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2023 Annual Technical Progress Report Submittal
RACER Trust Bay City Powertrain Industrial Land

GHD has prepared this 2023 Annual Technical Progress Report (Annual Report) for the Revitalizing Auto Communities Environmental Response Trust (RACER) Bay City Powertrain Industrial Land (Site) located in Bay City, Michigan.

This Annual Report covers the RACER Site for the reporting period from November 22, 2022 to November 7, 2023, unless otherwise noted in the report. Included as part of this submittal, as applicable, are descriptions of actions related to the implementation of the Feasibility Study/Remedial Action Plan (FS/RAP), supplemental response actions and operation, maintenance, and monitoring activities. This Annual Report summarizes activities related to these action plans, outlines project status, and details any difficulties encountered during the implementation of the action plans.

This annual report does not summarize modifications to stormwater management at the Site that are necessary as a result of the General Motors Corporation (GMC) bankruptcy process. The Storm Water Improvements Work Plan was submitted to Michigan Department of Environment, Great Lakes, and Energy (EGLE) on April 20, 2022. EGLE responded via email on June 2, 2022 identifying no issues with the proposed stormwater improvements but providing comments, which are acknowledged. General Motors LLC's (GM's) portion of the separation work was completed in September 2023. The remaining modifications will be completed by RACER in the spring of 2024. Following completion of the modifications to the stormwater management, a construction completion report will be prepared and submitted to EGLE.

1. Summary of On-Going Activities and Project Status

The following sections summarize the activities performed related to implementation of the RAP, supplemental response actions, and operation, maintenance, and monitoring, and details any difficulties encountered during the implementation of the action plans.

1.1 Remedial Action Plan

RAP operation and maintenance activities are being implemented for the Site.

A groundwater treatment system has been designed to provide operational independence from the treatment system at the neighboring GM facility which previously treated groundwater and stormwater from the RACER Site. The need for this system resulted from the outcome of the GMC June 2009 bankruptcy (i.e., RACER received ownership of the Site and GM obtained ownership of the adjacent operating facility). The construction of the system was initiated in November 2012 and was fully commissioned in April 2015. Since the system was fully commissioned, RACER has been treating extracted groundwater prior to discharge to the City of Bay City sewer. New groundwater extraction pumps and associated well upgrades were completed as part of the new groundwater treatment system construction.

1.1.1 Operation and Maintenance Activities

An initial Monitoring, Operation, and Maintenance Plan (O&M Plan) was submitted on behalf of GMC in November 2000 to Michigan Department of Environmental Quality (MDEQ now referred to as Michigan Department of Environmental, Great Lakes, and Energy [EGLE]). Revised O&M Plan sections were submitted on behalf of GMC to MDEQ in June 2001, conditionally approved by MDEQ on November 27, 2001, and the final O&M Plan was submitted on behalf of GMC in January 2002 and subsequently approved by MDEQ. Specific O&M activities for the new RACER groundwater treatment system were added to the existing O&M Plan after the commissioning of the treatment system in April 2015 and a revised Operation, Maintenance, and Monitoring Plan manual was submitted on behalf of RACER to MDEQ on November 14, 2016.

1.1.2 Operation and Maintenance Activities–Groundwater Extraction System

Groundwater levels in the entire Crotty Street Channel (CSC) are lowered through the operation of a pump in CSC extraction well EW-15, since the entire CSC is hydraulically well connected due to the porous nature of the soils (backfill was pea gravel and sand) in the CSC. In addition, groundwater levels in the Machine Storage Area (MSA) are lowered through the operation of pumps in MSA extraction wells EW-6, EW-8, and EW12, which discharge to EW-15. The pump in EW-15 directs water to the RACER groundwater treatment system where the extracted water is treated before being discharged to the City of Bay City sanitary sewer system.

The groundwater extraction system operated regularly during the 12-month period covered by this report, except when the groundwater treatment system was down for maintenance.

Maintenance activity checklists are completed monthly (presented in Attachment A) and include the operational status and water level measurements of the extraction wells. With EGLE's approval, in an effort to streamline reporting effort, the monthly checklists will no longer be presented in the Annual Reports, beginning in 2024. Monthly checklists and other field activity documents will continue to be maintained by GHD and available upon request.

1.1.3 Operation and Maintenance Activities – Groundwater Treatment System

Extracted groundwater is treated through the on-Site groundwater treatment system before being discharged to the City of Bay City under Industrial User Discharge Permit (120807). The treatment system incorporates aeration, settling, bag filtration and granular activated carbon (GAC) filtration to remove contaminants of concern.

The groundwater treatment system operated regularly from November 2023 to June 2023, except when down for maintenance (for example: bag filter replacement, backflushing of GACs, or replacement of GACs). However, breakthrough concentrations of PCBs and mercury were detected in the June 30, 2023 composite effluent compliance sample reported on July 13, 2023, which exceeded the discharge permit limit of non-detect. Following multiple attempts to troubleshoot the system and re-collect a confirmation sample, the groundwater extraction and treatment system was shut down on August 7, 2023. Following replacement of the GAC drums

and bag filters, the treatment system was started on October 16, 2023 for one day, with discharge containerized in an on-site tote (therefore not released to the sewer). A 24-hour composite effluent compliance sample was collected on October 17, 2023 and analyzed on a rush turn-around-time. No PCBs or mercury were detected in the October composite effluent compliance sample and the entire extraction and treatment system was restarted on October 27, 2023. On November 11, 2023, a grab effluent sample was collected and analysed for PCBs to confirm the system was continuing to operate properly. There were no detections.

It has been identified that the treatment system will need additional cleaning and this maintenance has been scheduled for spring 2024.

From April 2015, when the groundwater treatment system was fully commissioned, through November 7, 2023 approximately 1,582,197 gallons of groundwater were treated.

1.1.4 Saginaw River Levels

From 1977 until 2017, Saginaw River water levels have been recorded from government operated entities the National Oceanic and Atmospheric Administration (NOAA) and United States Geological Survey (USGS). In 2017, as a result of damaged gauges or unavailable information from USGS and NOAA, GHD utilized the monthly manual measurements of the on-Site staff gauges for the water level in the Saginaw River, however these staff gauges have also been damaged over time. In 2023, GHD began measuring the elevation of the Saginaw River from the top of the break wall, identified as BW-3 (River), and will continue to do so moving forward until another USGS station is installed or another source of Saginaw River water levels is identified.

Based on the combined NOAA and USGS data from 1977 to September 2, 2017, the average Saginaw River water level was approximately 578.89 feet (ft) above mean sea level (AMSL). Recent water levels were above the average, as the current water level measured at BW-3 on September 11, 2023 was 579.58 ft AMSL.

1.1.5 Monitoring Activities

Maintenance Monitoring

As part of the monthly maintenance activity checklists, water levels are collected from each extraction well. Table 1 presents the monthly extraction well groundwater elevations, based on the depth-to-water measurements, for this reporting period.

Semi-annual groundwater treatment system influent samples (collected from EW-15) were collected in December 2022, July 2023, and October 2023, with a confirmation sample collected in November 2023. Table 2 presents the analytical results for this reporting period compared to EGLE's Part 201 Generic Residential Drinking Water, Non-Residential Drinking Water, and Groundwater Surface Water Interface Criteria.

Annual Monitoring Event

In accordance with the O&M Plan, an annual monitoring event was conducted in September and October 2023. Figure 1 presents the locations where groundwater chemical analysis is performed. Figure 2 presents the locations where depth-to-water measurements for groundwater and surface water are monitored.

On September 15, 2023, depth to water measurements were collected from on-Site monitoring wells. Figure 3 presents the annual shallow groundwater elevations. As discussed in Section 1.1.3, the extraction pumps were not operating between August 7 and October 16, 2023 (prior to, during, and after, the annual water level monitoring event) and therefore the water level elevations reflect non-pumping conditions. Table 3 presents the annual groundwater elevations, based on the depth-to-water measurements, from 2015 to present. Attachment B presents historical groundwater elevations from 1999 to 2014.

On October 12 and 14, 2023, the annual groundwater monitoring for PCBs in groundwater was conducted. Table 4 presents the analytical results summary for the annual groundwater monitoring event, compared to EGLE's Part 201 Generic Residential Drinking Water, Non-Residential Drinking Water, and Groundwater Surface Water Interface Criteria. A summary of the analytical groundwater data from 2012 to present is presented in Attachment C. The laboratory data reports for all chemical analysis conducted in the reporting period and data validation for the 2023 annual sampling event are presented in Attachment D.

A review of the historical groundwater sample results reveals that the 2023 results are consistent with previous years. Since 2012, only two monitoring well locations (LMW13S consistently since 2012, and MW102D2 in 2020) had reported concentrations above the EGLE Part 201 Residential and Non-Residential Drinking Water Criteria for PCBs of 0.5 (parts per billion) ppb. Groundwater results were reported above the EGLE Part 201 Groundwater Surface Water Interface Criteria for PCBs of 0.2 ppb at MW102D1 (various times over the past 10 years), at MW102D2 (in 2017, 2020, and 2022), at LMW13S (since 2012), and at LMW15D (2018 and 2023).

Compliance Monitoring (Industrial User Discharge Permit)

In accordance with the requirements of the Industrial User Discharge Permit (120807) with the City of Bay City, semi-annual composite discharge compliance samples were collected from the groundwater treatment system effluent in December 2022, June 2023, and October 2023, with a confirmation grab sample collected in November 2023. Table 5 presents the results compared to the maximum discharge limits.

As discussed in Section 1.1.3, a breakthrough concentration of PCBs was detected in the June 30, 2023 composite effluent compliance sample. Following maintenance on the treatment system, a composite effluent compliance sample was collected October 17, 2023 and a confirmation grab sample was collected on November 11, 2023. PCBs were not detected in October or November 2023.

There were no other exceedances of permit discharge standards observed.

1.2 Supplemental Response Actions

A Declaration of Restrictive Covenant (DRC) for the Site was recorded with the Bay County Register of Deeds on November 17, 2015. The location and content of permanent markers were reviewed and approved by MDEQ on November 4, 2015.

A Corrective Measures Remedial Action Plan Completion Report was prepared and submitted to MDEQ for review on September 23, 2016. MDEQ approved RCRA Corrective Action Complete with Controls (RCRA Corrective Action Event Code CA900CR) on September 28, 2016.

Modifications to stormwater management at the Site are necessary as a result of the GMC bankruptcy process. GM's portion of the separation work was completed in September 2023. The remaining modifications will be completed by RACER in the spring of 2024. After completion of the modifications to stormwater management at the Site, the DRC will be reviewed to evaluate if any revisions are necessary because of the modifications and other geographic survey information that has been obtained.

2. EGLE CAMM Inspection

On October 30, 2023, EGLE completed a Corrective Action Maintenance and Monitoring (CAMM) inspection as a requirement of the RCRA CA Environmental Indicators form 900 - Corrective Action Complete with Controls. Representatives at the inspection included: Jeremy Pepin (EGLE-MMD), Art Ostaszewski (EGLE-MMD), Joe Rogers (EGLE-MMD), Dave Favero (RACER), John-Eric Pardys (GHD), and John York (GHD). It is RACER's understanding that EGLE plans to provide a letter with inspection findings/recommendations in 2024.

3. Proposed Modifications to the Monitoring Program

No modifications are proposed at this time with the exception of scheduling alterations, detailed below.

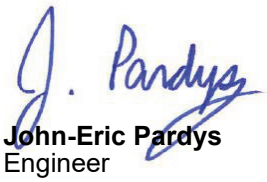
4. Schedule

All activities have been completed within the required time frames.

As part of the 2024 monitoring program, RACER will continue to perform monthly extraction and treatment system inspections and regular pump maintenance, as necessary. RACER will also collect semi-annual groundwater treatment system influent and effluent samples in January and July 2024. The annual groundwater monitoring event will be completed in August 2024.

Should you have any questions on the above, please do not hesitate to contact us.

Sincerely,



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Encl.

Figure 1	Chemical Analysis Monitoring Locations
Figure 2	Water Elevation Monitoring Locations
Figure 3	Shallow Groundwater Elevations – September 15, 2023
Table 1	Groundwater Extraction System Water Elevations
Table 2	Analytical Results Summary–Groundwater Treatment System Influent Sampling
Table 3	Monitoring Well Completion Details and Groundwater Elevations
Table 4	Analytical Results Summary–Annual Sampling
Table 5	Analytical Results Summary–Groundwater Treatment System Effluent Sampling
Table 6	Summary of Long Term Groundwater and Stormwater Monitoring Activities
Attachment A	Monthly Maintenance Activity Checklists
Attachment B	Historical Groundwater Elevations from 1999 to 2014
Attachment C	Analytical Results Summary (2013 to 2023)
Attachment D	Laboratory Reports and Data Validation Memorandums

Copy to: Richard Finn, City of Bay City
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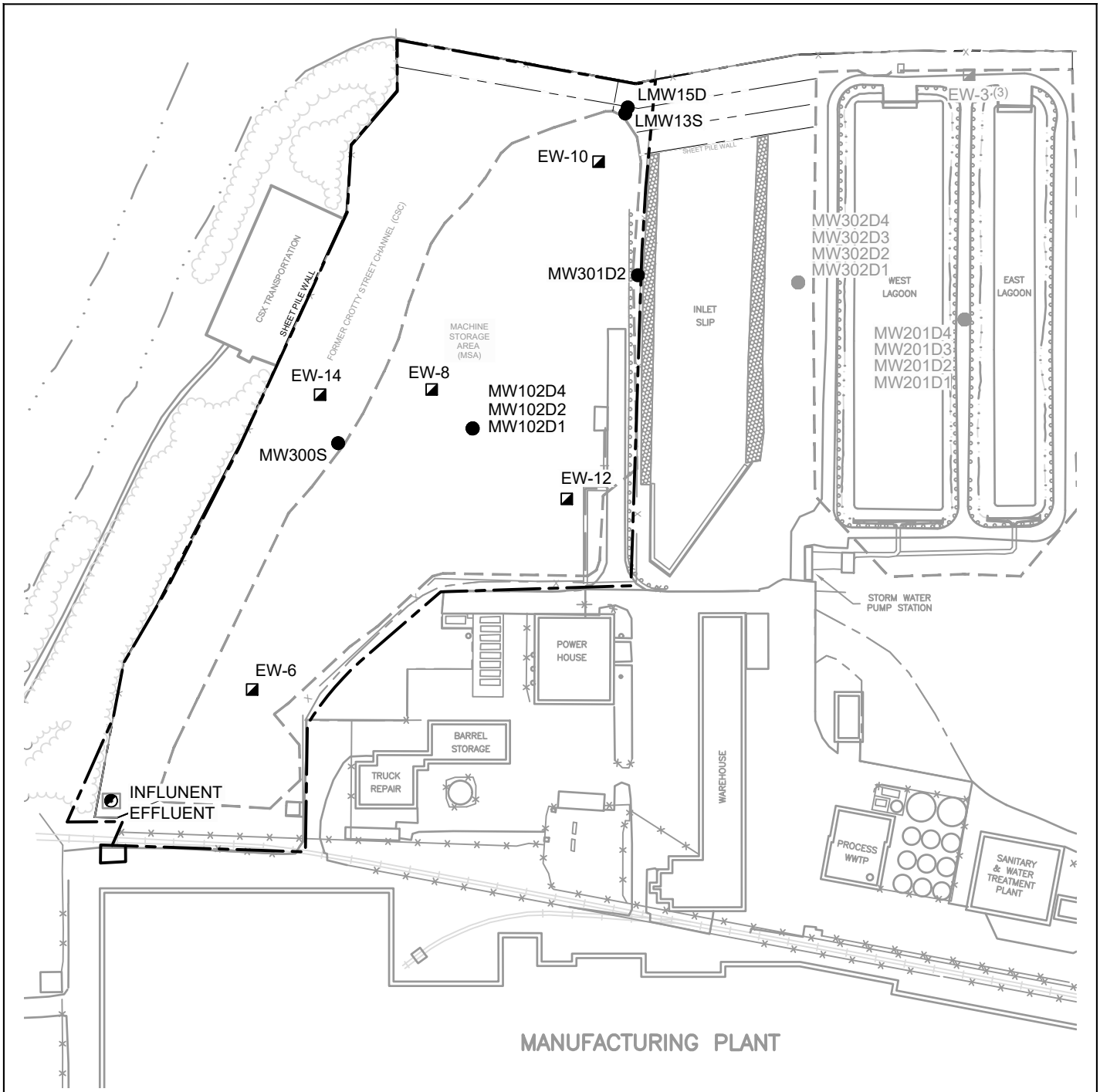
Grant Trigger, RACER Trust
Michael Tomka, GHD
Jessica Gallaway, GHD

Figures



LEGEND

- FENCE
- GUARDRAIL
- RAILROAD
- TREELINE
- SHORELINE
- BARRIER (DEEP SOIL MIXING)
- SHEET PILE WALL
- APPROXIMATE RACER PROPERTY BOUNDARY

MW403S ● MONITORING WELL LOCATION
EW-6 ◪ GROUNDWATER EXTRACTION WELL LOCATION
◐ GROUNDWATER TREATMENT SYSTEM SAMPLE LOCATION

0 100 200 ft

N

GHD

RACER TRUST - BAY CITY INDUSTRIAL LAND
BAY CITY, MICHIGAN

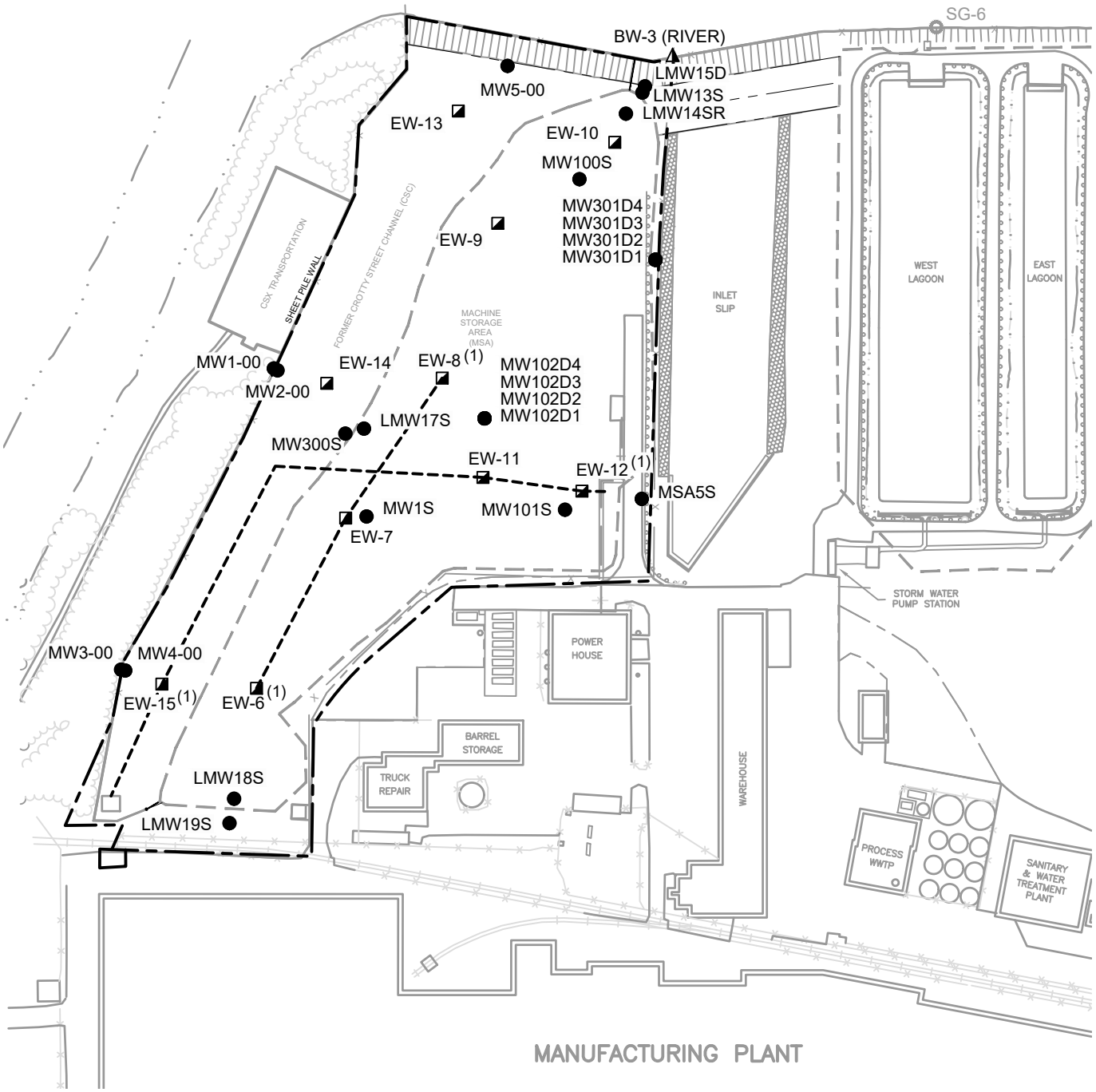
Project No. **11208058**
Date **November 2023**

CHEMICAL ANALYSIS MONITORING LOCATIONS

FIGURE 1

Filename: N:\CA\Waterloo\Projects\662\11208058\Digital_Design\ACAD 2020\Figures\LTR018\11208058-GHD-00-00-LTR-EN-D101_WA-018.dwg
Plot Date: 29 November 2023 10:28 AM

Data Source: McLAREN HART ENVIRONMENTAL ENGINEERING CORP.
DATE: 08/29/94 DRAWING: 7900B216 ALL ELEVATIONS IN NAVD88



LEGEND

- FENCE
- GUARDRAIL
- RAILROAD
- TREELINE
- SHORELINE
- BARRIER (DEEP SOIL MIXING)
- SHEET PILE WALL
- APPROXIMATE RACER PROPERTY BOUNDARY
- EXTRACTION DISCHARGE LINE

MW403S ● MONITORING WELL LOCATION
EW-6 ◪ GROUNDWATER EXTRACTION WELL LOCATION
SG-6 ◎ FORMER STAFF GAGE LOCATION
BW-3 ◭ BREAK WALL MEASUREMENT LOCATION

NOTE:
(1) ACTIVE PUMPING LOCATION.

0 100 200 ft

N

GHD

RACER TRUST - BAY CITY INDUSTRIAL LAND
BAY CITY, MICHIGAN

Project No. **11208058**
Date **November 2023**

WATER ELEVATION MONITORING LOCATIONS

FIGURE 2

Filename: N:\CA\Waterloo\Projects\662\11208058\Digital_Design\ACAD 2020\Figures\LTR018\11208058-GHD-00-00-LTR-EN-D102_WA-018.dwg
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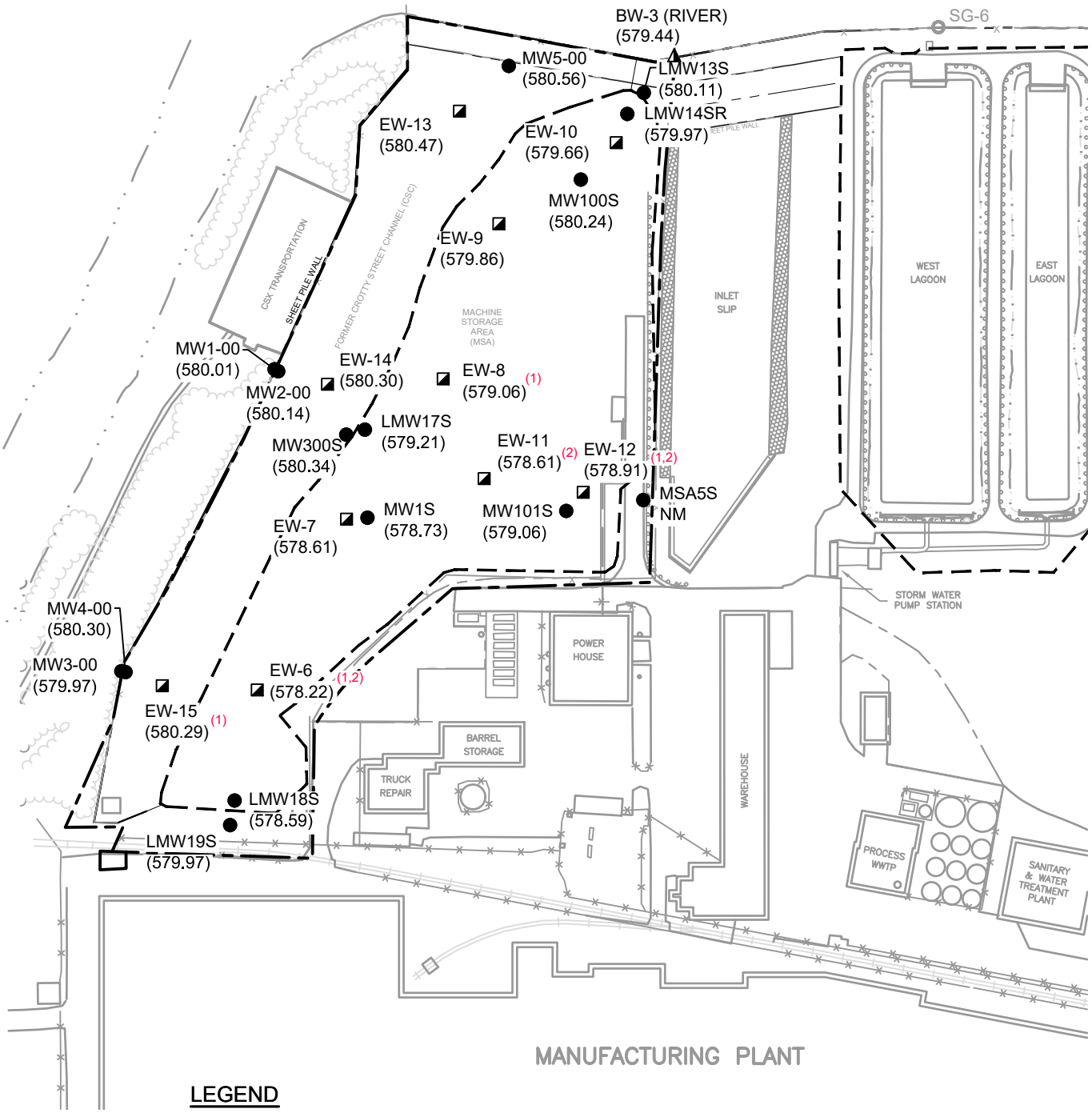
DATE: 08/29/94 DRAWING: 7900B216 ALL ELEVATIONS IN NAVD88



LEGEND

- FENCE
- GUARDRAIL
- RAILROAD
- TREELINE
- SHORELINE
- BARRIER (DEEP SOIL MIXING)
- SHEET PILE WALL
- APPROXIMATE RACER PROPERTY BOUNDARY
- MW403S ● MONITORING WELL LOCATION (WATER LEVELS MONITORED ANNUALLY)

SG-6 ○	FORMER STAFF GAGE LOCATION
EW-6 ◪	GROUNDWATER EXTRACTION WELL LOCATION (WATER LEVELS MONITORED MONTHLY)
BW-3 ◭	BREAK WALL MEASUREMENT LOCATION
(578.44)	GROUNDWATER ELEVATION (ft. AMSL)
(NM)	NOT MEASURED
(1)	PUMP LOCATION
(2)	PRODUCT FOUND, GROUNDWATER LEVEL CORRECTED
(3)	THE EXTRACTION PUMPS WERE NOT OPERATING BETWEEN AUGUST 7 AND OCTOBER 16, 2023 (PRIOR TO, DURING, AND AFTER, THE ANNUAL WATER LEVEL MONITORING EVENT). WATER LEVEL ELEVATIONS REFLECT NON-PUMPING CONDITIONS.

