.0	60467

Page 144 of 181

Job ID: 890-5107-1 SDG: 23J-04103
Job ID: 890-5107-1 SDG: 23J-04103

Lab Sample ID: 890-5107-1

Lab Sample ID: 890-5107-2

Lab Sample ID: 890-5107-3

Lab Sample ID: 890-5107-4

Matrix: Solid

Matrix: Solid

Date Collected: 08/14/23 12:00 Date Received: 08/16/23 09:55

Client Sample ID: BS23-01

Client: Vertex

	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	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 15:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60698	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60739	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 23:58	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 01:52	СН	EET MID

Client Sample ID: WS23-01

Date Collected: 08/14/23 12:05

Date Received: 08/16/23 09:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 16:32	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60698	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60739	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/21/23 00:19	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 01:59	СН	EET MID

Client Sample ID: WS23-02

Date Collected: 08/14/23 12:10

Date Received: 08/16/23 09:55

	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	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 17:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60698	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60739	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	60575	08/18/23 14:14	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/21/23 00:40	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 02:20	CH	EET MID

Client Sample ID: BH23-14 Date Collected: 08/14/23 12:15 Date Received: 08/16/23 09:55

	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	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 17:29	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60698	08/21/23 11:05	AJ	EET MID

Eurofins Carlsbad

Matrix: Solid

5 9

Matrix: Solid

Job ID: 890-5107-1 SDG: 23J-04103

Matrix: Solid

9

Lab Sample ID: 890-5107-4

Client Sample ID: BH23-14 Date Collected: 08/14/23 12:15

Date Received: 08/16/23 09:55

Client: Vertex

	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			60739	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/21/23 01:23	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 02:27	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 1/31/2024 3:13:52 PM

Accreditation/Certification Summary

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery

Laboratory: Eurofins Midland

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

ithority xas		rogram	Identification Number	Expiration Date
		ELAP	T104704400-23-26	06-30-24
The following analytes	are included in this report, b	ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for v
the agency does not of Analysis Method		Matrix	Analyte	
the agency does not of Analysis Method 8015 NM	ffer certification . Prep Method	Matrix Solid	Analyte Total TPH	

Page 147 of 181

10

Job ID: 890-5107-1

SDG: 23J-04103

Eurofins Carlsbad

Method Summary

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery Job ID: 890-5107-1 SDG: 23J-04103

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID
	Environmental Protection Agency		
	Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Ec	lition. November 1986 And Its Updates.	
TAL SOP :	- TestAmerica Laboratories, Standard Operating Procedure		
Laboratory Re			
EET MID =	Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

Job ID: 890-5107-1 SDG: 23J-04103

Client: Vertex Project/Site: PLU Big Sinks 3-25-31 Battery

b Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
0-5107-1	BS23-01	Solid	08/14/23 12:00	08/16/23 09:55	2.5
0-5107-2	WS23-01	Solid	08/14/23 12:05	08/16/23 09:55	2.5
0-5107-3	WS23-02	Solid	08/14/23 12:10	08/16/23 09:55	2.5
0-5107-4	BH23-14	Solid	08/14/23 12:15	08/16/23 09:55	2.5

Company Name: XTO Address: Address: Tum Around Tum Around Routine Maysh Watter Pate: Maysh Watter 2 Date: Maysh Watter Pate: Maysh Watter Code Maysh Watter et Ice: Yes (May rature: 1.4 T. W A sop Parameters et Ice: Yes (May Parameters FTF 2000 1.5FF 2017 Parameters 2018 V 2020 1.4 2030 1.5FF 204 V 205 1.4 205 1.5FF 205 1.4 205 1.4 205 1.5 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1.4 205 1	Vex-Lex Stol Bard Rutsistiks Stadd, NM Rutsistiks Ves Intact: Ves Ves No Intact: Social Date Social Intact: Social No No
Ig Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Work Order No: EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carisbad, NM (575) 988-3199 www.xenco.com Page of Bill to: (If different) Convert Cureov Work Order Comments Work Order Comments	Project Manager: Chance Oixov

8/21/2023

5

Job Number: 890-5107-1 SDG Number: 23J-04103

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Vertex

Login Number: 5107 List Number: 1 Creator: Lopez, Abraham

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

Job Number: 890-5107-1 SDG Number: 23J-04103

List Source: Eurofins Midland

List Creation: 08/17/23 10:52 AM

Login Sample Receipt Checklist

Client: Vertex

Login Number: 5107 List Number: 2 Creator: Teel, Brianna

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

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

Received by OCD: 9/12/2023 2:53:20 PM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 8/21/2023 2:54:49 PM

JOB DESCRIPTION

PW Big Sinks 3-25-31 Battery SDG NUMBER 23E-04103

JOB NUMBER

890-5105-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information



Eurofins Carlsbad

Job Notes

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

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

Authorization

AMER

Generated 8/21/2023 2:54:49 PM

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

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Laboratory Job ID: 890-5105-1 SDG: 23E-04103

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	17
Lab Chronicle	20
Certification Summary	23
Method Summary	24
Sample Summary	25
Chain of Custody	26
Receipt Checklists	27

Client: VertexJob ID: 890-5105Project/Site: PW Big Sinks 3-25-31 BatterySDG: 23E-041						
Qualifiers			3			
GC VOA						
Qualifier	Qualifier Description					
*_	LCS and/or LCSD is outside acceptance limits, low biased.					

*1	LCS/LCSD RPD exceeds control limits.	5
F1	MS and/or MSD recovery exceeds control limits.	
S1-	Surrogate recovery exceeds control limits, low biased.	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VO	Α	
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	8
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	9
HPLC/IC		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	

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

.

Job ID: 890-5105-1 SDG: 23E-04103

Job ID: 890-5105-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-5105-1

Receipt

The samples were received on 8/16/2023 9:54 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BS23-03 (890-5105-1), BS23-05 (890-5105-2), WS23-04 (890-5105-3), WS23-08 (890-5105-4), WS23-09 (890-5105-5), WS23-15 (890-5105-6) and BH23-16 (890-5105-7).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-60466 and analytical batch 880-60525 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: The matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-60466 and analytical batch 880-60525 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-60466 and analytical batch 880-60525 recovered outside control limits for the following analytes: Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-60525 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-60525/20).