0 100 200 ft

N

GHD

RACER TRUST - BAY CITY INDUSTRIAL LAND
BAY CITY, MICHIGAN

Project No. **11208058**
Date **January 2024**

SHALLOW GROUNDWATER ELEVATIONS
SEPTEMBER 15, 2023

FIGURE 3

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Plot Date: 25 January 2024 10:37 AM

Data Source: McLAREN HART ENVIRONMENTAL ENGINEERING CORP.
DATE: 08/29/94 DRAWING: 7900B216 ALL ELEVATIONS IN NAVD88

Tables

Table 1

Groundwater Extraction System Water Elevations
Racer Trust - Bay City Site
Bay City, Michigan

Location	Reference	Well Depth	Top ICU	12/5/2022 Elevation	1/16/2023 Elevation	2/14/2023 Elevation	3/20/2023 Elevation	4/10/2023 Elevation	5/5/2023 Elevation	6/12/2023 Elevation	7/7/2023 Elevation	7/11/2023 Elevation	8/2/2023 Elevation	9/11/2023 Elevation	9/15/2023 Elevation	10/16/2023 Elevation	11/13/2023 Elevation
Machine Storage Area																	
EW-6 (1)	589.74	570.39	572.39	578.09 (2)	577.98 (2)	577.96 (2)	577.88 (2)	577.80 (2)	577.72 (2)	578.11	NM (2)	578.15 (2)	578.37 (2)	578.15	578.22 (2)	578.15	578.21 (2)
EW-7	587.99	571.14	571.64	578.59	578.58	578.58	578.59	578.62	578.56	578.62	578.61	NM	578.51	568.58 (4)	578.61	578.55	578.60
EW-8 (1)	588.34	572.29	573.29	578.83	578.77	578.82	578.86	578.88	578.92	579.11	NM (2)	579.00	578.98	579.01	579.06	578.98	578.90 (2)
EW-9	588.04	572.19	573.69	579.67	579.48	579.49	579.41	579.43	579.51	579.94	579.76	NM	579.86	579.87	579.86	579.89	579.67
EW-10	587.77	570.82	572.32	579.30	579.14	579.04	579.09	579.28	579.38	579.86	579.74	NM	579.75	579.70	579.66	579.55	579.35
EW-11	591.51	571.91	572.56	578.56 (2)	578.49 (2)	577.61 (2)	578.58 (2)	579.41 (2)	578.50 (2)	578.71 (2)	NM (2)	578.25 (2)	578.55 (2)	578.51 (2)	578.61 (2)	578.58 (2)	578.36 (2)
EW-12 (1)	586.42	571.57	573.07	578.78 (2)	579.03 (2)	579.07 (2)	578.73 (2)	578.65 (2)	578.42 (2)	578.39 (2)	NM (2)	578.82 (2)	578.38 (2)	578.48 (2)	578.91 (2)	578.34 (2)	578.59 (2)
Crotty Street Channel Containment Area																	
EW-13	584.33	571.86	--	579.57	579.43	580.01	580.30	580.65	580.42	580.72	580.56	NM	580.56	580.54	580.47	580.18	579.94
EW-14	582.42	569.92	--	579.51	579.45	579.86	580.10	580.45	580.32	580.51	580.35	NM	580.34	580.33	580.30	580.01	579.74
EW-15 (1)	583.71	571.61	--	578.88	578.40	579.80	580.01	580.43	580.28	0.00	580.38	NM	580.34	580.33	580.29	578.91	579.14
Saginaw River																	
BW-3 (RIVER)	587.16	--	--	578.71	(3)	(3)	578.84	580.12	579.83	579.95	580.10	580.12	579.68	579.58	579.44	579.79	579.23

Notes:

Elevations shown in ft AMSL

ICU	Intermediate Confining Unit
NM	Not Measured
(1)	Pumping well
(2)	Product found. A corrected groundwater was calculated by multiplying the relative LNAPL density (0.9) by the LNAPL thickness and adding the result to the measured water/LNAPL interface elevation.
(3)	River is ice/snow
(4)	Value appears to be erroneous. EW-7 was measured at 578.61 on Sept 15 during the site-wide water level event.

Analytical Results Summary
Groundwater Treatment System Influent Sampling
Racer Trust - Bay City Site
Bay City, Michigan

AOI:					Treatment System	Treatment System	Treatment System	Treatment System
Sample Location:					influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS
Sample ID:					GW-11208058-121922-JY-001	W-11208058-072623-JY-003	W-11208058-101623-JY-002	GW-11208058-111323-JY-005
Sample Date:					12/19/2022	07/26/2023	10/16/2023	11/13/2023
Parameters	**Units**	**Michigan Residential Drinking water criteria**	**Michigan Non-Residential Drinking water criteria**	**GSI**				
PCBs		a	b	c				
Aroclor-1016 (PCB-1016)	mg/L	0.0005	0.0005	0.0002	0.00096 U	**0.001**[abc]	0.000095 U	0.00095 U
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	**0.015**[abc]	**0.015**[abc]	0.000095 U	0.00095 U
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.00096 U	**0.001**[abc]	0.000095 U	0.00095 U
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	0.00096 U	**0.001**[abc]	0.000095 U	**0.02**[abc]
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.00096 U	**0.001**[abc]	0.000095 U	0.00095 U
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.00096 U	**0.001**[abc]	0.000095 U	0.00095 U
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.00096 U	**0.001**[abc]	0.000095 U	0.00095 U

Notes:

J	Estimated concentration
U	Not present at or above the associated value
1.0	Exceedance of criteria

Table 3

Monitoring Well Completion Details and Groundwater Elevations
2015 to Present
Racer Trust - Bay City Industrial Land
Bay City, Michigan

Location	Reference Elevation (ft AMSL)	Well Depth (ft)	Screen Length (ft)	Screen Type	Riser Type	Screen Diameter (in)	9/15/2023	8/22/2022	8/25/2021	8/3/2020	12/12/2019	12/19/2018	8/23/2017	12/8/2016	8/24/2015
Machine Storage Area (MSA)															
LMW13S	589.40	19.22	10	SS	PVC	2	580.11	580.12	580.77	581.97	581.94	580.46	580.72	580.01	580.10
LMW17S	589.31	19.83	10	SS	PVC	2	579.21	579.46	579.22	579.90	579.42	579.13	579.17	578.79	579.13
LMW18S	592.33	22.52	10	SS	PVC	2	578.59	577.88	578.95	579.30	578.85	578.64	578.48	578.17	578.62
LMW19S	588.61	19.32	10	SS	PVC	2	579.97	578.93	579.55	580.45	580.13	579.10	578.99	578.91	579.55
MW1S	591.08	12.95	2	SS	SS	2	578.73	578.75	578.77	578.88	578.77	578.79	578.76	578.77	578.73
MW100S	591.97	14.44	10	SS	SS	2	580.24	580.64	581.16	581.95	581.12	580.58	580.69	579.80	580.19
MW101S	593.34	19.22	10	SS	SS	2	579.06	578.96	579.05	579.12	579.48	579.44	578.99	579.17	579.12
MW102D1	594.86	30.99	10	SS	SS	2	579.59	580.07	580.82	582.13	581.55	580.18	580.86	579.30	579.88
MW102D2	594.93	36.21	10	SS	SS	2	579.58	580.04	580.81	582.12	581.53	580.15	580.85	579.37	579.86
MW102D3	594.91	46.74	10	SS	SS	2	579.57	580.02	580.78	582.09	581.52	580.15	580.78	579.25	579.83
MW102D4	594.90	56.85	10	SS	SS	2	579.58	579.95	580.72	582.03	581.44	580.08	580.74	579.19	579.77
MW300S	587.12	15.06	10	SS	SS	2	580.34	580.46	580.83	582.00	581.36	580.86	579.97	577.19	577.90
LMW14SR	589.01	13.00	7	SS	SS	2	579.97	580.28	581.02	582.13	581.28	580.54	580.69	579.63	580.02
Perimeter Banks (PB)															
LMW15D	588.34	32.80	10	SS	PVC	2	579.54	580.15	580.89	582.33	581.63	580.16	580.93	579.16	579.68
MW301D1	589.54	27.50	10	SS	SS	2	577.83	578.34	579.16	580.48	579.88	578.51	579.24	577.60	578.15
MW301D2	589.16	37.24	10	SS	SS	2	577.91	578.47	579.24	580.59	579.97	578.56	579.31	577.67	578.22
MW301D3	589.22	44.04	10	SS	SS	2	577.74	578.30	579.10	580.46	579.82	578.43	579.17	577.53	578.06
MW301D4	589.33	55.95	10	SS	SS	2	577.87	578.39	579.20	580.56	579.92	578.52	579.25	577.61	578.14
Support Facilities Area (SFA)															
MSA5S	588.60	18.98	- -	- -	SS	2	NM	NM	578.91	NM	NM	588.60	579.97	579.91	580.26
Crotty Street Channel															
MW1-00	588.26	12.00	7	SS	SS	2	580.01	580.56	580.87	582.09	582.09	580.55	579.67	579.16	579.79
MW2-00	589.29	18.00	7	SS	SS	2	580.14	580.66	581.04	582.22	582.22	580.65	581.58	578.84	579.35
MW3-00	588.40	12.50	7	SS	SS	2	579.97	580.52	580.90	582.10	582.10	580.48	580.60	579.15	579.76
MW4-00	589.65	19.00	7	SS	SS	2	580.3	580.73	581.21	582.38	582.38	580.81	580.87	579.03	579.54
MW5-00	588.89	13.00	7	SS	SS	2	580.56	580.66	581.33	582.53	582.53	581.31	580.15	577.22	577.70
Saginaw River															
BW-3 (River)	587.16	- -	- -	- -	- -	- -	579.44	NM	NM	NM	NM	NM	NM	NM	NM
SG-6 (1)	587.16	- -	- -	- -	- -	- -	damaged	579.93 (2)	580.94	582.44	581.48	580.05	580.79	579.07	579.66

Notes:

Elevations shown in ft AMSL
NM NM Not Measured
(1) SG-6 measured the Saginaw River water level from the top of the sheet pile wall. This has now been replaced with BW-3 (River) which measures at the same breakwall.
(2) Value collected on 9/8/2022

Table 4

Analytical Results Summary
Annual Sampling
Racer Trust - Bay City Site
Bay City, Michigan

AOI:					Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:					MW102D1	MW102D2	MW102D4	MW300S	LMW13S	LMW13S	LMW15D	MW301D2
Sample ID:					GW-11208058-101423-BW-006	GW-11208058-101423-BW-007	GW-11208058-101423-BW-008	GW-11208058-101423-BW-009	GW-11208058-101323-BW-001	GW-11208058-101323-BW-002	GW-11208058-101323-BW-004	GW-11208058-101323-BW-005
Sample Date:					10/14/2023	10/14/2023	10/14/2023	10/14/2023	10/13/2023	10/13/2023 (Duplicate)	10/13/2023	10/13/2023
Parameters	**Units**	**Michigan Residential Drinking water criteria**	**Michigan Non-Residential Drinking water criteria**	**GSI**								
PCBs		*a*	*b*	*c*								
Aroclor-1016 (PCB-1016)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.000095 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.000095 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.000095 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	0.00027 J[c]	0.000095 U	0.000097 U	0.000095 U	0.0011 J[abc]	0.0016 J[abc]	0.00023 J[c]	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.000095 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.000095 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.000095 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U

Footnotes:
U Not detected at the associated reporting limit.
J Estimated concentration.

Table 5

Analytical Results Summary
Groundwater Treatment System Effluent Sampling
Racer Trust - Bay City Site
Bay City, Michigan

Sample Location:			effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS
Sample ID:			WT-11208058-122022-JY-002	GW-11208058-063023-JY-001	GW-11208058-063023-JY-002	W-11208058-101723-JY-003	W-11208058-101723-JY-004	GW-11208058-111323-JY-006
Sample Date:			12/20/2022	06/30/2023	06/30/2023	10/17/2023	10/17/2023	11/13/2023
			Composite	*Grab*	*Composite*	*Grab*	*Composite*	*Grab (Confirmation)*
Parameters	**Daily Maximum[(1)]**	**Units**					*(Duplicate)*	
VOAs								
Vinyl chloride	0.002	mg/L	0.001 U	0.001	-	0.001 U	-	-
Metals								
Cadmium	0.057	mg/L	0.00028 J	-	0.002	-	0.002 U	-
Chromium	6.812	mg/L	0.005 U	-	0.0014	-	0.001 J	-
Copper	1.476	mg/L	0.02 U	-	0.02	-	0.02 U	-
Iron	--	mg/L	0.1 U	-	5.3	-	1	-
Lead	0.632	mg/L	0.0035	-	0.003	-	0.003 U	-
Mercury	ND	mg/L	0.0002 U^+	-	**0.00016**	-	0.0002 U	-
Nickel	2.548	mg/L	0.02 U	-	0.0051	-	0.0037 J	-
Silver	0.2	mg/L	0.005 U	-	0.005	-	0.005 U	-
PCBs								
Aroclor-1016 (PCB-1016)	ND	mg/L	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1221 (PCB-1221)	ND	mg/L	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1232 (PCB-1232)	ND	mg/L	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1242 (PCB-1242)	ND	mg/L	0.000096 U	-	**0.00029**	-	0.000098 U	0.000095 U
Aroclor-1248 (PCB-1248)	ND	mg/L	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1254 (PCB-1254)	ND	mg/L	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1260 (PCB-1260)	ND	mg/L	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Wet								
Ammonia-N	30	mg/L	13	-	13	-	0.61	-
Biochemical oxygen demand (BOD)	835	mg/L	2.0 UH	-	2.0 U	-	2.0 U	-
Chemical oxygen demand (COD)	1670	mg/L	7.1 J	-	15	-	10 U	-
Oil and grease (HEM), total	100	mg/L	1.1 JB	2.8	-	4.3 J	-	-
pH, lab	6.5 to 11.0	s.u.	7.5 HF	7.1	-	7.6 HF	-	-
Phosphorus	13.8	mg/L	0.10 U	-	0.10	-	0.085 J	-
Total suspended solids (TSS)	1336	mg/L	4.0 U	-	9.8	-	1.6 J	-

Notes:

(1) Bay City Industrial User Discharge Permit (120807)
J Estimated concentration
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
HF Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
U Not detected at the associated reporting limit.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Table 6

Summary of Long-Term Groundwater and Stormwater Monitoring Activities
Racer Trust - Bay City Site
Bay City, Michigan

		Original Program (1) 2001 - 2010			Revised 2011 - 2014			Revised 2015-2016			Revised 2017-2022			Revised 2023-2024		
		Groundwater Quality		Static Water Level (2)	Groundwater Quality		Static Water Level (2)	Groundwater Quality		Static Water Level (2)	Groundwater Quality		Static Water Level (2)	Groundwater Quality		Static Water Level (2)
Plant Area	Location	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency
Machine Storage Area (MSA)																
MSA	LMW17S	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	LMW18S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	LMW19S	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW1S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW100S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW101S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW102D1	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	MW102D2	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	MW102D3	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW102D4	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	MW300S	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	LMW14S	--	--	annually	--	--	annually	--	--	annually	--	--	annually	--	--	annually
Perimeter Banks (PB)																
PB	LMW13S	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
PB	LMW15D	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
PB	MW301D1	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
PB	MW301D2	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
PB	MW301D3	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
PB	MW301D4	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
PB	BW-1 (River) (3)	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	annually
Crotty Street Channel (CSC)																
CSC	MW1	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW2	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW3	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW4	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW5	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	SG-1 / SG-6 (3)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	--
Stormwater System (4)																
MSA (5)	Extraction System	PCBs	Semi-annually	- -	PCBs	Semi-annually	- -	PCBs	Semi-annually	- -	- -	- -	- -	- -	- -	- -
CSC (5)	Extraction System	PCBs	Semi-annually	- -	PCBs	Semi-annually	- -	PCBs	Semi-annually	- -	- -	- -	- -	- -	- -	- -
CSC (5)	CB2	PCBs	Semi-annually	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Treatment System	Influent	- -	- -	- -	- -	- -	- -	- -	- -	- -	PCBs	Semi-annually	- -	PCBs	Semi-annually	- -
Treatment System	Effluent	- -	- -	- -	- -	- -	- -	(6)	Semi-annually	- -	(6)	Semi-annually	- -	(6)	Semi-annually	- -

Notes:

(1) The program presented is a subset of the original program. Locations no longer included in this long-term groundwater and stormwater monitoring program are not presented.
(2) Static water level monitoring refers to independent monitoring program to evaluate containment. Static water level measurements will also be collected at all groundwater quality monitoring wells to evaluate groundwater flow directions.
(3) Saginaw River levels: SG-1 was damaged circa 2017 and SG-6 (located at the General Motors Site) utilized until 2023. Saginaw River levels now measured from BW-3 (River) as of 2023.
(4) Extraction system monitoring.
(5) To be sampled by company who maintains the extraction system.
(6) Sampling in accordance with the Industrial User Discharge Permit with the City of Bay City (120807). Parameters include: TSS, pH, grease/oil, phosphorous, COD, BOD, cadmium, chromium, copper, mercury, lead, nickel, silver, ammonia-nitrogen, PCBs, and vinyl chloride

Attachments

Attachment A

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	12/05/2022

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Cloudy
☐	Other task:	Temperature:	31

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
Yes	Multi-layer Cap (evidence of settlement, erosion, disturbance)	Recent stormwater activites
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
No	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	Not in place yet
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.7	Yes	11.64	No		Yes	
EW-8	11.34	9.51	No		No		No	Residual product, no pump
EW-12	9.42	7.73	Yes	7.63	No		Yes	Space heater on, not regular heater
EW-15	6.71	4.83	No		No		Yes	System shut down to let solids settle out at treatment building

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.4	No		
EW-9	11.04	8.37	No		
EW-10	10.77	8.47	No		
EW-11	14.51	15.11	Yes	12.71	
EW-13	7.33	4.76	No		
EW-14	5.42	2.91	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	2.5 (gpm)
☑ check sludge pump	Not working	Totalized Flow Reading	700,568.22 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	1 (in)
☑ check settling chamber	Cloudy	Flow rate into the Treatment System	0 (gpm)
☑ check clear well	High level and cloudy	☑ check bag filters	
☑ check floats in clear well	High level	Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 3 BF2: 3 BF3: 3

☑	check inlet air filter - blower	Cleaned as of December 1st	☑	check GACs for leaks	GAC 2 psi meter stuck on 6
☑	check aerator (clean every 6-months)	Not sure if meter is working correctly		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 0 GAC2: 0
	Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 5	☐	check heater	Needs replaced, getting quote from Nelson electric

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	8.45	No	*Location formerly called SG-6 (JG, 11/21/2023).*

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	01/16/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Cloudy
☐	Other task:	Temperature:	28

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
No	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.8	Yes	11.76	No		Yes	
EW-8	11.34	9.57	No		No		Yes	
EW-12	9.42	7.46	Yes	7.38	No		Yes	
EW-15	6.71	5.31	No		Yes	Sump ,set speed	Yes	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.41	No		
EW-9	11.04	8.56	No		
EW-10	10.77	8.63	No		
EW-11	14.51	15.14	Yes	12.78	
EW-13	7.33	4.9	No		
EW-14	5.42	2.97	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	1.7 (gpm)
☑ check sludge pump		Totalized Flow Reading	757,367 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	4 (in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 5.1 BF2: 5.1 BF3: 5.1

☑ check inlet air filter - blower		☑ check GACs for leaks	
☑ check aerator (clean every 6-months)		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 5.1 GAC2: 0.6
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	6.34	Yes	*Location formerly called SG-6 (JG, 11/21/2023).*

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel: John York | Completed Date: 02/14/2023

1. DETAILS OF INSPECTION

Completed By: John York

☑ Routine Inspection | Weather: Sunny

☐ Response to Alarm: | Temperature: 30

☐ Other task:

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	Lid stuck down
No	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.96	Yes	11.76	No		Yes	
EW-8	11.34	9.52	No		No		Yes	Residual
EW-12	9.42	7.5	Yes	7.33	No		Yes	
EW-15	6.71	3.91	No		No		Yes	Treatment level high fault

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.41	No		
EW-9	11.04	8.55	No		
EW-10	10.77	8.73	No		
EW-11	14.51	15.18	Yes	13.76	
EW-13	7.33	4.32	No		
EW-14	5.42	2.56	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	1.4 (gpm)
☑ check sludge pump		Totalized Flow Reading	762,916.98 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	4 (in)
☑ check settling chamber		Flow rate into the Treatment System	0 (gpm)
☑ check clear well		☑ check bag filters	Changed today
☑ check floats in clear well	High level	Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 6 BF2: 6 BF3: 60

☑ check inlet air filter - blower		☑ check GACs for leaks	Backwashed today
☑ check aerator (clean every 6-months)		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 0.3 GAC2: 0.5
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	8.23	Y	*Location formerly called SG-6 (JG, 11/21/2023).*

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	03/20/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Sunny
☐	Other task:	Temperature:	31

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	Can not get manholes open
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.9	Yes	11.86	No		Yes	
EW-8	11.34	9.48	No		No		Yes	
EW-12	9.42	13.68	Yes	7.03	No		Yes	Thick oil , hard to read
EW-15	6.71	3.7	No		Yes		Yes	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.4	No		
EW-9	11.04	8.63	No		
EW-10	10.77	8.68	No		
EW-11	14.51	14.92	Yes	12.71	
EW-13	7.33	4.03	No		
EW-14	5.42	2.32	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	1.8 (gpm)
☑ check sludge pump		Totalized Flow Reading	777,865.5 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	4 (in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 6 BF2: 6 BF3: 6

☑ check inlet air filter - blower		☑ check GACs for leaks	
☑ check aerator (clean every 6-months)	Needs gauge replaced this spring	Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 3.5 GAC2: 0.54
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	8.32	N	*Location formerly called SG-6 (JG, 11/21/2023).*

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

(1) High level alarm (pump down while working on site). Vaccuum sludge from out ring of clarifier as much as possible, can't reach approx half of top ring. Put sludge into holding tank.

(2) *Form has been re-run to include missing DTP data (JG, 11/21/2023).*

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	04/10/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Sunny
☐	Other task:	Temperature:	47

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.94	Yes	11.95	No		Yes	
EW-8	11.34	9.46	No		No		Yes	
EW-12	9.42	14.01	Yes	7.08	No		Yes	
EW-15	6.71	3.28	No		Yes		Yes	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.37	No		
EW-9	11.04	8.61	No		Vault has approx. 3" water in bottom, not enough to be over well.
EW-10	10.77	8.49	No		
EW-11	14.51	15.1	Yes	11.77	
EW-13	7.33	3.68	No		
EW-14	5.42	1.97	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	0.9 (gpm)
☑ check sludge pump		Totalized Flow Reading	783,183.92 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	2 (in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well	High level , pump down	Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 6.5 BF2: 6.5 BF3: 6.5

☑ check inlet air filter - blower		☑ check GACs for leaks	
☑ check aerator (clean every 6-months)		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 4.5 GAC2: 8
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.04	No	*Location formerly called SG-6 (JG, 11/21/2023).*

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	05/05/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Partly cloudy
☐	Other task:	Temperature:	53

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	12.04	Yes	12.02	No		Yes	
EW-8	11.34	9.42	No		No		Yes	No pump
EW-12	9.42	13.3	Yes	7.41	No		Yes	
EW-15	6.71	3.43	No		No		Yes	Reset pump at treatment building after pumping down high level float fault.

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.43	No		
EW-9	11.04	8.53	No		
EW-10	10.77	8.39	No		
EW-11	14.51	14.65	Yes	12.83	
EW-13	7.33	3.91	No		
EW-14	5.42	2.1	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	1.2 (gpm)
☐ check sludge pump	Not sure if it is working correctly per S.H. Fall 2022	Totalized Flow Reading	784,199.81 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	2 (in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI)	BF1: 7
		Normal Range (5 to 25 PSI)	BF2: 7

			BF3: 7
☑ check inlet air filter - blower		☑ check GACs for leaks	
☑ check aerator (clean every 6-months)		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 5.2 GAC2: 7.9
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.33	No	*Location formerly called SG-6 (JG, 11/21/2023).*

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

(1) Adjusted EW 15 valve slightly more closed to see if treatment runs longer before high level fault.

(2) *Form has been re-run to include missing DTP data (JG, 11/21/2023).*

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	06/12/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Overcast
☐	Other task:	Temperature:	58

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.63	No		No		No	Residual
EW-8	11.34	9.23	No					
EW-12	9.42	13.63	Yes	7.41	No		No	
EW-15	6.71	3.2	No		No		No	Fault at treatment, start back up after pumping down CLR.

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.37	No		
EW-9	11.04	8.1	No		
EW-10	10.77	7.91	No		
EW-11	14.51	15.19	Yes	12.53	
EW-13	7.33	3.61	No		
EW-14	5.42	1.91	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	0.8 (gpm)
☑ check sludge pump		Totalized Flow Reading	813,114.18 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	4 (in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well	High level	Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 7 BF2: 7 BF3: 7

☑ check inlet air filter - blower		☑ check GACs for leaks	
☑ check aerator (clean every 6-months)		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 5.2 GAC2: 8
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.21	No	

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	07/07/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Sunny
☐	Other task:	Temperature:	65

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74		Yes				No	No interface probe today
EW-8	11.34		Yes				No	
EW-12	9.42		Yes				No	
EW-15	6.71	3.33	No		Yes		No	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.38	No		
EW-9	11.04	8.28	No		
EW-10	10.77	8.03	No		
EW-11	14.51		Yes		
EW-13	7.33	3.77	No		
EW-14	5.42	2.07	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	1.3 (gpm)
☑ check sludge pump		Totalized Flow Reading	828,158.03 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	4 (in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well	High level fault	☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 6.8 BF2: 6.8 BF3: 6.8

☑ check inlet air filter - blower		☑ check GACs for leaks	
☑ check aerator (clean every 6-months)		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 4.7 GAC2: 8
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.06	No	

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel: John York | Completed Date: 07/11/2023

1. DETAILS OF INSPECTION

Completed By: John York

☐ Routine Inspection | Weather: Overcast

☐ Response to Alarm: | Temperature: 72

☑ Other task: High level fault, measure EWs with product

2. SITE INSPECTION **If yes indicate nature of maintenance/repairs required**

(Y/N)		
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
N/A	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

N/A	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.6	Yes	11.59				
EW-8	11.34	9.34	No					Residual
EW-12	9.42	8.6	Yes	7.49				
EW-15	6.71		No					

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11				
EW-9	11.04				
EW-10	10.77				
EW-11	14.51	18.38	Yes	12.69	
EW-13	7.33				
EW-14	5.42				

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☐ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	1.1 (gpm)
☐ check sludge pump		Totalized Flow Reading	829,625.69 (gal)
☑ check inspection drum		☐ check sludge tank	
☑ check aeration tank		Sludge thickness	(in)
☐ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well		☐ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 5 BF2: 5 BF3: 5

☑	check inlet air filter - blower		
☐	check aerator (clean every 6-months)		
	Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	

☑	check GACs for leaks		
	Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 2.5	GAC2: 8
☐	check heater		

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.04	No	

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	08/02/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Cloudy
☐	Other task:	Temperature:	68

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
Yes	Multi-layer Cap (evidence of settlement, erosion, disturbance)	Groundhog burrowing out by EW 12, I will try to fill in hole.
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.37	Yes	11.37	No		No	Residual
EW-8	11.34	9.36	No		No		No	
EW-12	9.42	13.79	Yes	7.4	No		No	
EW-15	6.71	3.37	No		No		No	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.48	No		
EW-9	11.04	8.18	No		
EW-10	10.77	8.02	No		
EW-11	14.51	15.08	Yes	12.73	
EW-13	7.33	3.77	No		
EW-14	5.42	2.08	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Working , but there seems to be a PLC issue Date of last calib.:
☑ Check PLC	Feed pump not resetting , needs to be checked, to discuss with Jessica	Flow Reading	0.6 (gpm)
☑ check sludge pump		Totalized Flow Reading	832,733.97 (gal)
☑ check inspection drum		☐ check sludge tank	
☑ check aeration tank		Sludge thickness	(in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well	Brownish looking, system needs cleaning, discuss with John and Jessica	☑ check bag filters	
check floats in clear well		Pressure reading (PSI)	BF1: 5

☑		Normal Range (5 to 25 PSI)	BF2: 5 BF3: 5
☑	check inlet air filter - blower	☑	check GACs for leaks
☑	check aerator (clean every 6-months)	Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 2.5 GAC2: 8
	Pressure reading (PSI) Normal Range (4 to 9 PSI) A1: 3	☑	check heater

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.48	No	

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

(1) Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	09/11/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Cloudy
☐	Other task:	Temperature:	61

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.59	No		No		No	
EW-8	11.34	9.33	No		No		No	
EW-12	9.42	13.73	Yes	7.3	No		No	Hard to get exact reading on dtw.
EW-15	6.71	3.38	No		No		No	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	19.41	No		
EW-9	11.04	8.17	No		
EW-10	10.77	8.07	No		
EW-11	14.51	15.2	Yes	12.76	
EW-13	7.33	3.79	No		
EW-14	5.42	2.09	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☐ Check piping for leaks		☐ check feed pump (calib. every 6-mon)	Date of last calib.:
☐ Check PLC		Flow Reading	0 (gpm)
☐ check sludge pump		Totalized Flow Reading	833,112.8 (gal)
☐ check inspection drum		☐ check sludge tank	
☐ check aeration tank		Sludge thickness	(in)
☐ check settling chamber		Flow rate into the Treatment System	0 (gpm)
☐ check clear well		☐ check bag filters	Changed approx. 1 month ago
☐ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 0 BF2: 0 BF3: 0

☐	check inlet air filter - blower	☐	check GACs for leaks
☐	check aerator (clean every 6-months)		Pressure reading (PSI) GAC1: 0 Normal Range (4 to 6 PSI) GAC2: 0
	Pressure reading (PSI) Normal Range (4 to 9 PSI) A1: 0	☐	check heater

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.58	No	

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

(1) New GACs in place , system down , JEP working on getting tanks pumped out. Add 15 gal of clean water into each GAC drum. Interface probe DEE 9366

(2) *Form has been re-run to include missing DTP data (JG, 11/21/2023).*

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	10/16/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Overcast
☐	Other task:	Temperature:	50

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.59	No		No		Yes	Residual product
EW-8	11.34	9.36	No		No		Yes	
EW-12	9.42	12.13	Yes	7.63	No		Yes	
EW-15	6.71	4.8	No		No		Yes	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.44	No		
EW-9	11.04	8.15	No		
EW-10	10.77	8.22	No		
EW-11	14.51	14.33	Yes	12.78	
EW-13	7.33	4.15	No		
EW-14	5.42	2.41	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☐ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	0.6 (gpm)
☑ check sludge pump		Totalized Flow Reading	833,136.65 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	6 (in)
☑ check settling chamber		Flow rate into the Treatment System	(gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 2.5 BF2: 2.5 BF3: 2.5

☑	check inlet air filter - blower		
☐	check aerator (clean every 6-months)		
	Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 6	
☑	check GACs for leaks		
	Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 0.5	GAC2: 7
☑	check heater		

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.37	No	

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☑	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)	W-11208058-101623-JY-002	09:00	W-11208058-	
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

Form has been re-run to include missing DTP data (JG, 11/21/2023).

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION **Project: 11208058**

On-Site Personnel:	John York	Completed Date:	11/07/2023

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather:	Partly cloudy
☐	Other task:	Temperature:	44

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
No	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
Yes	Multi-layer Cap (evidence of settlement, erosion, disturbance)	Groundhog north end of site
No	Containment System (signs of deterioration of sheet pile, leaking)	
No	Monitoring wells (sign of damage)	
N/A	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	
No	Storm Water sewer network (signs of debris/silt/damage in CBs and outlets)	

3. GROUNDWATER EXTRACTION SYSTEM

No	Forcemain tubing requires replacement?	
No	Are the EW vaults deteriorating (structure, lids, piping)?	

EW (pump)	Target Depth (feet)	DTW (feet)	Product? (Y/N)	DTP (ft)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (tubing replaced, iron bacteria)
EW-6	12.74	11.81	Yes	11.61	No		Yes	
EW-8	11.34	9.42	No		No		No	
EW-12	9.42	13.43	Yes	7.57	No		Yes	
EW-15	6.71	4.14	No		Yes		Yes	

EW (no pump)	Target Depth	DTW	Product? (Y/N)	DTP (ft)	Comments (tubing replaced, iron bacteria)
EW-7	11	9.46	No		
EW-9	11.04	8.2	No		
EW-10	10.77	8.39	No		
EW-11	14.51	15.36	Yes	12.75	
EW-13	7.33	4.25	No		
EW-14	5.42	1.31	No		

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.:
☑ Check PLC		Flow Reading	1.8 (gpm)
☐ check sludge pump		Totalized Flow Reading	836,099.23 (gal)
☑ check inspection drum		☐ check sludge tank	
☑ check aeration tank		Sludge thickness	(in)
☑ check settling chamber		Flow rate into the Treatment System	1 (gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 2 BF2: 2 BF3: 2

☑	check inlet air filter - blower		
☐	check aerator (clean every 6-months)		
	Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	
☑	check GACs for leaks		
	Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 0.5	GAC2: 7
☑	check heater		

5. SURFACE WATER

River	Measured From	DTW (ft)	Frozen? (Y/N)	Comments
BW-3 (River)	Break Wall (RACER)	7.82	No	

6. SAMPLES

	Collect Samples	Sample ID	Time	Duplicate Sample ID	Time
☐	Groundwater Treatment Influent Location: Influent-GWTS (EW-15) Grab Sample: Semi-Annual (June & December)				
☐	Groundwater Treatment Effluent Location: Effluent-GWTS Composite Sample: Semi-Annual (June & December)				

7. **NOTES**

(1) System in high level, start pumping down, also sampler set up in treatment building. Guessing city of bay city.

(2) Form has been re-run to include missing DTP data (JG, 11/21/2023).

Attachment B

Attachment B

Historical Groundwater Elevations
1999 to 2014
Racer Trust - Bay City Industrial Land
Bay City, Michigan

Well Location		8/6/2014	8/6/2013	8/7/2012	8/22/2011	8/16/2010	8/27/2009	8/19/2008	8/20/2007	8/16/2006	8/29/2005	8/24/2004	7/28/2003	8/26/2002	8/13/2001	3/19/2001	2/23/2001	1/24/2001	12/15/2000
Machine Storage Area (MSA)																			
LMW13S		579.43	578.61	578.19	578.03	578.71	579.31	578.21	577.67	578.23	578.14	579.40	578.45	582.05	578.68	577.85	578.17	578.19	578.06
LMW17S		578.96	578.87	578.85	578.80	578.83	578.81	578.58	577.58	578.63	578.31	578.80	582.73	578.91	578.68	578.74	578.83	579.06	578.79
LMW18S		578.27	577.93	577.82	577.61	577.66	577.99	577.62	578.13	578.00	578.23	578.45	578.35	578.85	578.10	578.22	578.61	578.39	578.18
LMW19S		579.32	578.44	578.58	578.34	578.25	578.53	578.45	579.71	578.45	578.85	579.21	579.24	579.93	578.79	579.56	579.96	579.59	(5)
MW1S	(formerly LW-1)	578.71	578.80	578.65	578.65	578.68	579.71	580.93	578.48	n/a	577.58	578.63	578.56	578.48	578.51	578.41	(5)	578.44	578.36
MW100S	(formerly EW-2)	579.32	578.81	578.49	578.18	578.86	579.27	578.40	578.01	578.38	578.57	579.15	577.27	578.91	578.93	578.36	578.64	578.87	578.65
MW101S	(formerly LW-2)	579.01	579.10	578.94	578.80	578.93	578.78	578.49	578.39	578.31	577.95	578.82	578.87	579.12	578.76	578.84	578.96	579.18	578.84
MW102D1		579.39	578.34	577.90	578.71	578.39	579.42	578.83	578.04	578.30	578.30	579.02	578.25	578.98	578.18	577.61	577.40	577.47	577.62
MW102D2		579.38	578.31	577.89	578.69	578.37	579.40	578.93	578.03	578.25	578.33	579.01	578.24	578.95	578.15	577.60	577.39	577.45	577.61
MW102D3		579.35	578.27	577.84	578.67	579.34	579.41	578.89	577.98	578.25	578.31	578.98	578.20	578.93	578.11	577.56	577.34	577.40	577.56
MW102D4	(replacement)	579.30	578.24	577.79	578.63	578.29	579.33	578.76	577.98	578.22	578.25	578.94	578.16	578.86	578.03	577.49	577.27	577.33	577.47
MW300S		577.03	577.17	577.69	577.03	577.18	578.22	579.26	576.30	576.81	578.34	577.05	577.77	578.53	577.00	578.84	578.67	578.99	578.07
LMW14SR		579.22	578.55	578.14	577.47	578.60	579.19	577.96	576.98	577.97	577.50	576.94	578.13	578.45	578.23	577.38	577.77	577.88	577.54
Perimeter Banks (PB)																			
LMW15D		579.37	578.02	577.56	578.65	578.21	579.45	578.12	577.89	578.22	578.24	579.34	578.04	578.83	578.06	577.37	577.12	577.22	577.33
MW301D1		577.70	576.56	578.38	579.39	578.96	579.96	579.03	578.72	578.94	579.05	580.02	578.90	579.66	578.89	578.28	578.03	578.09	578.25
MW301D2		577.78	576.62	577.99	579.00	578.60	579.56	578.64	578.33	578.55	578.62	579.59	578.49	579.25	578.48	577.86	577.62	577.67	577.81
MW301D3	(formerly MW-33-A2)	577.64	576.46	577.87	578.87	578.47	579.44	578.41	578.20	578.44	578.52	579.47	578.36	579.10	578.53	577.72	577.59	577.52	577.67
MW301D4		577.96	576.54	578.15	579.16	578.74	579.70	578.75	578.48	578.69	578.80	579.71	578.57	579.28	578.48	577.86	577.63	577.68	577.82
Support Facilities Area (SFA)																			
MSA5S		579.67	580.22	578.58	578.67	579.10	580.10	578.04	580.10	579.28	579.76	580.57	580.55	580.65	579.74	580.65	580.42	580.62	580.46
Crotty Street Channel																			
MW1-00		579.35	577.71	576.44	577.17	577.13	578.95	578.74	577.11	576.92	577.09	578.37	577.78	578.44	576.72	578.61	578.14	577.81	577.49
MW2-00		578.75	577.79	576.62	577.29	577.26	578.40	578.83	577.09	576.97	577.23	577.50	577.60	578.03	576.76	578.69	578.26	577.82	577.51
MW3-00		579.38	577.67	576.47	577.25	577.14	579.01	578.74	577.19	576.94	577.13	578.51	577.77	578.38	576.70	578.62	578.26	577.79	577.48
MW4-00		578.91	577.90	576.76	577.41	577.38	578.55	578.95	577.21	577.07	577.34	577.59	577.68	578.07	576.79	578.67	578.30	577.84	577.51
MW5-00		576.99	577.00	576.73	576.77	576.95	578.04	578.82	576.55	576.72	577.85	576.91	576.28	576.72	577.02	577.06	577.86	576.97	576.91
SG-1		581.06	n/a	n/a	n/a	n/a	n/a	578.55	577.83	578.33	578.43	579.63	577.93	578.73	578.12	(5)	(5)	(5)	(5)
Saginaw River (6)		579.32	577.02	576.71	577.53	577.41	578.34	577.97	577.09	577.41	578.32	578.52	576.83	578.50	577.91	576.80	576.74	576.77	576.78

Notes:

Elevations shown in ft AMSL
NM Not Measured
n/a Elevation not available
(1) Approximate value
(2) Lock Needs Replacing
(3) Gage needs to be relocated
(4) Could not open due to liner attachment
(5) Could not read due to accumulation of snow and ice
(6) Source of Saginaw River Elevation:
- NOAA (Essexville, MI) for prior to Nov 1, 2005.
- USGS Station (04157065) Nov 1, 2005 to Dec 4, 2013.
- USGS Station (04157060) Dec 4, 2013 to 2018.

Attachment B

Historical Groundwater Elevations
1999 to 2014
Racer Trust - Bay City Industrial Land
Bay City, Michigan

Well Location		11/30/2000	10/31/2000	9/11/2000	8/29/2000	7/18/2000	6/30/2000	5/30/2000	4/26/2000	3/29/2000	2/28/2000	2/2/2000	1/4/2000	11/24/1999	10/25/1999	9/27/1999	9/7/1999
Machine Storage Area (MSA)																	
LMW13S		578.35	578.63	578.90	578.90	580.11	580.62	581.63	581.81	581.27	581.74	579.27	580.08	580.68	581.26	580.55	580.02
LMW17S		579.17	578.93	579.24	579.20	579.09	579.85	580.06	580.19	579.91	579.96	579.08	579.47	579.71	579.69	578.98	579.19
LMW18S		578.29	578.52	578.67	579.03	578.52	577.80	578.10	578.09	577.66	577.80	577.09	577.37	577.32	577.62	577.51	577.89
LMW19S		579.56	579.38	579.34	580.13	579.45	580.56	580.96	581.25	580.73	581.39	579.70	580.30	579.58	579.95	579.53	580.01
MW1S	(formerly LW-1)	578.40	578.57	578.43	578.38	578.34	579.31	579.26	579.29	579.28	579.18	579.05	579.07	579.15	579.11	578.51	578.58
MW100S	(formerly EW-2)	579.05	579.33	579.57	579.66	579.85	578.03	577.79	577.07	576.87	576.69	577.09	577.49	578.09	578.77	578.57	n/a
MW101S	(formerly LW-2)	579.03	578.91	578.99	579.04	579.02	580.22	580.39	580.14	579.21	579.86	579.61	579.61	579.65	579.81	579.04	579.18
MW102D1		577.67	577.87	578.16	578.15	578.71	577.62	577.70	577.60	577.25	577.23	576.81	576.80	576.38	577.47	577.64	578.29
MW102D2		577.65	577.85	578.13	578.13	578.67	577.48	577.58	577.44	577.12	577.08	576.80	576.67	576.24	577.33	577.50	578.15
MW102D3		577.60	577.80	578.08	578.09	578.63	577.52	577.59	577.47	577.16	577.12	576.88	576.71	576.26	577.35	577.55	578.20
MW102D4	(replacement)	577.53	577.73	578.00	578.02	578.55	577.38	577.45	577.34	577.01	576.98	575.70	576.56	576.12	577.21	577.40	578.05
MW300S		578.84	578.27	578.16	578.24	(2)	(4)	579.89	580.18	579.73	No Access	578.55	579.27	579.91	578.87	578.90	579.33
LMW14SR		578.04	578.13	578.16	578.21	579.19	579.32	579.22	578.91	578.99	578.55	578.58	Damaged	Damaged	578.58	578.30	578.88
Perimeter Banks (PB)																	
LMW15D		577.48	577.63	577.94	578.03	578.43	(4)	578.88	578.74	578.56	578.56	578.23	577.95	577.18	578.49	578.93	579.81
MW301D1		578.34	(5)	(5)	578.88	578.65	579.37	578.80	578.85	578.59	578.56	578.28	578.05	577.42	578.63	578.99	579.67
MW301D2		577.92	(5)	(5)	578.47	578.56	578.80	578.89	578.77	578.54	578.51	578.22	577.99	577.35	578.57	578.93	579.62
MW301D3	(formerly MW-33-A2)	577.78	(5)	(5)	578.32	578.56	578.80	578.85	578.74	578.49	578.48	578.18	577.96	577.32	578.54	578.90	579.59
MW301D4		577.93	(5)	(5)	578.48	578.48	578.78	578.76	578.69	578.45	578.43	578.14	577.90	577.27	578.47	578.85	579.52
Support Facilities Area (SFA)																	
MSA5S		580.65	580.34	580.56	580.41	581.32	581.17	582.22	582.37	580.62	582.13	580.96	581.42	581.70	581.77	581.74	581.84
Crotty Street Channel																	
MW1-00		577.75	577.45	577.36	577.60	577.71	579.57	578.68	578.42	578.04	578.89	577.89	n/a	n/a	n/a	n/a	n/a
MW2-00		577.77	577.45	577.36	577.59	577.65	578.67	No Access	577.65	577.26	578.11	579.11	n/a	n/a	n/a	n/a	n/a
MW3-00		577.74	577.45	577.37	577.60	578.68	578.46	579.05	578.79	578.40	579.25	578.27	n/a	n/a	n/a	n/a	n/a
MW4-00		577.78	577.47	577.34	577.57	577.62	578.87	No Access	577.60	577.18	578.03	577.03	n/a	n/a	n/a	n/a	n/a
MW5-00		576.90	577.31	577.91	578.01	n/a (4)	n/a (4)	579.12	578.86	578.66	578.36	577.63	n/a	n/a	n/a	n/a	n/a
SG-1		577.33	577.43	577.93	578.05	Destroyed (3)	Destroyed (3)	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
Saginaw River (6)		577.02	577.23	577.49	577.76	578.27	577.81	577.48	577.42	577.37	577.24	577.14	577.15	576.54	577.35	578.04	578.59

Notes:

Elevations shown in ft AMSL
NM Not Measured
n/a Elevation not available
(1) Approximate value
(2) Lock Needs Replacing
(3) Gage needs to be relocated
(4) Could not open due to liner attachment
(5) Could not read due to accumulation of snow and ice
(6) Source of Saginaw River Elevation:
- NOAA (Essexville, MI) for prior to Nov 1, 2005.
- USGS Station (04157065) Nov 1, 2005 to Dec 4, 2013.
- USGS Station (04157060) Dec 4, 2013 to 2018.

Attachment B

Historical Groundwater Elevations
1999 to 2014
Racer Trust - Bay City Industrial Land
Bay City, Michigan

Well Location		7/20/1999	6/22/1999	5/20/1999	4/20/1999	3/19/1999	3/8/1999
Machine Storage Area (MSA)							
LMW13S		579.68	579.23	581.42	582.65	583.17	582.56
LMW17S		579.43	579.65	579.77	580.25	581.57	581.58
LMW18S		579.57	579.45	579.39	579.78	579.44	579.44
LMW19S		580.42	580.52	580.51	580.94	580.90	580.66
MW1S	(formerly LW-1)	n/a	578.64	579.29	579.49	584.35	584.12
MW100S	(formerly EW-2)	579.33	579.07	579.30	579.96	582.53	582.71
MW101S	(formerly LW-2)	578.83	578.71	579.19	580.44	586.50	586.44
MW102D1		579.69	576.82	579.27	579.34	582.38	582.32
MW102D2		579.68	576.78	579.34	579.39	582.03	581.93
MW102D3		579.66	576.80	579.25	579.35	581.92	581.84
MW102D4	(replacement)	579.56	576.70	579.13	579.21	581.54	581.45
MW300S		579.69	579.95	579.51	579.86	579.37	579.51
LMW14SR		579.97	578.55	580.40	581.12	582.10	582.11
Perimeter Banks (PB)							
LMW15D		579.68	577.88	579.21	579.23	579.86	579.71
MW301D1		579.73	575.75	579.22	579.32	579.40	579.29
MW301D2		579.69	576.11	579.19	579.28	579.35	579.23
MW301D3	(formerly MW-33-A2)	579.65	576.13	579.18	579.25	579.38	579.23
MW301D4		579.62	576.08	579.17	579.26	579.37	579.18
Support Facilities Area (SFA)							
MSA5S		579.38	577.24	579.71	580.83	580.33	580.54
Crotty Street Channel							
MW1-00		n/a	n/a	n/a	n/a	n/a	n/a
MW2-00		n/a	n/a	n/a	n/a	n/a	n/a
MW3-00		n/a	n/a	n/a	n/a	n/a	n/a
MW4-00		n/a	n/a	n/a	n/a	n/a	n/a
MW5-00		n/a	n/a	n/a	n/a	n/a	n/a
SG-1		Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
Saginaw River (6)		578.87	578.51	578.37	578.32	578.55	578.34

Notes:

Elevations shown in ft AMSL
NM Not Measured
n/a Elevation not available
(1) Approximate value
(2) Lock Needs Replacing
(3) Gage needs to be relocated
(4) Could not open due to liner attachment
(5) Could not read due to accumulation of snow and ice
(6) Source of Saginaw River Elevation:
- NOAA (Essexville, MI) for prior to Nov 1, 2005.
- USGS Station (04157065) Nov 1, 2005 to Dec 4, 2013.
- USGS Station (04157060) Dec 4, 2013 to 2018.