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-60575 and analytical batch 880-60627 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60627/31), (CCV 880-60627/47) and (LCSD 880-60575/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: WS23-15 (890-5105-6) and BH23-16 (890-5105-7). 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: BS23-03 (890-5105-1), WS23-09 (890-5105-5) and (890-5105-A-1-D MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike (MS) recoveries for preparation batch 880-60575 and analytical batch 880-60627 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Job ID: 890-5105-1 SDG: 23E-04103

Matrix: Solid

Dil Fac

1

1

1

1

1

1

1

Dil Fac

5

Client Sample ID: BS23-03

Date Collected: 08/15/23 09:00 Date Received: 08/16/23 09:54

Sample Depth: 4FT

Client: Vertex

Lab Sample ID: 890-5105-1

Sample Depth: 4FT							
Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC))				
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed
Benzene	<0.00202	U	0.00202	mg/Kg		08/17/23 13:00	08/18/23 12:43
Toluene	<0.00202	U *- *1	0.00202	mg/Kg		08/17/23 13:00	08/18/23 12:43
Ethylbenzene	<0.00202	U *- *1	0.00202	mg/Kg		08/17/23 13:00	08/18/23 12:43
m-Xylene & p-Xylene	<0.00403	U *- *1	0.00403	mg/Kg		08/17/23 13:00	08/18/23 12:43
o-Xylene	<0.00202	U *- *1	0.00202	mg/Kg		08/17/23 13:00	08/18/23 12:43
Xylenes, Total	<0.00403	U *- *1	0.00403	mg/Kg		08/17/23 13:00	08/18/23 12:43
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed
4-Bromofluorobenzene (Surr)	79		70 - 130			08/17/23 13:00	08/18/23 12:43
1,4-Difluorobenzene (Surr)	117		70 - 130			08/17/23 13:00	08/18/23 12:43
- Method: TAL SOP Total BTEX	- Total BTEX Cald	culation					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			08/21/23 11:05	1
Mothod: SW846 8015 NM - Diosol	Pango Organ		60)					

Method. Swo40 6015 NM - Dieser Range Organics (DRO) (GC)									
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total TPH	<50.3 U	50.3	mg/Kg			08/21/23 13:49	1		

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.3	U	50.3	mg/Kg		08/18/23 14:14	08/20/23 20:41	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.3	U F1	50.3	mg/Kg		08/18/23 14:14	08/20/23 20:41	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		08/18/23 14:14	08/20/23 20:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	165	S1+	70 - 130			08/18/23 14:14	08/20/23 20:41	1
o-Terphenyl	146	S1+	70 - 130			08/18/23 14:14	08/20/23 20:41	1

	Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
L	Chloride	70.2		4.97	mg/Kg			08/18/23 00:47	1

Client Sample ID: BS23-05 Date Collected: 08/15/23 09:05 Date Sam

ec	onecteu.	00/15/23	09.05	
e R	eceived:	08/16/23	09:54	
npl	e Depth:	4FT		

Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 13:03	1		
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 13:03	1		
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 13:03	1		
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399	mg/Kg		08/17/23 13:00	08/18/23 13:03	1		
o-Xylene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 13:03	1		
Xylenes, Total	<0.00399	U *- *1	0.00399	mg/Kg		08/17/23 13:00	08/18/23 13:03	1		
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	84		70 - 130			08/17/23 13:00	08/18/23 13:03	1		

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Lab Sample ID: 890-5105-2

Matrix: Solid

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

Ū

Result Qualifier

Result Qualifier

<50.1 U

<50.1 U

<50.1 U

121

<0.00399

Client Sample Results

Limits

70 - 130

RL

RL

50.1

RL

50.1

50.1

0.00399

Unit

Unit

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Job ID: 890-5105-1 SDG: 23E-04103

Analyzed

08/18/23 13:03

Analyzed

08/21/23 11:05

Analyzed

08/21/23 13:49

Analyzed

08/20/23 21:49

08/20/23 21:49

Lab Sample ID: 890-5105-3

890-5105-2

Matrix: Solid

Dil Fac

Dil Fac

Dil Fac

Dil Fac

Matrix: Solid

Client Sample ID: BS23-05

Date Collected: 08/15/23 09:05 Date Received: 08/16/23 09:54

Sample Depth: 4FT

1,4-Difluorobenzene (Surr)

Gasoline Range Organics

Diesel Range Organics (Over

Client: Vertex

Surrogate

Analyte

Analyte

Analyte

C10-C28)

(GRO)-C6-C10

Total TPH

Total BTEX

Lab	Sam	ple	ID:

Prepared

08/17/23 13:00

Prepared

Prepared

Prepared

08/18/23 14:14

08/18/23 14:14

D

D

D

5

Oll Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg	08/18/23 14:14	08/20/23 21:49	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130		08/18/23 14:14	08/20/23 21:49	1
o-Terphenyl	87		70 - 130		08/18/23 14:14	08/20/23 21:49	1
Method: EPA 300.0 - Anions, Ion	• •	o <mark>hy - Solubl</mark> Qualifier	e RL	Unit	D Prepared	Analvzed	Dil Fac

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.9	5.02	mg/Kg			08/18/23 00:54	1

Client Sample ID: WS23-04

Date Collected: 08/15/23 09:10 Date Received: 08/16/23 09:54 Sample Depth: 4FT

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 08/17/23 13:00 08/18/23 13:24 Toluene <0.00199 U*-*1 0.00199 08/17/23 13:00 08/18/23 13:24 mg/Kg 1 Ethylbenzene <0.00199 U*-*1 0.00199 mg/Kg 08/17/23 13:00 08/18/23 13:24 0.00398 08/18/23 13:24 m-Xylene & p-Xylene <0.00398 U*-*1 08/17/23 13:00 mg/Kg 1 o-Xylene <0.00199 U*-*1 0.00199 mg/Kg 08/17/23 13:00 08/18/23 13:24 Xylenes, Total <0.00398 U*-*1 0.00398 mg/Kg 08/17/23 13:00 08/18/23 13:24 1 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analvzed 70 - 130 4-Bromofluorobenzene (Surr) 77 08/17/23 13:00 08/18/23 13:24 1 1,4-Difluorobenzene (Surr) 118 70 - 130 08/17/23 13:00 08/18/23 13:24 1 Method: TAL SOP Total BTEX - Total BTEX Calculation Analvte Result Qualifier RL D Unit Prepared Analvzed Dil Fac Total BTEX <0.00398 Ū 0.00398 08/21/23 11:05 mg/Kg Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac **Total TPH** 50.4 mg/Kg 08/21/23 13:49 63.5 1

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Job ID: 890-5105-1 SDG: 23E-04103

Matrix: Solid

Lab Sample ID: 890-5105-3

Client Sample ID: WS23-04

Date Collected: 08/15/23 09:10 Date Received: 08/16/23 09:54

Sample Depth: 4FT

Client: Vertex

_ Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)				
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		08/18/23 14:14	08/20/23 22:11
Diesel Range Organics (Over C10-C28)	63.5		50.4	mg/Kg		08/18/23 14:14	08/20/23 22:11
Oll Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/18/23 14:14	08/20/23 22:11
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed
1-Chlorooctane	123		70 - 130			08/18/23 14:14	08/20/23 22:11
o-Terphenyl	105		70 - 130			08/18/23 14:14	08/20/23 22:11

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.0	4.95	mg/Kg			08/18/23 01:02	1