Attachment C

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:														
Sample Location:					influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS	influent-GWTS
Sample ID:					W-12610-022614-SSH-1402	GW-12610-082117-SSH-08-17	W-12610-043018-SSH-0118	W-12610-060118-SSH-18101	W-12610-060118-SSH-18102	GW-12610A-082018-SSH-18109	W-12610-053119-SSH-00519	W-12610-082819-SSH-01119	W-12610-012020-SSH-00220
Sample Date:					02/26/2014	08/21/2017	04/30/2018	06/01/2018	06/01/2018 (Duplicate)	08/20/2018	05/31/2019	08/28/2019	01/20/2020
Parameters	**Units**	**EGLE Residential Drinking Water**	**EGLE Non-Residential Drinking Water**	**EGLE GSI**									
VOAs		a	b	c									
Vinyl chloride	mg/L	0.002	0.002	0.013	-	-	-	0.001 U	0.001 U	-	-	-	-
Metals													
Cadmium	mg/L	0.005	0.005		-	-	-	0.002 U	0.002 U	-	-	-	-
Chromium	mg/L	0.1	0.1		-	-	-	0.00083 J	0.0011 J	-	-	-	-
Copper	mg/L	1	1		-	-	-	0.02 U	0.02 U	-	-	-	-
Iron	mg/L	0.3	0.3		-	-	-	0.043 J	0.045 J	-	-	-	-
Lead	mg/L	0.004	0.004		-	-	-	0.003 U	0.003 U	-	-	-	-
Mercury	mg/L	0.002	0.002	0.0000013	-	-	-	0.0002 U	0.0002 U	-	-	-	-
Nickel	mg/L	0.1	0.1		-	-	-	0.043	0.043	-	-	-	-
Silver	mg/L	0.034	0.098	0.0002	-	-	-	0.005 U	0.005 U	-	-	-	-
PCBs													
Aroclor-1016 (PCB-1016)	mg/L	0.0005	0.0005	0.0002	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	-	**0.0054**[abc]	**0.0013**[abc]	0.000097 U	0.000097 U	**0.0025**[abc]	**0.0015**[abc]	0.000096 U	0.0002
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U
PFAS													
Perfluorooctane sulfonic acid (PFOS)	mg/L	0.000016	0.000016	0.000012	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	0.000008	0.000008	0.00017	-	-	-	-	-	-	-	-	-
Wet													
Ammonia	mg/L	10	10		6.7	-	-	-	-	-	-	-	-
Ammonia-N	mg/L				-	-	-	0.30	0.28	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L				-	-	-	2.0 U	2.0 U	-	-	-	-
Chemical oxygen demand (COD)	mg/L				-	-	-	10 U	10 U	-	-	-	-
Oil and grease (HEM), polar	mg/L				-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L				-	-	-	4.8 U	4.9 U	-	-	-	-
pH, lab	s.u.	6.5-8.5	6.5-8.5		-	-	-	7.6	7.6	-	-	-	-
Phosphorus	mg/L	63	240		-	-	-	0.10 U	0.10 U	-	-	-	-
Total suspended solids (TSS)	mg/L				-	-	-	4.0 U	4.0 U	-	-	-	-

Footnotes:
- HF Field parameter with 15min holding time.
- J Estimated concentration.
- JB Estimated quantity - also detected in the method blank.
- H Sample was prepped or analyzed beyond the specified holding time
- R Rejected.
- U Not detected at the associated reporting limit.
- UJ Not detected; associated reporting limit is estimated.
- ^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:											
Sample Location:		**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**
Sample ID:		**W-12610-040320-SSH-2001**	**GW-11208058-081020-SSH-2007**	**W-11208058-121020-SSH-2013**	**GW-11208058-032321-SSH-01021**	**GW-11208058-082721-SSH-21108**	**W-11208058-042122-SSH-2201**	**GW-11208058-082322-BW-010**	**GW-11208058-121922-JY-001**	**W-11208058-072623-JY-003**	**W-11208058-101623-JY-002**
Sample Date:		**04/03/2020**	**08/10/2020**	**12/10/2020**	**03/23/2021**	**08/27/2021**	**04/21/2022**	**08/23/2022**	**12/19/2022**	**07/26/2023**	**10/16/2023**
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.00096 U	**0.001 abc**	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	**0.015 abc**	**0.015 abc**	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.00096 U	**0.001 abc**	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.000095 U	**0.001 J abc**	**0.0026 abc**	**0.0033 abc**	**0.011 abc**	0.000095 U	**0.007 J abc**	0.00096 U	**0.001 abc**	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	**0.00035 c**	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.00096 U	**0.001 abc**	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.00096 U	**0.001 abc**	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.00096 U	**0.001 abc**	0.000095 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:											
Sample Location:		**influent-GWTS**	**Crotty Street Channel CB-2**	**Crotty Street Channel CB-2**	**Crotty Street Channel CB-2**	**Crotty Street Channel CB-2**	**Crotty Street Channel CSA GW Ext. Sys. Discharge**	**Crotty Street Channel CSA GW Ext. Sys. Discharge**	**Crotty Street Channel CSA GW Ext. Sys. Discharge**	**Crotty Street Channel CSA GW Ext. Sys. Discharge**	**Crotty Street Channel CSA GW Ext. Sys. Discharge**
Sample ID:		**GW-11208058-111323-JY-005**	**W-12610-041712-SSH-SA1202**	**GW-12610-080712-SSH-001**	**W-12610-040913-SSH-CB1213**	**W-12610-122914-SSH-1421**	**W-12610-041712-SSH-SA1201**	**GW-12610-080712-SSH-002**	**GW-12610-080514-SSH-1402**	**W-12610-122914-SSH-1420**	**W-12610-040915-SSH-1502**
Sample Date:		**11/13/2023**	**04/17/2012**	**08/07/2012**	**04/09/2013**	**12/29/2014**	**04/17/2012**	**08/07/2012**	**08/05/2014**	**12/29/2014**	**04/09/2015**
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.00095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.00095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.00095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	**0.02**[abc]	0.000095 U	0.00019 U	0.00019 U	0.00019 U	**0.00062**[abc]	**0.00086**[abc]	**0.00068 J**[abc]	**0.00022**[c]	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.00095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.00095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.00095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel
Sample Location:		CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS
Sample ID:		GW-12610-082515-SSH-0115	W-12610-050916-SSH-1602	W-12610-082516-SSH-1606	W-12610-021214-SSH-1401	W-12610-022614-SSH-1403	W-12610-090514-SSH-1411	W-12610-031615-SSH-1501	W-12610-121015-SSH-1115	W-12610-050916-SSH-1601	W-12610-061416-SSH-1603
Sample Date:		08/25/2015	05/09/2016	08/25/2016	02/12/2014	02/26/2014	09/05/2014	03/16/2015	12/10/2015	05/09/2016	06/14/2016
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	0.001 U
Metals											
Cadmium	mg/L	-	-	-	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-	0.002 U
Chromium	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	0.005 U
Copper	mg/L	-	-	-	0.02 U	0.02 U	0.021	0.02 U	0.02 U	-	0.02 U
Iron	mg/L	-	-	-	0.18	0.18	**0.54**[ab]	0.1 U	0.1 U	-	**0.39**[ab]
Lead	mg/L	-	-	-	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	-	0.003 U
Mercury	mg/L	-	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	-	0.0002 U
Nickel	mg/L	-	-	-	0.02 U	0.0078 J	0.02 U	0.02 U	0.02 U	-	0.02 U
Silver	mg/L	-	-	-	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	0.005 U
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	**0.00056**[abc]	0.00019	0.00019 U	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00019 U	R	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00019 U	R	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	**33**[ab]	4.4	2.0 U	6.8	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	3.4	-	2.0 U
Biochemical oxygen demand (BOD)	mg/L	-	-	-	17	2.3	2.0 U	2.3	9.3	-	2.0 U
Chemical oxygen demand (COD)	mg/L	-	-	-	20 U	10 U	10 U	10 U	10 U	-	18
Oil and grease (HEM), polar	mg/L	-	-	-	4.8 U	1.7 JB	4.9 U	4.7 U	4.8 U	-	4.7 U
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	8.00 HF	8.09 HF	7.98 HF	7.69 HF	7.75 HF	-	7.54 HF
Phosphorus	mg/L	-	-	-	0.22	0.20	0.10 U	0.10 U	0.10 U	-	0.10 U
Total suspended solids (TSS)	mg/L	-	-	-	4.0 U	4.0	4.0 U	4.0 U	4.0 U	-	4.0 U

Footnotes:

HF	Field parameter with 15min holding time.
J	Estimated concentration.
JB	Estimated quantity - also detected in the method blank.
H	Sample was prepped or analyzed beyond the specified holding time
R	Rejected.
U	Not detected at the associated reporting limit.
UJ	Not detected; associated reporting limit is estimated.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel
Sample Location:		effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS
Sample ID:		W-12610-011617-SSH-1701	WT-12610-050917-SSH-01-17	WT-12610-113017-SSH-02-17	W-12610-121318-SSH-18112	W-12610-053119-SSH-00319	W-12610-120519-SSH-1519	W-12610-012020-SSH-00120	W-12610-052920-SSH-2002	W-11208058-121020-SSH-2012	W-11208058-062321-SSH-10121
Sample Date:		01/16/2017	05/09/2017	11/30/2017	12/13/2018	05/31/2019	12/05/2019	01/20/2020	05/29/2020	12/10/2020	06/23/2021
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U
Metals											
Cadmium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-	0.002 U	0.002 U	0.0002 JB	0.013[ab]
Chromium	mg/L	0.005 U	0.00056 J	0.005 U	0.005 U	0.0017 JB	-	0.0012 J	0.005 U	0.005 U	0.005 U
Copper	mg/L	0.067	0.0063 J	0.02 U	0.02 U	0.012 J	-	0.0074 J	0.01 J	0.02 U	0.008 J
Iron	mg/L	0.57[ab]	0.1 U	0.4[ab]	0.07 J	0.11	-	0.028 J	0.058 J	0.057 J	0.1 U
Lead	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	-	0.003 U	0.003 U	0.003 U	0.003 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U*	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.02 U	0.0028 J	0.074	0.0029 J	0.0059 J	-	0.0025 J	0.0072 J	0.0026 J	0.0057 J
Silver	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.005 U	0.005 U
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U
Aroclor-1242 (PCB-1242)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	0.0000018 U	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	0.0000018 U	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	2.2	2.0 U	0.20	0.20 U	0.20 U	-	0.20 U	0.20 U	0.32	3.8
Biochemical oxygen demand (BOD)	mg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	-	2.0 UH	2.0 U	2.0 U	2.0 U
Chemical oxygen demand (COD)	mg/L	24	21	13	10 U	10 U	-	10 U	6.7 J	10 U	10
Oil and grease (HEM), polar	mg/L	4.7 U	1.2 J	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	4.7 U	4.8 U	4.8 U	-	4.8 U	5.8 U	4.8 U	4.0 U
pH, lab	s.u.	7.7 HF	7.9 HF	7.2 HF	7.9 HF	7.5 HF	-	8.0 HF	7.7 HF	8.1 HF	8.1 HF
Phosphorus	mg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	-	0.10 U	0.10 U	0.10 U	0.14
Total suspended solids (TSS)	mg/L	4.0 U	4.0 U	4.0 U	3.0 J	4.0 U	-	4.0 U	4.0 U	4.0 U	4.0 U

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel
Sample Location:		effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS
Sample ID:		W-11208058-122321-SSH-22021	W-11208058-052622-SSH-EFF2022	GW-11208058-082322-BW-008	GW-11208058-082322-BW-009	WT-11208058-122022-JY-002	GW-11208058-063023-JY-001	GW-11208058-063023-JY-002	W-11208058-101723-JY-003	W-11208058-101723-JY-004	GW-11208058-111323-JY-006
Sample Date:		12/23/2021	05/26/2022	08/23/2022	08/23/2022 (Duplicate)	12/20/2022	06/30/2023	06/30/2023	10/17/2023	10/17/2023 (Duplicate)	11/13/2023
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	0.001	0.001 U	-	-	0.001 U	0.001	-	0.001 U	-	-
Metals											
Cadmium	mg/L	0.002	0.00032 J	-	-	0.00028 J	-	0.002	-	0.002 U	-
Chromium	mg/L	0.005	0.005 U	-	-	0.005 U	-	0.0014	-	0.001 J	-
Copper	mg/L	0.01	0.025 B	-	-	0.02 U	-	0.02	-	0.02 U	-
Iron	mg/L	**0.42**[ab]	**0.49**[ab]	-	-	0.1 U	-	**5.3**[ab]	-	**1**[ab]	-
Lead	mg/L	0.0026	0.003 U	-	-	0.0035	-	0.003	-	0.003 U	-
Mercury	mg/L	**0.0002**[c]	0.0002 U	-	-	0.0002 U^+	-	**0.00016**[c]	-	0.0002 U	-
Nickel	mg/L	0.011	0.007 J	-	-	0.02 U	-	0.0051	-	0.0037 J	-
Silver	mg/L	**0.005**[c]	0.005 U	-	-	0.005 U	-	**0.005**[c]	-	0.005 U	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.0000095	0.000099 U	0.000095 U	0.000095 U	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.0000095	0.000099 U	0.000095 U	0.000095 U	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.0000095	0.000099 U	0.000095 U	0.000095 U	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.0000095	0.000099 U	0.000095 U	0.000095 U	0.000096 U	-	**0.00029**[c]	-	0.000098 U	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	0.0000095	0.000099 U	0.000095 U	0.000095 U	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.0000095	0.000099 U	0.000095 U	0.000095 U	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.0000095	0.000099 U	0.000095 U	0.000095 U	0.000096 U	-	0.000096	-	0.000098 U	0.000095 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	0.32	7.1	-	-	13	-	13	-	0.61	-
Biochemical oxygen demand (BOD)	mg/L	2.0 U	-	-	-	2.0 UH	-	2.0 U	-	2.0 U	-
Chemical oxygen demand (COD)	mg/L	16	34	-	-	7.1 J	-	15	-	10 U	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	4.8	5.5	-	-	1.1 JB	2.8	-	4.3 J	-	-
pH, lab	s.u.	7.7	7.4 HF	-	-	7.5 HF	7.1	-	7.6 HF	-	-
Phosphorus	mg/L	0.012	0.10 U	-	-	0.10 U	-	0.10	-	0.085 J	-
Total suspended solids (TSS)	mg/L	0.50	2.2 J	-	-	4.0 U	-	9.8	-	1.6 J	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area
Sample Location:		MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MW102D1	MW102D1
Sample ID:		W-12610-041712-SSH-SA1203	GW-12610-080712-SSH-003	W-12610-040913-SSH-MSA1313	W-12610-120913-SSH-010	GW-12610-080514-SSH-1401	W-12610-122914-SSH-1422	GW-12610-082515-SSH-0215	W-12610-082516-SSH-1607	GW-12610-080912-SSH-012	GW-12610-080713-JY-004
Sample Date:		04/17/2012	08/07/2012	04/09/2013	12/09/2013	08/05/2014	12/29/2014	08/25/2015	08/25/2016	08/09/2012	08/07/2013
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.000096 U	0.00019 U	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.000096 U	0.00019 U	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.000096 U	0.00019 U	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.000096 U	0.00019 U	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	**0.00043[c]**	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	**0.0004[c]**	0.00019 U	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.000096 U	0.00019 U	0.0019 U	0.0002 U	R	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	R
Aroclor-1260 (PCB-1260)	mg/L	0.00018	0.00019 U	**0.0086[abc]**	0.0002 U	R	0.00019 UH	0.00019 J	0.0019 U	0.00019 U	R
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area
Sample Location:		MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1
Sample ID:		GW-12610-080614-SSH-1403	GW-12610-082615-SSH-0715	GW-12610-082615-SSH-0815	GW-12610-082716-SSH-1613	GW-12610-082716-SSH-1614	GW-12610-082117-SSH-02-17	GW-12610A-082118-SSH-18111	GW-12610-082919-SSH-01219	GW-11208058-081020-SSH-2006	GW-11208058-082721-SSH-21107
Sample Date:		08/06/2014	08/26/2015	08/26/2015 (Duplicate)	08/27/2016	08/27/2016 (Duplicate)	08/21/2017	08/21/2018	08/29/2019	08/10/2020	08/27/2021
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	**0.00041 J[c]**	**0.00034[c]**	**0.00034[c]**	0.00019 U	0.00019 U	**0.00026[c]**	**0.00032[c]**	**0.00037 J[c]**	**0.00024 J[c]**	**0.00027[c]**
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area
Sample Location:		MW102D1	MW102D1	MW102D2	MW102D2	MW102D2	MW102D2	MW102D2	MW102D2	MW102D2	MW102D2
Sample ID:		GW-11208058-082322-BW-007	GW-11208058-101423-BW-006	GW-12610-080912-SSH-011	GW-12610-080713-JY-005	GW-12610-080614-SSH-1404	GW-12610-082615-SSH-0915	GW-12610-082616-SSH-1612	GW-12610-082117-SSH-03-17	GW-12610A-082118-SSH-18110	GW-12610-082919-SSH-01319
Sample Date:		08/23/2022	10/14/2023	08/09/2012	08/07/2013	08/06/2014	08/26/2015	08/26/2016	08/21/2017	08/21/2018	08/29/2019
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U
Aroclor-1242 (PCB-1242)	mg/L	**0.0003 J[c]**	**0.00027 J[c]**	0.00019 U	0.00019 U	0.00013 J	0.00019 U	0.00015 J	**0.00048[c]**	0.00019 U	0.00009 J
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	0.000095 U	0.00013 J	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000045 J	0.00019 U	0.00019 U	0.000097 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area
Sample Location:		MW102D2	MW102D2	MW102D2	MW102D2	MW102D2	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4
Sample ID:		GW-11208058-081020-SSH-2004	GW-11208058-081020-SSH-2005	GW-11208058-082721-SSH-21106	GW-11208058-082322-BW-006	GW-11208058-101423-BW-007	GW-12610-080912-SSH-010	GW-12610-080713-JY-006	GW-12610-080614-SSH-1405	GW-12610-080614-SSH-1406	GW-12610-082615-SSH-1015
Sample Date:		08/10/2020	08/10/2020 (Duplicate)	08/27/2021	08/23/2022	10/14/2023	08/09/2012	08/07/2013	08/06/2014	08/06/2014 (Duplicate)	08/26/2015
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	0.000095 U	0.000098 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.000095 U	0.000098 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.000095 U	0.000098 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.00009 J	**0.00079 J[abc]**	0.000098 U	**0.00031 J[c]**	0.000095 U	0.00019 U	0.00019	0.00019 U	0.00019 U	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	0.000095 U	0.000098 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.000095 U	0.000098 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.000095 U	0.000098 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area
Sample Location:		MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW300S
Sample ID:		GW-12610-082616-SSH-1611	GW-12610-082117-SSH-04-17	GW-12610-082117-SSH-05-17	GW-12610A-082018-SSH-18108	GW-12610-082919-SSH-01419	GW-11208058-081020-SSH-2003	GW-11208058-082721-SSH-21105	GW-11208058-082322-BW-005	GW-11208058-101423-BW-008	GW-12610-080912-SSH-007
Sample Date:		08/26/2016	08/21/2017	08/21/2017 (Duplicate)	08/20/2018	08/29/2019	08/10/2020	08/27/2021	08/23/2022	10/14/2023	08/09/2012
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000097 U	0.000095 U	0.000097 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000097 U	0.000095 U	0.000097 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000097 U	0.000095 U	0.000097 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.00019 U	0.00019 U	0.000078 J	0.00019 U	0.000096 U	0.000095 U	0.000097 U	0.000095 U	0.000097 U	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000097 U	0.000095 U	0.000097 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000097 U	0.000095 U	0.000097 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000097 U	0.000095 U	0.000097 U	0.00019 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area
Sample Location:		MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S
Sample ID:		GW-12610-080912-SSH-008	GW-12610-080713-JY-001	GW-12610-080713-JY-002	GW-12610-080614-SSH-1407	GW-12610-082615-SSH-0615	GW-12610-082616-SSH-1610	GW-12610-082117-SSH-07-17	GW-12610A-082018-SSH-18107	GW-12610-082819-SSH-00919	GW-12610-082819-SSH-01019
Sample Date:		08/09/2012 (Duplicate)	08/07/2013	08/07/2013 (Duplicate)	08/06/2014	08/26/2015	08/26/2016	08/21/2017	08/20/2018	08/28/2019	08/28/2019
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000096 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000096 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000096 U
Aroclor-1242 (PCB-1242)	mg/L	0.000083 J	0.00019 U	0.00019 U	0.0001 J	0.000095 J	0.00019 U	0.000084 J	0.00019 U	0.00011 J	0.000096 J
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000096 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	R	R	0.00019 U	0.00019 U	R	0.00019 U	0.00019 U	0.000097 U	0.000096 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	R	R	0.00019 U	0.00019 U	R	0.00019 U	0.00019 U	0.000097 U	0.000096 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:		MW300S	MW300S	MW300S	MW300S	LMW13S	LMW13S	LMW13S	LMW13S	LMW13S	LMW13S
Sample ID:		GW-11208058-081120-SSH-2009	GW-11208058-082321-SSH-21104	GW-11208058-082222-BW-001	GW-11208058-101423-BW-009	GW-12610-080812-SSH-004	GW-12610-080812-SSH-005	GW-12610-080813-JY-008	GW-12610-080614-SSH-1408	GW-12610-082615-SSH-0315	GW-12610-082616-SSH-1609
Sample Date:		08/11/2020	08/23/2021	08/22/2022	10/14/2023	08/08/2012	08/08/2012 (Duplicate)	08/08/2013	08/06/2014	08/26/2015	08/26/2016
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	0.000097 U	0.0001 U	0.000095 U	0.00019 U	0.00019 U	0.00019 UJ	0.00019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.000097 U	0.0001 U	0.000095 U	0.00019 U	0.00019 U	0.00019 UJ	0.00019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.000097 U	0.0001 U	0.000095 U	0.00019 U	0.00019 U	0.00019 UJ	0.00019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.000095 J	0.000097 U	0.0001 U	0.000095 U	**0.00079**[abc]	**0.00085**[abc]	0.00019 UJ	0.00019 U	0.00019 U	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	0.000086 J	0.0001 U	0.000095 U	0.00019 U	0.00019 U	**0.001 J**[abc]	**0.001**[abc]	**0.00098**[abc]	**0.00058**[abc]
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.000097 U	0.0001 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.000097 U	0.0001 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:		**LMW13S**	**LMW13S**	**LMW13S**	**LMW13S**	**LMW13S**	**LMW13S**	**LMW13S**	**LMW13S**	**LMW13S**
Sample ID:		**GW-12610-082217-SSH-09-17**	**GW-12610A-082018-SSH-18103**	**GW-12610-082819-SSH-00719**	**GW-11208058-081120-SSH-2011**	**GW-11208058-082321-SSH-21101**	**GW-11208058-082321-SSH-21102**	**GW-11208058-082322-BW-002**	**GW-11208058-101323-BW-001**	**GW-11208058-101323-BW-002**
Sample Date:		**08/22/2017**	**08/20/2018**	**08/28/2019**	**08/11/2020**	**08/23/2021**	**08/23/2021 (Duplicate)**	**08/23/2022**	**10/13/2023**	**10/13/2023 (Duplicate)**
Parameters	**Units**									
VOAs										
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-
Metals										
Cadmium	mg/L	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-
PCBs										
Aroclor-1016 (PCB-1016)	mg/L	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	**0.00057**[abc]	**0.00056**[abc]	**0.0011 J**[abc]	**0.00095 J**[abc]	0.000095 U	0.000095 U	**0.0014 J**[abc]	**0.0011 J**[abc]	**0.0016 J**[abc]
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.000095 U	0.000095 U	**0.0015**[abc]	**0.0015**[abc]	0.000095 U	0.000095 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U	0.000095 U
PFAS										
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-
Wet										
Ammonia	mg/L	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:		LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D
Sample ID:		GW-12610-080812-SSH-006	GW-12610-080813-JY-009	GW-12610-080614-SSH-1409	GW-12610-082615-SSH-0415	GW-12610-082616-SSH-1608	GW-12610-082217-SSH-10-17	GW-12610A-082018-SSH-18104	GW-12610A-082018-SSH-18105	GW-12610-082819-SSH-00819	GW-11208058-081120-SSH-2010
Sample Date:		08/08/2012	08/08/2013	08/06/2014	08/26/2015	08/26/2016	08/22/2017	08/20/2018	08/20/2018 (Duplicate)	08/28/2019	08/11/2020
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.00013 J	0.00014 J	0.000065 J	0.00019 U	0.00019 U	0.00019 U	**0.00021[c]**	0.00019 U	0.000096 U	0.00016 J
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00019 UJ	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00019 UJ	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:		LMW15D	LMW15D	LMW15D	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2
Sample ID:		GW-11208058-082321-SSH-21100	GW-11208058-082322-BW-003	GW-11208058-101323-BW-004	GW-12610-080912-SSH-009	GW-12610-080713-JY-007	GW-12610-080614-SSH-1410	GW-12610-082615-SSH-0515	GW-12610-121416-SSH-1615	GW-12610-082117-SSH-06-17	GW-12610A-082018-SSH-18106
Sample Date:		08/23/2021	08/23/2022	10/13/2023	08/09/2012	08/07/2013	08/06/2014	08/26/2015	12/14/2016	08/21/2017	08/20/2018
Parameters	**Units**										
VOAs											
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	0.000099 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.000099 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.000099 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.000095 U	0.000099 U	**0.00023 J[c]**	0.00019 U	0.00019 U	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	0.000099 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.000099 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.000099 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U
PFAS											
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-
Wet											
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment C

Analytical Results Summary
Sampling
Racer Trust - Bay City Industrial Land
Bay City, Michigan

AOI:		Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:		MW301D2	MW301D2	MW301D2	MW301D2	MW301D2
Sample ID:		GW-12610-082819-SSH-00619	GW-11208058-081020-SSH-2008	GW-11208058-082321-SSH-21103	GW-11208058-082322-BW-004	GW-11208058-101323-BW-005
Sample Date:		08/28/2019	08/10/2020	08/23/2021	08/23/2022	10/13/2023
Parameters	**Units**					
VOAs						
Vinyl chloride	mg/L	-	-	-	-	-
Metals						
Cadmium	mg/L	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-
Copper	mg/L	-	-	-	-	-
Iron	mg/L	-	-	-	-	-
Lead	mg/L	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-
Silver	mg/L	-	-	-	-	-
PCBs						
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.0001 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.0001 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.0001 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.0001 U	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.0001 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.0001 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.000095 U	0.000096 U	0.0001 U	0.000095 U
PFAS						
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-
Wet						
Ammonia	mg/L	-	-	-	-	-
Ammonia-N	mg/L	-	-	-	-	-
Biochemical oxygen demand (BOD)	mg/L	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-
Oil and grease (HEM), total	mg/L	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	-

Footnotes:
HF Field parameter with 15min holding time.
J Estimated concentration.
JB Estimated quantity - also detected in the method blank.
H Sample was prepped or analyzed beyond the specified holding time
R Rejected.
U Not detected at the associated reporting limit.
UJ Not detected; associated reporting limit is estimated.
^+ Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Attachment D

Data Verification Report

November 28, 2023

To	John-Eric Pardys	**Contact No.**	612-524-6872
cc	Jessica Gallaway	**Email**	ruth.mickle@ghd.com
From	Ruth Mickle/mg/6	**Project No.**	11208058
Project Name	RACER Bay City		
Subject	Analytical Results and Data Verification Annual Groundwater Sampling RACER Bay City Site Bay City, Michigan October 2023		

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

1. Introduction

This document details a data verification of analytical results for groundwater samples collected in support of the Annual Groundwater Sampling at the RACER Bay City Site during October 2023. Samples were submitted to Eurofins Environment Testing (EET), located in Barberton, Ohio. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS) and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

1. "National Functional Guidelines for Organic Superfund Methods Data Review", EPA 540-R-20-005, November 2020

Item 1. will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and received by the laboratory within 0-6°C.

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries

In accordance with the method employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for polychlorinated biphenyl (PCB) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were within control limits.

5. Laboratory Control Sample Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/ contained all compounds specified in the method. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS or MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. Due to laboratory QC issues, the laboratory was unable to report MS/MSD results from a project sample. As a result, no evaluation of MS/MSD precision or accuracy was performed.

7. Field QA/QC Samples

The field QA/QC consisted of one rinse blank and one field duplicate set.

Rinse (Equipment) Blank Sample Analysis

To assess field decontamination procedures and cleanliness of sample containers, a rinse blank was submitted for analysis, as identified in Table 1. All results were non-detect for the analytes of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value for water samples.

The field duplicate results were within acceptable agreement.

8. Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and pattern recognition were evaluated according to identification criteria established by the PCB method.. The laboratory reported that several samples yielded aroclor detections that were a poor match with standard, resulting in quantitative and qualitative uncertainty. The laboratory attributed the poor match to excessive sample weathering. Based on this, the associated PCB results was qualified estimated (J), as noted in Table 4.

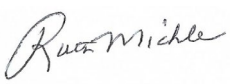
9. Analyte Reporting

The laboratory reported detected results down to the laboratory's sample-specific method detection limit (MDL) for each analyte. Positive analyte detections less than the reporting limit (RL) but greater than the MDL are qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Regards,



Ruth Mickle
Digital Intelligence - Data Management Team Lead-Data Validator

Encl.

Table 1

Sample Collection and Analysis Summary
Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
October 2023

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: PCBs	Comments
Eurofins SDG No.: 240-193705-1						
GW-11208058-101323-BW-001	LMW13S	water	10/13/2023	12:35	X	
GW-11208058-101323-BW-002	LMW13S	water	10/13/2023	12:40	X	Field Duplicate of -BW-001
GW-11208058-101323-BW-003	Equipment Blank	water	10/13/2023	12:45	X	Rinse Blank
GW-11208058-101323-BW-004	LMW15D	water	10/13/2023	13:45	X	
GW-11208058-101323-BW-005	MW301D2	water	10/13/2023	14:55	X	
GW-11208058-101423-BW-006	MW102D1	water	10/14/2023	09:05	X	
GW-11208058-101423-BW-007	MW102D2	water	10/14/2023	10:05	X	
GW-11208058-101423-BW-008	MW102D4	water	10/14/2023	11:21	X	
GW-11208058-101423-BW-009	MW300S	water	10/14/2023	12:03	X	

Notes:
PCBs - Polychlorinated Biphenyls
SDG - Sample Delivery Group

Table 2

Validated Analytical Summary Results
Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
October 2023

Location ID:		LMW13S	LMW13S	LMW15D	MW102D1	MW102D2	MW102D4	MW300S	MW301D2
Sample Name:		GW-11208058-101323-BW-001	GW-11208058-101323-BW-002	GW-11208058-101323-BW-004	GW-11208058-101423-BW-006	GW-11208058-101423-BW-007	GW-11208058-101423-BW-008	GW-11208058-101423-BW-009	GW-11208058-101323-BW-005
Sample Date:		10/13/2023	10/13/2023 Duplicate	10/13/2023	10/14/2023	10/14/2023	10/14/2023	10/14/2023	10/13/2023
Parameters	**Unit**								
PCBs									
Aroclor-1016 (PCB-1016)	µg/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.095 U	0.095 U
Aroclor-1221 (PCB-1221)	µg/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.095 U	0.095 U
Aroclor-1232 (PCB-1232)	µg/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.095 U	0.095 U
Aroclor-1242 (PCB-1242)	µg/L	1.1 J	1.6 J	0.23 J	0.27 J	0.095 U	0.097 U	0.095 U	0.095 U
Aroclor-1248 (PCB-1248)	µg/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.095 U	0.095 U
Aroclor-1254 (PCB-1254)	µg/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.095 U	0.095 U
Aroclor-1260 (PCB-1260)	µg/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.095 U	0.095 U

Notes:
PCBs- Polychlorinated Biphenyls
U - Not detected at the associated reporting limit
J - The result is an estimated quantity

Table 3

Analytical Method
Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
October 2023

Parameter	Method [1]	Matrix	Preservation	Holding Time	
				Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
Polychlorinated Biphenyls (PCBs)	SW-846 8082A	Water	Iced, 0-6° C	One year	40

Note:
[1] Method Reference:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Table 4

Summary of Qualified Sample Data Due To Poor Chromatographic Match To Analytical Standard
Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
October 2023

Parameter	Sample ID	Analyte	Qualified Result	Units
PCBs	GW-11208058-101323-BW-001	Aroclor-1242 (PCB-1242)	1.1 J	µg/L
	GW-11208058-101323-BW-002	Aroclor-1242 (PCB-1242)	1.6 J	µg/L
	GW-11208058-101323-BW-004	Aroclor-1242 (PCB-1242)	0.23 J	µg/L
	GW-11208058-101423-BW-006	Aroclor-1242 (PCB-1242)	0.27 J	µg/L

Notes:
J - Estimated concentration.
PCBs - Polychlorinated Biphenyls

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 1/7/2023 11:19:35 AM

JOB DESCRIPTION

11208058-C04, RACER Bay City

JOB NUMBER

240-178320-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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Authorization

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Authorized for release by
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Job ID: 240-178320-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-178320-1

Comments
No additional comments.

Receipt
The samples were received on 12/21/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5º C.

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

GC Semi VOA
Method 608.3: The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences cause by sulfur: GW-11208058-121922-JY-001 (240-178320-1).

Method 608.3: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not directly match any of the laboratory's Aroclor standards used for instrument calibration: GW-11208058-121922-JY-001 (240-178320-1). The sample has been quantified and reported using the overall Aroclor/standard pattern match relative to the reference standards.

Method 608.3: The following sample was diluted due to the abundance of target analytes: GW-11208058-121922-JY-001 (240-178320-1). As such, elevated reporting limits (RLs) are provided.

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

Metals
Method 200.7 Rev 4.4: Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitat limit. The continuing calibration blanks and method blanks may not support the lower PQL.

Method 245.1: The continuing calibration verification (CCV) associated with batch 240-557434 recovered above the upper contr limit for Mercury. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: WT-11208058-122022-JY-002 (240-178320-2).

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

General Chemistry
Method SM 5210B: The following sample was analyzed past the 48 hour holding time due to Eurofins holidays: WT-11208058-122022-JY-002 (240-178320-2).

Method SM 5210B: The USB dilution water D.O. depletion was greater than 0.2 mg/L. The associated sample results in batch 240-557040 are qualified and reported.

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

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

Definitions/Glossary

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Qualifiers

GC/MS VOA

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

GC Semi VOA

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

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Sample Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-178320-1	GW-11208058-121922-JY-001	Water	12/19/22 08:00	12/21/22 08:00
240-178320-2	WT-11208058-122022-JY-002	Water	12/20/22 08:00	12/21/22 08:00
240-178320-3	WT-11208058-122022-JY-002	Water	12/20/22 07:50	12/21/22 08:00
240-178320-4	TRIP BLANK	Water	12/20/22 00:00	12/21/22 08:00

Detection Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Client Sample ID: GW-11208058-121922-JY-001 — Lab Sample ID: 240-178320-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1221	15		0.96	0.55	ug/L	10		608.3	Total/NA

Client Sample ID: WT-11208058-122022-JY-002 — Lab Sample ID: 240-178320-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.28	J	2.0	0.20	ug/L	1		200.7 Rev 4.4	Total Recoverable
Lead	3.5		3.0	2.8	ug/L	1		200.7 Rev 4.4	Total Recoverable
Chemical Oxygen Demand	7.1	J	10	1.8	mg/L	1		410.4	Total/NA
Ammonia	13		2.0	0.76	mg/L	10		4500 NH3 H	Total/NA

Client Sample ID: WT-11208058-122022-JY-002 — Lab Sample ID: 240-178320-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM	1.1	J B	5.1	1.0	mg/L	1		1664A	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		4500 H+ B-2000	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-178320-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET CAN
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	EET CAN
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAN
245.1	Mercury (CVAA)	EPA	EET CAN
1664A	HEM and SGT-HEM	1664A	EET CAN
410.4	COD	MCAWW	EET CAN
4500 H+ B-2000	pH	SM	EET CAN
4500 NH3 H	Ammonia	SM	EET CAN
5210B-2001	BOD, 5-Day	SM	EET CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CAN
SM4500 P E-1999	Phosphorus	SM	EET CAN
200.7	Preparation, Total Recoverable Metals	EPA	EET CAN
245.1	Preparation, Mercury	EPA	EET CAN
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	EET CAN

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: WT-11208058-122022-JY-002
Date Collected: 12/20/22 07:50
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/28/22 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*62 - 137*		*12/28/22 16:49*	*1*
4-Bromofluorobenzene (Surr)	*90*		*56 - 136*		*12/28/22 16:49*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*12/28/22 16:49*	*1*

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: TRIP BLANK
Date Collected: 12/20/22 00:00
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/28/22 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*62 - 137*		*12/28/22 17:12*	*1*
4-Bromofluorobenzene (Surr)	*94*		*56 - 136*		*12/28/22 17:12*	*1*
Toluene-d8 (Surr)	*95*		*78 - 122*		*12/28/22 17:12*	*1*

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: 40CFR136A 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: GW-11208058-121922-JY-001
Date Collected: 12/19/22 08:00
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.96	U	0.96	0.54	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1221	**15**		0.96	0.55	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1232	0.96	U	0.96	0.71	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1242	0.96	U	0.96	0.73	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1248	0.96	U	0.96	0.48	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1254	0.96	U	0.96	0.38	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1260	0.96	U	0.96	0.44	ug/L		12/27/22 08:19	12/29/22 14:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*28*		*10 - 174*	*12/27/22 08:19*	*12/29/22 14:06*	*10*
Tetrachloro-m-xylene	*72*		*10 - 149*	*12/27/22 08:19*	*12/29/22 14:06*	*10*

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Method: 40CFR136A 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-11208058-122022-JY-002
Lab Sample ID: 240-178320-2
Date Collected: 12/20/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.096	U	0.096	0.054	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1221	0.096	U	0.096	0.055	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1232	0.096	U	0.096	0.071	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1242	0.096	U	0.096	0.073	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1248	0.096	U	0.096	0.048	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1254	0.096	U	0.096	0.038	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1260	0.096	U	0.096	0.044	ug/L		12/27/22 08:19	12/28/22 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*10 - 174*	*12/27/22 08:19*	*12/28/22 20:22*	*1*
Tetrachloro-m-xylene	*78*		*10 - 149*	*12/27/22 08:19*	*12/28/22 20:22*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-11208058-122022-JY-002
Date Collected: 12/20/22 08:00
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		12/22/22 12:00	12/29/22 03:00	1
Cadmium	**0.28**	**J**	2.0	0.20	ug/L		12/22/22 12:00	12/29/22 03:00	1
Chromium	5.0	U	5.0	4.0	ug/L		12/22/22 12:00	12/29/22 03:00	1
Copper	20	U	20	3.5	ug/L		12/22/22 12:00	12/29/22 03:00	1
Iron	100	U	100	83	ug/L		12/22/22 12:00	12/29/22 03:00	1
Nickel	20	U	20	2.2	ug/L		12/22/22 12:00	12/29/22 03:00	1
Lead	**3.5**		3.0	2.8	ug/L		12/22/22 12:00	12/29/22 03:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: WT-11208058-122022-JY-002
Date Collected: 12/20/22 08:00
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U ^+	0.20	0.13	ug/L		12/22/22 12:00	12/28/22 15:05	1

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

General Chemistry

Client Sample ID: WT-11208058-122022-JY-002
Lab Sample ID: 240-178320-2
Date Collected: 12/20/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (MCAWW 410.4)	**7.1**	**J**	10	1.8	mg/L			12/30/22 16:18	1
Ammonia (SM 4500 NH3 H)	**13**		2.0	0.76	mg/L			12/22/22 13:23	10
Biochemical Oxygen Demand (SM 5210B-2001)	2.0	U H	2.0	2.0	mg/L			12/22/22 09:18	1
Total Suspended Solids (SM 2540D)	4.0	U	4.0	1.0	mg/L			12/27/22 13:56	1
Total Phosphorus as P (SM4500 P E-1999)	0.10	U	0.10	0.017	mg/L			12/29/22 10:05	1

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

General Chemistry

Client Sample ID: WT-11208058-122022-JY-002
Lab Sample ID: 240-178320-3
Date Collected: 12/20/22 07:50
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664A)	1.1	J B	5.1	1.0	mg/L			01/05/23 09:04	1
pH (SM 4500 H+ B-2000)	7.5	HF	0.1	0.1	SU			12/21/22 16:46	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

GC/MS VOA

Analysis Batch: 557268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-3	WT-11208058-122022-JY-002	Total/NA	Water	624.1	
240-178320-4	TRIP BLANK	Total/NA	Water	624.1	
MB 240-557268/9	Method Blank	Total/NA	Water	624.1	
LCS 240-557268/5	Lab Control Sample	Total/NA	Water	624.1	

GC Semi VOA

Prep Batch: 557120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-1	GW-11208058-121922-JY-001	Total/NA	Water	608	
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	608	
MB 240-557120/23-A	Method Blank	Total/NA	Water	608	
LCS 240-557120/24-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 557382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	608.3	557120
MB 240-557120/23-A	Method Blank	Total/NA	Water	608.3	557120
LCS 240-557120/24-A	Lab Control Sample	Total/NA	Water	608.3	557120

Analysis Batch: 557519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-1	GW-11208058-121922-JY-001	Total/NA	Water	608.3	557120

Metals

Prep Batch: 556991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total Recoverable	Water	200.7	
MB 240-556991/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-556991/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 556997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	245.1	
MB 240-556997/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-556997/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 557398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total Recoverable	Water	200.7 Rev 4.4	556991
MB 240-556991/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	556991
LCS 240-556991/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	556991

Analysis Batch: 557434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	245.1	556997
MB 240-556997/1-A	Method Blank	Total/NA	Water	245.1	556997
LCS 240-556997/2-A	Lab Control Sample	Total/NA	Water	245.1	556997

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

General Chemistry

Analysis Batch: 556903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-3	WT-11208058-122022-JY-002	Total/NA	Water	4500 H+ B-2000	
LCS 240-556903/3	Lab Control Sample	Total/NA	Water	4500 H+ B-2000	

Analysis Batch: 557040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	5210B-2001	
SCB 240-557040/2	Method Blank	Total/NA	Water	5210B-2001	
USB 240-557040/1	Method Blank	Total/NA	Water	5210B-2001	
LCS 240-557040/3	Lab Control Sample	Total/NA	Water	5210B-2001	
240-178320-2 DU	WT-11208058-122022-JY-002	Total/NA	Water	5210B-2001	

Analysis Batch: 557043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	4500 NH3 H	
MB 240-557043/15	Method Blank	Total/NA	Water	4500 NH3 H	
MB 240-557043/47	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-557043/16	Lab Control Sample	Total/NA	Water	4500 NH3 H	
LCS 240-557043/48	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Analysis Batch: 557212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	SM 2540D	
MB 240-557212/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-557212/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 557487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	SM4500 P E-1999	
MB 240-557487/3	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-557487/4	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	

Analysis Batch: 557642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	410.4	
MB 240-557642/9	Method Blank	Total/NA	Water	410.4	
LCS 240-557642/10	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 557982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-3	WT-11208058-122022-JY-002	Total/NA	Water	1664A	
MB 240-557982/1	Method Blank	Total/NA	Water	1664A	
LCS 240-557982/2	Lab Control Sample	Total/NA	Water	1664A	

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-557268/9
Matrix: Water
Analysis Batch: 557268

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/28/22 10:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*62 - 137*		*12/28/22 10:20*	*1*
4-Bromofluorobenzene (Surr)	*89*		*56 - 136*		*12/28/22 10:20*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*12/28/22 10:20*	*1*

Lab Sample ID: LCS 240-557268/5
Matrix: Water
Analysis Batch: 557268

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	20.0	19.2		ug/L		96	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*62 - 137*
4-Bromofluorobenzene (Surr)	*87*		*56 - 136*
Toluene-d8 (Surr)	*87*		*78 - 122*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-557120/23-A
Matrix: Water
Analysis Batch: 557382

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 557120

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		12/27/22 08:19	12/28/22 18:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*10 - 174*	*12/27/22 08:19*	*12/28/22 18:47*	*1*
Tetrachloro-m-xylene	*82*		*10 - 149*	*12/27/22 08:19*	*12/28/22 18:47*	*1*

Lab Sample ID: LCS 240-557120/24-A
Matrix: Water
Analysis Batch: 557382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 557120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	2.50	1.87		ug/L		75	50 - 140
Aroclor-1260	2.50	1.93		ug/L		77	8 - 140

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 240-557120/24-A
Matrix: Water
Analysis Batch: 557382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 557120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*92*		*10 - 174*
Tetrachloro-m-xylene	*86*		*10 - 149*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-556991/1-A
Matrix: Water
Analysis Batch: 557398

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 556991

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		12/22/22 12:00	12/29/22 01:12	1
Cadmium	2.0	U	2.0	0.20	ug/L		12/22/22 12:00	12/29/22 01:12	1
Chromium	5.0	U	5.0	4.0	ug/L		12/22/22 12:00	12/29/22 01:12	1
Copper	20	U	20	3.5	ug/L		12/22/22 12:00	12/29/22 01:12	1
Iron	100	U	100	83	ug/L		12/22/22 12:00	12/29/22 01:12	1
Nickel	20	U	20	2.2	ug/L		12/22/22 12:00	12/29/22 01:12	1
Lead	3.0	U	3.0	2.8	ug/L		12/22/22 12:00	12/29/22 01:12	1

Lab Sample ID: LCS 240-556991/2-A
Matrix: Water
Analysis Batch: 557398

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 556991

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	100	101		ug/L		101	85 - 115
Cadmium	1000	982		ug/L		98	85 - 115
Chromium	1000	985		ug/L		98	85 - 115
Copper	1000	955		ug/L		96	85 - 115
Iron	10000	9150		ug/L		92	85 - 115
Nickel	1000	970		ug/L		97	85 - 115
Lead	1000	944		ug/L		94	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-556997/1-A
Matrix: Water
Analysis Batch: 557434

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 556997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U ^+	0.20	0.13	ug/L		12/22/22 12:00	12/28/22 14:32	1

Lab Sample ID: LCS 240-556997/2-A
Matrix: Water
Analysis Batch: 557434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 556997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.59	^+	ug/L		112	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-557982/1
Matrix: Water
Analysis Batch: 557982

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	1.80	J	5.0	1.0	mg/L			01/05/23 09:04	1

Lab Sample ID: LCS 240-557982/2
Matrix: Water
Analysis Batch: 557982

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM	40.0	32.80		mg/L		82	78 - 114

Method: 410.4 - COD

Lab Sample ID: MB 240-557642/9
Matrix: Water
Analysis Batch: 557642

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10	U	10	1.8	mg/L			12/30/22 15:53	1

Lab Sample ID: LCS 240-557642/10
Matrix: Water
Analysis Batch: 557642

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	46.4	45.4		mg/L		98	90 - 110

Method: 4500 H+ B-2000 - pH

Lab Sample ID: LCS 240-556903/3
Matrix: Water
Analysis Batch: 556903

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	9.20	9.2		SU		100	97 - 103

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-557043/15
Matrix: Water
Analysis Batch: 557043

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			12/22/22 10:23	1

Lab Sample ID: MB 240-557043/47
Matrix: Water
Analysis Batch: 557043

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			12/22/22 11:53	1

Method: 4500 NH3 H - Ammonia (Continued)

Lab Sample ID: LCS 240-557043/16
Matrix: Water
Analysis Batch: 557043

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	6.37	6.15		mg/L		97	90 - 110

Lab Sample ID: LCS 240-557043/48
Matrix: Water
Analysis Batch: 557043

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	6.37	6.26		mg/L		98	90 - 110

Method: 5210B-2001 - BOD, 5-Day

Lab Sample ID: SCB 240-557040/2
Matrix: Water
Analysis Batch: 557040

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

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			12/22/22 09:12	1

Lab Sample ID: USB 240-557040/1
Matrix: Water
Analysis Batch: 557040

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			12/22/22 09:09	1

Lab Sample ID: LCS 240-557040/3
Matrix: Water
Analysis Batch: 557040

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	193		mg/L		97	85 - 115

Lab Sample ID: 240-178320-2 DU
Matrix: Water
Analysis Batch: 557040

Client Sample ID: WT-11208058-122022-JY-002
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	2.0	U H	2.0	U	mg/L		NC	15

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-557212/1
Matrix: Water
Analysis Batch: 557212

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	1.0	mg/L			12/27/22 11:53	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 240-557212/2
Matrix: Water
Analysis Batch: 557212

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			88.4	59.5		mg/L		67	64 - 120		

Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-557487/3
Matrix: Water
Analysis Batch: 557487

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	0.10	U	0.10	0.017	mg/L			12/29/22 10:05	1

Lab Sample ID: LCS 240-557487/4
Matrix: Water
Analysis Batch: 557487

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			0.784	0.819		mg/L		104	77 - 120		

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)
240-178320-3	WT-11208058-122022-JY-002	111	90	93
240-178320-4	TRIP BLANK	112	94	95
LCS 240-557268/5	Lab Control Sample	95	87	87
MB 240-557268/9	Method Blank	105	89	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1	TCX1
Lab Sample ID	Client Sample ID	(10-174)	(10-149)
240-178320-1	GW-11208058-121922-JY-001	28	72
240-178320-2	WT-11208058-122022-JY-002	81	78
LCS 240-557120/24-A	Lab Control Sample	92	86
MB 240-557120/23-A	Method Blank	93	82

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Client Sample ID: GW-11208058-121922-JY-001

Lab Sample ID: 240-178320-1
Date Collected: 12/19/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			557120	MDH	EET CAN	12/27/22 08:19
Total/NA	Analysis	608.3		10	557519	RR	EET CAN	12/29/22 14:06

Client Sample ID: WT-11208058-122022-JY-002

Lab Sample ID: 240-178320-2
Date Collected: 12/20/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			557120	MDH	EET CAN	12/27/22 08:19
Total/NA	Analysis	608.3		1	557382	RR	EET CAN	12/28/22 20:22
Total Recoverable	Prep	200.7			556991	SHB	EET CAN	12/22/22 12:00
Total Recoverable	Analysis	200.7 Rev 4.4		1	557398	RKT	EET CAN	12/29/22 03:00
Total/NA	Prep	245.1			556997	SHB	EET CAN	12/22/22 12:00
Total/NA	Analysis	245.1		1	557434	MRL	EET CAN	12/28/22 15:05
Total/NA	Analysis	410.4		1	557642	JMB	EET CAN	12/30/22 16:18
Total/NA	Analysis	4500 NH3 H		10	557043	MED	EET CAN	12/22/22 13:23
Total/NA	Analysis	5210B-2001		1	557040	JMR	EET CAN	12/22/22 09:18
Total/NA	Analysis	SM 2540D		1	557212	MS	EET CAN	12/27/22 13:56
Total/NA	Analysis	SM4500 P E-1999		1	557487	BLW	EET CAN	12/29/22 10:05

Client Sample ID: WT-11208058-122022-JY-002

Lab Sample ID: 240-178320-3
Date Collected: 12/20/22 07:50
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	557268	TJL1	EET CAN	12/28/22 16:49
Total/NA	Analysis	1664A		1	557982	MMS	EET CAN	01/05/23 09:04
Total/NA	Analysis	4500 H+ B-2000		1	556903	JWW	EET CAN	12/21/22 16:46

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-178320-4
Date Collected: 12/20/22 00:00
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	557268	TJL1	EET CAN	12/28/22 17:12

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22 *
Michigan	State	9135	02-27-23
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

MICHIGAN 190

Chain of Custody Record

2.6.25 MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: John York	Lab PM: Heckler, Denise D	Carrier Tracking No(s): GHD to Bright	COC No: 240-101256-28266.2
Client Contact: Ms. Ruth Mickle	Phone: 734 231 6088	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #:
Address: 26850 Haggerty Rd.	Due Date Requested:			
City: Farmington Hills	TAT Requested (days): STD			
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No			
Phone: 248 893 3400	PO #: Purchase Order Requested			
Email: ruth.mickle@ghd.com	WO #: 11208058			
Project Name: 11208058, RACER Bay City	Project #: 24006288			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	6083, PREC	COD, T. Phos (P), Ammonia	Mercury	Select Metals	BOD	TSS	pH	HEM - HEM	Vinyl chloride 624.1	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N											
GW-11208058-121922-JY-001	12-19-22	0800	G	Water			X											
WT-11208058-122022-JY-002	12-20-22	0800	C	H			X	X	X	X	X	X						
WT-11208058-122022-JY-002 (Trip Blank)	12-20-22	0750	G	H										X	X	X		

240-178320 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	12-20-22 0900	GHD	[signature]	12/20/22 10:15	EFM
2	[signature]	12/20/22 1016	EETA	[signature]	12-21-22 800	EETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** 178320
Barberton Facility

Client GHD Site Name _____ Cooler unpacked by: Tammy Boyle

Cooler Received on 12-21-22 Opened on 12-21-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.5 °C

IR GUN # IR-16 (CF -0.1°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN # IR-17 (CF -0.3°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC291590**
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 62070	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
GW-11208058-121922-JY-001	240-178320-A-1	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-001	240-178320-B-1	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-A-2	Plastic 250ml - with Sulfuric Acid	<2			
GW-11208058-121922-JY-002	240-178320-B-2	Plastic 500ml - with Nitric Acid	<2			
GW-11208058-121922-JY-002	240-178320-C-2	Plastic 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-D-2	Plastic 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-E-2	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-F-2	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-A-3	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-121922-JY-002	240-178320-B-3	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-121922-JY-002	240-178320-C-3	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-121922-JY-002	240-178320-D-3	Plastic 125mL - unpreserved				
GW-11208058-121922-JY-002	240-178320-E-3	Amber Glass 1 liter - Sulfuric Acid				
GW-11208058-121922-JY-002	240-178320-F-3	Amber Glass 1 liter - Sulfuric Acid				
TRIP BLANK	240-178320-A-4	Voa Vial 40ml - Hydrochloric Acid				

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 7/13/2023 8:09:02 AM

JOB DESCRIPTION

11208058, RACER Bay City

JOB NUMBER

240-187979-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Eurofins Cleveland

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
7/13/2023 8:09:02 AM

Authorized for release by
Denise Heckler, Project Manager II
Denise.Heckler@et.eurofinsus.com
(330)966-9477

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Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Job ID: 240-187979-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-187979-1

Comments
No additional comments.