Client Sample ID: WS23-08

Date Collected: 08/15/23 09:15 Date Received: 08/16/23 09:54

Sample Depth: 4FT

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/17/23 13:00	08/18/23 13:45	1
Toluene	<0.00198	U *- *1	0.00198	mg/Kg		08/17/23 13:00	08/18/23 13:45	1
Ethylbenzene	<0.00198	U *- *1	0.00198	mg/Kg		08/17/23 13:00	08/18/23 13:45	1
m-Xylene & p-Xylene	<0.00396	U *- *1	0.00396	mg/Kg		08/17/23 13:00	08/18/23 13:45	1
o-Xylene	<0.00198	U *- *1	0.00198	mg/Kg		08/17/23 13:00	08/18/23 13:45	1
Xylenes, Total	<0.00396	U *- *1	0.00396	mg/Kg		08/17/23 13:00	08/18/23 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130			08/17/23 13:00	08/18/23 13:45	1
1,4-Difluorobenzene (Surr) Method: TAL SOP Total BTEX	121 - Total BTEX Cald	culation	70 - 130			08/17/23 13:00	08/18/23 13:45	1
	- Total BTEX Cal	Qualifier	70 - 130	Unit	D	08/17/23 13:00 Prepared	08/18/23 13:45 Analyzed 08/21/23 11:05	1 Dil Fac
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die	- Total BTEX Cale Result <0.00396	Qualifier U	RL 0.00396		D		Analyzed 08/21/23 11:05	1
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte	- Total BTEX Cale Result <0.00396	Qualifier U ics (DRO) (Qualifier	RL 0.00396	mg/Kg		Prepared	Analyzed	1
Method: TAL SOP Total BTEX Analyte	- Total BTEX Cale Result <0.00396 esel Range Organ Result <50.5	Qualifier U ics (DRO) (Qualifier U	RL 0.00396 GC) RL 50.5	mg/Kg Unit		Prepared	Analyzed 08/21/23 11:05 Analyzed	1
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D	- Total BTEX Cale Result <0.00396 esel Range Organ Result <50.5	Qualifier U ics (DRO) (Qualifier U	RL 0.00396 GC) RL 50.5	mg/Kg Unit		Prepared	Analyzed 08/21/23 11:05 Analyzed	1 Dil Fac 1 Dil Fac
Method: TAL SOP Total BTEX Analyte Total BTEX Method: SW846 8015 NM - Die Analyte Total TPH	- Total BTEX Cale Result <0.00396 esel Range Organ Result <50.5	Qualifier U ics (DRO) (Qualifier U nics (DRO) Qualifier	RL 0.00396 GC) RL 50.5 (GC)	mg/Kg	D	Prepared Prepared	Analyzed 08/21/23 11:05 Analyzed 08/21/23 13:49	1 Dil Fac

Oll Range Organics (Over C28-C36)	<50.5 U	50.5	mg/Kg	08/18/23 14:14	08/20/23 22:33	1
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	124	70 - 130		08/18/23 14:14	08/20/23 22:33	1
o-Terphenyl	108	70 - 130		08/18/23 14:14	08/20/23 22:33	1

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1

1

1

Released to Imaging: 1/31/2024 3:13:52 PM

Client Sample Results

Client: Vertex

Client Sample ID: WS23-08						Lab San	nple ID: 890-	5105-4
Date Collected: 08/15/23 09:15								x: Solid
Date Received: 08/16/23 09:54								
Sample Depth: 4FT								
Method: EPA 200.0 Aniona Ion	Chromotogram	by Colubl	•					
Method: EPA 300.0 - Anions, Ion Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.7		5.04	mg/Kg			08/18/23 01:23	1
Client Sample ID: WS23-09						Lah San	nple ID: 890-	5105-5
Date Collected: 08/15/23 09:20						Lub Our		x: Solid
Date Received: 08/16/23 09:54							Wath	x. 00110
Sample Depth: 4FT								
Method: SW846 8021B - Volatile	Organia Comp	ounde (CC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201		0.00201	mg/Kg		08/17/23 13:00	08/18/23 14:06	1
Toluene	<0.00201	U *- *1	0.00201	mg/Kg		08/17/23 13:00	08/18/23 14:06	1
Ethylbenzene	<0.00201	U *- *1	0.00201	mg/Kg		08/17/23 13:00	08/18/23 14:06	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402	mg/Kg		08/17/23 13:00	08/18/23 14:06	1
o-Xylene	<0.00201	U *- *1	0.00201	mg/Kg		08/17/23 13:00	08/18/23 14:06	1
Xylenes, Total	<0.00402	U *- *1	0.00402	mg/Kg		08/17/23 13:00	08/18/23 14:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/17/23 13:00	08/18/23 14:06	1
1,4-Difluorobenzene (Surr)	116		70 - 130			08/17/23 13:00	08/18/23 14:06	1
	otal RTEX Cal	vulation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00402	U	0.00402	mg/Kg			08/21/23 11:05	1
			C C)					
Method: SW846 8015 NM - Diese Analyte		Qualifier		Unit	D	Bronarad	Applyzod	Dil Fac
						Prepared	Analyzed 08/21/23 13:49	1
Total TDU	~10.7						00/21/23 13.49	1
Total TPH	<49.7	U	49.7	mg/Kg				
Total TPH 				iiig/rtg				
Method: SW846 8015B NM - Dies Analyte	el Range Orga	nics (DRO) Qualifier		Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	el Range Orga	nics (DRO) Qualifier	(GC)		<u>D</u>	Prepared 08/18/23 14:14	Analyzed 08/20/23 22:54	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Orga	nics (DRO) Qualifier U	(GC) RL	Unit	<u>D</u>	<u> </u>		
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	el Range Orga 	nics (DRO) Qualifier U	(GC) <u>RL</u> 49.7	Unit mg/Kg	<u> </u>	08/18/23 14:14	08/20/23 22:54	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Orga 	nics (DRO) Qualifier U U U	(GC) <u>RL</u> 49.7 49.7	Unit mg/Kg mg/Kg	D	08/18/23 14:14 08/18/23 14:14	08/20/23 22:54 08/20/23 22:54	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	el Range Orga <u>Result</u> <49.7 <49.7 <49.7 <%Recovery	nics (DRO) Qualifier U U U	(GC) <u>RL</u> 49.7 49.7 49.7	Unit mg/Kg mg/Kg	<u>D</u>	08/18/23 14:14 08/18/23 14:14 08/18/23 14:14	08/20/23 22:54 08/20/23 22:54 08/20/23 22:54	1 1 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	el Range Orga Result <49.7 <49.7 <49.7 <49.7 %Recovery 160	nics (DRO) Qualifier U U Qualifier	(GC) <u>RL</u> 49.7 49.7 49.7 Limits	Unit mg/Kg mg/Kg	<u> </u>	08/18/23 14:14 08/18/23 14:14 08/18/23 14:14 Prepared	08/20/23 22:54 08/20/23 22:54 08/20/23 22:54 Analyzed	1 1 1 <i>Dil Fac</i>
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	el Range Orga Result <49.7 <49.7 <49.7 <49.7 %Recovery 160 139	nics (DRO) Qualifier U U U Qualifier S1+ S1+	(GC) <u>RL</u> 49.7 49.7 <u>Limits</u> 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u> </u>	08/18/23 14:14 08/18/23 14:14 08/18/23 14:14 Prepared 08/18/23 14:14	08/20/23 22:54 08/20/23 22:54 08/20/23 22:54 08/20/23 22:54 <u>Analyzed</u> 08/20/23 22:54	1 1 1 Dil Fac 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	el Range Orga <u>Result</u> <49.7 <49.7 <49.7 <u>%Recovery</u> 160 139 Chromatograp	nics (DRO) Qualifier U U U Qualifier S1+ S1+	(GC) <u>RL</u> 49.7 49.7 <u>Limits</u> 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	08/18/23 14:14 08/18/23 14:14 08/18/23 14:14 Prepared 08/18/23 14:14	08/20/23 22:54 08/20/23 22:54 08/20/23 22:54 08/20/23 22:54 <u>Analyzed</u> 08/20/23 22:54	1 1 1 Dil Fac 1