Receipt
The samples were received on 7/1/2023 9:35 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 was 5.1º C.

GC/MS VOA
Method 624.1: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container(s): GW-11208058-063023-JY-001 (240-187979-1).

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

GC Semi VOA
Method 608.3: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering, other environmental processes and/or contributions from the presence of multiple Aroclors, resulting in overlapping PCB patterns, the PCBs in the sample do not directly match any of the laboratory's Aroclor standards used for instrument calibration: GW-11208058-063023-JY-002 (240-187979-2). The sample has been quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

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

Metals
Method 200.7 Rev 4.4: Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

Method 245.1: The method blank for preparation batch 240-579732 contained Mercury above the reporting limit (RL). None of the samples associated with this method blank contained mercury above the reporting limit; therefore, re-digestion of samples were not performed. GW-11208058-063023-JY-002 (240-187979-2)

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

General Chemistry
Method SM 5210B: The glucose-glutamic acid standard (LCS) recovered outside the recovery limits specified in the method in batch 240-579274. The method holding time had expired, therefore the analysis was not repeated. The data was qualified and reported.

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

Organic Prep
Methods 3510C, 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-579829.

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

Definitions/Glossary

Client: GHD Services Inc.
Job ID: 240-187979-1
Project/Site: 11208058, RACER Bay City

Qualifiers

GC/MS VOA

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

GC Semi VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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

Sample Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-187979-1	GW-11208058-063023-JY-001	Water	06/30/23 09:30	07/01/23 09:35
240-187979-2	GW-11208058-063023-JY-002	Water	06/30/23 10:00	07/01/23 09:35
240-187979-3	TRIP BLANK	Water	06/30/23 00:00	07/01/23 09:35

Detection Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Client Sample ID: GW-11208058-063023-JY-001 — Lab Sample ID: 240-187979-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM	2.8	J	4.9	0.99	mg/L	1		1664B	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		4500 H+ B-2000	Total/NA

Client Sample ID: GW-11208058-063023-JY-002 — Lab Sample ID: 240-187979-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	0.29		0.096	0.073	ug/L	1		608.3	Total/NA
Chromium	1.4	J	5.0	0.76	ug/L	1		200.7 Rev 4.4	Total Recoverable
Iron	5300		100	83	ug/L	1		200.7 Rev 4.4	Total Recoverable
Nickel	5.1	J	20	2.2	ug/L	1		200.7 Rev 4.4	Total Recoverable
Mercury	0.16	J B	0.20	0.13	ug/L	1		245.1	Total/NA
Chemical Oxygen Demand	15		10	1.8	mg/L	1		410.4	Total/NA
Ammonia	13		2.0	0.76	mg/L	10		4500 NH3 H	Total/NA
Total Suspended Solids	9.8		4.0	0.40	mg/L	1		SM 2540D	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-187979-3

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CLE
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CLE
200.7 Rev 4.4	Metals (ICP)	EPA	EET CLE
245.1	Mercury (CVAA)	EPA	EET CLE
1664B	HEM and SGT-HEM	1664B	EET CLE
410.4	COD	EPA	EET CLE
4500 H+ B-2000	pH	SM	EET CLE
4500 NH3 H	Ammonia	SM	EET CLE
5210B-2001	BOD, 5-Day	SM	EET CLE
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CLE
SM4500 P E-1999	Phosphorus	SM	EET CLE
200.7	Preparation, Total Recoverable Metals	EPA	EET CLE
245.1	Preparation, Mercury	EPA	EET CLE
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CLE

Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-11208058-063023-JY-001
Date Collected: 06/30/23 09:30
Date Received: 07/01/23 09:35

Lab Sample ID: 240-187979-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			07/10/23 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*62 - 137*		*07/10/23 16:23*	*1*
4-Bromofluorobenzene (Surr)	*91*		*56 - 136*		*07/10/23 16:23*	*1*
Toluene-d8 (Surr)	*99*		*78 - 122*		*07/10/23 16:23*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: TRIP BLANK
Date Collected: 06/30/23 00:00
Date Received: 07/01/23 09:35

Lab Sample ID: 240-187979-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			07/10/23 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*62 - 137*		*07/10/23 14:41*	*1*
4-Bromofluorobenzene (Surr)	*90*		*56 - 136*		*07/10/23 14:41*	*1*
Toluene-d8 (Surr)	*100*		*78 - 122*		*07/10/23 14:41*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: GW-11208058-063023-JY-002
Date Collected: 06/30/23 10:00
Date Received: 07/01/23 09:35

Lab Sample ID: 240-187979-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.096	U	0.096	0.054	ug/L		07/07/23 08:31	07/10/23 12:54	1
Aroclor-1221	0.096	U	0.096	0.055	ug/L		07/07/23 08:31	07/10/23 12:54	1
Aroclor-1232	0.096	U	0.096	0.071	ug/L		07/07/23 08:31	07/10/23 12:54	1
Aroclor-1242	**0.29**		0.096	0.073	ug/L		07/07/23 08:31	07/10/23 12:54	1
Aroclor-1248	0.096	U	0.096	0.048	ug/L		07/07/23 08:31	07/10/23 12:54	1
Aroclor-1254	0.096	U	0.096	0.038	ug/L		07/07/23 08:31	07/10/23 12:54	1
Aroclor-1260	0.096	U	0.096	0.044	ug/L		07/07/23 08:31	07/10/23 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*10 - 174*	*07/07/23 08:31*	*07/10/23 12:54*	*1*
Tetrachloro-m-xylene	*66*		*10 - 149*	*07/07/23 08:31*	*07/10/23 12:54*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: GW-11208058-063023-JY-002
Date Collected: 06/30/23 10:00
Date Received: 07/01/23 09:35

Lab Sample ID: 240-187979-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		07/07/23 14:00	07/10/23 15:12	1
Cadmium	2.0	U	2.0	0.45	ug/L		07/07/23 14:00	07/10/23 15:12	1
Chromium	**1.4**	**J**	5.0	0.76	ug/L		07/07/23 14:00	07/10/23 15:12	1
Copper	20	U	20	3.5	ug/L		07/07/23 14:00	07/10/23 15:12	1
Iron	**5300**		100	83	ug/L		07/07/23 14:00	07/10/23 15:12	1
Nickel	**5.1**	**J**	20	2.2	ug/L		07/07/23 14:00	07/10/23 15:12	1
Lead	3.0	U	3.0	2.8	ug/L		07/07/23 14:00	07/10/23 15:12	1

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: GW-11208058-063023-JY-002
Date Collected: 06/30/23 10:00
Date Received: 07/01/23 09:35

Lab Sample ID: 240-187979-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16	J B	0.20	0.13	ug/L		07/06/23 14:00	07/07/23 14:36	1

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

General Chemistry

Client Sample ID: GW-11208058-063023-JY-001
Date Collected: 06/30/23 09:30
Date Received: 07/01/23 09:35

Lab Sample ID: 240-187979-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664B)	2.8	J	4.9	0.99	mg/L			07/07/23 09:03	1
pH (SM 4500 H+ B-2000)	7.1	HF	0.1	0.1	SU			07/05/23 10:17	1

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

General Chemistry

Client Sample ID: GW-11208058-063023-JY-002
Date Collected: 06/30/23 10:00
Date Received: 07/01/23 09:35

Lab Sample ID: 240-187979-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	**15**		10	1.8	mg/L			07/07/23 10:55	1
Ammonia (SM 4500 NH3 H)	**13**		2.0	0.76	mg/L			07/11/23 15:17	10
Biochemical Oxygen Demand (SM 5210B-2001)	2.0	U *-	2.0	2.0	mg/L			07/01/23 14:05	1
Total Suspended Solids (SM 2540D)	**9.8**		4.0	0.40	mg/L			07/05/23 08:42	1
Total Phosphorus as P (SM4500 P E-1999)	0.10	U	0.10	0.076	mg/L			07/12/23 09:14	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

GC/MS VOA

Analysis Batch: 580006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-1	GW-11208058-063023-JY-001	Total/NA	Water	624.1	
240-187979-3	TRIP BLANK	Total/NA	Water	624.1	
MB 240-580006/9	Method Blank	Total/NA	Water	624.1	
LCS 240-580006/5	Lab Control Sample	Total/NA	Water	624.1	

GC Semi VOA

Prep Batch: 579829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	608	
MB 240-579829/12-A	Method Blank	Total/NA	Water	608	
LCS 240-579829/13-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 580073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	608.3	579829
MB 240-579829/12-A	Method Blank	Total/NA	Water	608.3	579829
LCS 240-579829/13-A	Lab Control Sample	Total/NA	Water	608.3	579829

Metals

Prep Batch: 579731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total Recoverable	Water	200.7	
MB 240-579731/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-579731/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
240-187979-2 MS	GW-11208058-063023-JY-002	Total Recoverable	Water	200.7	
240-187979-2 MSD	GW-11208058-063023-JY-002	Total Recoverable	Water	200.7	

Prep Batch: 579732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	245.1	
MB 240-579732/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-579732/2-A	Lab Control Sample	Total/NA	Water	245.1	
240-187979-2 MS	GW-11208058-063023-JY-002	Total/NA	Water	245.1	
240-187979-2 MSD	GW-11208058-063023-JY-002	Total/NA	Water	245.1	

Analysis Batch: 580069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	245.1	579732
MB 240-579732/1-A	Method Blank	Total/NA	Water	245.1	579732
LCS 240-579732/2-A	Lab Control Sample	Total/NA	Water	245.1	579732
240-187979-2 MS	GW-11208058-063023-JY-002	Total/NA	Water	245.1	579732
240-187979-2 MSD	GW-11208058-063023-JY-002	Total/NA	Water	245.1	579732

Analysis Batch: 580082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total Recoverable	Water	200.7 Rev 4.4	579731
MB 240-579731/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	579731
LCS 240-579731/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	579731
240-187979-2 MS	GW-11208058-063023-JY-002	Total Recoverable	Water	200.7 Rev 4.4	579731
240-187979-2 MSD	GW-11208058-063023-JY-002	Total Recoverable	Water	200.7 Rev 4.4	579731

General Chemistry

Analysis Batch: 579274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	5210B-2001	
SCB 240-579274/2	Method Blank	Total/NA	Water	5210B-2001	
USB 240-579274/1	Method Blank	Total/NA	Water	5210B-2001	
LCS 240-579274/3	Lab Control Sample	Total/NA	Water	5210B-2001	

Analysis Batch: 579557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	SM 2540D	
MB 240-579557/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-579557/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 579592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-1	GW-11208058-063023-JY-001	Total/NA	Water	4500 H+ B-2000	
LCS 240-579592/2	Lab Control Sample	Total/NA	Water	4500 H+ B-2000	
LCSD 240-579592/3	Lab Control Sample Dup	Total/NA	Water	4500 H+ B-2000	
240-187979-1 DU	GW-11208058-063023-JY-001	Total/NA	Water	4500 H+ B-2000	

Analysis Batch: 579846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-1	GW-11208058-063023-JY-001	Total/NA	Water	1664B	
MB 240-579846/1	Method Blank	Total/NA	Water	1664B	
LCS 240-579846/2	Lab Control Sample	Total/NA	Water	1664B	

Analysis Batch: 579878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	410.4	
MB 240-579878/41	Method Blank	Total/NA	Water	410.4	
LCS 240-579878/42	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 580109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-580109/44	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-580109/45	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Analysis Batch: 580314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	4500 NH3 H	
MB 240-580314/14	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-580314/15	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Analysis Batch: 580328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187979-2	GW-11208058-063023-JY-002	Total/NA	Water	SM4500 P E-1999	
MB 240-580328/3	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-580328/4	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-580006/9
Matrix: Water
Analysis Batch: 580006

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			07/10/23 12:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*62 - 137*		*07/10/23 12:32*	*1*
4-Bromofluorobenzene (Surr)	*88*		*56 - 136*		*07/10/23 12:32*	*1*
Toluene-d8 (Surr)	*99*		*78 - 122*		*07/10/23 12:32*	*1*

Lab Sample ID: LCS 240-580006/5
Matrix: Water
Analysis Batch: 580006

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	20.0	17.8		ug/L		89	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*62 - 137*
4-Bromofluorobenzene (Surr)	*95*		*56 - 136*
Toluene-d8 (Surr)	*104*		*78 - 122*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-579829/12-A
Matrix: Water
Analysis Batch: 580073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 579829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		07/07/23 08:31	07/10/23 11:52	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		07/07/23 08:31	07/10/23 11:52	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		07/07/23 08:31	07/10/23 11:52	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		07/07/23 08:31	07/10/23 11:52	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		07/07/23 08:31	07/10/23 11:52	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		07/07/23 08:31	07/10/23 11:52	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		07/07/23 08:31	07/10/23 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*10 - 174*	*07/07/23 08:31*	*07/10/23 11:52*	*1*
Tetrachloro-m-xylene	*85*		*10 - 149*	*07/07/23 08:31*	*07/10/23 11:52*	*1*

Lab Sample ID: LCS 240-579829/13-A
Matrix: Water
Analysis Batch: 580073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 579829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	2.50	2.22		ug/L		89	50 - 140
Aroclor-1260	2.50	2.28		ug/L		91	8 - 140

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 240-579829/13-A
Matrix: Water
Analysis Batch: 580073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 579829

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*88*		*10 - 174*
Tetrachloro-m-xylene	*84*		*10 - 149*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-579731/1-A
Matrix: Water
Analysis Batch: 580082

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 579731

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		07/07/23 14:00	07/10/23 15:04	1
Cadmium	2.0	U	2.0	0.45	ug/L		07/07/23 14:00	07/10/23 15:04	1
Chromium	5.0	U	5.0	0.76	ug/L		07/07/23 14:00	07/10/23 15:04	1
Copper	20	U	20	3.5	ug/L		07/07/23 14:00	07/10/23 15:04	1
Iron	100	U	100	83	ug/L		07/07/23 14:00	07/10/23 15:04	1
Nickel	20	U	20	2.2	ug/L		07/07/23 14:00	07/10/23 15:04	1
Lead	3.0	U	3.0	2.8	ug/L		07/07/23 14:00	07/10/23 15:04	1

Lab Sample ID: LCS 240-579731/2-A
Matrix: Water
Analysis Batch: 580082

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 579731

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	100	99.0		ug/L		99	85 - 115
Cadmium	1000	973		ug/L		97	85 - 115
Chromium	1000	929		ug/L		93	85 - 115
Copper	1000	964		ug/L		96	85 - 115
Iron	10000	9380		ug/L		94	85 - 115
Nickel	1000	947		ug/L		95	85 - 115
Lead	1000	929		ug/L		93	85 - 115

Lab Sample ID: 240-187979-2 MS
Matrix: Water
Analysis Batch: 580082

Client Sample ID: GW-11208058-063023-JY-002
Prep Type: Total Recoverable
Prep Batch: 579731

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	5.0	U	100	102		ug/L		102	70 - 130
Cadmium	2.0	U	1000	997		ug/L		100	70 - 130
Chromium	1.4	J	1000	952		ug/L		95	70 - 130
Copper	20	U	1000	1000		ug/L		100	70 - 130
Iron	5300		10000	14900		ug/L		97	70 - 130
Nickel	5.1	J	1000	970		ug/L		96	70 - 130
Lead	3.0	U	1000	936		ug/L		94	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 240-187979-2 MSD — **Client Sample ID: GW-11208058-063023-JY-002**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 580082 — **Prep Batch: 579731**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	5.0	U	100	103		ug/L		103	70 - 130	0	20
Cadmium	2.0	U	1000	1010		ug/L		101	70 - 130	1	20
Chromium	1.4	J	1000	960		ug/L		96	70 - 130	1	20
Copper	20	U	1000	1020		ug/L		102	70 - 130	1	20
Iron	5300		10000	15000		ug/L		97	70 - 130	1	20
Nickel	5.1	J	1000	983		ug/L		98	70 - 130	1	20
Lead	3.0	U	1000	944		ug/L		94	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-579732/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 580069 — **Prep Batch: 579732**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.201		0.20	0.13	ug/L		07/06/23 14:00	07/07/23 14:32	1

Lab Sample ID: LCS 240-579732/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 580069 — **Prep Batch: 579732**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.27		ug/L		85	85 - 115

Lab Sample ID: 240-187979-2 MS — **Client Sample ID: GW-11208058-063023-JY-002**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 580069 — **Prep Batch: 579732**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.16	J B	1.00	1.11		ug/L		96	70 - 130

Lab Sample ID: 240-187979-2 MSD — **Client Sample ID: GW-11208058-063023-JY-002**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 580069 — **Prep Batch: 579732**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.16	J B	1.00	1.06		ug/L		91	70 - 130	4	20

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 240-579846/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 579846

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	1.0	mg/L			07/07/23 09:03	1

Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 240-579846/2
Matrix: Water
Analysis Batch: 579846

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM	40.0	35.0		mg/L		88	78 - 114

Method: 410.4 - COD

Lab Sample ID: MB 240-579878/41
Matrix: Water
Analysis Batch: 579878

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10	U	10	1.8	mg/L			07/07/23 10:55	1

Lab Sample ID: LCS 240-579878/42
Matrix: Water
Analysis Batch: 579878

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	46.4	44.8		mg/L		97	90 - 110

Method: 4500 H+ B-2000 - pH

Lab Sample ID: LCS 240-579592/2
Matrix: Water
Analysis Batch: 579592

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	9.24	9.3		SU		100	97 - 103

Lab Sample ID: LCSD 240-579592/3
Matrix: Water
Analysis Batch: 579592

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	9.24	9.3		SU		100	97 - 103	0	20

Lab Sample ID: 240-187979-1 DU
Matrix: Water
Analysis Batch: 579592

Client Sample ID: GW-11208058-063023-JY-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.1	HF	7.1		SU		0.1	20

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-580109/44
Matrix: Water
Analysis Batch: 580109

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			07/10/23 13:53	1

Method: 4500 NH3 H - Ammonia (Continued)

Lab Sample ID: LCS 240-580109/45
Matrix: Water
Analysis Batch: 580109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	6.37	6.28		mg/L		99	90 - 110

Lab Sample ID: MB 240-580314/14
Matrix: Water
Analysis Batch: 580314

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			07/11/23 15:02	1

Lab Sample ID: LCS 240-580314/15
Matrix: Water
Analysis Batch: 580314

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	6.37	5.98		mg/L		94	90 - 110

Method: 5210B-2001 - BOD, 5-Day

Lab Sample ID: SCB 240-579274/2
Matrix: Water
Analysis Batch: 579274

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

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			07/01/23 10:28	1

Lab Sample ID: USB 240-579274/1
Matrix: Water
Analysis Batch: 579274

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			07/01/23 10:27	1

Lab Sample ID: LCS 240-579274/3
Matrix: Water
Analysis Batch: 579274

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	143	*-	mg/L		72	85 - 115

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-579557/1
Matrix: Water
Analysis Batch: 579557

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	0.40	mg/L			07/05/23 08:42	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 240-579557/2
Matrix: Water
Analysis Batch: 579557

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			35.6	30.0		mg/L		84	64 - 120		

Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-580328/3
Matrix: Water
Analysis Batch: 580328

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	0.10	U	0.10	0.076	mg/L			07/12/23 09:14	1

Lab Sample ID: LCS 240-580328/4
Matrix: Water
Analysis Batch: 580328

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			0.784	0.799		mg/L		102	77 - 120		

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)
240-187979-1	GW-11208058-063023-JY-001	90	91	99
240-187979-3	TRIP BLANK	90	90	100
LCS 240-580006/5	Lab Control Sample	88	95	104
MB 240-580006/9	Method Blank	88	88	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1	TCX1
Lab Sample ID	Client Sample ID	(10-174)	(10-149)
240-187979-2	GW-11208058-063023-JY-002	71	66
LCS 240-579829/13-A	Lab Control Sample	88	84
MB 240-579829/12-A	Method Blank	90	85

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-187979-1

Client Sample ID: GW-11208058-063023-JY-001

Lab Sample ID: 240-187979-1
Matrix: Water
Date Collected: 06/30/23 09:30
Date Received: 07/01/23 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	580006	HMB	EET CLE	07/10/23 16:23
Total/NA	Analysis	1664B		1	579846	JMR	EET CLE	07/07/23 09:03
Total/NA	Analysis	4500 H+ B-2000		1	579592	RP	EET CLE	07/05/23 10:17

Client Sample ID: GW-11208058-063023-JY-002

Lab Sample ID: 240-187979-2
Matrix: Water
Date Collected: 06/30/23 10:00
Date Received: 07/01/23 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			579829	LK2	EET CLE	07/07/23 08:31
Total/NA	Analysis	608.3		1	580073	RR	EET CLE	07/10/23 12:54
Total Recoverable	Prep	200.7			579731	GK	EET CLE	07/07/23 14:00
Total Recoverable	Analysis	200.7 Rev 4.4		1	580082	RKT	EET CLE	07/10/23 15:12
Total/NA	Prep	245.1			579732	GK	EET CLE	07/06/23 14:00
Total/NA	Analysis	245.1		1	580069	AJC	EET CLE	07/07/23 14:36
Total/NA	Analysis	410.4		1	579878	ALT	EET CLE	07/07/23 10:55
Total/NA	Analysis	4500 NH3 H		10	580314	MED	EET CLE	07/11/23 15:17
Total/NA	Analysis	5210B-2001		1	579274	BLW	EET CLE	07/01/23 14:05
Total/NA	Analysis	SM 2540D		1	579557	MS	EET CLE	07/05/23 08:42
Total/NA	Analysis	SM4500 P E-1999		1	580328	BLW	EET CLE	07/12/23 09:14

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-187979-3
Matrix: Water
Date Collected: 06/30/23 00:00
Date Received: 07/01/23 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	580006	HMB	EET CLE	07/10/23 14:41

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 240-187979-1
Project/Site: 11208058, RACER Bay City

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

MICHIGAN 190

Chain of Custody Record

4.7/5.1

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Client Information	Sampler: John York	Lab PM: Heckler, Denise D	Carrier Tracking No(s): Eurofins GHD to Brighton	COC No: 240-109047-38912.1
Client Contact: Ms. Ruth Mickle	Phone: 734 231 6088	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #:
Address: 26850 Haggerty Rd	Due Date Requested:			
City: Farmington Hills	TAT Requested (days): STD			
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No			
Phone: 612-524-6872(Tel)	PO #: Purchase Order Requested			
Email: ruth.mickle@ghd.com	WO #: 11208058			
Project Name: 11208058, RACER Bay City	Project #: 24006288			
Site:	SSOW#:			

Analysis Requested

240-187979 Chain of Custody

Preservation Codes:

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_LL_PREC - Vinyl chloride	410.4, 4500_P_E, SM4500_NH3_H	200.7 - Select Metals + Hg	608.3_PCB_PREC - PCBs	5210B - BOD	2540D - TSS	1664B_NP - HEM	SM4500_H+ - pH	Special Instructions/Note:
			Preservation Code:		X	X	A	S	D	N	N	N	S	N	
GW-11208058-063023-JY-001	6/30/23	0930	G	Water			X						X	X	Treatment EFF.
GW-11208058-063023-JY-00	"	1000	C	Water				X	X	X	X	X			" "
								X	X	X	X	X			
Trip Blank	"	—	—	WQ			X								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	6-30-23 1030	GHD	Leah M. Smith	07-01-23 935	ECETM
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
GW-11208058-063023-JY-001	240-187979-A-1	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-063023-JY-001	240-187979-B-1	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-063023-JY-001	240-187979-C-1	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-063023-JY-001	240-187979-D-1	Plastic 125mL - unpreserved				
GW-11208058-063023-JY-001	240-187979-E-1	Amber Glass 1 liter - Sulfuric Acid				
GW-11208058-063023-JY-001	240-187979-F-1	Amber Glass 1 liter - Sulfuric Acid				
GW-11208058-063023-JY-002	240-187979-A-2	Plastic 250ml - with Sulfuric Acid	<2			
GW-11208058-063023-JY-002	240-187979-B-2	Plastic 500ml - with Nitric Acid	<2			
GW-11208058-063023-JY-002	240-187979-C-2	Plastic 1 liter - unpreserved				
GW-11208058-063023-JY-002	240-187979-D-2	Plastic 1 liter - unpreserved				
GW-11208058-063023-JY-002	240-187979-E-2	Amber Glass 1 liter - unpreserved				
GW-11208058-063023-JY-002	240-187979-F-2	Amber Glass 1 liter - unpreserved				
TRIP BLANK	240-187979-A-3	Voa Vial 40ml - Hydrochloric Acid				
TRIP BLANK	240-187979-B-3	Voa Vial 40ml - Hydrochloric Acid				

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** 187979
Barberton Facility

Client GHD Services Site Name _____ Cooler unpacked by: Lark M. Smith

Cooler Received on 07-01-23 Opened on 07-01-23

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN # 13 (CF +0.4 °C) Observed Cooler Temp. 4.7 °C Corrected Cooler Temp. 5.1 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	Yes	No (NA)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# 10BDH4321
14. Were VOAs on the COC?	(Yes)	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	(Yes)	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 62225	(Yes)	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) 1x Trip were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 8/7/2023 12:32:43 PM Revision 1

JOB DESCRIPTION

11208058, Racer Bay City

JOB NUMBER

240-189191-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Revision 1

Authorized for release by
Denise Heckler, Project Manager II
Denise.Heckler@et.eurofinsus.com
(330)966-9477

Table of Contents

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Job ID: 240-189191-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-189191-1

Comments
A revised report was provided on August 7, 2023. At the request of GHD, the project number was changed to: 11208058.

Receipt
The sample was received on 7/27/2023 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.0º C.

GC Semi VOA
Method 8082A: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the samples do not directly match any of the laboratory's Aroclor standards used for instrument calibration: W-11208058-072623-JY-003 (240-189191-1). The samples have been quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 240-582119 and analytical batch 240-582293 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
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

Sample Summary

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-189191-1	W-11208058-072623-JY-003	Water	07/26/23 10:00	07/27/23 09:30

Detection Summary

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

Client Sample ID: W-11208058-072623-JY-003 — Lab Sample ID: 240-189191-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1221	15		1.0	0.57	ug/L	10		8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CLE

Protocol References:

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

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: W-11208058-072623-JY-003
Date Collected: 07/26/23 10:00
Date Received: 07/27/23 09:30

Lab Sample ID: 240-189191-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1.0	U	1.0	0.56	ug/L		07/28/23 08:11	07/31/23 13:08	10
Aroclor-1221	**15**		1.0	0.57	ug/L		07/28/23 08:11	07/31/23 13:08	10
Aroclor-1232	1.0	U	1.0	0.74	ug/L		07/28/23 08:11	07/31/23 13:08	10
Aroclor-1242	1.0	U	1.0	0.76	ug/L		07/28/23 08:11	07/31/23 13:08	10
Aroclor-1248	1.0	U	1.0	0.50	ug/L		07/28/23 08:11	07/31/23 13:08	10
Aroclor-1254	1.0	U	1.0	0.40	ug/L		07/28/23 08:11	07/31/23 13:08	10
Aroclor-1260	1.0	U	1.0	0.46	ug/L		07/28/23 08:11	07/31/23 13:08	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*	*p*	*10 - 149*	*07/28/23 08:11*	*07/31/23 13:08*	*10*
DCB Decachlorobiphenyl	*55*		*10 - 174*	*07/28/23 08:11*	*07/31/23 13:08*	*10*

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

GC Semi VOA

Prep Batch: 582119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-189191-1	W-11208058-072623-JY-003	Total/NA	Water	3510C	
MB 240-582119/21-A	Method Blank	Total/NA	Water	3510C	
LCS 240-582119/22-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 582293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-189191-1	W-11208058-072623-JY-003	Total/NA	Water	8082A	582119
MB 240-582119/21-A	Method Blank	Total/NA	Water	8082A	582119
LCS 240-582119/22-A	Lab Control Sample	Total/NA	Water	8082A	582119

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-582119/21-A
Matrix: Water
Analysis Batch: 582293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 582119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		07/28/23 08:11	07/31/23 10:34	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		07/28/23 08:11	07/31/23 10:34	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		07/28/23 08:11	07/31/23 10:34	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		07/28/23 08:11	07/31/23 10:34	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		07/28/23 08:11	07/31/23 10:34	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		07/28/23 08:11	07/31/23 10:34	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		07/28/23 08:11	07/31/23 10:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*10 - 149*	*07/28/23 08:11*	*07/31/23 10:34*	*1*
DCB Decachlorobiphenyl	*109*		*10 - 174*	*07/28/23 08:11*	*07/31/23 10:34*	*1*

Lab Sample ID: LCS 240-582119/22-A
Matrix: Water
Analysis Batch: 582293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 582119

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			2.50	2.41		ug/L		97	28 - 140		
Aroclor-1260			2.50	2.27		ug/L		91	39 - 153		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*99*		*10 - 149*
DCB Decachlorobiphenyl	*97*		*10 - 174*

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		TCX1	DCBP1										
Lab Sample ID	Client Sample ID	(10-149)	(10-174)										
240-189191-1	W-11208058-072623-JY-003	85 p	55										
LCS 240-582119/22-A	Lab Control Sample	99	97										
MB 240-582119/21-A	Method Blank	91	109										

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 11208058, Racer Bay City

Job ID: 240-189191-1

Client Sample ID: W-11208058-072623-JY-003

Lab Sample ID: 240-189191-1

Date Collected: 07/26/23 10:00

Matrix: Water

Date Received: 07/27/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			582119	MDH	EET CLE	07/28/23 08:11
Total/NA	Analysis	8082A		10	582293	LSH	EET CLE	07/31/23 13:08

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 240-189191-1
Project/Site: 11208058, Racer Bay City

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

3.6/4.0

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: J. York	Lab PM: Heckler, Denise D	Carrier Tracking No(s):	COC No: 240-94260-28649.1
Client Contact: Ms. Ruth Mickle	Phone: 734 231 6088	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #: 1120805-8
Address: 26850 Haggerty Rd.	Due Date Requested:			
City: Farmington Hills	TAT Requested (days): STD			
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order Requested			
Email: ruth.mickle@ghd.com	WO #: 58503			
Project Name: 58503, GM Bay City SSOW# 262016	Project #: 24006667			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
W-1120805-2-072623-JY-003	7-26-23	1000	G	Water			X		Influent
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					

240-189191 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7-26-23 1030	GHD	M. A A.	7/27/23 9:30	FEC
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client GHD Site Name _____ Cooler unpacked by: T. A. A.

Cooler Received on 7/27/23 Opened on 7/27/23

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 1-C Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +.4 °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 4.0 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
-Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes) No
4. Did custody papers accompany the sample(s)?	(Yes) No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10. Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11. Sufficient quantity received to perform indicated analyses?	(Yes) No
12. Are these work share samples and all listed on the COC?	Yes (No)
If yes, Questions 13-17 have been checked at the originating laboratory.	
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes No (NA) pH Strip Lot# HC312502
14. Were VOAs on the COC?	Yes (No)
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 11/27/2023 11:46:10 AM Revision 1

JOB DESCRIPTION

11208058, RACER Bay City

JOB NUMBER

240-193705-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
11/27/2023 11:46:10 AM
Revision 1

Authorized for release by
Denise Heckler, Project Manager II
Denise.Heckler@et.eurofinsus.com
(330)966-9477

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Job ID: 240-193705-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-193705-1

Comments
All Samples were re-extracted due to QC Failure. There was insufficient sample remaining to re-extract the MS MSD for sample: GW-11208058-101423-BW-005.

A revised report was provided on November 27, 2023. The job narrative was revised to exclude sample GW-11208058-101423-BW-007 from the weathering comment. There are no PCBs detected in this sample.

Receipt
The samples were received on 10/17/2023 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.1º C, 2.4º C and 3.3º C.

GC Semi VOA
Method 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: GW-11208058-101423-BW-006 (240-193705-6), GW-11208058-101423-BW-007 (240-193705-7) and GW-11208058-101423-BW-008 (240-193705-8).

Method 8082A: The following samples appear to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the samples do not directly match any of the laboratory's Aroclor standards used for instrument calibration: GW-11208058-101323-BW-001 (240-193705-1), GW-11208058-101323-BW-002 (240-193705-2), GW-11208058-101323-BW-004 (240-193705-4), and GW-11208058-101423-BW-006 (240-193705-6). The samples have been quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-592149.

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

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Qualifiers

GC Semi VOA

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

Sample Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-193705-1	GW-11208058-101323-BW-001	Water	10/13/23 12:35	10/17/23 09:50
240-193705-2	GW-11208058-101323-BW-002	Water	10/13/23 12:40	10/17/23 09:50
240-193705-3	GW-11208058-101323-BW-003	Water	10/13/23 12:45	10/17/23 09:50
240-193705-4	GW-11208058-101323-BW-004	Water	10/13/23 13:45	10/17/23 09:50
240-193705-5	GW-11208058-101323-BW-005	Water	10/13/23 14:55	10/17/23 09:50
240-193705-6	GW-11208058-101423-BW-006	Water	10/14/23 09:05	10/17/23 09:50
240-193705-7	GW-11208058-101423-BW-007	Water	10/14/23 10:05	10/17/23 09:50
240-193705-8	GW-11208058-101423-BW-008	Water	10/14/23 11:21	10/17/23 09:50
240-193705-9	GW-11208058-101423-BW-009	Water	10/14/23 12:03	10/17/23 09:50

Detection Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Client Sample ID: GW-11208058-101323-BW-001 — Lab Sample ID: 240-193705-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	1.1		0.095	0.072	ug/L	1		8082A	Total/NA

Client Sample ID: GW-11208058-101323-BW-002 — Lab Sample ID: 240-193705-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	1.6		0.095	0.072	ug/L	1		8082A	Total/NA

Client Sample ID: GW-11208058-101323-BW-003 — Lab Sample ID: 240-193705-3

No Detections.

Client Sample ID: GW-11208058-101323-BW-004 — Lab Sample ID: 240-193705-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	0.23		0.095	0.072	ug/L	1		8082A	Total/NA

Client Sample ID: GW-11208058-101323-BW-005 — Lab Sample ID: 240-193705-5

No Detections.

Client Sample ID: GW-11208058-101423-BW-006 — Lab Sample ID: 240-193705-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	0.27		0.095	0.072	ug/L	1		8082A	Total/NA

Client Sample ID: GW-11208058-101423-BW-007 — Lab Sample ID: 240-193705-7

No Detections.

Client Sample ID: GW-11208058-101423-BW-008 — Lab Sample ID: 240-193705-8

No Detections.

Client Sample ID: GW-11208058-101423-BW-009 — Lab Sample ID: 240-193705-9

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CLE

Protocol References:

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

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101323-BW-001
Date Collected: 10/13/23 12:35
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 02:30	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 02:30	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 02:30	1
Aroclor-1242	**1.1**		0.095	0.072	ug/L		10/25/23 08:21	10/27/23 02:30	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 02:30	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 02:30	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*60*		*10 - 149*	*10/25/23 08:21*	*10/27/23 02:30*	*1*
DCB Decachlorobiphenyl	*52*		*10 - 174*	*10/25/23 08:21*	*10/27/23 02:30*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101323-BW-002
Date Collected: 10/13/23 12:40
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 02:47	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 02:47	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 02:47	1
Aroclor-1242	**1.6**		0.095	0.072	ug/L		10/25/23 08:21	10/27/23 02:47	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 02:47	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 02:47	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*10 - 149*	*10/25/23 08:21*	*10/27/23 02:47*	*1*
DCB Decachlorobiphenyl	*71*		*10 - 174*	*10/25/23 08:21*	*10/27/23 02:47*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101323-BW-003
Date Collected: 10/13/23 12:45
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 03:03	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 03:03	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 03:03	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		10/25/23 08:21	10/27/23 03:03	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 03:03	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 03:03	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 03:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*90*		*10 - 149*	*10/25/23 08:21*	*10/27/23 03:03*	*1*
DCB Decachlorobiphenyl	*96*		*10 - 174*	*10/25/23 08:21*	*10/27/23 03:03*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101323-BW-004
Date Collected: 10/13/23 13:45
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 03:20	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 03:20	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 03:20	1
Aroclor-1242	**0.23**		0.095	0.072	ug/L		10/25/23 08:21	10/27/23 03:20	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 03:20	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 03:20	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 03:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*88*		*10 - 149*	*10/25/23 08:21*	*10/27/23 03:20*	*1*
DCB Decachlorobiphenyl	*84*		*10 - 174*	*10/25/23 08:21*	*10/27/23 03:20*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101323-BW-005
Date Collected: 10/13/23 14:55
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 03:37	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 03:37	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 03:37	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		10/25/23 08:21	10/27/23 03:37	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 03:37	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 03:37	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 03:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*10 - 149*	*10/25/23 08:21*	*10/27/23 03:37*	*1*
DCB Decachlorobiphenyl	*79*		*10 - 174*	*10/25/23 08:21*	*10/27/23 03:37*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101423-BW-006
Date Collected: 10/14/23 09:05
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 03:54	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 03:54	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 03:54	1
Aroclor-1242	**0.27**		0.095	0.072	ug/L		10/25/23 08:21	10/27/23 03:54	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 03:54	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 03:54	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*10 - 149*	*10/25/23 08:21*	*10/27/23 03:54*	*1*
DCB Decachlorobiphenyl	*87*		*10 - 174*	*10/25/23 08:21*	*10/27/23 03:54*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101423-BW-007
Date Collected: 10/14/23 10:05
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 04:12	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 04:12	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 04:12	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		10/25/23 08:21	10/27/23 04:12	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 04:12	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 04:12	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*10 - 149*	*10/25/23 08:21*	*10/27/23 04:12*	*1*
DCB Decachlorobiphenyl	*62*		*10 - 174*	*10/25/23 08:21*	*10/27/23 04:12*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101423-BW-008
Date Collected: 10/14/23 11:21
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.097	U	0.097	0.054	ug/L		10/25/23 08:21	10/27/23 04:29	1
Aroclor-1221	0.097	U	0.097	0.055	ug/L		10/25/23 08:21	10/27/23 04:29	1
Aroclor-1232	0.097	U	0.097	0.072	ug/L		10/25/23 08:21	10/27/23 04:29	1
Aroclor-1242	0.097	U	0.097	0.074	ug/L		10/25/23 08:21	10/27/23 04:29	1
Aroclor-1248	0.097	U	0.097	0.049	ug/L		10/25/23 08:21	10/27/23 04:29	1
Aroclor-1254	0.097	U	0.097	0.039	ug/L		10/25/23 08:21	10/27/23 04:29	1
Aroclor-1260	0.097	U	0.097	0.045	ug/L		10/25/23 08:21	10/27/23 04:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*10 - 149*	*10/25/23 08:21*	*10/27/23 04:29*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 174*	*10/25/23 08:21*	*10/27/23 04:29*	*1*

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-101423-BW-009
Date Collected: 10/14/23 12:03
Date Received: 10/17/23 09:50

Lab Sample ID: 240-193705-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/25/23 08:21	10/27/23 04:46	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/25/23 08:21	10/27/23 04:46	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/25/23 08:21	10/27/23 04:46	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		10/25/23 08:21	10/27/23 04:46	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/25/23 08:21	10/27/23 04:46	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/25/23 08:21	10/27/23 04:46	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/25/23 08:21	10/27/23 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*60*		*10 - 149*	*10/25/23 08:21*	*10/27/23 04:46*	*1*
DCB Decachlorobiphenyl	*46*		*10 - 174*	*10/25/23 08:21*	*10/27/23 04:46*	*1*

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

GC Semi VOA

Prep Batch: 592149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193705-1	GW-11208058-101323-BW-001	Total/NA	Water	3510C	
240-193705-2	GW-11208058-101323-BW-002	Total/NA	Water	3510C	
240-193705-3	GW-11208058-101323-BW-003	Total/NA	Water	3510C	
240-193705-4	GW-11208058-101323-BW-004	Total/NA	Water	3510C	
240-193705-5	GW-11208058-101323-BW-005	Total/NA	Water	3510C	
240-193705-6	GW-11208058-101423-BW-006	Total/NA	Water	3510C	
240-193705-7	GW-11208058-101423-BW-007	Total/NA	Water	3510C	
240-193705-8	GW-11208058-101423-BW-008	Total/NA	Water	3510C	
240-193705-9	GW-11208058-101423-BW-009	Total/NA	Water	3510C	
MB 240-592149/1-A	Method Blank	Total/NA	Water	3510C	
LCS 240-592149/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 592430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193705-1	GW-11208058-101323-BW-001	Total/NA	Water	8082A	592149
240-193705-2	GW-11208058-101323-BW-002	Total/NA	Water	8082A	592149
240-193705-3	GW-11208058-101323-BW-003	Total/NA	Water	8082A	592149
240-193705-4	GW-11208058-101323-BW-004	Total/NA	Water	8082A	592149
240-193705-5	GW-11208058-101323-BW-005	Total/NA	Water	8082A	592149
240-193705-6	GW-11208058-101423-BW-006	Total/NA	Water	8082A	592149
240-193705-7	GW-11208058-101423-BW-007	Total/NA	Water	8082A	592149
240-193705-8	GW-11208058-101423-BW-008	Total/NA	Water	8082A	592149
240-193705-9	GW-11208058-101423-BW-009	Total/NA	Water	8082A	592149
MB 240-592149/1-A	Method Blank	Total/NA	Water	8082A	592149
LCS 240-592149/2-A	Lab Control Sample	Total/NA	Water	8082A	592149

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-592149/1-A
Matrix: Water
Analysis Batch: 592430

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592149

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		10/25/23 08:21	10/26/23 22:28	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		10/25/23 08:21	10/26/23 22:28	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		10/25/23 08:21	10/26/23 22:28	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		10/25/23 08:21	10/26/23 22:28	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		10/25/23 08:21	10/26/23 22:28	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		10/25/23 08:21	10/26/23 22:28	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		10/25/23 08:21	10/26/23 22:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*10 - 149*	*10/25/23 08:21*	*10/26/23 22:28*	*1*
DCB Decachlorobiphenyl	*84*		*10 - 174*	*10/25/23 08:21*	*10/26/23 22:28*	*1*

Lab Sample ID: LCS 240-592149/2-A
Matrix: Water
Analysis Batch: 592430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592149

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			2.50	1.97		ug/L		79	28 - 140		
Aroclor-1260			2.50	1.72		ug/L		69	39 - 153		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*70*		*10 - 149*
DCB Decachlorobiphenyl	*76*		*10 - 174*

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		TCX2	DCBP2										
Lab Sample ID	Client Sample ID	(10-149)	(10-174)										
240-193705-1	GW-11208058-101323-BW-001	60	52										
240-193705-2	GW-11208058-101323-BW-002	82	71										
240-193705-3	GW-11208058-101323-BW-003	90	96										
240-193705-4	GW-11208058-101323-BW-004	88	84										
240-193705-5	GW-11208058-101323-BW-005	77	79										
240-193705-6	GW-11208058-101423-BW-006	78	87										
240-193705-7	GW-11208058-101423-BW-007	62	62										
240-193705-8	GW-11208058-101423-BW-008	79	76										
240-193705-9	GW-11208058-101423-BW-009	60	46										
LCS 240-592149/2-A	Lab Control Sample	70	76										
MB 240-592149/1-A	Method Blank	72	84										

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Client Sample ID: GW-11208058-101323-BW-001
Lab Sample ID: 240-193705-1
Date Collected: 10/13/23 12:35
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 02:30

Client Sample ID: GW-11208058-101323-BW-002
Lab Sample ID: 240-193705-2
Date Collected: 10/13/23 12:40
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 02:47

Client Sample ID: GW-11208058-101323-BW-003
Lab Sample ID: 240-193705-3
Date Collected: 10/13/23 12:45
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 03:03

Client Sample ID: GW-11208058-101323-BW-004
Lab Sample ID: 240-193705-4
Date Collected: 10/13/23 13:45
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 03:20

Client Sample ID: GW-11208058-101323-BW-005
Lab Sample ID: 240-193705-5
Date Collected: 10/13/23 14:55
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 03:37

Client Sample ID: GW-11208058-101423-BW-006
Lab Sample ID: 240-193705-6
Date Collected: 10/14/23 09:05
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 03:54

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 11208058, RACER Bay City

Job ID: 240-193705-1

Client Sample ID: GW-11208058-101423-BW-007

Lab Sample ID: 240-193705-7

Date Collected: 10/14/23 10:05
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 04:12

Client Sample ID: GW-11208058-101423-BW-008

Lab Sample ID: 240-193705-8

Date Collected: 10/14/23 11:21
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 04:29

Client Sample ID: GW-11208058-101423-BW-009

Lab Sample ID: 240-193705-9

Date Collected: 10/14/23 12:03
Matrix: Water
Date Received: 10/17/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			592149	MDH	EET CLE	10/25/23 08:21
Total/NA	Analysis	8082A		1	592430	MBB	EET CLE	10/27/23 04:46

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 240-193705-1
Project/Site: 11208058, RACER Bay City

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

MICHIGAN 190

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: BMW	Lab PM: Heckler, Denise D	Carrier Tracking No(s):	COC No: 240-110850-39515.2
Client Contact: Ms. Ruth Mickle	Phone: 734 260 9865	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: GHD Services Inc.	PWSID:			Job #:
Address: 26850 Haggerty Rd.	Due Date Requested:			
City: Farmington Hills	TAT Requested (days):			
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No			
Phone: 612-524-6872(Tel)	PO #: Purchase Order Requested			
Email: ruth.mickle@ghd.com	WO #: 11208058			
Project Name: 11208058, RACER Bay City	Project #: 24006288			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
GW-11208058-101323-BW-001	10-13-23	1235	G	Water			X		
-002		1240					X		
-003		1245					X		
-004		1345					X		
-005		1455				X	X		
GW-11208058-101423-BW-006	10-14-23	0905					X		
007		1005					X		
008		1121					X		
009		1203					X		

END OF BATCH

240-193705 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological	☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	BMW		GHD		10/16/23	FEDEX
2		10/16/23	FEDEX		101723 950	TEKTNC
3						

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

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: ________	3.5	3.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________	2.3	2.1	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________	2.6	2.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ________			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 - Multiple Coolers

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** 193705
Barberton Facility

Client GHD Site Name

Cooler Received on 10 17 23 Opened on 10 17 23

Cooler unpacked by: Rachelle Haidet

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 21 (CF -0.2°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N) and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes No	(NA) pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No	(NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 10/26/2023 7:22:10 AM

JOB DESCRIPTION

11208058-D04-001Y23-001, RACER Bay City

JOB NUMBER

240-193741-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
10/26/2023 7:22:10 AM

Authorized for release by
Denise Heckler, Project Manager II
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Job ID: 240-193741-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-193741-1

Receipt
The samples were received on 10/18/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2º C.

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

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

Metals
Method 200.7 Rev 4.4: Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

General Chemistry
Method SM 5210B: The USB dilution water D.O. depletion was greater than 0.2 mg/L. The associated sample results in batch 240-591214 are qualified and reported.

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

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

Definitions/Glossary

Client: GHD Services Inc. Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Qualifiers

GC/MS VOA

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

GC Semi VOA

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

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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

Sample Summary

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-193741-2	W-11208058-101723-JY-003	Water	10/17/23 08:00	10/18/23 08:00
240-193741-3	W-11208058-101723-JY-004	Water	10/17/23 08:30	10/18/23 08:00

Detection Summary

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Client Sample ID: W-11208058-101723-JY-003
Lab Sample ID: 240-193741-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM	4.3	J	5.0	1.0	mg/L	1		1664B	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		4500 H+ B-2000	Total/NA

Client Sample ID: W-11208058-101723-JY-004
Lab Sample ID: 240-193741-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1.0	J	5.0	0.76	ug/L	1		200.7 Rev 4.4	Total Recoverable
Iron	1000		100	83	ug/L	1		200.7 Rev 4.4	Total Recoverable
Nickel	3.7	J	20	2.2	ug/L	1		200.7 Rev 4.4	Total Recoverable
Ammonia	0.61		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Suspended Solids	1.6	J	4.0	0.40	mg/L	1		SM 2540D	Total/NA
Total Phosphorus as P	0.085	J	0.10	0.076	mg/L	1		SM4500 P E-1999	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CLE
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CLE
200.7 Rev 4.4	Metals (ICP)	EPA	EET CLE
245.1	Mercury (CVAA)	EPA	EET CLE
1664B	HEM and SGT-HEM	1664B	EET CLE
410.4	COD	EPA	EET CLE
4500 H+ B-2000	pH	SM	EET CLE
4500 NH3 H	Ammonia	SM	EET CLE
5210B-2001	BOD, 5-Day	SM	EET CLE
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CLE
SM4500 P E-1999	Phosphorus	SM	EET CLE
200.7	Preparation, Total Recoverable Metals	EPA	EET CLE
245.1	Preparation, Mercury	EPA	EET CLE
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CLE

Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: W-11208058-101723-JY-003
Lab Sample ID: 240-193741-2
Date Collected: 10/17/23 08:00
Matrix: Water
Date Received: 10/18/23 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/24/23 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*62 - 137*		*10/24/23 17:00*	*1*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/24/23 17:00*	*1*
Toluene-d8 (Surr)	*97*		*78 - 122*		*10/24/23 17:00*	*1*

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: W-11208058-101723-JY-004
Lab Sample ID: 240-193741-3
Date Collected: 10/17/23 08:30
Matrix: Water
Date Received: 10/18/23 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.098	U	0.098	0.055	ug/L		10/19/23 08:01	10/21/23 06:53	1
Aroclor-1221	0.098	U	0.098	0.056	ug/L		10/19/23 08:01	10/21/23 06:53	1
Aroclor-1232	0.098	U	0.098	0.073	ug/L		10/19/23 08:01	10/21/23 06:53	1
Aroclor-1242	0.098	U	0.098	0.075	ug/L		10/19/23 08:01	10/21/23 06:53	1
Aroclor-1248	0.098	U	0.098	0.049	ug/L		10/19/23 08:01	10/21/23 06:53	1
Aroclor-1254	0.098	U	0.098	0.039	ug/L		10/19/23 08:01	10/21/23 06:53	1
Aroclor-1260	0.098	U	0.098	0.045	ug/L		10/19/23 08:01	10/21/23 06:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*10 - 174*	*10/19/23 08:01*	*10/21/23 06:53*	*1*
Tetrachloro-m-xylene	*73*		*10 - 149*	*10/19/23 08:01*	*10/21/23 06:53*	*1*

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: W-11208058-101723-JY-004
Lab Sample ID: 240-193741-3
Date Collected: 10/17/23 08:30
Matrix: Water
Date Received: 10/18/23 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		10/19/23 14:00	10/21/23 01:55	1
Cadmium	2.0	U	2.0	0.45	ug/L		10/19/23 14:00	10/21/23 01:55	1
Chromium	**1.0**	**J**	5.0	0.76	ug/L		10/19/23 14:00	10/21/23 01:55	1
Copper	20	U	20	3.5	ug/L		10/19/23 14:00	10/21/23 01:55	1
Iron	**1000**		100	83	ug/L		10/19/23 14:00	10/21/23 01:55	1
Nickel	**3.7**	**J**	20	2.2	ug/L		10/19/23 14:00	10/21/23 01:55	1
Lead	3.0	U	3.0	2.8	ug/L		10/19/23 14:00	10/21/23 01:55	1

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: W-11208058-101723-JY-004
Lab Sample ID: 240-193741-3
Date Collected: 10/17/23 08:30
Matrix: Water
Date Received: 10/18/23 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		10/19/23 14:00	10/20/23 15:01	1

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

General Chemistry

Client Sample ID: W-11208058-101723-JY-003
Lab Sample ID: 240-193741-2
Date Collected: 10/17/23 08:00
Matrix: Water
Date Received: 10/18/23 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664B)	4.3	J	5.0	1.0	mg/L			10/24/23 07:40	1
pH (SM 4500 H+ B-2000)	7.6	HF	0.1	0.1	SU			10/18/23 16:34	1