Job ID: 890-5105-1 SDG: 23E-04103

Matrix: Solid

5

Lab Sample ID: 890-5105-6

Client Sample ID: BH23-15

Date Collected: 08/15/23 09:25 Date Received: 08/16/23 09:54

Sample Depth: 4FT

Client: Vertex

Benzene Foluene Ethylbenzene n-Xylene & p-Xylene b-Xylene Kylenes, Total	<0.00202 <0.00202 <0.00202 <0.00202 <0.00404		0.00202	mg/Kg		08/17/23 13:00	08/18/23 14:27	
Ethylbenzene n-Xylene & p-Xylene o-Xylene	<0.00202	U *- *1	0.00000					
n-Xylene & p-Xylene o-Xylene			0.00202	mg/Kg		08/17/23 13:00	08/18/23 14:27	
p-Xylene	<0 00404	U *- *1	0.00202	mg/Kg		08/17/23 13:00	08/18/23 14:27	
•	-0.00+0+	U *- *1	0.00404	mg/Kg		08/17/23 13:00	08/18/23 14:27	
Kylenes, Total	<0.00202	U *- *1	0.00202	mg/Kg		08/17/23 13:00	08/18/23 14:27	
	<0.00404	U *- *1	0.00404	mg/Kg		08/17/23 13:00	08/18/23 14:27	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	82		70 - 130			08/17/23 13:00	08/18/23 14:27	
1,4-Difluorobenzene (Surr)	121		70 - 130			08/17/23 13:00	08/18/23 14:27	
Method: TAL SOP Total BTEX - To	otal BTEX Calc	ulation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00404	U	0.00404	mg/Kg			08/21/23 11:05	
Method: SW846 8015 NM - Diesel			· · · · · · · · · · · · · · · · · · ·					
Analyte Fotal TPH	- Result <49.8	Qualifier	RL 49.8	Unit	D	Prepared	Analyzed 08/21/23 13:36	Dil Fa
Method: SW846 8015B NM - Diese Analyte		nics (DRO) Qualifier	(GC) RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.8		49.8	mg/Kg		08/18/23 14:14	08/20/23 23:15	
GRO)-C6-C10	10.0	0	10.0	ing/itg		00/10/20 11:11	00/20/20 20:10	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/18/23 14:14	08/20/23 23:15	
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/18/23 14:14	08/20/23 23:15	
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	152	S1+	70 - 130			08/18/23 14:14	08/20/23 23:15	
o-Terphenyl	130		70 - 130			08/18/23 14:14	08/20/23 23:15	
Method: EPA 300.0 - Anions, Ion		-			_			
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	49.6		4.98	mg/Kg			08/18/23 01:37	
lient Sample ID: BH23-16						Lab San	nple ID: 890-	
ate Collected: 08/15/23 09:30 ate Received: 08/16/23 09:54 ample Depth: 4FT							Matri	ix: Solie

	ne organie oomp		/					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 14:47	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 14:47	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 14:47	1
m-Xylene & p-Xylene	<0.00401	U *- *1	0.00401	mg/Kg		08/17/23 13:00	08/18/23 14:47	1
o-Xylene	<0.00200	U *- *1	0.00200	mg/Kg		08/17/23 13:00	08/18/23 14:47	1
Xylenes, Total	<0.00401	U *- *1	0.00401	mg/Kg		08/17/23 13:00	08/18/23 14:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130			08/17/23 13:00	08/18/23 14:47	1

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Released to Imaging: 1/31/2024 3:13:52 PM

Client Sample Results

Limits

70 - 130

RL

RL

49.6

0.00401

Unit

Unit

mg/Kg

mg/Kg

Job ID: 890-5105-1 SDG: 23E-04103

Analyzed

08/18/23 14:47

Analyzed

08/21/23 11:05

Analyzed

08/21/23 13:36

Client Sample ID: BH23-16

Date Collected: 08/15/23 09:30

Client: Vertex

Surrogate

Analyte

Analyte

Total TPH

Total BTEX

Date Received: 08/16/23 09:54 Sample Depth: 4FT

1,4-Difluorobenzene (Surr)

Lab Sample ID: 890-5105-7

Prepared

08/17/23 13:00

Prepared

Prepared

D

D

Matrix: Solid

Dil Fac

Dil Fac

1

5

1	8
Dil Fac	9
1	
Dil Fac	
1	
1	13

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

%Recovery Qualifier

Result Qualifier

Result Qualifier

<49.6 U

125

<0.00401 U

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.6	U	49.6	mg/Kg		08/18/23 14:14	08/20/23 23:36	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.6	U	49.6	mg/Kg		08/18/23 14:14	08/20/23 23:36	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		08/18/23 14:14	08/20/23 23:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130			08/18/23 14:14	08/20/23 23:36	1
o-Terphenyl	116		70 - 130			08/18/23 14:14	08/20/23 23:36	1
_ Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	49.6		4.96	mg/Kg			08/18/23 01:44	1

Client: Vertex

Prep Type: Total/NA

5 6 7

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

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-32224-A-1-B MS	Matrix Spike	87	106	
880-32224-A-1-C MSD	Matrix Spike Duplicate	83	108	
890-5105-1	BS23-03	79	117	
890-5105-2	BS23-05	84	121	
890-5105-3	WS23-04	77	118	
890-5105-4	WS23-08	79	121	
890-5105-5	WS23-09	77	116	
890-5105-6	WS23-15	82	121	
890-5105-7	BH23-16	83	125	
LCS 880-60466/1-A	Lab Control Sample	46 S1-	79	
LCSD 880-60466/2-A	Lab Control Sample Dup	90	103	
MB 880-60466/5-A	Method Blank	74	94	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-5105-1	BS23-03	165 S1+	146 S1+	
890-5105-1 MS	BS23-03	143 S1+	114	
890-5105-1 MSD	BS23-03	130	103	
890-5105-2	BS23-05	107	87	
890-5105-3	WS23-04	123	105	
890-5105-4	WS23-08	124	108	
890-5105-5	WS23-09	160 S1+	139 S1+	
890-5105-6	WS23-15	152 S1+	130	
890-5105-7	BH23-16	133 S1+	116	
LCS 880-60575/2-A	Lab Control Sample	119	102	
LCSD 880-60575/3-A	Lab Control Sample Dup	154 S1+	136 S1+	
MB 880-60575/1-A	Method Blank	176 S1+	162 S1+	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

Lab Sample ID: MB 880-60466/5-A

QC Sample Results

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Analysis Batch: 60525							Prep Type: 1 Prep Batch	
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/17/23 13:00	08/18/23 11:39	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130			08/17/23 13:00	08/18/23 11:39	1
1,4-Difluorobenzene (Surr)	94		70 - 130			08/17/23 13:00	08/18/23 11:39	1

Lab Sample ID: LCS 880-60466/1-A Matrix: Solid

Analysis Batch: 60525

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1085		mg/Kg		108	70 - 130	
Toluene	0.100	0.05476	*_	mg/Kg		55	70 - 130	
Ethylbenzene	0.100	0.04346	*_	mg/Kg		43	70 - 130	
m-Xylene & p-Xylene	0.200	0.08777	*_	mg/Kg		44	70 - 130	
o-Xylene	0.100	0.04199	*_	mg/Kg		42	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	46	S1-	70 - 130
1,4-Difluorobenzene (Surr)	79		70 - 130

Lab Sample ID: LCSD 880-60466/2-A

Matrix: Solid

Analysis Batch: 60525							Prep	Batch:	60466
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1110		mg/Kg		111	70 - 130	2	35
Toluene	0.100	0.1022	*1	mg/Kg		102	70 - 130	60	35
Ethylbenzene	0.100	0.08722	*1	mg/Kg		87	70 - 130	67	35
m-Xylene & p-Xylene	0.200	0.1836	*1	mg/Kg		92	70 - 130	71	35
o-Xylene	0.100	0.09055	*1	mg/Kg		91	70 - 130	73	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 880-32224-A-1-B MS

Matrix: Solid

Analysis Batch: 60525									Prep	Batch: 60466
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U	0.0996	0.1128		mg/Kg		113	70 - 130	
Toluene	<0.00198	U *- *1	0.0996	0.09537		mg/Kg		96	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

13

Client Sample ID: Method Blank

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

QC Sample Results

MS MS

0.07643

0.1569

0.07842

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

Spike

Added

0.0996

0.199

0.0996

Limits 70 - 130

70 - 130

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery

Lab Sample ID: 880-32224-A-1-B MS

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 60525

Sample Sample

Result Qualifier

<0.00198 U *- *1 F1

<0.00396 U*-*1 F1

<0.00198 U*-*1 F1

MS MS

87

106

Qualifier

%Recovery

Prep Type: Total/NA

Prep Batch: 60466

Client Sample ID: Matrix Spike

%Rec

Limits

70 - 130

70 - 130

70 - 130

%Rec

77

79

79

D

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

Matrix: Solid Analysis Batch: 60525

Lab Sample ID: 880-32224-A-1-C MSD

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Batch: 60525									Prep	Batch:	60466	
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	<0.00198	U	0.100	0.1098		mg/Kg		110	70 - 130	3	35	
Toluene	<0.00198	U *- *1	0.100	0.09026		mg/Kg		90	70 - 130	6	35	
Ethylbenzene	<0.00198	U *- *1 F1	0.100	0.06801	F1	mg/Kg		68	70 - 130	12	35	
m-Xylene & p-Xylene	<0.00396	U *- *1 F1	0.200	0.1347	F1	mg/Kg		67	70 - 130	15	35	
o-Xylene	<0.00198	U *- *1 F1	0.100	0.06743	F1	mg/Kg		67	70 - 130	15	35	
	MSD	MSD										
Currente	0/ Decovery	Qualifian	l insite									

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

Lab Sample ID: MB 880-60575/1-4 Matrix: Solid Analysis Batch: 60627	A					Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	otal/NA
	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/18/23 14:14	08/20/23 19:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/18/23 14:14	08/20/23 19:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/18/23 14:14	08/20/23 19:33	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	176	S1+	70 - 130			08/18/23 14:14	08/20/23 19:33	1
o-Terphenyl	162	S1+	70 - 130			08/18/23 14:14	08/20/23 19:33	1
Lab Sample ID: LCS 880-60575/2-	A				c	lient Sample I	D: Lab Control	Sample

Lab Sample ID: LCS 880-60575/2-/ Matrix: Solid

Analysis Batch: 60627							Prep	Batch: 60575
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1005		mg/Kg		100	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	961.3		mg/Kg		96	70 - 130	
C10-C28)								

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Prep Type: Total/NA

QC Sample Results

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery

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

ab Sample ID: LCS 880-60575/	2-A						Client	Sample	D: Lab Co	ontrol Sa	ample
Aatrix: Solid	- ^						onone	oumpic		ype: To	
Analysis Batch: 60627										Batch:	
									Trop	Batom.	
	LCS	LCS									
urrogate	%Recovery	Qualifier	Limits								
-Chlorooctane	119		70 - 130								
-Terphenyl	102		70 - 130								
ab Sample ID: LCSD 880-6057	5/3-A					Clie	nt Sam	ple ID:	Lab Contro	I Sampl	e Dup
Aatrix: Solid								· · · ·		ype: To	
Analysis Batch: 60627										Batch:	
			Spike	LCSD	LCSD				%Rec		RPD
nalyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
asoline Range Organics			1000	1199		mg/Kg		120	70 - 130	18	20
GRO)-C6-C10											
viesel Range Organics (Over :10-C28)			1000	1136		mg/Kg		114	70 - 130	17	20
	LCSD	LCSD									
urrogate	%Recovery	Qualifier	Limits								
-Chlorooctane	154	S1+	70 - 130								
-Terphenyl	136	S1+	70 - 130								
ab Sample ID: 890-5105-1 MS.								C	lient Sampl		22.03
Aatrix: Solid										ype: To	
Analysis Batch: 60627	Samula	Sample	Spike	ме	MS					Batch:	003/3
noluto	-	Sample	Spike			Unit	~	0/ Baa	%Rec		
nalyte	Kesult <50.3	Qualifier	Added		Qualifier		D	%Rec	Limits		
asoline Range Organics GRO)-C6-C10	<50.3	U	999	1028		mg/Kg		103	70 - 130		
viesel Range Organics (Over	<50.3	U F1	999	1417	F1	mg/Kg		140	70 - 130		
10-C28)	-00.0	511	333	1417				140	70-100		
	MS	MS									
urrogate	%Recovery	Qualifier	Limits								
-Chlorooctane	143	S1+	70 - 130								
-Terphenyl	114		70 - 130								
.ab Sample ID: 890-5105-1 MSD)							CI	lient Sampl	e ID: BS	23-03
Aatrix: Solid										ype: To	
Analysis Batch: 60627										Batch:	
	Samnle	Sample	Spike	MSD	MSD				%Rec	Daton.	RPD
nalyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.3		999	920.4		mg/Kg			70 - 130	11	20
GRO)-C6-C10	-00.0	-	000	020.4				02			20
viesel Range Organics (Over	<50.3	U F1	999	1277		mg/Kg		126	70 - 130	10	20
hesel Range Organics (Over											
:10-C28)		MSD									
	MSD %Recovery 130										

Client: Vertex

QC Sample Results

Job ID: 890-5105-1 SDG: 23E-04103

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-60467/1-A Matrix: Solid										Clie	nt S	ample ID: I Prep	Method Type: S	
Analysis Batch: 60528														
		MB												
Analyte			Qualifier		RL		Unit		<u>D</u>	Prepar	ed	Analyz		Dil Fac
Chloride	<	5.00	U		5.00		mg/Kg					08/17/23 2	23:57	1
Lab Sample ID: LCS 880-60467/2-A									Clie	nt San	nple	ID: Lab Co	ontrol Sa	ample
Matrix: Solid											÷	Prep	Type: S	oluble
Analysis Batch: 60528														
-				Spike	LC	S LCS						%Rec		
Analyte				Added	Resu	t Quali	fier l	Jnit	0) %R	ес	Limits		
Chloride				250	258	1	I	ng/Kg		1	03	90 - 110		
Lab Sample ID: LCSD 880-60467/3-	Δ							Cli	ont Sa	mnlo	ו יחו	.ab Contro	l Samni	
Matrix: Solid	^							011		inpic			Type: S	
Analysis Batch: 60528												пер	Type. O	Jubic
Analysis Batch. 00020				Spike	LCS)					%Rec		RPD
Analyte				Added	Resu	t Quali	fier l	Jnit	0) %R	ес	Limits	RPD	Limi
Chloride				250	259	8		ng/Kg		1	04	90 - 110	1	20
										CI	ent	Sample ID:	Matrix	Spike
Lab Sample ID: 890-5107-A-2-B MS														
Lab Sample ID: 890-5107-A-2-B MS Matrix: Solid										CI				
Matrix: Solid										CI	one		Type: S	
Matrix: Solid	Sample	Samp	le	Spike	M	S MS				CI				
Matrix: Solid Analysis Batch: 60528				Spike Added		6 MS It Quali	fier (Jnit	Γ	D %R		Prep		
Matrix: Solid Analysis Batch: 60528 Analyte	Sample					t Quali		Jnit ng/Kg	[0%R		Prep %		
Matrix: Solid Analysis Batch: 60528 Analyte Chloride	Sample Result 58.8			Added	Resu	t Quali		ng/Kg		D % R 1	ec _ 01	Prep %Rec Limits 90 - 110	Type: So	oluble
Matrix: Solid Analysis Batch: 60528	Sample Result 58.8			Added	Resu	t Quali		ng/Kg		D % R 1	ec _ 01	Prep %Rec Limits 90 - 110 : Matrix Sp	Type: So 	oluble
Matrix: Solid Analysis Batch: 60528 Analyte Chloride Lab Sample ID: 890-5107-A-2-C MS Matrix: Solid	Sample Result 58.8			Added	Resu	t Quali		ng/Kg		D % R 1	ec _ 01	Prep %Rec Limits 90 - 110 : Matrix Sp	Type: So	oluble
Matrix: Solid Analysis Batch: 60528 Analyte Chloride Lab Sample ID: 890-5107-A-2-C MS	Sample Result 58.8	Quali	fier	Added	Resu 309	t Quali		ng/Kg		D % R 1	ec _ 01	Prep %Rec Limits 90 - 110 : Matrix Sp	Type: So 	oluble
Matrix: Solid Analysis Batch: 60528 Analyte Chloride Lab Sample ID: 890-5107-A-2-C MS Matrix: Solid	Sample Result 58.8	Quali Samp	fier	Added 249	Resu 309 MS	<u>t</u> Quali	r	ng/Kg	Client	D % R 1	ec 01 –	Prep %Rec Limits 90 - 110 : Matrix Sp Prep	Type: So 	oluble

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QC Association Summary

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery

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Job ID: 890-5105-1 SDG: 23E-04103

GC VOA

Prep Batch: 60466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5105-1	BS23-03	Total/NA	Solid	5035	
890-5105-2	BS23-05	Total/NA	Solid	5035	
890-5105-3	WS23-04	Total/NA	Solid	5035	
890-5105-4	WS23-08	Total/NA	Solid	5035	
890-5105-5	WS23-09	Total/NA	Solid	5035	
890-5105-6	WS23-15	Total/NA	Solid	5035	
890-5105-7	BH23-16	Total/NA	Solid	5035	
MB 880-60466/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60466/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60466/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-32224-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-32224-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 60525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5105-1	BS23-03	Total/NA	Solid	8021B	60466
890-5105-2	BS23-05	Total/NA	Solid	8021B	60466
890-5105-3	WS23-04	Total/NA	Solid	8021B	60466
890-5105-4	WS23-08	Total/NA	Solid	8021B	60466
890-5105-5	WS23-09	Total/NA	Solid	8021B	60466
890-5105-6	WS23-15	Total/NA	Solid	8021B	60466
890-5105-7	BH23-16	Total/NA	Solid	8021B	60466
MB 880-60466/5-A	Method Blank	Total/NA	Solid	8021B	60466
LCS 880-60466/1-A	Lab Control Sample	Total/NA	Solid	8021B	60466
LCSD 880-60466/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60466
880-32224-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	60466
880-32224-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	60466

Analysis Batch: 60697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5105-1	BS23-03	Total/NA	Solid	Total BTEX	
890-5105-2	BS23-05	Total/NA	Solid	Total BTEX	
890-5105-3	WS23-04	Total/NA	Solid	Total BTEX	
890-5105-4	WS23-08	Total/NA	Solid	Total BTEX	
890-5105-5	WS23-09	Total/NA	Solid	Total BTEX	
890-5105-6	WS23-15	Total/NA	Solid	Total BTEX	
890-5105-7	BH23-16	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 60575

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-5105-1	BS23-03	Total/NA	Solid	8015NM Prep	
890-5105-2	BS23-05	Total/NA	Solid	8015NM Prep	
890-5105-3	WS23-04	Total/NA	Solid	8015NM Prep	
890-5105-4	WS23-08	Total/NA	Solid	8015NM Prep	
890-5105-5	WS23-09	Total/NA	Solid	8015NM Prep	
890-5105-6	WS23-15	Total/NA	Solid	8015NM Prep	
890-5105-7	BH23-16	Total/NA	Solid	8015NM Prep	
MB 880-60575/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60575/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

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Page 169 of 181

QC Association Summary

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery

GC Semi VOA (Continued)

Prep Batch: 60575 (Continued)

Lab Sample ID LCSD 880-60575/3-A	Client Sample ID Lab Control Sample Dup	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
890-5105-1 MS	BS23-03	Total/NA	Solid	8015NM Prep	
890-5105-1 MSD	BS23-03	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60627

ab Sample ID.	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
90-5105-1	BS23-03	Total/NA	Solid	8015B NM	60575
90-5105-2	BS23-05	Total/NA	Solid	8015B NM	60575
90-5105-3	WS23-04	Total/NA	Solid	8015B NM	60575
90-5105-4	WS23-08	Total/NA	Solid	8015B NM	60575
90-5105-5	WS23-09	Total/NA	Solid	8015B NM	60575
90-5105-6	WS23-15	Total/NA	Solid	8015B NM	60575
90-5105-7	BH23-16	Total/NA	Solid	8015B NM	60575
/IB 880-60575/1-A	Method Blank	Total/NA	Solid	8015B NM	60575
.CS 880-60575/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60575
.CSD 880-60575/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60575
90-5105-1 MS	BS23-03	Total/NA	Solid	8015B NM	60575
90-5105-1 MSD	BS23-03	Total/NA	Solid	8015B NM	60575

Analysis Batch: 60738

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-5105-1	BS23-03	Total/NA	Solid	8015 NM	
890-5105-2	BS23-05	Total/NA	Solid	8015 NM	
890-5105-3	WS23-04	Total/NA	Solid	8015 NM	
890-5105-4	WS23-08	Total/NA	Solid	8015 NM	
890-5105-5	WS23-09	Total/NA	Solid	8015 NM	
890-5105-6	WS23-15	Total/NA	Solid	8015 NM	
890-5105-7	BH23-16	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 60467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5105-1	BS23-03	Soluble	Solid	DI Leach	
890-5105-2	BS23-05	Soluble	Solid	DI Leach	
890-5105-3	WS23-04	Soluble	Solid	DI Leach	
890-5105-4	WS23-08	Soluble	Solid	DI Leach	
890-5105-5	WS23-09	Soluble	Solid	DI Leach	
890-5105-6	WS23-15	Soluble	Solid	DI Leach	
890-5105-7	BH23-16	Soluble	Solid	DI Leach	
MB 880-60467/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60467/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60467/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5107-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-5107-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 60528

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-5105-1	BS23-03	Soluble	Solid	300.0	60467
890-5105-2	BS23-05	Soluble	Solid	300.0	60467
890-5105-3	WS23-04	Soluble	Solid	300.0	60467

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Page 170 of 181

4 5 6

Job ID: 890-5105-1 SDG: 23E-04103

QC Association Summary

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery

HPLC/IC (Continued)

Analysis Batch: 60528 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5105-4	WS23-08	Soluble	Solid	300.0	60467
890-5105-5	WS23-09	Soluble	Solid	300.0	60467
890-5105-6	WS23-15	Soluble	Solid	300.0	60467
890-5105-7	BH23-16	Soluble	Solid	300.0	60467
MB 880-60467/1-A	Method Blank	Soluble	Solid	300.0	60467
LCS 880-60467/2-A	Lab Control Sample	Soluble	Solid	300.0	60467
LCSD 880-60467/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60467
890-5107-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	60467
890-5107-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	60467

Job ID: 890-5105-1 SDG: 23E-04103

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Page 171 of 181

5

9

Job ID: 890-5105-1 SDG: 23E-04103

Lab Sample ID: 890-5105-1 Matrix: Solid

Lab Sample ID: 890-5105-2

Date Collected: 08/15/23 09:00 Date Received: 08/16/23 09:54

Client Sample ID: BS23-03

Client: Vertex

	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	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 12:43	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60697	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60738	08/21/23 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 20:41	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 00:47	СН	EET MID

Client Sample ID: BS23-05

Date Collected: 08/15/23 09:05

Date Received: 08/16/23 09:54

	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	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 13:03	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60697	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60738	08/21/23 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 21:49	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 00:54	СН	EET MID

Client Sample ID: WS23-04

Date Collected: 08/15/23 09:10 Date Received: 08/16/23 09:54

	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	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 13:24	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60697	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60738	08/21/23 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	60575	08/18/23 14:14	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 22:11	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 01:02	СН	EET MID

Client Sample ID: WS23-08 Date Collected: 08/15/23 09:15 Date Received: 08/16/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 13:45	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60697	08/21/23 11:05	AJ	EET MID

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Matrix: Solid

Lab Sample ID: 890-5105-3

Lab Sample ID: 890-5105-4

Matrix: Solid

Matrix: Solid

Released to Imaging: 1/31/2024 3:13:52 PM

Job ID: 890-5105-1 SDG: 23E-04103

Lab Sample ID: 890-5105-4 Matrix: Solid

Lab Sample ID: 890-5105-5

Lab Sample ID: 890-5105-6

Lab Sample ID: 890-5105-7

Matrix: Solid

Matrix: Solid

Matrix: Solid

Date Collected: 08/15/23 09:15 Date Received: 08/16/23 09:54

Client Sample ID: WS23-08

Client: Vertex

	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			60738	08/21/23 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 22:33	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 01:23	СН	EET MID

Client Sample ID: WS23-09

Date Collected: 08/15/23 09:20 Date Received: 08/16/23 09:54

	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	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 14:06	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60697	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60738	08/21/23 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 22:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	60467	08/17/23 13:00	SMC	EET MID
Soluble	Analysis	300.0		1			60528	08/18/23 01:30	CH	EET MID

Client Sample ID: WS23-15

Date Collected: 08/15/23 09:25 Date Received: 08/16/23 09:54

Batch Batch Dil Initial Final Batch Prepared Method Prep Type Туре Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 4.95 g 5 mL 60466 08/17/23 13:00 EL EET MID Total/NA 8021B 5 mL 5 mL 60525 08/18/23 14:27 AJ EET MID Analysis 1 Total/NA Total BTEX Analysis 1 60697 08/21/23 11:05 AJ EET MID Total/NA Analysis 8015 NM 60738 08/21/23 13:36 SM EET MID 1 60575 Total/NA Prep 8015NM Prep 10.04 g 10 mL 08/18/23 14:14 TKC EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 60627 08/20/23 23:15 SM EET MID 1 Soluble Leach DI Leach 5.02 g 50 mL 60467 08/17/23 13:00 SMC EET MID Soluble Analysis 300.0 60528 08/18/23 01:37 СН EET MID 1

Client Sample ID: BH23-16

Date Collected: 08/15/23 09:30 Date Received: 08/16/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	60466	08/17/23 13:00	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60525	08/18/23 14:47	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			60697	08/21/23 11:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60738	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	60575	08/18/23 14:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 23:36	SM	EET MID

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Lab Chronicle

Job ID: 890-5105-1
SDG: 23E-04103

Matrix: Solid

8 9

Lab Sample ID: 890-5105-7

Client Sample ID: BH23-16 Date Collected: 08/15/23 09:30 Date Received: 08/16/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Soluble	Leach	DI Leach			5.04 g	50 mL	60467	08/17/23 13:00	SMC	EET MID	
Soluble	Analysis	300.0		1			60528	08/18/23 01:44	СН	EET MID	

Laboratory References:

Client: Vertex

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

Eurofins Carlsbad

Client: Vertex Project/Site: PW Big Si	nks 3-25-31 Battery		-	Job ID: 890-510 SDG: 23E-04	
Laboratory: Eurofi Unless otherwise noted, all a		were covered under each acc	reditation/certification below.		3
Authority		Program	Identification Number	Expiration Date	4
Texas		NELAP	T104704400-23-26	06-30-24	5
The following analytes the agency does not of		but the laboratory is not certif	ied by the governing authority. This list ma	y include analytes for which	6
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		
					8
					9
					10
					11
					13

Eurofins Carlsbad

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Method Summary

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery Job ID: 890-5105-1 SDG: 23E-04103

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID
EPA = US	ASTM International 5 Environmental Protection Agency "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third B	Edition November 1986 And Its Undates	
	= TestAmerica Laboratories, Standard Operating Procedure		
Laboratory R		_	
EET MID	= Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-544	0	

Laboratory References:

Eurofins Carlsbad

Client: Vertex Project/Site: PW Big Sinks 3-25-31 Battery

Job ID: 890-5105-1
SDG: 23E-04103

Page 177 of 181

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-5105-1	BS23-03	Solid	08/15/23 09:00	08/16/23 09:54	4FT	
890-5105-2	BS23-05	Solid	08/15/23 09:05	08/16/23 09:54	4FT	
890-5105-3	WS23-04	Solid	08/15/23 09:10	08/16/23 09:54	4FT	
890-5105-4	WS23-08	Solid	08/15/23 09:15	08/16/23 09:54	4FT	
890-5105-5	WS23-09	Solid	08/15/23 09:20	08/16/23 09:54	4FT	
890-5105-6	WS23-15	Solid	08/15/23 09:25	08/16/23 09:54	4FT	
890-5105-7	BH23-16	Solid	08/15/23 09:30	08/16/23 09:54	4FT	

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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time)	Received by: (Signature)	gnature)	Relinquished by: (Signature)
	previously negotiated.	or service, Euromis service will be lable only for the cost of samples and sharm on exploration of the submitted to 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 neg	urofins Xenco, but not a	or each sample submitted to I	o each project and a charge of \$5 f	hape only for the cost of samp harge of \$85.00 will be applied t	of Eurofins Xenco. A minimum c
	tions	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	fins Xenco, its affiliates a see incurred by the clien	r from client company to Euro	es constitutes a valid purchase orde	nt and relinquishment of sample	Notice: Signature of this docume
470 / 7471	Hg:	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U	b As Ba Be Cd	² LP 6010 : 8RCRA :		d Metal(s) to be ana	Circle Method(s) and Metal(s) to be analyzed
TI Sn U V Zn	Ni K Se Ag SiO ₂ Na Sr	Cd Ca Cr Co Cu Fe Pb Mg Mn Mo	As Ba Be B	M Texas 11 Al Sb	8RCRA 13PPM	200.8 / 6020:	Total 200.7 / 6010
			<		V 9 50	UH+ V	al-suna
					W 9:25	USA V	8423-15
			< < <		a:10	URT	W523-09
			255		9:15	Vict	20-5224
			マイト		a:10	upt.	1313-04
			へへく		1 9.05	YFF -	NO-2007
			くてて	UCT For 2	8/5 9.00	upt fail	8673-62
Sample Comments			87	Depth Grab/ # of Comp Cont	Date Time Sampled Sampled	ition Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC	Na		54	1.9	Corrected Temperature:		Total Containers:
Zn Acetate+NaOH: Zn	1 Zn	_	5×	1.6	Temperature Reading:	Yes NO (N/A)	Sample Custody Seals:
Na 25 20 3: NaSO 3		890-5105 Chain of Custody	2	-0.2 Pi	Correction Factor:	Yes No (N/A)	Cooler Custody Seals:
NaHSO 4: NABIS	Na		21	T. NACOT	Thermometer ID:		Samples Received Intact:
H 3PO 4: HP	H ₃		5	Yes No	(Yes No Wet Ice:	Temp Blank:	SAMPLE RECEIPT
H ₂ SO ₄ : H ₂ NaOH: Na	H ₂		0	the lab, if received by 4:30pm	+		PO #:
	HC			TAT starts the day received by	Backare Z IAT starts the	14	
Cool: Cool MeOH: Me	Co				Due Date:	anspady N	Project Location:
None: NO DI Water: H ₂ O	No			Bush WHY Code	γ / □Routine	THE-OULD	ber:
Preservative Codes		ANALYSIS REQUEST		Turn Around	Terra Turn.	to Brid and Brid ma	Project Name:
Other:	Deliverables: EDD ADaPT	Annianavarta. 40	Rientexica	COXONRY	12 Email:	575 988 14	Phone:
UST TRRP Level IV	Reporting: Level III Level III PST/UST TRRP			City, State ZIP:	UM	antsbad	City, State ZIP:
]	State of Project:	State of State		Address:	Drive	3101 Boyd	Address:
ields RRC Superfund	m: UST/PST PRP Brownfields	Energy Program:	XIO	Company Name:		levtex	Company Name:
nents	Work Order Comments	Ht Grean	Connet	Bill to: (if different)	ixon	Chance D	Project Manager:
Page of	www.xenco.com	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	75) 392-7550, Carlsba	Hobbs, NM (
-		EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	15) 585-3443, Lubboo	EL Paso, TX (Xenco	
	Work Order No:	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	(2) 704-5440, San Ant	Midland, TX (4)	Environment Testing	_	
		Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	(281) 240-4200, Dalla	Houston, TX			eurofins

Job Number: 890-5105-1 SDG Number: 23E-04103

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Vertex

Login Number: 5105 List Number: 1 Creator: Lopez, Abraham

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

Eurofins Carlsbad
Released to Imaging: 1/31/2024 3:13:52 PM

14

Job Number: 890-5105-1 SDG Number: 23E-04103

List Source: Eurofins Midland

List Creation: 08/17/23 10:52 AM

Login Sample Receipt Checklist

Client: Vertex

Login Number: 5105 List Number: 2 Creator: Teel, Brianna

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

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

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	264431
	Action Type:
	[C-141] Release Corrective Action (C-141)
CONDITIONS	
Created By Condition	Condition

		Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2317052998 PLU BIG SINKS 3-25-31 BATTERY, thank you. This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation including pictures of the contoured backfilled excavation surface and a thorough discussion on reseeding mixture, vegetation ratio, timelines, etc, will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	1/31/2024

Page 181 of 181 CONDITIONS

Action 264431