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

General Chemistry

Client Sample ID: W-11208058-101723-JY-004
Lab Sample ID: 240-193741-3
Date Collected: 10/17/23 08:30
Matrix: Water
Date Received: 10/18/23 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	10	U	10	1.8	mg/L			10/23/23 10:30	1
Ammonia (SM 4500 NH3 H)	**0.61**		0.20	0.076	mg/L			10/24/23 11:22	1
Biochemical Oxygen Demand (SM 5210B-2001)	2.0	U	2.0	2.0	mg/L			10/18/23 13:09	1
Total Suspended Solids (SM 2540D)	**1.6**	**J**	4.0	0.40	mg/L			10/23/23 13:57	1
Total Phosphorus as P (SM4500 P E-1999)	**0.085**	**J**	0.10	0.076	mg/L			10/20/23 10:12	1

GC/MS VOA

Analysis Batch: 592016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-2	W-11208058-101723-JY-003	Total/NA	Water	624.1	
MB 240-592016/10	Method Blank	Total/NA	Water	624.1	
LCS 240-592016/6	Lab Control Sample	Total/NA	Water	624.1	

GC Semi VOA

Prep Batch: 591388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	608	
MB 240-591388/1-A	Method Blank	Total/NA	Water	608	
LCS 240-591388/2-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 591698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	608.3	591388
MB 240-591388/1-A	Method Blank	Total/NA	Water	608.3	591388
LCS 240-591388/2-A	Lab Control Sample	Total/NA	Water	608.3	591388

Metals

Prep Batch: 591458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total Recoverable	Water	200.7	
MB 240-591458/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-591458/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 591461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	245.1	
MB 240-591461/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-591461/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 591646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total Recoverable	Water	200.7 Rev 4.4	591458
MB 240-591458/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	591458
LCS 240-591458/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	591458

Analysis Batch: 591690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	245.1	591461
MB 240-591461/1-A	Method Blank	Total/NA	Water	245.1	591461
LCS 240-591461/2-A	Lab Control Sample	Total/NA	Water	245.1	591461

General Chemistry

Analysis Batch: 591214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	5210B-2001	
SCB 240-591214/2	Method Blank	Total/NA	Water	5210B-2001	
USB 240-591214/1	Method Blank	Total/NA	Water	5210B-2001	
LCS 240-591214/3	Lab Control Sample	Total/NA	Water	5210B-2001	

QC Association Summary

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

General Chemistry

Analysis Batch: 591357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-2	W-11208058-101723-JY-003	Total/NA	Water	4500 H+ B-2000	
LCS 240-591357/2	Lab Control Sample	Total/NA	Water	4500 H+ B-2000	

Analysis Batch: 591629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	SM4500 P E-1999	
MB 240-591629/3	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-591629/4	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	

Analysis Batch: 591834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	410.4	
MB 240-591834/9	Method Blank	Total/NA	Water	410.4	
LCS 240-591834/10	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 591887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	SM 2540D	
MB 240-591887/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-591887/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 591966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-2	W-11208058-101723-JY-003	Total/NA	Water	1664B	
MB 240-591966/1	Method Blank	Total/NA	Water	1664B	
LCS 240-591966/2	Lab Control Sample	Total/NA	Water	1664B	

Analysis Batch: 592136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-3	W-11208058-101723-JY-004	Total/NA	Water	4500 NH3 H	
MB 240-592136/44	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-592136/45	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-592016/10
Matrix: Water
Analysis Batch: 592016

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/24/23 13:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*62 - 137*		*10/24/23 13:52*	*1*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*10/24/23 13:52*	*1*
Toluene-d8 (Surr)	*100*		*78 - 122*		*10/24/23 13:52*	*1*

Lab Sample ID: LCS 240-592016/6
Matrix: Water
Analysis Batch: 592016

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	20.0	21.2		ug/L		106	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*62 - 137*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*
Toluene-d8 (Surr)	*100*		*78 - 122*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-591388/1-A
Matrix: Water
Analysis Batch: 591698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 591388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		10/19/23 08:01	10/21/23 05:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*10 - 174*	*10/19/23 08:01*	*10/21/23 05:17*	*1*
Tetrachloro-m-xylene	*70*		*10 - 149*	*10/19/23 08:01*	*10/21/23 05:17*	*1*

Lab Sample ID: LCS 240-591388/2-A
Matrix: Water
Analysis Batch: 591698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 591388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	2.50	1.62		ug/L		65	50 - 140
Aroclor-1260	2.50	1.68		ug/L		67	8 - 140

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 240-591388/2-A
Matrix: Water
Analysis Batch: 591698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 591388

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*79*		*10 - 174*
Tetrachloro-m-xylene	*66*		*10 - 149*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-591458/1-A
Matrix: Water
Analysis Batch: 591646

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 591458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		10/19/23 14:00	10/21/23 01:26	1
Cadmium	2.0	U	2.0	0.45	ug/L		10/19/23 14:00	10/21/23 01:26	1
Chromium	5.0	U	5.0	0.76	ug/L		10/19/23 14:00	10/21/23 01:26	1
Copper	20	U	20	3.5	ug/L		10/19/23 14:00	10/21/23 01:26	1
Iron	100	U	100	83	ug/L		10/19/23 14:00	10/21/23 01:26	1
Nickel	20	U	20	2.2	ug/L		10/19/23 14:00	10/21/23 01:26	1
Lead	3.0	U	3.0	2.8	ug/L		10/19/23 14:00	10/21/23 01:26	1

Lab Sample ID: LCS 240-591458/2-A
Matrix: Water
Analysis Batch: 591646

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 591458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	100	103		ug/L		103	85 - 115
Cadmium	1000	1020		ug/L		102	85 - 115
Chromium	1000	958		ug/L		96	85 - 115
Copper	1000	987		ug/L		99	85 - 115
Iron	10000	9280		ug/L		93	85 - 115
Nickel	1000	1000		ug/L		100	85 - 115
Lead	1000	966		ug/L		97	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-591461/1-A
Matrix: Water
Analysis Batch: 591690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 591461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		10/19/23 14:00	10/20/23 14:50	1

Lab Sample ID: LCS 240-591461/2-A
Matrix: Water
Analysis Batch: 591690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 591461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.50	2.52		ug/L		101	85 - 115

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 240-591966/1
Matrix: Water
Analysis Batch: 591966

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	1.0	mg/L			10/24/23 07:40	1

Lab Sample ID: LCS 240-591966/2
Matrix: Water
Analysis Batch: 591966

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM	40.0	35.6		mg/L		89	78 - 114

Method: 410.4 - COD

Lab Sample ID: MB 240-591834/9
Matrix: Water
Analysis Batch: 591834

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10	U	10	1.8	mg/L			10/23/23 10:30	1

Lab Sample ID: LCS 240-591834/10
Matrix: Water
Analysis Batch: 591834

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	46.4	43.1		mg/L		93	90 - 110

Method: 4500 H+ B-2000 - pH

Lab Sample ID: LCS 240-591357/2
Matrix: Water
Analysis Batch: 591357

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	9.24	9.3		SU		101	97 - 103

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-592136/44
Matrix: Water
Analysis Batch: 592136

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			10/24/23 10:58	1

Lab Sample ID: LCS 240-592136/45
Matrix: Water
Analysis Batch: 592136

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	3.83	3.49		mg/L		91	90 - 110

Method: 5210B-2001 - BOD, 5-Day

Lab Sample ID: SCB 240-591214/2
Matrix: Water
Analysis Batch: 591214

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

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			10/18/23 09:12	1

Lab Sample ID: USB 240-591214/1
Matrix: Water
Analysis Batch: 591214

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			10/18/23 09:08	1

Lab Sample ID: LCS 240-591214/3
Matrix: Water
Analysis Batch: 591214

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	215		mg/L		109	85 - 115

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-591887/1
Matrix: Water
Analysis Batch: 591887

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	0.40	mg/L			10/23/23 13:57	1

Lab Sample ID: LCS 240-591887/2
Matrix: Water
Analysis Batch: 591887

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	54.0	54.0		mg/L		100	64 - 120

Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-591629/3
Matrix: Water
Analysis Batch: 591629

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	0.10	U	0.10	0.076	mg/L			10/20/23 10:12	1

Lab Sample ID: LCS 240-591629/4
Matrix: Water
Analysis Batch: 591629

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	0.179	0.204		mg/L		114	77 - 120

Surrogate Summary

Client: GHD Services Inc.
Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)
240-193741-2	W-11208058-101723-JY-003	83	76	97
LCS 240-592016/6	Lab Control Sample	80	84	100
MB 240-592016/10	Method Blank	85	77	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1	TCX1
Lab Sample ID	Client Sample ID	(10-174)	(10-149)
240-193741-3	W-11208058-101723-JY-004	79	73
LCS 240-591388/2-A	Lab Control Sample	79	66
MB 240-591388/1-A	Method Blank	85	70

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc. Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Client Sample ID: W-11208058-101723-JY-003 Lab Sample ID: 240-193741-2

Date Collected: 10/17/23 08:00 **Matrix: Water**
Date Received: 10/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	592016	HMB	EET CLE	10/24/23 17:00
Total/NA	Analysis	1664B		1	591966	JMR	EET CLE	10/24/23 07:40
Total/NA	Analysis	4500 H+ B-2000		1	591357	RP	EET CLE	10/18/23 16:34

Client Sample ID: W-11208058-101723-JY-004 Lab Sample ID: 240-193741-3

Date Collected: 10/17/23 08:30 **Matrix: Water**
Date Received: 10/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			591388	MDH	EET CLE	10/19/23 08:01
Total/NA	Analysis	608.3		1	591698	BPM	EET CLE	10/21/23 06:53
Total Recoverable	Prep	200.7			591458	S4FJ	EET CLE	10/19/23 14:00
Total Recoverable	Analysis	200.7 Rev 4.4		1	591646	KLC	EET CLE	10/21/23 01:55
Total/NA	Prep	245.1			591461	S4FJ	EET CLE	10/19/23 14:00
Total/NA	Analysis	245.1		1	591690	AJC	EET CLE	10/20/23 15:01
Total/NA	Analysis	410.4		1	591834	QUY8	EET CLE	10/23/23 10:30
Total/NA	Analysis	4500 NH3 H		1	592136	JMR	EET CLE	10/24/23 11:22
Total/NA	Analysis	5210B-2001		1	591214	BLW	EET CLE	10/18/23 13:09
Total/NA	Analysis	SM 2540D		1	591887	QUY8	EET CLE	10/23/23 13:57
Total/NA	Analysis	SM4500 P E-1999		1	591629	RP	EET CLE	10/20/23 10:12

Laboratory References:
EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 240-193741-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

1-3|12

Chain of Custody Record

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Client Information	Sampler: John York	Lab PM: Heckler, Denise D	Carrier Tracking No(s): GHD to Brighton	COC No: 240-113300-40277.1
Client Contact: Ms. Ruth Mickle	Phone: 734 231 6088	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #:

Address: 26850 Haggerty Rd.	Due Date Requested: See Special Instructions
City: Farmington Hills	TAT Requested (days):
State, Zip: MI, 48331	Compliance Project: X Yes Δ No
Phone: 612-524-6872(Tel)	PO #: Purchase Order Requested
Email: ruth.mickle@ghd.com	WO #: 11208058
Project Name: 11208058, RACER Bay City	Project #: 24006288
Site:	SSOW#: 11208058-D04-001Y23-20230612

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	608.3_PCB_PREC - PCBs	410.4, 4500_P_E, SM4500_NH3_H	200.7, 245.1	624.1_LL_PREC - Vinyl chloride	5210B - BOD	2540D - TSS	1664B_NP - HEM	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	A	N	N	S	N		
W-11208058-101623-JY-002	10-16-23	0900	G	Water			X									STD TAT
W-11208058-101723-JY-003	10-17-23	0800	G	Water						X			X	X		5 Day TAT
W-11208058-101723-JY-004	"	0830	C	Water			X	X	X		X	X				5 Day TAT

240-193741 Chain of Custody

MICHIGAN
190

Preservation Codes:

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

Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	John York	10-17-23 0900	GHD	[signature]	10/17/23 12:35	EFA
2	[signature]	10/17/23 12:35	EFA	[signature]	10-18-23 800	EETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

SSOW-11208058-D04-001Y23-20230612

10/26/2023

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 193741
Barberton Facility

Client GHD Site Name _____ Cooler unpacked by:

Cooler Received on 10-18-23 Opened on 10-18-23

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. 1.3 °C Corrected Cooler Temp. 1.2 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
W-11208058-101623-JY-003	240-193741-E-2	Amber Glass 1 liter - Sulfuric Acid				
W-11208058-101623-JY-003	240-193741-F-2	Amber Glass 1 liter - Sulfuric Acid				
W-11208058-101623-JY-004	240-193741-A-3	Plastic 250ml - with Sulfuric Acid	<2			
W-11208058-101623-JY-004	240-193741-B-3	Plastic 500ml - with Nitric Acid	<2			

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 10/24/2023 7:06:08 AM

JOB DESCRIPTION

11208058-D04-001Y23-001, RACER Bay City

JOB NUMBER

240-193741-2

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

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Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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10/24/2023 7:06:08 AM

Authorized for release by
Denise Heckler, Project Manager II
Denise.Heckler@et.eurofinsus.com
(330)966-9477

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Client: GHD Services Inc.
Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Job ID: 240-193741-2

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-193741-2

Receipt
The samples were received on 10/18/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2º C.

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

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

Definitions/Glossary

Client: GHD Services Inc. Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Qualifiers

GC Semi VOA

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

Sample Summary

Client: GHD Services Inc.
Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-193741-1	W-11208058-101623-JY-002	Water	10/16/23 09:00	10/18/23 08:00

Detection Summary

Client: GHD Services Inc. Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Client Sample ID: W-11208058-101623-JY-002 **Lab Sample ID: 240-193741-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method	Method Description	Protocol	Laboratory
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CLE
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: W-11208058-101623-JY-002
Lab Sample ID: 240-193741-1
Date Collected: 10/16/23 09:00
Matrix: Water
Date Received: 10/18/23 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		10/19/23 08:01	10/21/23 06:37	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		10/19/23 08:01	10/21/23 06:37	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		10/19/23 08:01	10/21/23 06:37	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		10/19/23 08:01	10/21/23 06:37	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		10/19/23 08:01	10/21/23 06:37	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		10/19/23 08:01	10/21/23 06:37	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		10/19/23 08:01	10/21/23 06:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*52*		*10 - 174*	*10/19/23 08:01*	*10/21/23 06:37*	*1*
Tetrachloro-m-xylene	*59*		*10 - 149*	*10/19/23 08:01*	*10/21/23 06:37*	*1*

QC Association Summary

Client: GHD Services Inc.
Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

GC Semi VOA

Prep Batch: 591388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-1	W-11208058-101623-JY-002	Total/NA	Water	608	
MB 240-591388/1-A	Method Blank	Total/NA	Water	608	
LCS 240-591388/2-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 591698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193741-1	W-11208058-101623-JY-002	Total/NA	Water	608.3	591388
MB 240-591388/1-A	Method Blank	Total/NA	Water	608.3	591388
LCS 240-591388/2-A	Lab Control Sample	Total/NA	Water	608.3	591388

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-591388/1-A
Matrix: Water
Analysis Batch: 591698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 591388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		10/19/23 08:01	10/21/23 05:17	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		10/19/23 08:01	10/21/23 05:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*10 - 174*	*10/19/23 08:01*	*10/21/23 05:17*	*1*
Tetrachloro-m-xylene	*70*		*10 - 149*	*10/19/23 08:01*	*10/21/23 05:17*	*1*

Lab Sample ID: LCS 240-591388/2-A
Matrix: Water
Analysis Batch: 591698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 591388

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			2.50	1.62		ug/L		65	50 - 140		
Aroclor-1260			2.50	1.68		ug/L		67	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*79*		*10 - 174*
Tetrachloro-m-xylene	*66*		*10 - 149*

Surrogate Summary

Client: GHD Services Inc.
Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		DCBP1	TCX1										
Lab Sample ID	Client Sample ID	(10-174)	(10-149)										
240-193741-1	W-11208058-101623-JY-002	52	59										
LCS 240-591388/2-A	Lab Control Sample	79	66										
MB 240-591388/1-A	Method Blank	85	70										

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Client Sample ID: W-11208058-101623-JY-002
Lab Sample ID: 240-193741-1

Date Collected: 10/16/23 09:00
Matrix: Water
Date Received: 10/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			591388	MDH	EET CLE	10/19/23 08:01
Total/NA	Analysis	608.3		1	591698	BPM	EET CLE	10/21/23 06:37

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 240-193741-2
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

1-3|12

Chain of Custody Record

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Client Information	Sampler: John York	Lab PM: Heckler, Denise D	Carrier Tracking No(s): GHD to Brighton	COC No: 240-113300-40277.1
Client Contact: Ms. Ruth Mickle	Phone: 734 231 6088	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #:

Address: 26850 Haggerty Rd.	Due Date Requested: See Special Instructions
City: Farmington Hills	TAT Requested (days):
State, Zip: MI, 48331	Compliance Project: X Yes Δ No
Phone: 612-524-6872(Tel)	PO #: Purchase Order Requested
Email: ruth.mickle@ghd.com	WO #: 11208058
Project Name: 11208058, RACER Bay City	Project #: 24006288
Site:	SSOW#: 11208058-D04-001Y23-20230612

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	608.3_PCB_PREC - PCBs	410.4, 4500_P_E, SM4500_NH3_H	200.7, 245.1	624.1_LL_PREC - Vinyl chloride	5210B - BOD	2540D - TSS	1664B_NP - HEM	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	A	N	N	S	N		
W-11208058-101623-JY-002	10-16-23	0900	G	Water			X									STD TAT
W-11208058-101723-JY-003	10-17-23	0800	G	Water						X			X	X		5 Day TAT
W-11208058-101723-JY-004	"	0830	C	Water			X	X	X		X	X				5 Day TAT

240-193741 Chain of Custody

MICHIGAN
190

Preservation Codes:

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

Other:

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	John York	10-17-23 0900	GHD		10/17/23 12:35	EFA
2		10/17/23 12:35	EFA		10-18-23 800	EETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

SSOW-11208058-D04-001Y23-20230612

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 193741
Barberton Facility

Client GHD Site Name _____ Cooler unpacked by:

Cooler Received on 10-18-23 Opened on 10-18-23

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. 1.3 °C Corrected Cooler Temp. 1.2 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
W-11208058-101623-JY-003	240-193741-E-2	Amber Glass 1 liter - Sulfuric Acid				
W-11208058-101623-JY-003	240-193741-F-2	Amber Glass 1 liter - Sulfuric Acid				
W-11208058-101623-JY-004	240-193741-A-3	Plastic 250ml - with Sulfuric Acid	<2			
W-11208058-101623-JY-004	240-193741-B-3	Plastic 500ml - with Nitric Acid	<2			

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 11/21/2023 9:12:23 AM

JOB DESCRIPTION

11208058-D04-001Y23-001, RACER Bay City

JOB NUMBER

240-195393-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
11/21/2023 9:12:23 AM

Authorized for release by
Denise Heckler, Project Manager II
Denise.Heckler@et.eurofinsus.com
(330)966-9477

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Job ID: 240-195393-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-195393-1

Receipt
The samples were received on 11/14/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

PCBs
Method 608.3_PCB_PREC: The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: GW-11208058-111323-JY-005 (240-195393-1).

Method 608.3_PCB_PREC: The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: GW-11208058-111323-JY-005 (240-195393-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 608.3_PCB_PREC: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not directly match any of the laboratory's Aroclor standards used for instrument calibration: GW-11208058-111323-JY-005 (240-195393-1). The sample has been quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

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

Definitions/Glossary

Client: GHD Services Inc. Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
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

Sample Summary

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-195393-1	GW-11208058-111323-JY-005	Water	11/13/23 12:00	11/14/23 10:00
240-195393-2	GW-11208058-111323-JY-006	Water	11/13/23 11:30	11/14/23 10:00

Detection Summary

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Client Sample ID: GW-11208058-111323-JY-005
Lab Sample ID: 240-195393-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	20		0.95	0.72	ug/L	10		608.3	Total/NA

Client Sample ID: GW-11208058-111323-JY-006
Lab Sample ID: 240-195393-2

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method	Method Description	Protocol	Laboratory
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CLE
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: GW-11208058-111323-JY-005
Lab Sample ID: 240-195393-1
Date Collected: 11/13/23 12:00
Matrix: Water
Date Received: 11/14/23 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.95	U	0.95	0.53	ug/L		11/16/23 08:52	11/17/23 12:05	10
Aroclor-1221	0.95	U	0.95	0.54	ug/L		11/16/23 08:52	11/17/23 12:05	10
Aroclor-1232	0.95	U	0.95	0.70	ug/L		11/16/23 08:52	11/17/23 12:05	10
Aroclor-1242	**20**		0.95	0.72	ug/L		11/16/23 08:52	11/17/23 12:05	10
Aroclor-1248	0.95	U	0.95	0.48	ug/L		11/16/23 08:52	11/17/23 12:05	10
Aroclor-1254	0.95	U	0.95	0.38	ug/L		11/16/23 08:52	11/17/23 12:05	10
Aroclor-1260	0.95	U	0.95	0.44	ug/L		11/16/23 08:52	11/17/23 12:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*32*		*10 - 174*	*11/16/23 08:52*	*11/17/23 12:05*	*10*
Tetrachloro-m-xylene	*460*	*S1+*	*10 - 149*	*11/16/23 08:52*	*11/17/23 12:05*	*10*

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: GW-11208058-111323-JY-006
Lab Sample ID: 240-195393-2
Date Collected: 11/13/23 11:30
Matrix: Water
Date Received: 11/14/23 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		11/16/23 08:52	11/17/23 12:22	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		11/16/23 08:52	11/17/23 12:22	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		11/16/23 08:52	11/17/23 12:22	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		11/16/23 08:52	11/17/23 12:22	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		11/16/23 08:52	11/17/23 12:22	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		11/16/23 08:52	11/17/23 12:22	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		11/16/23 08:52	11/17/23 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*105*		*10 - 174*	*11/16/23 08:52*	*11/17/23 12:22*	*1*
Tetrachloro-m-xylene	*89*		*10 - 149*	*11/16/23 08:52*	*11/17/23 12:22*	*1*

QC Association Summary

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

GC Semi VOA

Prep Batch: 594820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-195393-1	GW-11208058-111323-JY-005	Total/NA	Water	608	
240-195393-2	GW-11208058-111323-JY-006	Total/NA	Water	608	
MB 240-594820/1-A	Method Blank	Total/NA	Water	608	
LCS 240-594820/2-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 594966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-195393-1	GW-11208058-111323-JY-005	Total/NA	Water	608.3	594820
240-195393-2	GW-11208058-111323-JY-006	Total/NA	Water	608.3	594820
MB 240-594820/1-A	Method Blank	Total/NA	Water	608.3	594820
LCS 240-594820/2-A	Lab Control Sample	Total/NA	Water	608.3	594820

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-594820/1-A
Matrix: Water
Analysis Batch: 594966

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 594820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		11/16/23 08:52	11/17/23 11:31	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		11/16/23 08:52	11/17/23 11:31	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		11/16/23 08:52	11/17/23 11:31	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		11/16/23 08:52	11/17/23 11:31	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		11/16/23 08:52	11/17/23 11:31	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		11/16/23 08:52	11/17/23 11:31	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		11/16/23 08:52	11/17/23 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*10 - 174*	*11/16/23 08:52*	*11/17/23 11:31*	*1*
Tetrachloro-m-xylene	*63*		*10 - 149*	*11/16/23 08:52*	*11/17/23 11:31*	*1*

Lab Sample ID: LCS 240-594820/2-A
Matrix: Water
Analysis Batch: 594966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 594820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			2.50	2.11		ug/L		84	50 - 140		
Aroclor-1260			2.50	2.11		ug/L		84	8 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*104*		*10 - 174*
Tetrachloro-m-xylene	*73*		*10 - 149*

Surrogate Summary

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	DCBP2 (10-174)	TCX2 (10-149)										
240-195393-1	GW-11208058-111323-JY-005	32	460 S1+										
240-195393-2	GW-11208058-111323-JY-006	105	89										
LCS 240-594820/2-A	Lab Control Sample	104	73										
MB 240-594820/1-A	Method Blank	100	63										

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Client Sample ID: GW-11208058-111323-JY-005
Lab Sample ID: 240-195393-1

Date Collected: 11/13/23 12:00
Matrix: Water
Date Received: 11/14/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			594820	LK2	EET CLE	11/16/23 08:52
Total/NA	Analysis	608.3		10	594966	MBB	EET CLE	11/17/23 12:05

Client Sample ID: GW-11208058-111323-JY-006
Lab Sample ID: 240-195393-2

Date Collected: 11/13/23 11:30
Matrix: Water
Date Received: 11/14/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			594820	LK2	EET CLE	11/16/23 08:52
Total/NA	Analysis	608.3		1	594966	MBB	EET CLE	11/17/23 12:22

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 240-195393-1
Project/Site: 11208058-D04-001Y23-001, RACER Bay City

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

2-6 / 2-8

eurofins | Environment Testing

Client Information	Sampler: John Yo M	Lab PM: Heckler, Denise D	Carrier Tracking No(s): Fed Ex	COC No:
Client Contact: John-Eric Pardys	Phone: 734 231 6088	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: 1 of 1
Company: GHD	PWSID:	Analysis Requested		Job #: 11208058
Address: 26850 Haggerty Rd	Due Date Requested: STD			Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other:
City: Farmington Hills	TAT Requested (days): STD			
State, Zip: Michigan 48331	Compliance Project: Δ Yes Δ No			
Phone: 248 893 3400	PO #:			
Email:	WO #:			
Project Name: Racer Bay City	Project #:			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PCB	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G-LJ-11208058-111323-TY-005	11-13-23	1200	G	GW			X		Inf
G-LJ-11208058-111323-JY-006	11	1130	G	GW			X		IFF

240-195393 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11-13-23 1300	GHD	[signature]	11-14-23 1000	ELETNC
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

11/21/2023

Eurofins – Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login # : 195393

Client GHD Site Name

Cooler Received on 11-14-23 Opened on 11-14-23

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

Eurofins Cooler # ES Foam Box Client Cooler Box Other

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF +2.0 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.8 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes No	NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No	NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17. Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen: