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Our ref: 11208058-LTR-14

January 27, 2023

Melissa Yuvan
Michigan Department of Environment, Great Lakes, and Energy
Remediation and Redevelopment Division
Saginaw Bay District Office
401 Ketchum Street, Suite B
Bay City, Michigan 48708

2022 Annual Technical Progress Report Submittal
RACER Trust Bay City Powertrain Industrial Land

GHD has prepared this 2022 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 16, 2021 to November 21, 2022, 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. A portion of the stormwater management modifications were completed in the fall of 2022. The remaining modifications will be completed in the spring of 2023. 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 General Motors LLC facility which previously treated groundwater and stormwater from the RACER Site. The need for this system resulted from the outcome of the General Motors Corporation (GMC) June 2009 bankruptcy (i.e., RACER received ownership of the Site and GM LLC 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.

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 during the 12-month period covered by this report, except when down for maintenance (for example: bag filter replacement, backflushing of GACs, or replacement of GACs).

From April 2015, when the groundwater treatment system was fully commissioned, through November 21, 2022 approximately 1,435,476 gallons of groundwater were treated.

1.1.4 Saginaw River Levels

Saginaw River water levels were recorded downstream from the RACER Property at Essexville by the National Oceanic and Atmospheric Administration (NOAA) from 1977 until 2005. Due to the unavailability of the data from the NOAA website, data was obtained from USGS station (04157065 Saginaw River at Weadock Road at Essexville, MI) and used for water elevation data of the Saginaw River, as of November 1, 2005. On December 4, 2013, USGS station 04157065 was removed from service so data was obtained from USGS station (04157060 Saginaw River at Midland Road at Bay City, MI) and used for water elevation data for the Saginaw River, as of November 16, 2013. On September 3, 2017 USGS station 04157060 was destroyed. Since 2017, GHD has been collecting manual measurements from the top of the sheetpile wall (SG-6) during monthly inspections.

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 SG-6 on September 12, 2022 was 579.93 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 April and August 2022. 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 August 2022. 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 August 22, 2022 depth to water measurements were collected from on-Site monitoring wells. Table 3 presents the annual groundwater elevations, based on the depth-to-water measurements, from 2015 to present. Figure 3 presents the annual shallow groundwater elevations collected on August 22, 2022. Attachment B presents historical groundwater elevations from 1999 to 2014.

On August 22 and 23, 2022 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 2022 annual sampling event are presented in Attachment D.

A review of the historical groundwater sample results reveals that the 2022 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 MDEQ Part 201 Residential and Non-Residential Drinking Water Criteria for PCBs of 0.5 (parts per billion) ppb. Groundwater results were reported above the MDEQ 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 (once in 2018).

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 on December 23, 2021 and May 26, 2022. Table 5 presents the results compared to the maximum discharge limits. There were no 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. A portion of the stormwater management modifications were completed in the fall of 2022. The remaining modifications will be completed in the spring of 2023. 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. Proposed Modifications to the Monitoring Program

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

3. Schedule

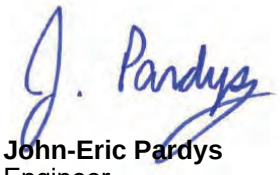
All activities have been completed within the required time frames.

The following schedule change has been proposed for the 2023 monitoring program: RACER will collect semi-annual groundwater treatment system influent samples in June and December (instead of March and August) in order to align with the effluent sampling events.

As part of the 2023 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 June and December 2023. The 2023 annual groundwater monitoring event will be completed in August 2023.

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

Sincerely,



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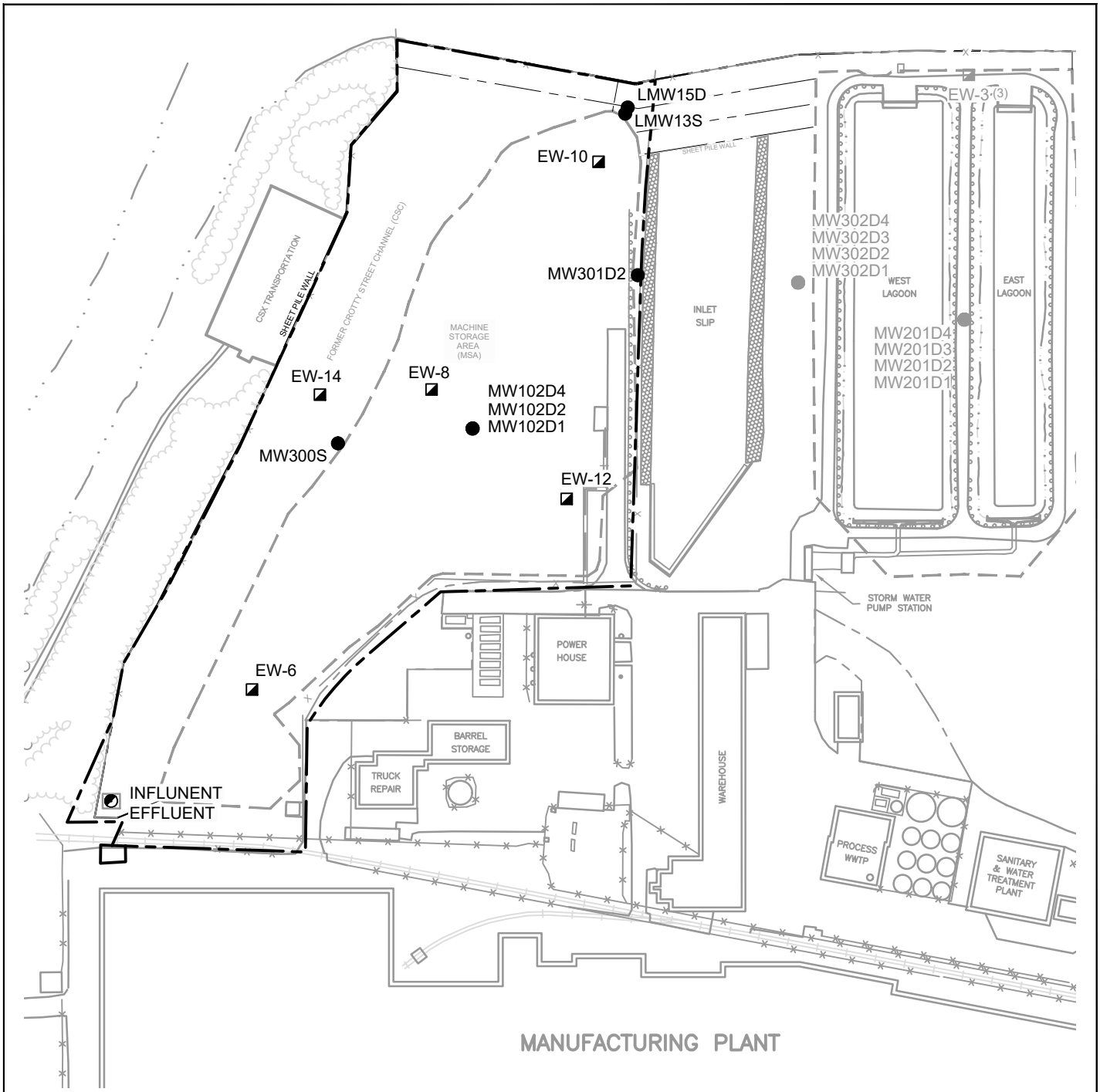
Encl.

Figure 1	Chemical Analysis Monitoring Locations
Figure 2	Water Elevation Monitoring Locations
Figure 3	Shallow Groundwater Elevations – August 22, 2022
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	Maintenance Activity Checklists
Attachment B	Analytical Results Summary (2013 to 2022)
Attachment C	Laboratory Reports and Data Validation Memorandums

Copy to:	Richard Finn, City of Bay City	Amanda Armbruster, EGLE
	Jill Edelbrock, EGLE	Grant Trigger, RACER Trust
	Dave Favero, RACER Trust	Michael Tomka, 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

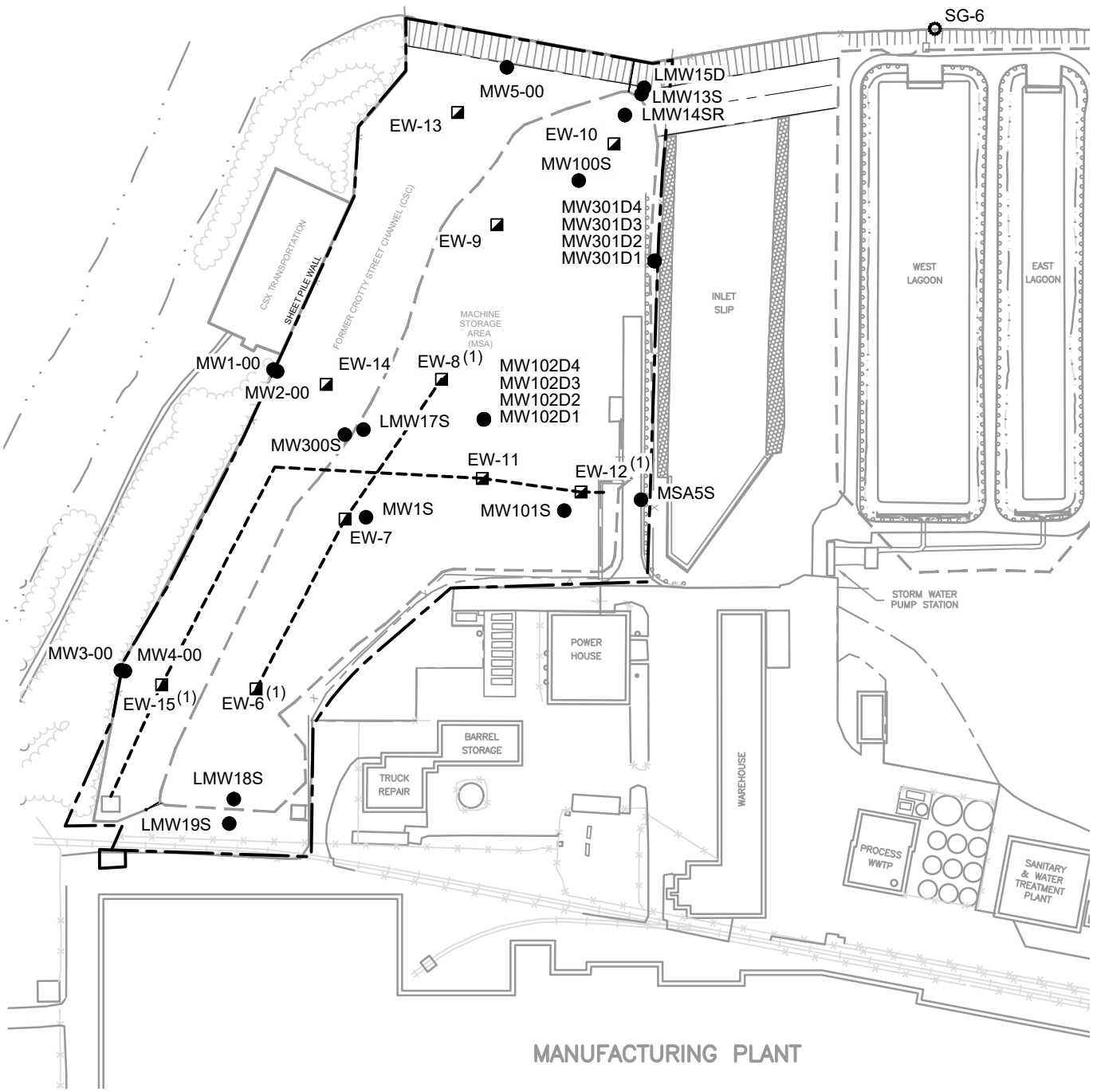
Project No. **11208058**
Date **January 2023**

CHEMICAL ANALYSIS MONITORING LOCATIONS

FIGURE 1

Filename: N:\CA\Waterloo\Projects\662\11208058\Digital_Design\ACAD 2020\Figures\LTR012\11208058-GHD-00-00-LTR-EN-D101_WA-012.dwg
Plot Date: 27 January 2023 10:23 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 ○ STAFF GAGE LOCATION

NOTE:
(1) ACTIVE PUMPING LOCATION.

0 100 200 ft

N

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RACER TRUST - BAY CITY INDUSTRIAL LAND
BAY CITY, MICHIGAN

Project No. **11208058**
Date **January 2023**

WATER ELEVATION MONITORING LOCATIONS

FIGURE 2

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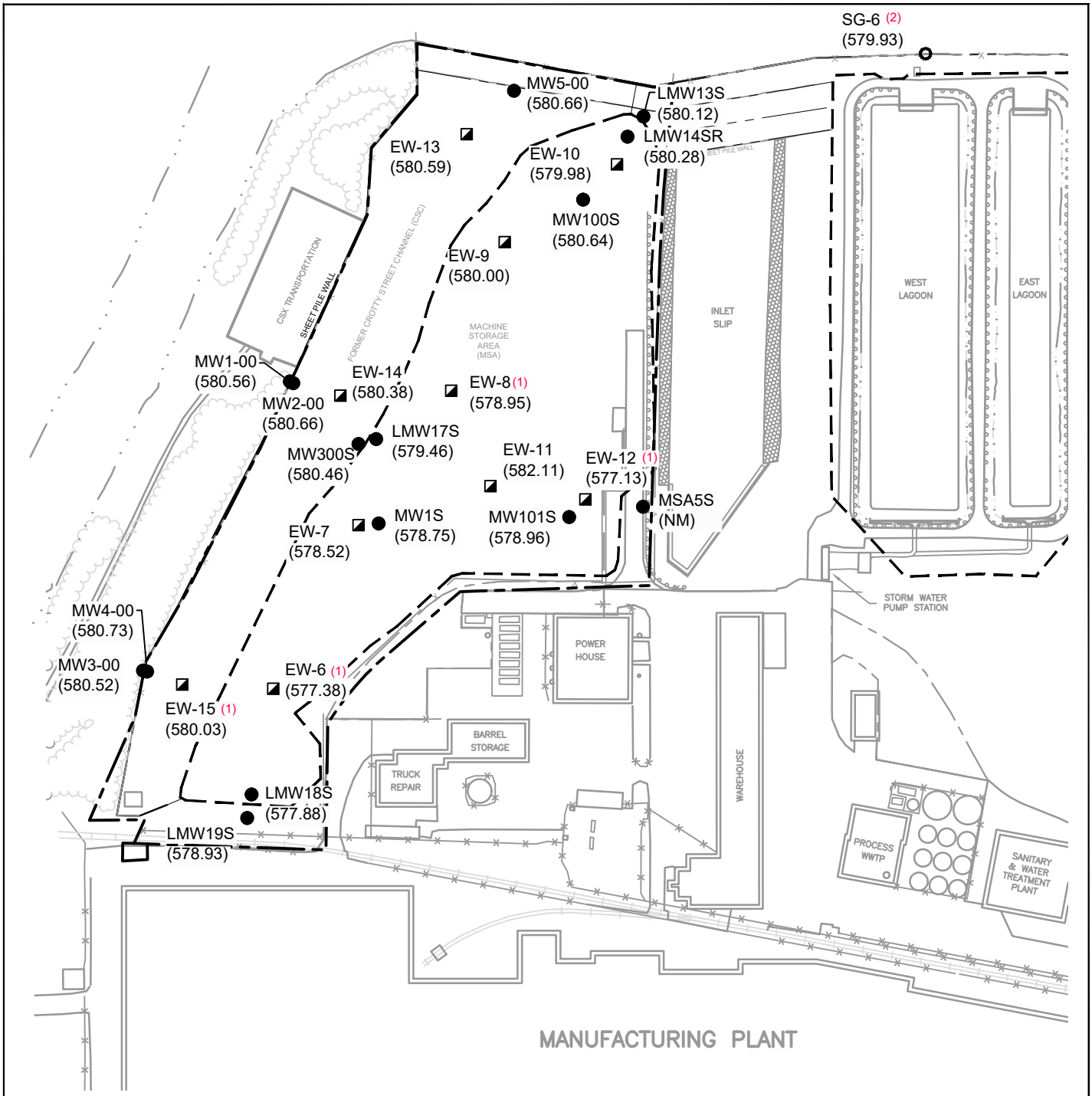
DATE: 08/29/94 DRAWING: 7900B216 ALL ELEVATIONS IN NAVD88



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 ○ STAFF GAGE LOCATION
- EW-6 ◪ GROUNDWATER EXTRACTION WELL LOCATION (WATER LEVELS MONITORED MONTHLY)
- (578.44) GROUNDWATER ELEVATION (ft. AMSL)
- (NM) NOT MEASURED
- (1) PUMP LOCATION
- (2) MEASURED ON SEPTEMBER 12, 2022

0 100 200 ft

N

GHD

RACER TRUST - BAY CITY INDUSTRIAL LAND
BAY CITY, MICHIGAN

Project No. **11208058**
Date **January 2023**

SHALLOW GROUNDWATER ELEVATIONS AUGUST 22, 2022

FIGURE 3

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Plot Date: 27 January 2023 10:23 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 Industrial Land
Bay City, Michigan

Location	Reference	Well Depth	Top ICU	11/29/2021	12/27/2021	1/24/2022	3/1/2022	3/23/2022	4/26/2022	5/24/2022	6/17/2022	8/23/2022	9/12/2022	10/25/2022	11/21/2022
Machine Storage Area															
EW-6	589.74	570.39	572.39	(4)	(5) (1)	(5) (1)	NM	578.11 (1)	577.99 (1)	NM (1)	(5) (1)	577.38 (1)	NM (1,5)	579.08 (1)	NM (1,5)
EW-7	587.99	571.14	571.64	(4)	578.63	578.66	578.61	578.60	578.58	578.52	578.50	578.52 (8)	578.61	578.61	578.50
EW-8	588.34	572.29	573.29	(4)	579.01	579.05	578.95	579.02 (1)	578.95 (1)	NM (1)	(5) (1)	578.95 (1)	NM (1,5)	578.96	579.83
EW-9	588.04	572.19	573.69	(4)	579.94	579.94	580.08	579.86	579.71	579.65	579.93	580.00	580.16	579.94	579.64
EW-10	587.77	570.82	572.32	(4)	579.98	579.89	579.70	579.66	579.68	579.74	580.04	579.98	580.04	579.59	579.41
EW-11	591.51	571.91	572.56	(4)	(5) (1)	(5) (1)	NM	578.94 (1)	578.85 (1)	NM (1)	(5) (1)	582.11 (1)	NM (1,5)	576.43 (1)	NM (1,5)
EW-12	586.42	571.57	573.07	(4)	(5) (1)	(5) (1)	NM	580.70 (1)	579.16 (1)	NM (1)	(5) (1)	577.13 (1)	NM (1,5)	578.24 (1)	NM (1,5)
Crotty Street Channel Containment Area															
EW-13	584.33	571.86	--	(4)	580.95	580.34	580.29	582.84	580.84	580.64	580.62	580.59	580.50	580.26	580.05
EW-14	582.42	569.92	--	(4)	580.61	580.06	580.09	Flooded	580.61	580.43	580.48	580.38	580.31	579.71	579.83
EW-15	583.71	571.61	--	(4)	581.74	579.96	580.12	Flooded	580.66	580.49	580.44	580.03	580.31	579.02	579.73
Saginaw River															
SG-6 (2)	587.16	--	--	NM	579.64	580.16 (3)	Frozen (3)	579.70	579.92 (6)	580.11	580.10	(7)	579.93	579.10	577.80

Notes:

Elevations shown in ft AMSL

ICU Intermediate Confining Unit
NM Not Measured

(1) Product identified in well
(2) Measured at the sheet pile wall (SG-6).
(3) River is ice/snow
(4) Water depths not collected because the water meter was not working.
(5) Water depths not collected because an interface probe was unavailable.
(6) Level collected on 4/25/22
(7) New staff had difficulty finding this location during the staffing transition.
(8) Level collected on 8/22/22

Table 2

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

AOI:					**Treatment System**	**Treatment System**
Sample Location:					**influent-GWTS**	**influent-GWTS**
Sample ID:					**W-11208058-042122-SSH-2201**	**GW-11208058-082322-BW-010**
Sample Date:					**04/21/2022**	**08/23/2022**
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	0.0005 U
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.0005 U
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.0005 U
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	0.000095 U	**0.007 J[abc]**
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.0005 U
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.0005 U
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.000095 U	0.0005 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

Well Location	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	580.12	580.77	581.97	581.94	580.46	580.72	580.01	580.10
LMW17S	579.46	579.22	579.90	579.42	579.13	579.17	578.79	579.13
LMW18S	577.88	578.95	579.30	578.85	578.64	578.48	578.17	578.62
LMW19S	578.93	579.55	580.45	580.13	579.10	578.99	578.91	579.55
MW1S	578.75	578.77	578.88	578.77	578.79	578.76	578.77	578.73
MW100S	580.64	581.16	581.95	581.12	580.58	580.69	579.80	580.19
MW101S	578.96	579.05	579.12	579.48	579.44	578.99	579.17	579.12
MW102D1	580.07	580.82	582.13	581.55	580.18	580.86	579.30	579.88
MW102D2	580.04	580.81	582.12	581.53	580.15	580.85	579.37	579.86
MW102D3	580.02	580.78	582.09	581.52	580.15	580.78	579.25	579.83
MW102D4	579.95	580.72	582.03	581.44	580.08	580.74	579.19	579.77
MW300S	580.46	580.83	582.00	581.36	580.86	579.97	577.19	577.90
LMW14SR	580.28	581.02	582.13	581.28	580.54	580.69	579.63	580.02
Perimeter Banks (PB)								
LMW15D	580.15	580.89	582.33	581.63	580.16	580.93	579.16	579.68
MW301D1	578.34	579.16	580.48	579.88	578.51	579.24	577.60	578.15
MW301D2	578.47	579.24	580.59	579.97	578.56	579.31	577.67	578.22
MW301D3	578.30	579.10	580.46	579.82	578.43	579.17	577.53	578.06
MW301D4	578.39	579.20	580.56	579.92	578.52	579.25	577.61	578.14
Support Facilities Area (SFA)								
MSA5S	NM (4)	578.91	NM	NM	588.60	579.97	579.91	580.26
Crotty Street Channel								
MW1-00	580.56	580.87	582.09	582.09	580.55	579.67	579.16	579.79
MW2-00	580.66	581.04	582.22	582.22	580.65	581.58	578.84	579.35
MW3-00	580.52	580.90	582.10	582.10	580.48	580.60	579.15	579.76
MW4-00	580.73	581.21	582.38	582.38	580.81	580.87	579.03	579.54
MW5-00	580.66	581.33	582.53	582.53	581.31	580.15	577.22	577.70
SG-1 (2)	NM	NM	NM	NM	NM	NM	NM	NM
Saginaw River								
SG-6 (1)	579.93 (3)	580.94	582.44	581.48	580.05	580.79	579.07	579.66

Notes:

Elevations shown in ft AMSL
NM Not Measured
(1) SG-6 measures the Saginaw River water level from the top of the sheet pile wall
(2) SG-1 is damaged and no longer collected
(3) SG-6 value collected on 9/8/2022
(4) MSA5S was not collected due to misunderstanding during staffing transition.

Table 4

Analytical Results Summary
Annual 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	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:					**MW102D1**	**MW102D2**	**MW102D2**	**MW102D4**	**MW300S**	**LMW13S**	**LMW15D**	**MW301D2**
Sample ID:					**Gw-11208058-082322-bw-007**	**Gw-11208058-08222-bw-006**	**GW-11208058-082322-BW-006**	**GW-11208058-082322-BW-005**	**Gw-11208058-082222-Bw-001**	**Gw-11208058-082322-Bw-002**	**Gw-11208058-082322-Bw-003**	**GW-11208058-082322-BW-004**
Sample Date:					**08/23/2022**	**08/23/2022**	**08/23/2022**	**08/23/2022**	**08/22/2022**	**08/23/2022**	**08/23/2022**	**08/23/2022**
Parameters	**Units**	**Michigan Residential Drinking water criteria** a	**Michigan Non-Residential Drinking water criteria** b	**GSI** c								
PCBs												
Aroclor-1016 (PCB-1016)	mg/L	0.0005	0.0005	0.0002	0.000095 U	-	0.000095 U	0.000095 U	0.0001 U	0.000095 U	0.000099 U	0.0001 U
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	0.000095 U	-	0.000095 U	0.000095 U	0.0001 U	0.000095 U	0.000099 U	0.0001 U
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.000095 U	-	0.000095 U	0.000095 U	0.0001 U	0.000095 U	0.000099 U	0.0001 U
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	**0.0003 J[c]**	-	**0.00031 J[c]**	0.000095 U	0.0001 U	**0.0014 J[abc]**	0.000099 U	0.0001 U
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.000095 U	-	0.000095 U	0.000095 U	0.0001 U	0.000095 U	0.000099 U	0.0001 U
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.000095 U	-	0.000095 U	0.000095 U	0.0001 U	0.000095 U	0.000099 U	0.0001 U
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.000095 U	-	0.000095 U	0.000095 U	0.0001 U	0.000095 U	0.000099 U	0.0001 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 Industrial Land
Bay City, Michigan

Sample Location:			**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**
Sample Date:			**12/23/2021**	**05/26/2022**	**08/23/2022**	**08/23/2022 (Duplicate)**
Parameters	**Units**	**Daily Maximum[(1)]**				
VOAs						
Vinyl chloride	mg/L	0.002	0.001	0.001 U	-	-
Metals						
Cadmium	mg/L	0.057	0.002	0.00032 J	-	-
Chromium	mg/L	6.812	0.005	0.005 U	-	-
Copper	mg/L	1.476	0.01	0.025 B	-	-
Iron	mg/L	--	0.42	0.49	-	-
Lead	mg/L	0.632	0.0026	0.003 U	-	-
Mercury	mg/L	ND	0.0002	0.0002 U	-	-
Nickel	mg/L	2.548	0.011	0.007 J	-	-
Silver	mg/L	0.2	0.005	0.005 U	-	-
PCBs						
Aroclor-1016 (PCB-1016)	mg/L	ND	0.0000095	0.000099 U	0.000095 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	ND	0.0000095	0.000099 U	0.000095 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	ND	0.0000095	0.000099 U	0.000095 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	ND	0.0000095	0.000099 U	0.000095 U	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	ND	0.0000095	0.000099 U	0.000095 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	ND	0.0000095	0.000099 U	0.000095 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	ND	0.0000095	0.000099 U	0.000095 U	0.000095 U
Wet						
Ammonia-N	mg/L	30	0.32	7.1	-	-
Biochemical oxygen demand (BOD)	mg/L	835	2.0 U	-	-	-
Chemical oxygen demand (COD)	mg/L	1670	16	34	-	-
Oil and grease (HEM), total	mg/L	100	4.8	5.5	-	-
pH, lab	s.u.	6.5 to 11.0	7.7	7.4 HF	-	-
Phosphorus	mg/L	13.8	0.012	0.10 U	-	-
Total suspended solids (TSS)	mg/L	1336	0.50	2.2 J	-	-

Footnotes:

J Estimated concentration
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.
(1) Bay City Industrial User Discharge Permit (120807)

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 2017-2023		
		Groundwater Quality Monitoring		Static Water Level Monitoring (2)	Groundwater Quality Monitoring		Static Water Level Monitoring (2)	Groundwater Quality Monitoring		Static Water Level Monitoring (2)	Groundwater Quality Monitoring		Static Water Level Monitoring (2)
Plant Area	**Location**	**Parameters**	**Frequency**	**Frequency**	**Parameters**	**Frequency**	**Frequency**	**Parameters**	**Frequency**	**Frequency**	**Parameters**	**Frequency**	**Frequency**
Machine Storage Area (MSA)													
MSA	LMW17S	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	LMW18S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	LMW19S	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW1S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW100S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW101S (4)	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW102D1	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
MSA	MW102D3	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
MSA	MW102D4	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
MSA	LMW14S	--	--	annually	--	--	annually	--	--	annually	--	--	annually
Perimeter Banks (PB)													
PB	LMW13S	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
PB	MW301D1	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
PB	MW301D2	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
PB	MW301D3	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
PB	MW301D4	PCBs	annually	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
Crotty Street Channel (CSC)													
CSC	MW1	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW2	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW3	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW4	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	MW5	- -	- -	annually	- -	- -	annually	- -	- -	annually	- -	- -	annually
CSC	SG-1 (3) (7)	- -	- -	annually	- -	- -	annually	- -	- -	--	- -	- -	--
Stormwater System(3)													
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	- -
Treatment System	Effluent	- -	- -	- -	- -	- -	- -	(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) Staff gauge.

(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,

(7) SG-1 is damaged, and Saginaw River levels are now measured from SG-6, located at the General Motors Site.

Attachments

Attachment A

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Project: 12610

On-Site Personnel: Steve Hoevemeyer

Completed Date: 11/29/21

Completed By: SH

1. DETAILS OF INSPECTION

- [x] Routine Monthly Inspection
- [ ] Response to Alarm (list type and/or PLC outputs)
- [ ] Other task:

Weather: clouds/sun, wind ~10

Temperature: 40s

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
Y	Exposure Barrier (signs of trespassing, impairment of pavement)	none identified
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	minor erosion along sheetpile
Y	Containment System (signs of deterioration of sheet pile, leaking)	minor cracks at wells on cap

3. GROUNDWATER EXTRACTION SYSTEM

- [x] Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74		N	Y	
EW-8	11.34		N	Y	DTW meter
EW-12	9.42		N	Y	not working
EW-15	6.71		Y	Y	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW						

4. GROUNDWATER TREATMENT SYSTEM

	Comments
[x] Check piping for leaks	none
[x] Check Bag filters	ok - 4 psi
[x] check GACs for leaks	slight drip
[x] Check PLC	ok
[x] check aerator	ok - 4.5 psi
[x] check sludge pump	unoperational
[x] check inspection drum	Fe+ bacteria
[x] check aeration tank	ok
[x] check settling chamber	Fe+ bacteria
[x] check clear well	ok
[x] check floats in clearwell	ok

	Comments
[x] check feed pump	
Flow Reading	2.4 (gpm)
Totalized Flow Reading	533,997 (gal)
[x] heater on?	yes
[x] check sludge tank	
sludge thickness	3" (in)

Collect Samples

	Date	Initials	Sample Numbe	Time
[ ] Sample Groundwater Treatment System Influent			W-12610-	
[ ] Sample Groundwater Treatment System effluent			W-12610-	

Notes

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Project: 12610

On-Site Personnel: Steve Hoevemeyer

Completed Date: 12/27/21

Completed By: SH

1. DETAILS OF INSPECTION

- [x] Routine Monthly Inspection
- [x] Response to Alarm (list type and/or PLC outputs) high GAC
- [ ] Other task:

Weather: cloudy, wind ~10

Temperature: low 30s

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
N	Exposure Barrier (signs of trespassing, impairment of pavement)	
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	minor erosion along sheetpile wall
Y	Containment System (signs of deterioration of sheet pile, leaking)	minor cracks at welds on cap

3. GROUNDWATER EXTRACTION SYSTEM

- [N] Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74		N	Y	
EW-8	11.34	9.33	N	Y	No interface probe for 6, 11, 12
EW-12	9.42		N	Y	
EW-15	6.71	1.97	Y	Y	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.36	8.10	7.79		3.38	1.81

4. GROUNDWATER TREATMENT SYSTEM

	Comments
[x] Check piping for leaks	none
[x] Check Bag filters	OK
[x] check GACs for leaks	slight drip
[x] Check PLC	OK
[x] check aerator	OK
[x] check sludge pump	nonoperational
[x] check inspection drum	Fe+ bacteria
[x] check aeration tank	OK
[x] check settling chamber	some Fe+ bacteria
[x] check clear well	OK
[x] check floats in clearwell	OK

	Comments
[x] check feed pump	
Flow Reading	1.7 (gpm)
Totalized Flow Reading	553,735 (gal)
[x] heater on?	Yes
[x] check sludge tank	
sludge thickness	2-3 (in)

Collect Samples

	Date Initials Sample Numbe	Time
[ ] Sample Groundwater Treatment System Influent	W-12610-	
[x] Sample Groundwater Treatment System effluent	~~W-12610-~~ 112808SB-122321-SSH-22021	1130am

Notes

river down from cap 7.52'

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Project: 12610

On-Site Personnel: Steve Hoevemeyer

Completed Date: 1/24/22

Completed By: SH

1. DETAILS OF INSPECTION

- [X] Routine Monthly Inspection
- [X] Response to Alarm (list type and/or PLC outputs): high GAC pressure
- [X] Other task: O+M

Weather: cloudy, wind=10

Temperature: 17°F

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
N	Exposure Barrier (signs of trespassing, impairment of pavement)	
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	erosion along wall
Y	Containment System (signs of deterioration of sheet pile, leaking)	cracks at welds on cap

3. GROUNDWATER EXTRACTION SYSTEM

- [N] Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74		N	Y	LNAPL, no interface probe
EW-8	11.34	9.29	N	Y	
EW-12	9.42			Y	LNAPL
EW-15	6.71	3.75	Y-OK	Y	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.33	8.10	7.88	—	3.99	2.36

4. GROUNDWATER TREATMENT SYSTEM

	Comments
[X] Check piping for leaks	none
[X] Check Bag filters	OK
[X] check GACs for leaks	none
[X] Check PLC	OK
[X] check aerator	4.5 psi
[X] check sludge pump	nonoperational
[X] check inspection drum	Fe bacteria
[X] check aeration tank	OK
[X] check settling chamber	
[X] check clear well	
[X] check floats in clearwell	

	Comments
[X] check feed pump	
Flow Reading	1.2 (gpm)
Totalized Flow Reading	580,938 (gal)
[X] heater on?	yes
[X] check sludge tank	
sludge thickness	2-4 (in)

Collect Samples

	Date Initials Sample Numbe	Time
☐ Sample Groundwater Treatment System Influent	W-12610-	
☐ Sample Groundwater Treatment System effluent	W-12610-	

Notes

river - 7.00' down to ice/snow

Project: 12610

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Completed Date: 3/1/22

On-Site Personnel: Steve Hoevemeyer

Completed By: SH

1. DETAILS OF INSPECTION

Weather: low 40s

Temperature: part sun/clouds

- [X] Routine Monthly Inspection (for Feb.)
- [ ] Response to Alarm (list type and/or PLC outputs)
- [ ] Other task:

2. SITE INSPECTION

If yes indicate nature of maintenance/repairs required

(Y/N)		
N	Exposure Barrier (signs of trespassing, impairment of pavement)	
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	some settlement & minor erosion
Y	Containment System (signs of deterioration of sheet pile, leaking)	cracks at welds on cap

3. GROUNDWATER EXTRACTION SYSTEM

- [N] Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	—	N	Y	
EW-8	11.34	9.39	N	Y	
EW-12	9.42	—	N	Y	
EW-15	6.71	3.59	Y	Y	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.38	7.96	8.07	—	4.04	2.33

4. GROUNDWATER TREATMENT SYSTEM

	Comments
[X] Check piping for leaks	none
[X] Check Bag filters	OK
[X] check GACs for leaks	OK
[X] Check PLC	OK
[X] check aerator	4.5 psi
[X] check sludge pump	non-operational
[X] check inspection drum	
[X] check aeration tank	
[X] check settling chamber	
[X] check clear well	filling while on site
[X] check floats in clearwell	

	Comments
[X] check feed pump	
Flow Reading	(gpm)
Totalized Flow Reading	580,971 (gal)
[X] heater on?	yes
[X] check sludge tank	
sludge thickness	2-4 (in)

Collect Samples

	Date	Initials	Sample Numbe	Time
[ ] Sample Groundwater Treatment System Influent			W-12610-	
[ ] Sample Groundwater Treatment System effluent			W-12610-	

Notes

river - froze

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Project: 12610

On-Site Personnel: Steve Hoevemeyer

Completed Date: 3/23/22

Completed By: SH

1. DETAILS OF INSPECTION

- [X] Routine Monthly Inspection
- [ ] Response to Alarm (list type and/or PLC outputs)
- [ ] Other task:

Weather: cloudy, rain, wind = 10

Temperature: 37 °F

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
N	Exposure Barrier (signs of trespassing, impairment of pavement)	
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	minor settlement & erosion along wall
Y	Containment System (signs of deterioration of sheet pile, leaking)	cracks at welds on cap

3. GROUNDWATER EXTRACTION SYSTEM

[N] Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	11.63	N	Y	LNAPL
EW-8	11.34	9.32	N	Y	LNAPL
EW-12	9.42	5.72	N	Y	LNAPL
EW-15	6.71	flooded	Y	Y	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.39	8.18	8.11	12.57 (LNAPL)	1.49	flooded

4. GROUNDWATER TREATMENT SYSTEM

	Comments
[X] Check piping for leaks	none
[X] Check Bag filters	OK
[X] check GACs for leaks	none
[X] Check PLC	OK
[X] check aerator	OK
[X] check sludge pump	nonoperational
[X] check inspection drum	Some Fe + bacteria
[X] check aeration tank	
[X] check settling chamber	
[X] check clear well	OK
[X] check floats in clearwell	OK

	Comments
[X] check feed pump	
Flow Reading	(gpm)
Totalized Flow Reading	592,060 (gal)
[X] heater on?	yes
[X] check sludge tank	
sludge thickness	2-4 (in)

Collect Samples	Date	Initials	Sample Numbe	Time
[ ] Sample Groundwater Treatment System Influent			W-12610-	
[ ] Sample Groundwater Treatment System effluent			W-12610-	

Notes

river - 7.46' down from cap

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Project: 12610

On-Site Personnel: Steve Hoevemeyer

Completed Date: 4/26/22

Completed By: SH

1. DETAILS OF INSPECTION

- [X] Routine Monthly Inspection
- [ ] Response to Alarm (list type and/or PLC outputs)
- [ ] Other task:

Weather: mix of sun/clouds

Temperature: low 50s

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
N	Exposure Barrier (signs of trespassing, impairment of pavement)	
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	minor erosion & settlement along wall
Y	Containment System (signs of deterioration of sheet pile, leaking)	cracks at welds on cap

3. GROUNDWATER EXTRACTION SYSTEM

- [N] Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	11.75	N	Y	LNAPL
EW-8	11.34	9.39	N	Y	LNAPL
EW-12	9.42	7.26	N	Y	LNAPL
EW-15	6.71	3.05	Y	Y	running on/off

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.41	8.33	8.09	12.66/LNAPL	3.49	1.81

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
[X] Check piping for leaks	none	[X] check feed pump	running on/off
[X] Check Bag filters	OK	Flow Reading	(gpm)
[X] check GACs for leaks	none	Totalized Flow Reading	592,790 (gal)
[X] Check PLC	OK	[X] heater on?	yes
[X] check aerator	OK	[X] check sludge tank	
[X] check sludge pump	non operational	sludge thickness	2-4 (in)
[X] check inspection drum			
[X] check aeration tank			
[X] check settling chamber			
[X] check clear well			
[X] check floats in clearwell			

Collect Samples	Date	Initials	Sample Numbe	Time
[ ] Sample Groundwater Treatment System Influent			W-12610-	
[ ] Sample Groundwater Treatment System effluent			W-12610-	

Notes

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Project: 12610

On-Site Personnel: Steve Hoevemeyer

Completed Date: 5/24/22

Completed By: SH

1. DETAILS OF INSPECTION

- [X] Routine Monthly Inspection
- [X] Response to Alarm (list type and/or PLC outputs) high feed tank
- [X] Other task: O+M

Weather: high 50s

Temperature: mostly sun, wind ~5

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
N	Exposure Barrier (signs of trespassing, impairment of pavement)	
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	Minor erosion along wall
Y	Containment System (signs of deterioration of sheet pile, leaking)	Minor cracks at welds on cap

3. GROUNDWATER EXTRACTION SYSTEM

[N] Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	—	N	N	LNAPL
EW-8	11.34	—	N	N	LNAPL
EW-12	9.42	—	N	N	LNAPL
EW-15	6.71	3.22	Y	N	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.47	8.39	8.03	LNAPL	3.69	1.99

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
[X] Check piping for leaks	none	[X] check feed pump	OK
[X] Check Bag filters	OK	Flow Reading	1.1 (gpm)
[X] check GACs for leaks	none	Totalized Flow Reading	610,180 (gal)
[X] Check PLC	OK	[X] heater on?	no
[X] check aerator	OK	[X] check sludge tank	
[ ] check sludge pump	non-operational	sludge thickness	2-4 (in)
[X] check inspection drum			
[X] check aeration tank			
[X] check settling chamber			
[X] check clear well			
[X] check floats in clearwell			

Collect Samples

	Date Initials Sample Numbe	Time
[ ] Sample Groundwater Treatment System Influent	W-12610-112080S8	
[X] Sample Groundwater Treatment System effluent	W-12610-052622-SSM-EFF 2022	1010

Notes

DTW 7.05' down from cap

BAY CITY INDUSTRIAL LAND - MONTHLY SITE INSPECTION

Project: 12610

On-Site Personnel: Steve Hoevemeyer

Completed Date: 6/17/22

Completed By: SH

1. DETAILS OF INSPECTION

- [X] Routine Monthly Inspection
- [ ] Response to Alarm (list type and/or PLC outputs)
- [ ] Other task:

Weather: mostly Sun

Temperature: low 80s

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
N	Exposure Barrier (signs of trespassing, impairment of pavement)	
Y	Multi-layer Cap (evidence of settlement, erosion, disturbance)	minor erosion & settlement
Y	Containment System (signs of deterioration of sheet pile, leaking)	minor cracks at welds on cap

3. GROUNDWATER EXTRACTION SYSTEM

N Forcemain tubing requires replacement?

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	—	N	N	
EW-8	11.34	—	N	N	
EW-12	9.42	—	N	N	
EW-15	6.71	3.27	Y	N	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.49	8.11	7.73	—	3.71	1.94

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
X Check piping for leaks	none	X check feed pump	
X Check Bag filters	OK	Flow Reading	1.8 (gpm)
X check GACs for leaks	none	Totalized Flow Reading	619,110 (gal)
X Check PLC	OK	X heater on?	NO
X check aerator	OK	X check sludge tank	
☐ check sludge pump	nonoperational	sludge thickness	2-4 (in)
X check inspection drum			
X check aeration tank			
X check settling chamber			
X check clear well			
X check floats in clearwell			

Collect Samples	Date Initials Sample Numbe	Time
☐ Sample Groundwater Treatment System Influent	W-12610-	
☐ Sample Groundwater Treatment System effluent	W-12610-	

Notes

river - 7.06' down from cap

no interface probe

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

On-Site Personnel: John york | Completed Date: 08/23/2022

1. DETAILS OF INSPECTION

☑ Routine Inspection

☐ Response to Alarm:

☐ Other task:

Completed By: John york

Weather: Sunny

Temperature: 82

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)	JSS working on site, S. Hoevemejer on/off site for oversight
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)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	12.36	Yes	10	No	DTP 11.80
EW-8	11.34	9.39				
EW-12	9.42	9.29				DTP 8.88
EW-15	6.71	3.68				

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW		8.04	7.79	9.4	3.74	2.04

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 (gpm)
☑ check sludge pump		Totalized Flow Reading	672,428.24 (gal)
☑ check inspection drum	Need 2new carbon drums	☑ check sludge tank	
☑ check aeration tank		Sludge thickness	0.25 (in)
☑ check settling chamber		Flow rate into the Treatment System	0.9 (gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: BF2: BF3:
☑ 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: 5.9 GAC2: 4.2
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1:	☑ check heater	

Sheet Pile Staff Gauge SG-6
Water Level

Collect Samples		Sample ID
☑	Sample Groundwater Treatment System Effluent	W-11208058-082322-BW-008,009 cup (eff.). W-11208058-082322-BW-010. (Inf.)

Notes

Bart Williams sampling gw and system. Not sure where permanent markers are if any. SG missing on Racer site. Hornets in EW-7. DTP at EW-11. 9.36'10 No filter bag gauges. DTW levels taken 8-22-22

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

On-Site Personnel: John york | Completed Date: 09/12/2022

1. DETAILS OF INSPECTION

☑ Routine Inspection

☐ Response to Alarm:

☐ Other task:

Completed By: John york

Weather: Cloudy

Temperature: 64

2. SITE INSPECTION

(Y/N)		If yes indicate nature of maintenance/repairs required
N/A	Exposure Barrier (signs of trespassing, impairment of SFA pavement)	
No	Multi-layer Cap (evidence of settlement, erosion, disturbance)	New work being performed for stormwater (jss)
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)	Stormwater work from Jss

3. GROUNDWATER EXTRACTION SYSTEM

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

EW (pump)	Target Depth (feet)	DTW (feet)	Pump Operating? (Y/N)	What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	-	Yes	80%	No	Lnapl present, no level due to equipment issue
EW-8	11.34	-				Lnapl present, no level due to equipment issue
EW-12	9.42	-				Lnapl present, no level due to equipment issue
EW-15	6.71	3.4	Yes		No	Sump pump

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.38	7.88	7.73	LNAPL	3.83	2.11

4. GROUNDWATER TREATMENT SYSTEM

	Comments		Comments
☑ Check piping for leaks		☑ check feed pump (calib. every 6-mon)	Date of last calib.: Not sure
☑ Check PLC		Flow Reading	1.5 (gpm)
☑ check sludge pump		Totalized Flow Reading	684,027.62 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	2 (in)
☑ check settling chamber		Flow rate into the Treatment System	0 (gpm)
☑ check clear well		☑ check bag filters	
☑ check floats in clear well		Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 7 BF2: BF3:
☑ 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: 4.4 GAC2:
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 3	☑ check heater	

Sheet Pile Staff Gauge SG-6 Water Level	7.23

Collect Samples		Sample ID
☐	Sample Groundwater Treatment System Effluent	W-11208058-

Notes

Outlet 0.0

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

On-Site Personnel: John York | Completed Date: 10/25/2022

1. DETAILS OF INSPECTION

Completed By: John York

☑ Routine Inspection | Weather: Clear lite wind

☐ Response to Alarm: | Temperature: 57

☐ 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)	
Yes	Multi-layer Cap (evidence of settlement, erosion, disturbance)	JSS working on storm run off system
No	Containment System (signs of deterioration of sheet pile, leaking)	
	Monitoring wells (sign of damage)	
No	Crotty Street Sewer (check level for potential flooding)	
N/A	Permanent Markers (signs of damage/visibility issues)	Not installed 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)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74	10.66	No	No	
EW-8	11.34	9.38	No	No	
EW-12	9.42	8.18	Yes	Yes	
EW-15	6.71	4.69	Yes	No	

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.38	8.1	8.18	15.08	4.07	2.71

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		Totalized Flow Reading	688,226.67 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	1 (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: 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: 4.5 GAC2: 5.3
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 51.2	☑ check heater	

Sheet Pile Staff Gauge SG-6 Water Level	0	

Collect Samples		Sample ID
☐	Sample Groundwater Treatment System Effluent	W-11208058-

Notes

Staff gauge 6 missing, construction work around site. River is 8.06 from the sheet pile wall, measured on the GM side this month due to construction.

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

On-Site Personnel:	John York	Completed Date:	11/21/2022

1. DETAILS OF INSPECTION

☑	Routine Inspection	Completed By:	John York
☐	Response to Alarm:	Weather	Overcast
☐	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)	Recent storm water work though
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 installed 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)	Pump Operating? (Y/N) What speed?	Heater On? (Y/N)	Comments (product evident, tubing replaced, iron bacteria)
EW-6	12.74		No	No	
EW-8	11.34	8.51	No	No	
EW-12	9.42		Yes	No	No interface, DTW meter only
EW-15	6.71	3.98	Yes	Yes	Set at 50 degrees

EW (no pump)	EW-7	EW-9	EW-10	EW-11	EW-13	EW-14
Target Depth	11.00	11.04	10.77	14.51	7.33	5.42
DTW	9.49	8.4	8.36		4.28	2.59

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 (gpm)
☑ check sludge pump		Totalized Flow Reading	689,378.43 (gal)
☑ check inspection drum		☑ check sludge tank	
☑ check aeration tank		Sludge thickness	1 (in)
☑ check settling chamber		Flow rate into the Treatment System	2.42 (gpm)
☑ check clear well		☑ check bag filters	Changed nov. 2022
☑ check floats in clear well	High level, pump down	Pressure reading (PSI) Normal Range (5 to 25 PSI)	BF1: 5.6 BF2: 56 BF3: 5.6
☑ check inlet air filter - blower		☑ check GACs for leaks	None
☑ check aerator (clean every 6-months)		Pressure reading (PSI) Normal Range (4 to 6 PSI)	GAC1: 3.5 GAC2: 0.8
Pressure reading (PSI) Normal Range (4 to 9 PSI)	A1: 5	☑ check heater	Not working

Sheet Pile Staff Gauge SG-6 Water Level	9.36	

Collect Samples		Sample ID
☐	Sample Groundwater Treatment System Effluent	

Notes

Building heater not working, turn on breaker, still not working, system done ,lines semi froze, buy oil contained heater 1500 watts. System running after thawed out.

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:					effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS	effluent-GWTS
Sample ID:					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	W-12610-011617-SSH-1701	WT-12610-050917-SSH-01-17	
Sample Date:					02/12/2014	02/26/2014	09/05/2014	03/16/2015	12/10/2015	05/09/2016	06/14/2016	01/16/2017	05/09/2017	
Parameters	**Units**	**Michigan Residential Drinking water criteria[(1)]**	**Michigan Non-Residential Drinking water criteria**	**GSI**										
VOAs		a	b	c										
Vinyl chloride	mg/L	0.002	0.002	0.013	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	0.005	0.005		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	-	0.002 U	0.002 U	0.002 U	
Chromium	mg/L	0.1	0.1		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	-	0.005 U	0.005 U	0.00056 J	
Copper	mg/L	1	1		0.02 U	0.02 U	0.021	0.02 U	0.02 U	-	0.02 U	0.067	0.0063 J	
Iron	mg/L	0.3	0.3		0.18	0.18	**0.54[ab]**	0.1 U	0.1 U	-	**0.39[ab]**	**0.57[ab]**	0.1 U	
Lead	mg/L	0.004	0.004		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	0.002	0.002	0.0000013	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	0.1	0.1		0.02 U	0.0078 J	0.02 U	0.02 U	0.02 U	-	0.02 U	0.02 U	0.0028 J	
Silver	mg/L	0.034	0.098	0.0002	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	0.0005	0.0005	0.0002	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.000096 U	0.000098 U	0.000095 U	0.000095 U	0.0001 U	0.00019 U	0.000095 U	0.000095 U	0.000095 U	
PFAS														
Perfluorooctane sulfonic acid (PFOS)	mg/L	0.000016	0.000016	0.000012	-	-	-	-	-	-	-	-	-	
Perfluorooctanoic acid (PFOA)	mg/L	0.000008	0.000008	0.012	-	-	-	-	-	-	-	-	-	
Wet														
Ammonia	mg/L	10	10		**33[ab]**	4.4	2.0 U	6.8	-	-	-	-	-	
Ammonia-N	mg/L				-	-	-	-	3.4	-	2.0 U	2.2	2.0 U	
Biochemical oxygen demand (BOD)	mg/L				17	2.3	2.0 U	2.3	9.3	-	2.0 U	2.0 U	2.0 U	
Chemical oxygen demand (COD)	mg/L				20 U	10 U	10 U	10 U	10 U	-	18	24	21	
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	4.7 U	1.2 J	
Oil and grease (HEM), total	mg/L				-	-	-	-	-	-	-	-	-	
pH, lab	s.u.	6.5 - 8.5	6.5 - 8.5		8.00 HF	8.09 HF	7.98 HF	7.69 HF	7.75 HF	-	7.54 HF	7.7 HF	7.9 HF	
Phosphorus	mg/L	63	240		0.22	0.20	0.10 U	0.10 U	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	4.0 U	4.0 U	
FPARAM														
Conductivity, field	uS/cm				-	-	-	-	-	-	-	-	-	
Dissolved oxygen (DO), field	mg/L				-	-	-	-	-	-	-	-	-	
Flow rate	mL/min				-	-	-	-	-	-	-	-	-	
Oxidation reduction potential (ORP), field	millivolts				-	-	-	-	-	-	-	-	-	
pH, field	s.u.	6.5 - 8.5	6.5 - 8.5		-	-	-	-	-	-	-	-	-	
Temperature, sample	Deg C				-	-	-	-	-	-	-	-	-	
Turbidity, field	NTU				-	-	-	-	-	-	-	-	-	
Volume purged	mgal				-	-	-	-	-	-	-	-	-	

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
R Rejected.

Attachment C

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

AOI:												
Sample Location:		**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**	**effluent-GWTS**
Sample ID:		**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**	**W-11208058-122321-SSH-22021**	**W-11208058-052622-SSH-EFF2022**	**GW-11208058-082322-BW-008**
Sample Date:		**11/30/2017**	**12/13/2018**	**05/31/2019**	**12/05/2019**	**01/20/2020**	**05/29/2020**	**12/10/2020**	**06/23/2021**	**12/23/2021**	**05/26/2022**	**08/23/2022**
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	0.001 U	-
Metals												
Cadmium	mg/L	0.002 U	0.002 U	0.002 U	-	0.002 U	0.002 U	0.0002 JB	0.013[ab]	0.002	0.00032 J	-
Chromium	mg/L	0.005 U	0.005 U	0.0017 JB	-	0.0012 J	0.005 U	0.005 U	0.005 U	0.005	0.005 U	-
Copper	mg/L	0.02 U	0.02 U	0.012 J	-	0.0074 J	0.01 J	0.02 U	0.008 J	0.01	0.025 B	-
Iron	mg/L	0.4[ab]	0.07 J	0.11	-	0.028 J	0.058 J	0.057 J	0.1 U	0.42[ab]	0.49[ab]	-
Lead	mg/L	0.003 U	0.003 U	0.003 U	-	0.003 U	0.003 U	0.003 U	0.003 U	0.0026	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[c]	0.0002 U	-
Nickel	mg/L	0.074	0.0029 J	0.0059 J	-	0.0025 J	0.0072 J	0.0026 J	0.0057 J	0.011	0.007 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[c]	0.005 U	-
PCBs												
Aroclor-1016 (PCB-1016)	mg/L	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U	0.0000095	0.000099 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U	0.0000095	0.000099 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U	0.0000095	0.000099 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U	0.0000095	0.000099 U	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U	0.0000095	0.000099 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U	0.0000095	0.000099 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.000096 U	0.000095 U	0.000096 U	-	0.000096 U	0.000095 U	0.000095 U	0.000096 U	0.0000095	0.000099 U	0.000095 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	0.20	0.20 U	0.20 U	-	0.20 U	0.20 U	0.32	3.8	0.32	7.1	-
Biochemical oxygen demand (BOD)	mg/L	2.0 U	2.0 U	2.0 U	-	2.0 UH	2.0 U	2.0 U	2.0 U	2.0 U	-	-
Chemical oxygen demand (COD)	mg/L	13	10 U	10 U	-	10 U	6.7 J	10 U	10	16	34	-
Oil and grease (HEM), polar	mg/L	-	-	-	-	-	-	-	-	-	-	-
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	4.8	5.5	-
pH, lab	s.u.	7.2 HF	7.9 HF	7.5 HF	-	8.0 HF	7.7 HF	8.1 HF	8.1 HF	7.7	7.4 HF	-
Phosphorus	mg/L	0.10 U	0.10 U	0.10 U	-	0.10 U	0.10 U	0.10 U	0.14	0.012	0.10 U	-
Total suspended solids (TSS)	mg/L	4.0 U	3.0 J	4.0 U	-	4.0 U	4.0 U	4.0 U	4.0 U	0.50	2.2 J	-
FPARAM												
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-	-	-
pH, field	s.u.	-	-	-	-	-	-	-	-	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	-	-	-
Volume purged	mgal	-	-	-	-	-	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

Attachment C

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

AOI:												
Sample Location:		**effluent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**	**influent-GWTS**
Sample ID:		**GW-11208058-082322-BW-009**	**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**	**W-12610-040320-SSH-2001**
Sample Date:		**08/23/2022 (Duplicate)**	**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**	**04/03/2020**
Parameters	**Units**											
VOAs												
Vinyl chloride	mg/L	-	-	-	-	0.001 U	0.001 U	-	-	-	-	-
Metals												
Cadmium	mg/L	-	-	-	-	0.002 U	0.002 U	-	-	-	-	-
Chromium	mg/L	-	-	-	-	0.00083 J	0.0011 J	-	-	-	-	-
Copper	mg/L	-	-	-	-	0.02 U	0.02 U	-	-	-	-	-
Iron	mg/L	-	-	-	-	0.043 J	0.045 J	-	-	-	-	-
Lead	mg/L	-	-	-	-	0.003 U	0.003 U	-	-	-	-	-
Mercury	mg/L	-	-	-	-	0.0002 U	0.0002 U	-	-	-	-	-
Nickel	mg/L	-	-	-	-	0.043	0.043	-	-	-	-	-
Silver	mg/L	-	-	-	-	0.005 U	0.005 U	-	-	-	-	-
PCBs												
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.000095 U	-	**0.0054[abc]**	**0.0013[abc]**	0.000097 U	0.000097 U	**0.0025[abc]**	**0.0015[abc]**	0.000096 U	0.0002	0.000095 U
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U	**0.00035[c]**
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	-	0.0019 U	0.0002 U	0.000097 U	0.000097 U	0.00095 U	0.000095 U	0.000096 U	0.000096 U	0.000095 U
PFAS												
Perfluorooctane sulfonic acid (PFOS)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Wet												
Ammonia	mg/L	-	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.	-	-	-	-	7.6	7.6	-	-	-	-	-
Phosphorus	mg/L	-	-	-	-	0.10 U	0.10 U	-	-	-	-	-
Total suspended solids (TSS)	mg/L	-	-	-	-	4.0 U	4.0 U	-	-	-	-	-
FPARAM												
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-	-	-
pH, field	s.u.	-	-	-	-	-	-	-	-	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	-	-	-
Volume purged	mgal	-	-	-	-	-	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimate
R Rejected.

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	Crotty Street Channel CB-2	Crotty Street Channel CB-2	Crotty Street Channel CB-2	Crotty Street Channel CB-2
Sample ID:		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	W-12610-041712-SSH-SA1202	GW-12610-080712-SSH-001	W-12610-040913-SSH-CB1213	W-12610-122914-SSH-1421
Sample Date:		08/10/2020	12/10/2020	03/23/2021	08/27/2021	04/21/2022	08/23/2022	04/17/2012	08/07/2012	04/09/2013	12/29/2014
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	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.001 J[abc]	0.0026[abc]	0.0033[abc]	0.011[abc]	0.000095 U	0.007 J[abc]	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	0.00048 U	0.00049 U	0.00097 U	0.000095 U	0.0005 U	0.000095 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	-	-	-	-	-	-	-	-	-	-
FPARAM											
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-	-
pH, field	s.u.	-	-	-	-	-	-	-	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	-	-
Volume purged	mgal	-	-	-	-	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimate
R Rejected.

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	Machine Storage Area	Machine Storage Area
Sample Location:		CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge
Sample ID:		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	GW-12610-082515-SSH-0115	W-12610-050916-SSH-1602	W-12610-082516-SSH-1606	W-12610-041712-SSH-SA1203	GW-12610-080712-SSH-003
Sample Date:		04/17/2012	08/07/2012	08/05/2014	12/29/2014	04/09/2015	08/25/2015	05/09/2016	08/25/2016	04/17/2012	08/07/2012
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	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.00062[abc]	0.00086[abc]	0.00068 J[abc]	0.00022[c]	0.00019 U	0.00056[abc]	0.00019	0.00019 U	0.000096 U	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.0004[c]	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	R	0.000096 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.000097 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	R	0.00018	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	-	-	-	-	-	-	-	-	-	-
FPARAM											
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-	-
pH, field	s.u.	-	-	-	-	-	-	-	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	-	-
Volume purged	mgal	-	-	-	-	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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	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	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1
Sample ID:		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	GW-12610-080614-SSH-1403	GW-12610-082615-SSH-0715	GW-12610-082615-SSH-0815
Sample Date:		04/09/2013	12/09/2013	08/05/2014	12/29/2014	08/25/2015	08/25/2016	08/09/2012	08/07/2013	08/06/2014	08/26/2015	08/26/2015 (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	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00043[c]	0.00019 U	0.00041 J[c]	0.00034[c]	0.00034[c]
Aroclor-1248 (PCB-1248)	mg/L	0.0019 U	0.0002 U	0.00019 U	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.0019 U	0.0002 U	R	0.00019 UH	0.00038 U	0.0019 U	0.00019 U	R	0.00019 U	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.0086[abc]	0.0002 U	R	0.00019 UH	0.00019 J	0.0019 U	0.00019 U	R	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	-	-	-	-	-	-	-	-	-	-	-
FPARAM												
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-	-	-
pH, field	s.u.	-	-	-	-	-	-	-	-	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	-	-	-
Volume purged	mgal	-	-	-	-	-	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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	Machine Storage Area
Sample Location:		MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D1	MW102D2	MW102D2	MW102D2
Sample ID:		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	Gw-11208058-082322-bw-007	GW-12610-080912-SSH-011	GW-12610-080713-JY-005	GW-12610-080614-SSH-1404
Sample Date:		08/27/2016	08/27/2016 (Duplicate)	08/21/2017	08/21/2018	08/29/2019	08/10/2020	08/27/2021	08/23/2022	08/09/2012	08/07/2013	08/06/2014
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	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.00019 U	0.00019 U	0.00026[c]	0.00032[c]	0.00037 J[c]	0.00024 J[c]	0.00027[c]	0.0003 J[c]	0.00019 U	0.00019 U	0.00013 J
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.00013 J	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000095 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	-	-	-	-	-	-	-	-	-	-	-
FPARAM												
Conductivity, field	uS/cm	-	-	-	-	-	-	-	1.72	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	0.03	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	100	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-144	-	-	-
pH, field	s.u.	-	-	-	-	-	-	-	7.10	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	15.1	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	13.3	-	-	-
Volume purged	mgal	-	-	-	-	-	-	-	230	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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	MW102D2	MW102D2	MW102D2	MW102D2	MW102D2
Sample ID:		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	GW-11208058-081020-SSH-2004	GW-11208058-081020-SSH-2005	GW-11208058-082721-SSH-21106	Gw-11208058-08222-bw-006	GW-11208058-082322-BW-006
Sample Date:		08/26/2015	08/26/2016	08/21/2017	08/21/2018	08/29/2019	08/10/2020	08/10/2020 (Duplicate)	08/27/2021	08/23/2022	08/23/2022
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	0.0002 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000098 U	-	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000098 U	-	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000098 U	-	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.00019 U	0.00015 J	0.00048[c]	0.00019 U	0.00009 J	0.00009 J	0.00079 J[abc]	0.000098 U	-	0.00031 J[c]
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000098 U	-	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.000045 J	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	0.000098 U	-	0.000095 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.000097 U	0.000095 U	0.000095 U	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	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-
FPARAM											
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	2.56	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	0.27	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	100	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-39	-
pH, field	s.u.	-	-	-	-	-	-	-	-	7.21	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	15.8	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	15.9	-
Volume purged	mgal	-	-	-	-	-	-	-	-	300	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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	Machine Storage Area
Sample Location:		MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4
Sample ID:		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	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
Sample Date:		08/09/2012	08/07/2013	08/06/2014	08/06/2014 (Duplicate)	08/26/2015	08/26/2016	08/21/2017	08/21/2017 (Duplicate)	08/20/2018	08/29/2019	08/10/2020
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	0.00019 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	0.00019 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	0.00019 U	0.000096 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.00019 U	0.00019	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000078 J	0.00019 U	0.000096 U	0.000095 U
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	0.00019 U	0.000096 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	0.00019 U	0.00019 U	0.000096 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	0.00019 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	-	-	-	-	-	-	-	-	-	-	-
FPARAM												
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-	-	-
pH, field	s.u.	-	-	-	-	-	-	-	-	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	-	-	-
Volume purged	mgal	-	-	-	-	-	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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	Machine Storage Area
Sample Location:		MW102D4	MW102D4	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S
Sample ID:		GW-11208058-082721-SSH-21105	GW-11208058-082322-BW-005	GW-12610-080912-SSH-007	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
Sample Date:		08/27/2021	08/23/2022	08/09/2012	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
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	0.000097 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.000097 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.000097 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.000097 U	0.000095 U	0.00019 U	0.000083 J	0.00019 U	0.00019 U	0.0001 J	0.000095 J	0.00019 U	0.000084 J	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.000097 U	0.000095 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.000097 U	0.000095 U	0.00019 U	0.00019 U	R	R	0.00019 U	0.00019 U	R	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.000097 U	0.000095 U	0.00019 U	0.00019 U	R	R	0.00019 U	0.00019 U	R	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	-	-	-	-	-	-	-	-	-	-	-
FPARAM												
Conductivity, field	uS/cm	-	8.87	-	-	-	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	0.03	-	-	-	-	-	-	-	-	-
Flow rate	mL/min	-	100	-	-	-	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-135	-	-	-	-	-	-	-	-	-
pH, field	s.u.	-	7.35	-	-	-	-	-	-	-	-	-
Temperature, sample	Deg C	-	14.2	-	-	-	-	-	-	-	-	-
Turbidity, field	NTU	-	2.97	-	-	-	-	-	-	-	-	-
Volume purged	mgal	-	360	-	-	-	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:		MW300S	MW300S	MW300S	MW300S	MW300S	LMW13S	LMW13S	LMW13S	LMW13S	LMW13S	LMW13S
Sample ID:		GW-12610-082819-SSH-00919	GW-12610-082819-SSH-01019	GW-11208058-081120-SSH-2009	GW-11208058-082321-SSH-21104	Gw-11208058-082222-Bw-001	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:		08/28/2019	08/28/2019	08/11/2020	08/23/2021	08/22/2022	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	0.000097 U	0.000096 U	0.000095 U	0.000097 U	0.0001 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	0.000097 U	0.000096 U	0.000095 U	0.000097 U	0.0001 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	0.000097 U	0.000096 U	0.000095 U	0.000097 U	0.0001 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	0.00011 J	0.000096 J	0.000095 J	0.000097 U	0.0001 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	0.000097 U	0.000096 U	0.000095 U	0.000086 J	0.0001 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	0.000097 U	0.000096 U	0.000095 U	0.000097 U	0.0001 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	0.000097 U	0.000096 U	0.000095 U	0.000097 U	0.0001 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	-	-	-	-	-	-	-	-	-	-	-
FPARAM												
Conductivity, field	uS/cm	-	-	-	-	2.62	-	-	-	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	0.24	-	-	-	-	-	-
Flow rate	mL/min	-	-	-	-	100	-	-	-	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-174	-	-	-	-	-	-
pH, field	s.u.	-	-	-	-	7.18	-	-	-	-	-	-
Temperature, sample	Deg C	-	-	-	-	17.2	-	-	-	-	-	-
Turbidity, field	NTU	-	-	-	-	8.47	-	-	-	-	-	-
Volume purged	mgal	-	-	-	-	20	-	-	-	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimate
R Rejected.

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:		LMW13S	LMW13S	LMW13S	LMW13S	LMW13S	LMW13S	LMW13S	LMW15D	LMW15D	LMW15D
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-12610-080812-SSH-006	GW-12610-080813-JY-009	GW-12610-080614-SSH-1409
Sample Date:		08/22/2017	08/20/2018	08/28/2019	08/11/2020	08/23/2021	08/23/2021 (Duplicate)	08/23/2022	08/08/2012	08/08/2013	08/06/2014
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	0.00019 U	0.00019 U	0.00019 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	0.00019 U	0.00019 U	0.00019 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	0.00019 U	0.00019 U	0.00019 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]	0.00013 J	0.00014 J	0.000065 J
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	0.00019 U	0.00019 U	0.00019 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	0.00019 U	0.00019 UJ	0.00019 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	0.00019 U	0.00019 UJ	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	-	-	-	-	-	-	-	-	-	-
FPARAM											
Conductivity, field	uS/cm	-	-	-	-	-	-	0.91	-	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	0.22	-	-	-
Flow rate	mL/min	-	-	-	-	-	-	100	-	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-149	-	-	-
pH, field	s.u.	-	-	-	-	-	-	7.83	-	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	14.2	-	-	-
Turbidity, field	NTU	-	-	-	-	-	-	9.65	-	-	-
Volume purged	mgal	-	-	-	-	-	-	210	-	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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	Perimeter Banks
Sample Location:		LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D	MW301D2	MW301D2
Sample ID:		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	GW-11208058-082321-SSH-21100	Gw-11208058-082322-Bw-003	GW-12610-080912-SSH-009	GW-12610-080713-JY-007
Sample Date:		08/26/2015	08/26/2016	08/22/2017	08/20/2018	08/20/2018 (Duplicate)	08/28/2019	08/11/2020	08/23/2021	08/23/2022	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	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000095 U	0.000099 U	0.00019 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000095 U	0.000099 U	0.00019 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000095 U	0.000099 U	0.00019 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00021 [c]	0.00019 U	0.000096 U	0.00016 J	0.000095 U	0.000099 U	0.00019 U	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000095 U	0.000099 U	0.00019 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000095 U	0.000099 U	0.00019 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.000096 U	0.000095 U	0.000095 U	0.000099 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	-	-	-	-	-	-	-	-	-	-	-
FPARAM												
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	1.38	-	-
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	0.11	-	-
Flow rate	mL/min	-	-	-	-	-	-	-	-	100	-	-
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-167	-	-
pH, field	s.u.	-	-	-	-	-	-	-	-	7.37	-	-
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	15.5	-	-
Turbidity, field	NTU	-	-	-	-	-	-	-	-	5.00	-	-
Volume purged	mgal	-	-	-	-	-	-	-	-	220	-	-

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

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:		MW301D2	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2	MW301D2
Sample ID:		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	GW-12610-082819-SSH-00619	GW-11208058-081020-SSH-2008	GW-11208058-082321-SSH-21103	GW-11208058-082322-BW-004	Gw-112208058-082322-Bw-004
Sample Date:		08/06/2014	08/26/2015	12/14/2016	08/21/2017	08/20/2018	08/28/2019	08/10/2020	08/23/2021	08/23/2022	08/23/2022
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	0.00038 U	0.00019 U	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000096 U	0.0001 U	-
Aroclor-1221 (PCB-1221)	mg/L	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000096 U	0.0001 U	-
Aroclor-1232 (PCB-1232)	mg/L	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000096 U	0.0001 U	-
Aroclor-1242 (PCB-1242)	mg/L	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000096 U	0.0001 U	-
Aroclor-1248 (PCB-1248)	mg/L	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000096 U	0.0001 U	-
Aroclor-1254 (PCB-1254)	mg/L	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000096 U	0.0001 U	-
Aroclor-1260 (PCB-1260)	mg/L	0.00019 U	0.00038 U	0.00019 U	0.00019 U	0.00019 U	0.000095 U	0.000095 U	0.000096 U	0.0001 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	-	-	-	-	-	-	-	-	-	-
FPARAM											
Conductivity, field	uS/cm	-	-	-	-	-	-	-	-	-	1.86
Dissolved oxygen (DO), field	mg/L	-	-	-	-	-	-	-	-	-	0.09
Flow rate	mL/min	-	-	-	-	-	-	-	-	-	100
Oxidation reduction potential (ORP), field	millivolts	-	-	-	-	-	-	-	-	-	-205
pH, field	s.u.	-	-	-	-	-	-	-	-	-	8.35
Temperature, sample	Deg C	-	-	-	-	-	-	-	-	-	12.6
Turbidity, field	NTU	-	-	-	-	-	-	-	-	-	3.21
Volume purged	mgal	-	-	-	-	-	-	-	-	-	480

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimat
R Rejected.

Attachment D

Technical Memorandum

September 20, 2022

To	John-Eric Pardys, GHD	**Tel**	612-524-6872
		Email	ruth.mickle@ghd.com
From	Ruth Mickle/mg/5	**Ref. No.**	11208058
Subject	Analytical Results and Reduced Validation 2022 Semi-Annual Groundwater Sampling RACER Bay City Site Bay City, Michigan April and August 2022		

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the 2022 Semi-Annual Groundwater Sampling at the RACER Bay City Site during April and August 2022. Samples were submitted to Eurofins Environment Testing America (EETA), 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:

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

Item i. 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 documents and analytical reports 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 methods 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 relative percent difference (RPD) between the MS and MSD is used to assess analytical precision. MS/MSD analyses were not performed on investigative samples. As a result, MS/MSD data were not used to evaluate analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC consisted of one field duplicate set.

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. The field duplicate results were all non-detect.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were 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.

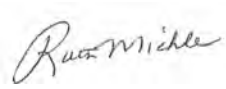
9. Target Compound Identification

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 method. The laboratory reported that several samples yielded Aroclor detections that were a poor match with standards, resulting in quantitative and qualitative uncertainty. The laboratory noted that the poor match may be attributed to excessive sample weathering. Based on this, the associated PCB data were qualified estimated (J), as noted in Table 4.

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

Chemist

Encl.

Table 1

Sample Collection and Analysis Summary
Semi-Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
April and August 2022

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: PCBs	Comments
Eurofins SDG No.: 240-165366-1						
W-11208058-042122-SSH-2201	influent-GWTS	water	04/21/2022	12:00	X	
Eurofins SDG No.: 240-172119-1						
GW-11208058-082222-BW-001	MW300S	water	08/22/2022	17:22	X	
GW-11208058-082322-BW-002	LMW13S	water	08/23/2022	10:33	X	
GW-11208058-082322-BW-003	LMW15D	water	08/23/2022	11:21	X	
GW-11208058-082322-BW-004	MW301D2	water	08/23/2022	12:18	X	
GW-11208058-082322-BW-005	MW102D4	water	08/23/2022	13:12	X	
GW-11208058-082322-BW-006	MW102D2	water	08/23/2022	13:59	X	
GW-11208058-082322-BW-007	MW102D1	water	08/23/2022	15:04	X	
GW-11208058-082322-BW-008	effluent-GWTS	water	08/23/2022	16:07	X	
GW-11208058-082322-BW-009	effluent-GWTS	water	08/23/2022	16:08	X	Field Duplicate of -BW-008
GW-11208058-082322-BW-010	influent-GWTS	water	08/23/2022	16:24	X	

Notes:
PCBs - Polychlorinated Biphenyls
SDG - Sample Delivery Group

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
April and August 2022

Location ID:		effluent-GWTS	effluent-GWTS	influent-GWTS	influent-GWTS	LMW13S
Sample Name:		GW-11208058-082322-BW-008	GW-11208058-082322-BW-009	W-11208058-042122-SSH-2201	GW-11208058-082322-BW-010	GW-11208058-082322-BW-002
Sample Date:		08/23/2022	08/23/2022 Duplicate	04/21/2022	08/23/2022	08/23/2022
Parameters	**Unit**					
PCBs						
Aroclor-1016 (PCB-1016)	µg/L	0.095 U	0.095 U	0.095 U	0.50 U	0.095 U
Aroclor-1221 (PCB-1221)	µg/L	0.095 U	0.095 U	0.095 U	0.50 U	0.095 U
Aroclor-1232 (PCB-1232)	µg/L	0.095 U	0.095 U	0.095 U	0.50 U	0.095 U
Aroclor-1242 (PCB-1242)	µg/L	0.095 U	0.095 U	0.095 U	7.0 J	1.4 J
Aroclor-1248 (PCB-1248)	µg/L	0.095 U	0.095 U	0.095 U	0.50 U	0.095 U
Aroclor-1254 (PCB-1254)	µg/L	0.095 U	0.095 U	0.095 U	0.50 U	0.095 U
Aroclor-1260 (PCB-1260)	µg/L	0.095 U	0.095 U	0.095 U	0.50 U	0.095 U

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
April and August 2022

Location ID:		LMW15D	MW102D1	MW102D2	MW102D4	MW300S
Sample Name:		GW-11208058-082322-BW-003	GW-11208058-082322-BW-007	GW-11208058-082322-BW-006	GW-11208058-082322-BW-005	GW-11208058-082222-BW-001
Sample Date:		08/23/2022	08/23/2022	08/23/2022	08/23/2022	08/22/2022
Parameters	**Unit**					
PCBs						
Aroclor-1016 (PCB-1016)	µg/L	0.099 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1221 (PCB-1221)	µg/L	0.099 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1232 (PCB-1232)	µg/L	0.099 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1242 (PCB-1242)	µg/L	0.099 U	0.30 J	0.31 J	0.095 U	0.10 U
Aroclor-1248 (PCB-1248)	µg/L	0.099 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1254 (PCB-1254)	µg/L	0.099 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1260 (PCB-1260)	µg/L	0.099 U	0.095 U	0.095 U	0.095 U	0.10 U

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
April and August 2022

Location ID:	**MW301D2**
Sample Name:	**GW-11208058-082322-BW-004**
Sample Date:	**08/23/2022**

Parameters	**Unit**	
PCBs		
Aroclor-1016 (PCB-1016)	µg/L	0.10 U
Aroclor-1221 (PCB-1221)	µg/L	0.10 U
Aroclor-1232 (PCB-1232)	µg/L	0.10 U
Aroclor-1242 (PCB-1242)	µg/L	0.10 U
Aroclor-1248 (PCB-1248)	µg/L	0.10 U
Aroclor-1254 (PCB-1254)	µg/L	0.10 U
Aroclor-1260 (PCB-1260)	µg/L	0.10 U

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

Table 3

Analytical Method
Semi-Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
April and August 2022

Parameter	Method	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

Notes:
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
Semi-Annual Groundwater Sampling
RACER Bay City Site
Bay City, Michigan
April and August 2022

Parameter	Sample ID	Analyte	Qualified Result	Units
PCBs	GW-11208058-082322-BW-002	Aroclor-1242 (PCB-1242)	1.4 J	µg/L
	GW-11208058-082322-BW-006	Aroclor-1242 (PCB-1242)	0.31 J	µg/L
	GW-11208058-082322-BW-007	Aroclor-1242 (PCB-1242)	0.30 J	µg/L
	GW-11208058-082322-BW-010	Aroclor-1242 (PCB-1242)	7.0 J	µg/L

Notes:
J - Estimated concentration
PCBs - Polychlorinated Biphenyls

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ANALYTICAL REPORT

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-131747-1
Client Project/Site: 11208058, RACER Bay City

For:
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Attn: Ms. Ruth Mickle

Authorized for release by:
1/11/2022 9:59:17 AM

Denise Heckler, Project Manager II
(330)966-9477
Denise.Heckler@Eurofinset.com

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

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

PA Lab ID: 02-00416

Table of Contents

Case Narrative

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

Job ID: 180-131747-1

Job ID: 180-131747-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-131747-1

Comments
No additional comments.

Receipt
The sample was received on 12/24/2021 10:00 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 5.0º C.

Receipt Exceptions
Method SM 5210B: The following sample was received outside of holding time: W-11208058-122321-SSH-22021 (180-131747-

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or 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 245.1: The laboratory control sample (LCS) for preparation batch 180-383766 and analytical batch 180-384058 recover above the control limits for mercury. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

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

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

Organic Prep
Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 180-383693.

Method 1664B: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: W-11208058-122321-SSH-22021 (180-131747-1). The sample(s) was preserved to the appropriate pH in the laboratory. 5 ml of 6N HCl added.

Method 1664B: The matrix spike (MS) recoveries for preparation batch 180-384584 and analytical batch 180-384587 were outsi control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Definitions/Glossary

Client: GHD Services Inc.
Job ID: 180-131747-1
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
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 180-131747-1
Project/Site: 11208058, RACER Bay City

Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-22
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21 *
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-22
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-22
New York	NELAP	11182	04-02-22
North Carolina (WW/SW)	State	434	12-31-22
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21 *
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	03-31-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	09-15-22
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-22

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0686	07-06-22
Connecticut	State	PH-0568	09-30-22
Florida	NELAP	E87672	06-30-22
Georgia	State	10026 (NY)	03-31-22
Georgia	State Program	N/A	03-31-09 *
Georgia (DW)	State	956	03-31-22
Illinois	NELAP	200003	09-30-22
Iowa	State	374	03-01-23
Iowa	State Program	374	03-01-09 *
Kansas	NELAP	E-10187	02-02-22
Kentucky (DW)	State	90029	12-31-21 *
Kentucky (UST)	State	30	04-01-22
Kentucky (WW)	State	KY90029	12-31-22
Louisiana	NELAP	02031	06-30-22
Maine	State	NY00044	12-05-22
Maryland	State	294	04-02-22

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 180-131747-1
Project/Site: 11208058, RACER Bay City

Laboratory: Eurofins Buffalo (Continued)

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-NY044	06-30-22
Michigan	State	9937	04-01-22
Michigan	State Program	9937	04-01-09 *
New Hampshire	NELAP	2973	09-11-19 *
New Hampshire	NELAP	2337	11-17-22
New Jersey	NELAP	NY455	06-30-22
New York	NELAP	10026	04-01-22
Oregon	NELAP	NY200003	06-12-22
Pennsylvania	NELAP	68-00281	07-31-22
Rhode Island	State	LAO00328	12-31-21 *
Tennessee	State	02970	03-31-22
Texas	NELAP	T104704412-18-10	07-31-22
USDA	US Federal Programs	P330-18-00039	03-25-24
Virginia	NELAP	460185	09-14-22
Washington	State	C784	02-10-22
Wisconsin	State	998310390	08-31-22

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

Sample Summary

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

Job ID: 180-131747-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-131747-1	W-11208058-122321-SSH-22021	Water	12/23/21 11:30	12/27/21 08:30

Method Summary

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

Job ID: 180-131747-1

Method	Method Description	Protocol	Laboratory
EPA 624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PIT
EPA 608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL PIT
EPA 200.7 Rev 4	Metals (ICP)	EPA	TAL PIT
EPA 245.1 Rev.	Mercury (CVAA)	EPA	TAL PIT
EPA 1664B	HEM and SGT-HEM	EPA	TAL PIT
EPA 350.1	Nitrogen, Ammonia	EPA	TAL PIT
EPA 410.4	COD	MCAWW	TAL PIT
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PIT
SM 4500 H+ B	pH	SM	TAL PIT
SM 4500 P E	Phosphorus	SM	TAL BUF
SM 5210B	5 Day BOD test	SM	TAL PIT
1664B	HEM and SGT-HEM (SPE)	1664B	TAL PIT
200.7	Preparation, Total Recoverable Metals	EPA	TAL PIT
245.1	Preparation, Mercury	EPA	TAL PIT
410.4	COD	MCAWW	TAL PIT
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL PIT

Protocol References:

1664B = 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:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

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

Job ID: 180-131747-1

Client Sample ID: W-11208058-122321-SSH-22021

Lab Sample ID: 180-131747-1

Date Collected: 12/23/21 11:30

Matrix: Water

Date Received: 12/27/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 624.1		1	5 mL	5 mL	383913	12/31/21 22:53	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Prep	608			1050 mL	1.0 mL	383693	12/29/21 08:00	SNP	TAL PIT
Total/NA	Analysis	EPA 608.3		1			384070	01/04/22 11:02	JMO	TAL PIT
	Instrument ID: CHGC20									
Total Recoverable	Prep	200.7			25 mL	25 mL	383533	12/28/21 13:40	KFS	TAL PIT
Total Recoverable	Analysis	EPA 200.7 Rev 4		1			383759	12/29/21 22:16	RJG	TAL PIT
	Instrument ID: C									
Total/NA	Prep	245.1			25 mL	25 mL	383766	12/30/21 06:56	RJR	TAL PIT
Total/NA	Analysis	EPA 245.1 Rev.		1			384058	01/03/22 14:12	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Prep	1664B			1050 mL	1000 mL	384584	01/07/22 15:30	SMV	TAL PIT
Total/NA	Analysis	EPA 1664B		1			384587	01/08/22 01:06	CTM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	EPA 350.1		1			384161	01/04/22 12:48	SNR	TAL PIT
	Instrument ID: BLUE-ASTORIA									
Total/NA	Prep	410.4			1 mL	1 mL	383847	12/30/21 11:48	ELS	TAL PIT
Total/NA	Analysis	EPA 410.4		1	1 mL	1 mL	383868	12/30/21 16:20	ELS	TAL PIT
	Instrument ID: GENESYS10S									
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	383662	12/29/21 08:52	BAC	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 4500 H+ B		1			383680	12/29/21 10:24	MJH	TAL PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 4500 P E		1	5 mL	5 mL	611278	01/10/22 12:55	KEB	TAL BUF
	Instrument ID: Genesys Spec 30									
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	384048	12/29/21 19:03	ELS	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

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

Job ID: 180-131747-1

Analyst References:

Lab: TAL BUF

Batch Type: Analysis

KEB = Katherine Bauer

Lab: TAL PIT

Batch Type: Prep

ELS = Edwin Shireman
KFS = Kelly Shannon
RJR = Ron Rosenbaum
SMV = Sarah Vander Wagen
SNP = Sydney Prugh

Batch Type: Analysis

BAC = Blase Cindric
CTM = Connor Mitsch
ELS = Edwin Shireman
JMO = John Oravec
MJH = Michael Houde
PJJ = Patrick Journet
RJG = Rob Good
RJR = Ron Rosenbaum
SNR = Sabra Richart

Detection Summary

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

Job ID: 180-131747-1

Client Sample ID: W-11208058-122321-SSH-22021 — Lab Sample ID: 180-131747-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	10	J	20	3.9	ug/L	1		EPA 200.7 Rev 4	Total Recoverable
Iron	420		100	73	ug/L	1		EPA 200.7 Rev 4	Total Recoverable
Nickel	11	J	20	2.1	ug/L	1		EPA 200.7 Rev 4	Total Recoverable
Lead	2.6	J B	3.0	2.3	ug/L	1		EPA 200.7 Rev 4	Total Recoverable
Ammonia	0.32		0.10	0.088	mg/L	1		EPA 350.1	Total/NA
Chemical Oxygen Demand	16		10	9.1	mg/L	1		EPA 410.4	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Phosphorus	0.012		0.010	0.0050	mg/L	1		SM 4500 P E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: W-11208058-122321-SSH-22021

Lab Sample ID: 180-131747-1

Date Collected: 12/23/21 11:30

Matrix: Water

Date Received: 12/27/21 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.40	ug/L			12/31/21 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*78*		*28 - 163*		*12/31/21 22:53*	*1*
4-Bromofluorobenzene (Surr)	*81*		*41 - 122*		*12/31/21 22:53*	*1*
Toluene-d8 (Surr)	*94*		*53 - 125*		*12/31/21 22:53*	*1*
Dibromofluoromethane (Surr)	*91*		*59 - 168*		*12/31/21 22:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.0095	U	0.0095	0.0045	ug/L		12/29/21 08:00	01/04/22 11:02	1
PCB-1221	0.0095	U	0.0095	0.0054	ug/L		12/29/21 08:00	01/04/22 11:02	1
PCB-1232	0.0095	U	0.0095	0.0050	ug/L		12/29/21 08:00	01/04/22 11:02	1
PCB-1242	0.0095	U	0.0095	0.0087	ug/L		12/29/21 08:00	01/04/22 11:02	1
PCB-1248	0.0095	U	0.0095	0.0028	ug/L		12/29/21 08:00	01/04/22 11:02	1
PCB-1254	0.0095	U	0.0095	0.0091	ug/L		12/29/21 08:00	01/04/22 11:02	1
PCB-1260	0.0095	U	0.0095	0.0037	ug/L		12/29/21 08:00	01/04/22 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*79*		*20 - 138*	*12/29/21 08:00*	*01/04/22 11:02*	*1*
Tetrachloro-m-xylene (Surr)	*74*		*20 - 138*	*12/29/21 08:00*	*01/04/22 11:02*	*1*
DCB Decachlorobiphenyl (Surr)	*108*		*43 - 143*	*12/29/21 08:00*	*01/04/22 11:02*	*1*
DCB Decachlorobiphenyl (Surr)	*84*		*43 - 143*	*12/29/21 08:00*	*01/04/22 11:02*	*1*

Method: EPA 200.7 Rev 4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.87	ug/L		12/28/21 13:40	12/29/21 22:16	1
Cadmium	2.0	U	2.0	0.33	ug/L		12/28/21 13:40	12/29/21 22:16	1
Chromium	5.0	U	5.0	2.6	ug/L		12/28/21 13:40	12/29/21 22:16	1
Copper	**10**	**J**	20	3.9	ug/L		12/28/21 13:40	12/29/21 22:16	1
Iron	**420**		100	73	ug/L		12/28/21 13:40	12/29/21 22:16	1
Nickel	**11**	**J**	20	2.1	ug/L		12/28/21 13:40	12/29/21 22:16	1
Lead	**2.6**	**J B**	3.0	2.3	ug/L		12/28/21 13:40	12/29/21 22:16	1

Method: EPA 245.1 Rev. - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U *+	0.20	0.13	ug/L		12/30/21 06:56	01/03/22 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	4.8	U	4.8	4.1	mg/L		01/07/22 15:30	01/08/22 01:06	1
Ammonia	**0.32**		0.10	0.088	mg/L			01/04/22 12:48	1
Chemical Oxygen Demand	**16**		10	9.1	mg/L		12/30/21 11:48	12/30/21 16:20	1
Total Suspended Solids	0.50	U	0.50	0.50	mg/L			12/29/21 08:52	1
pH	**7.7**	**HF**	0.1	0.1	SU			12/29/21 10:24	1
Phosphorus	**0.012**		0.010	0.0050	mg/L			01/10/22 12:55	1
Biochemical Oxygen Demand	2.0	U H H3	2.0	2.0	mg/L			12/29/21 19:03	1

Surrogate Summary

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

Job ID: 180-131747-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(28-163)	(41-122)	(53-125)	(59-168)
180-131747-1	W-11208058-122321-SSH-2202	78	81	94	91
180-131747-1 MS	W-11208058-122321-SSH-22021	70	90	84	91
180-131747-1 MSD	W-11208058-122321-SSH-22021	83	97	90	98
LCS 180-383913/3	Lab Control Sample	74	92	92	90
MB 180-383913/7	Method Blank	74	83	93	85

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(20-138)	(20-138)	(43-143)	(43-143)
180-131747-1	W-11208058-122321-SSH-2202	79	74	108	84
LCS 180-383693/4-A	Lab Control Sample	90	86	101	91
LCSD 180-383693/5-A	Lab Control Sample Dup	94	88	100	87
MB 180-383693/1-A	Method Blank	71	77	92	80

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

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

Lab Sample ID: MB 180-383913/7
Matrix: Water
Analysis Batch: 383913

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	0.40	ug/L			12/31/21 15:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*74*		*28 - 163*		*12/31/21 15:52*	*1*
4-Bromofluorobenzene (Surr)	*83*		*41 - 122*		*12/31/21 15:52*	*1*
Toluene-d8 (Surr)	*93*		*53 - 125*		*12/31/21 15:52*	*1*
Dibromofluoromethane (Surr)	*85*		*59 - 168*		*12/31/21 15:52*	*1*

Lab Sample ID: LCS 180-383913/3
Matrix: Water
Analysis Batch: 383913

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Vinyl chloride			10.0	10.2		ug/L		102	10 - 170		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*74*		*28 - 163*
4-Bromofluorobenzene (Surr)	*92*		*41 - 122*
Toluene-d8 (Surr)	*92*		*53 - 125*
Dibromofluoromethane (Surr)	*90*		*59 - 168*

Lab Sample ID: 180-131747-1 MS
Matrix: Water
Analysis Batch: 383913

Client Sample ID: W-11208058-122321-SSH-22021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	1.0	U	10.0	9.49		ug/L		95	10 - 170

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*70*		*28 - 163*
4-Bromofluorobenzene (Surr)	*90*		*41 - 122*
Toluene-d8 (Surr)	*84*		*53 - 125*
Dibromofluoromethane (Surr)	*91*		*59 - 168*

Lab Sample ID: 180-131747-1 MSD
Matrix: Water
Analysis Batch: 383913

Client Sample ID: W-11208058-122321-SSH-22021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	1.0	U	10.0	10.5		ug/L		105	10 - 170	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*28 - 163*
4-Bromofluorobenzene (Surr)	*97*		*41 - 122*
Toluene-d8 (Surr)	*90*		*53 - 125*
Dibromofluoromethane (Surr)	*98*		*59 - 168*

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

Lab Sample ID: MB 180-383693/1-A
Matrix: Water
Analysis Batch: 384070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383693

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.010	U	0.010	0.0048	ug/L		12/29/21 08:00	01/04/22 09:47	1
PCB-1221	0.010	U	0.010	0.0057	ug/L		12/29/21 08:00	01/04/22 09:47	1
PCB-1232	0.010	U	0.010	0.0052	ug/L		12/29/21 08:00	01/04/22 09:47	1
PCB-1242	0.010	U	0.010	0.0091	ug/L		12/29/21 08:00	01/04/22 09:47	1
PCB-1248	0.010	U	0.010	0.0030	ug/L		12/29/21 08:00	01/04/22 09:47	1
PCB-1254	0.010	U	0.010	0.0095	ug/L		12/29/21 08:00	01/04/22 09:47	1
PCB-1260	0.010	U	0.010	0.0039	ug/L		12/29/21 08:00	01/04/22 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*71*		*20 - 138*	*12/29/21 08:00*	*01/04/22 09:47*	*1*
Tetrachloro-m-xylene (Surr)	*77*		*20 - 138*	*12/29/21 08:00*	*01/04/22 09:47*	*1*
DCB Decachlorobiphenyl (Surr)	*92*		*43 - 143*	*12/29/21 08:00*	*01/04/22 09:47*	*1*
DCB Decachlorobiphenyl (Surr)	*80*		*43 - 143*	*12/29/21 08:00*	*01/04/22 09:47*	*1*

Lab Sample ID: LCS 180-383693/4-A
Matrix: Water
Analysis Batch: 384070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383693

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			1.00	0.674		ug/L		67	50 - 140		
PCB-1260			1.00	0.870		ug/L		87	10 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*90*		*20 - 138*
Tetrachloro-m-xylene (Surr)	*86*		*20 - 138*
DCB Decachlorobiphenyl (Surr)	*101*		*43 - 143*
DCB Decachlorobiphenyl (Surr)	*91*		*43 - 143*

Lab Sample ID: LCSD 180-383693/5-A
Matrix: Water
Analysis Batch: 384070

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 383693

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			1.00	0.693		ug/L		69	50 - 140	3	35
PCB-1260			1.00	0.880		ug/L		88	10 - 140	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*94*		*20 - 138*
Tetrachloro-m-xylene (Surr)	*88*		*20 - 138*
DCB Decachlorobiphenyl (Surr)	*100*		*43 - 143*
DCB Decachlorobiphenyl (Surr)	*87*		*43 - 143*

Method: EPA 200.7 Rev 4 - Metals (ICP)

Lab Sample ID: MB 180-383533/1-A
Matrix: Water
Analysis Batch: 383759

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 383533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.87	ug/L		12/28/21 13:40	12/29/21 21:30	1
Cadmium	2.0	U	2.0	0.33	ug/L		12/28/21 13:40	12/29/21 21:30	1
Chromium	5.0	U	5.0	2.6	ug/L		12/28/21 13:40	12/29/21 21:30	1
Copper	20	U	20	3.9	ug/L		12/28/21 13:40	12/29/21 21:30	1
Iron	100	U	100	73	ug/L		12/28/21 13:40	12/29/21 21:30	1
Nickel	20	U	20	2.1	ug/L		12/28/21 13:40	12/29/21 21:30	1
Lead	2.99	J	3.0	2.3	ug/L		12/28/21 13:40	12/29/21 21:30	1

Lab Sample ID: LCS 180-383533/2-A
Matrix: Water
Analysis Batch: 383759

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 383533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	250	261		ug/L		104	85 - 115
Cadmium	500	519		ug/L		104	85 - 115
Chromium	500	495		ug/L		99	85 - 115
Copper	500	521		ug/L		104	85 - 115
Iron	5000	5030		ug/L		101	85 - 115
Nickel	500	506		ug/L		101	85 - 115
Lead	500	496		ug/L		99	85 - 115

Method: EPA 245.1 Rev. - Mercury (CVAA)

Lab Sample ID: MB 180-383766/1-A
Matrix: Water
Analysis Batch: 384058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383766

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		12/30/21 06:56	01/03/22 13:57	1

Lab Sample ID: LCS 180-383766/2-A
Matrix: Water
Analysis Batch: 384058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383766

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.50	3.11	*+	ug/L		124	85 - 115

Method: EPA 1664B - HEM and SGT-HEM

Lab Sample ID: MB 180-384584/1-A
Matrix: Water
Analysis Batch: 384587

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 384584

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	5.0	U	5.0	4.3	mg/L		01/07/22 15:30	01/08/22 01:06	1

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

Lab Sample ID: LCS 180-384584/2-A
Matrix: Water
Analysis Batch: 384587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 384584

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	39.8	34.50		mg/L		87	78 - 114

Method: EPA 350.1 - Nitrogen, Ammonia

Lab Sample ID: LB 180-383997/1-A
Matrix: Water
Analysis Batch: 384161

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

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.10	U	0.10	0.088	mg/L			01/04/22 12:36	1

Lab Sample ID: MB 180-384161/17
Matrix: Water
Analysis Batch: 384161

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.10	U	0.10	0.088	mg/L			01/04/22 12:24	1

Lab Sample ID: LCS 180-384161/18
Matrix: Water
Analysis Batch: 384161

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.500	0.516		mg/L		103	90 - 110

Method: EPA 410.4 - COD

Lab Sample ID: MB 180-383847/12-A
Matrix: Water
Analysis Batch: 383868

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10	U	10	9.1	mg/L		12/30/21 11:48	12/30/21 15:50	1

Lab Sample ID: MB 180-383847/36-A
Matrix: Water
Analysis Batch: 383868

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10	U	10	9.1	mg/L		12/30/21 11:48	12/30/21 16:10	1

Lab Sample ID: LCS 180-383847/35-A
Matrix: Water
Analysis Batch: 383868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	75.0	72.1		mg/L		96	90 - 110

Method: EPA 410.4 - COD (Continued)

Lab Sample ID: 180-131747-1 MS
Matrix: Water
Analysis Batch: 383868

Client Sample ID: W-11208058-122321-SSH-22021
Prep Type: Total/NA
Prep Batch: 383847

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	16		25.0	39.0		mg/L		92	90 - 110

Lab Sample ID: 180-131747-1 MSD
Matrix: Water
Analysis Batch: 383868

Client Sample ID: W-11208058-122321-SSH-22021
Prep Type: Total/NA
Prep Batch: 383847

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	16		25.0	43.3		mg/L		109	90 - 110	10	20

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

Lab Sample ID: MB 180-383662/2
Matrix: Water
Analysis Batch: 383662

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	0.50	U	0.50	0.50	mg/L			12/29/21 08:52	1

Lab Sample ID: LCS 180-383662/1
Matrix: Water
Analysis Batch: 383662

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	29.0	28.0		mg/L		97	85 - 115

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 180-383680/1
Matrix: Water
Analysis Batch: 383680

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Method: SM 4500 P E - Phosphorus

Lab Sample ID: MB 480-611278/3
Matrix: Water
Analysis Batch: 611278

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus	0.010	U	0.010	0.0050	mg/L			01/10/22 12:55	1

Lab Sample ID: LCS 480-611278/4
Matrix: Water
Analysis Batch: 611278

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus	0.200	0.205		mg/L		103	90 - 110

Method: SM 5210B - 5 Day BOD test

Lab Sample ID: USB 180-384048/1
Matrix: Water
Analysis Batch: 384048

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			12/29/21 17:28	1

Lab Sample ID: LCS 180-384048/2
Matrix: Water
Analysis Batch: 384048

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	202		mg/L		102	85 - 115		

QC Association Summary

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

Job ID: 180-131747-1

GC/MS VOA

Analysis Batch: 383913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 624.1	
MB 180-383913/7	Method Blank	Total/NA	Water	EPA 624.1	
LCS 180-383913/3	Lab Control Sample	Total/NA	Water	EPA 624.1	
180-131747-1 MS	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 624.1	
180-131747-1 MSD	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 624.1	

GC Semi VOA

Prep Batch: 383693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	608	
MB 180-383693/1-A	Method Blank	Total/NA	Water	608	
LCS 180-383693/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 180-383693/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 384070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 608.3	383693
MB 180-383693/1-A	Method Blank	Total/NA	Water	EPA 608.3	383693
LCS 180-383693/4-A	Lab Control Sample	Total/NA	Water	EPA 608.3	383693
LCSD 180-383693/5-A	Lab Control Sample Dup	Total/NA	Water	EPA 608.3	383693

Metals

Prep Batch: 383533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total Recoverable	Water	200.7	
MB 180-383533/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 180-383533/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 383759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total Recoverable	Water	EPA 200.7 Rev 4	383533
MB 180-383533/1-A	Method Blank	Total Recoverable	Water	EPA 200.7 Rev 4	383533
LCS 180-383533/2-A	Lab Control Sample	Total Recoverable	Water	EPA 200.7 Rev 4	383533

Prep Batch: 383766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	245.1	
MB 180-383766/1-A	Method Blank	Total/NA	Water	245.1	
LCS 180-383766/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 384058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 245.1 Rev.	383766
MB 180-383766/1-A	Method Blank	Total/NA	Water	EPA 245.1 Rev.	383766
LCS 180-383766/2-A	Lab Control Sample	Total/NA	Water	EPA 245.1 Rev.	383766

QC Association Summary

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

Job ID: 180-131747-1

General Chemistry

Analysis Batch: 383662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	SM 2540D	
MB 180-383662/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 180-383662/1	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 383680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	SM 4500 H+ B	
LCS 180-383680/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 383847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	410.4	
MB 180-383847/12-A	Method Blank	Total/NA	Water	410.4	
MB 180-383847/36-A	Method Blank	Total/NA	Water	410.4	
LCS 180-383847/35-A	Lab Control Sample	Total/NA	Water	410.4	
180-131747-1 MS	W-11208058-122321-SSH-22021	Total/NA	Water	410.4	
180-131747-1 MSD	W-11208058-122321-SSH-22021	Total/NA	Water	410.4	

Analysis Batch: 383868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 410.4	383847
MB 180-383847/12-A	Method Blank	Total/NA	Water	EPA 410.4	383847
MB 180-383847/36-A	Method Blank	Total/NA	Water	EPA 410.4	383847
LCS 180-383847/35-A	Lab Control Sample	Total/NA	Water	EPA 410.4	383847
180-131747-1 MS	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 410.4	383847
180-131747-1 MSD	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 410.4	383847

Leach Batch: 383997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 180-383997/1-A	Method Blank	Total/NA	Water	D3987-85	

Analysis Batch: 384048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	SM 5210B	
USB 180-384048/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 180-384048/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 384161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 350.1	
LB 180-383997/1-A	Method Blank	Total/NA	Water	EPA 350.1	383997
MB 180-384161/17	Method Blank	Total/NA	Water	EPA 350.1	
LCS 180-384161/18	Lab Control Sample	Total/NA	Water	EPA 350.1	

Prep Batch: 384584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	1664B	
MB 180-384584/1-A	Method Blank	Total/NA	Water	1664B	
LCS 180-384584/2-A	Lab Control Sample	Total/NA	Water	1664B	

QC Association Summary

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

Job ID: 180-131747-1

General Chemistry

Analysis Batch: 384587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	EPA 1664B	384584
MB 180-384584/1-A	Method Blank	Total/NA	Water	EPA 1664B	384584
LCS 180-384584/2-A	Lab Control Sample	Total/NA	Water	EPA 1664B	384584

Analysis Batch: 611278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-131747-1	W-11208058-122321-SSH-22021	Total/NA	Water	SM 4500 P E	
MB 480-611278/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-611278/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Phone (412) 963-2468

Chain of Custody Record

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Client Information	Sampler: S. Hoevemeyer	Lab PM: Heckler, Denise D	Carrier Tracking No(s):	COC No: 240-89572-33955.1
Client Contact: Ms. Ruth Mickle	Phone: 616 427 7734	E-Mail: Denise.Heckler@Eurofinset.com	State of Origin: MI	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #:
Address: 26850 Haggerty Rd.	Due Date Requested:			
City: Farmington Hills	TAT Requested (days): 10 days			
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order Requested			
Email: ruth.mickle@ghd.com	WO #: 11208058			
Project Name: 11208058, RACER Bay City	Project #: 24006288			
Site:	SSOW#:			

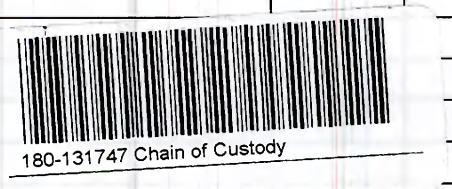
Analysis Requested

Preservation Codes:

A - HCL	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	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)	350.1, 365.4, 410.4 (Ammonia, P, COD)	1664B - HEM	SM4500_H+ - pH	200.7, 245.1	624.1_PREC - Vinyl Chloride	608.3_PCB_PREC - PCB's	2540D, 5210B (BOD and TSS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		S	S	N	D	A	N	N		
W-11208058-122321-SSH-22021	12/23/21	1130	C,G	Water	X	X	X	X	X	X	X		BOD has a 48 hour holding time
													All analysis to be done in Pittsburgh



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]	12/23/21 1400	GHD	[signature]	12/24/21 1000	FEDEX
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:
	1692456, 1692457	

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Heckler, Denise D	Carrier Tracking No(s):	COC No: 180-452121.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Denise.Heckler@Eurofinset.com	State of Origin: Michigan	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note):		Job #: 180-131747-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 1/10/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: 11208058, RACER Bay City	Project #: 24006288			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_P_E/ (MOD) Phosphorus	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
W-11208058-122321-SSH-22021 (180-131747-1)	12/23/21	11:30 Eastern		Water			X	1	

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	Z - other (specify)

Other:

Note: Since laboratory accreditations are subject to change, Eurofins Northeast places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Northeast laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Northeast attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Northeast.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 1-4-22 1700	Company: eta PH	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1/5/22 1132	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3

Ver: 06/08/2021

1/11/2022

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 180-131747-1

Login Number: 131747
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

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

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 180-131747-1

Login Number: 131747
List Number: 2
Creator: Stopa, Erik S

List Source: Eurofins Buffalo
List Creation: 01/07/22 09:58 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3 ir gun #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

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ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-165366-1
Client Project/Site: 11208058, RACER Bay City

For:
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Attn: Ms. Ruth Mickle

Denise D Heckler

Authorized for release by:
5/11/2022 8:13:08 AM

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

Table of Contents

Case Narrative

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

Job ID: 240-165366-1

Job ID: 240-165366-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-165366-1

Comments
No additional comments.

Receipt
The sample was received on 4/22/2022 9:40 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 0.7º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described 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 240-525296.

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: 240-165366-1
Project/Site: 11208058, 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.
Project/Site: 11208058, RACER Bay City

Job ID: 240-165366-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-165366-1	W-11208058-042122-SSH-2201	Water	04/21/22 12:00	04/22/22 09:40

Detection Summary

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

Job ID: 240-165366-1

Client Sample ID: W-11208058-042122-SSH-2201 **Lab Sample ID: 240-165366-1**

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: 240-165366-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

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

Job ID: 240-165366-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: W-11208058-042122-SSH-2201
Date Collected: 04/21/22 12:00
Date Received: 04/22/22 09:40

Lab Sample ID: 240-165366-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		05/05/22 11:45	05/09/22 20:23	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		05/05/22 11:45	05/09/22 20:23	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		05/05/22 11:45	05/09/22 20:23	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		05/05/22 11:45	05/09/22 20:23	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		05/05/22 11:45	05/09/22 20:23	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		05/05/22 11:45	05/09/22 20:23	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		05/05/22 11:45	05/09/22 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*22 - 120*	*05/05/22 11:45*	*05/09/22 20:23*	*1*
DCB Decachlorobiphenyl	*105*		*10 - 120*	*05/05/22 11:45*	*05/09/22 20:23*	*1*

QC Association Summary

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

Job ID: 240-165366-1

GC Semi VOA

Prep Batch: 525296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165366-1	W-11208058-042122-SSH-2201	Total/NA	Water	3510C	
MB 240-525296/21-A	Method Blank	Total/NA	Water	3510C	
LCS 240-525296/22-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 525524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165366-1	W-11208058-042122-SSH-2201	Total/NA	Water	8082A	525296
MB 240-525296/21-A	Method Blank	Total/NA	Water	8082A	525296
LCS 240-525296/22-A	Lab Control Sample	Total/NA	Water	8082A	525296

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-525296/21-A
Matrix: Water
Analysis Batch: 525524

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		05/05/22 11:45	05/09/22 18:55	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		05/05/22 11:45	05/09/22 18:55	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		05/05/22 11:45	05/09/22 18:55	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		05/05/22 11:45	05/09/22 18:55	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		05/05/22 11:45	05/09/22 18:55	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		05/05/22 11:45	05/09/22 18:55	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		05/05/22 11:45	05/09/22 18:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*22 - 120*	*05/05/22 11:45*	*05/09/22 18:55*	*1*
DCB Decachlorobiphenyl	*111*		*10 - 120*	*05/05/22 11:45*	*05/09/22 18:55*	*1*

Lab Sample ID: LCS 240-525296/22-A
Matrix: Water
Analysis Batch: 525524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525296

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aroclor-1016			2.50	2.32		ug/L		93	28 - 120		
Aroclor-1260			2.50	2.18		ug/L		87	30 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*91*		*22 - 120*
DCB Decachlorobiphenyl	*54*		*10 - 120*

Surrogate Summary

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

Job ID: 240-165366-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	TCX2 (22-120)	DCBP2 (10-120)										
240-165366-1	W-11208058-042122-SSH-2201	80	105										
LCS 240-525296/22-A	Lab Control Sample	91	54										
MB 240-525296/21-A	Method Blank	86	111										

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Lab Chronicle

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

Job ID: 240-165366-1

Client Sample ID: W-11208058-042122-SSH-2201

Lab Sample ID: 240-165366-1

Date Collected: 04/21/22 12:00

Matrix: Water

Date Received: 04/22/22 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			525296	05/05/22 11:45	BMB	TAL CAN
Total/NA	Analysis	8082A		1	525524	05/09/22 20:23	LSH	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 240-165366-1
Project/Site: 11208058, 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	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-16	08-31-22
Virginia	NELAP	11570	09-14-22
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

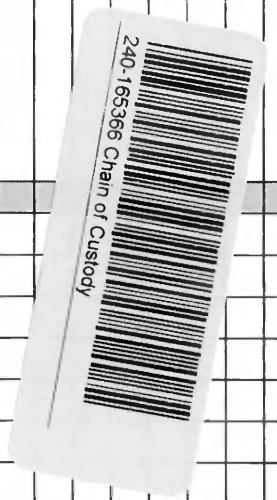
0.7|0.7

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: S. Hoevemeyer	Lab PM: Heckler, Denise D	Carrier Tracking No(s):	COC No: 240-94259-28265.1
Client Contact: Ms. Ruth Mickle	Phone: 616 437 7734	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: MI	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:	Analysis Requested		Job #:
Address: 26850 Haggerty Rd.	Due Date Requested: 5/6/22			Preservation Codes:
City: Farmington Hills	TAT Requested (days): 14			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, Z - other (specify)
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order Requested			Other:
Email: ruth.mickle@ghd.com	WO #: 11208058			
Project Name: 11208058, RACER Bay City	Project #: 24006288			
Site: extraction system - EW15	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)	8082A - PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
W-11208058-042122-SSH-2201	4/21/22	1200	G	Water	N	N	X		



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		4/21/22 1400	GHD		4-22-22 940	ETA
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: 1769378, 1769379	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Page 14 of 15

5/11/2022

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 165366
Canton Facility

Client GHD Site Name _____ Cooler unpacked by: Matt

Cooler Received on 4-22-22 Opened on 4-22-22

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

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

TestAmerica Cooler # TA 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 **0.0** °C) Observed Cooler Temp. 0.7 °C Corrected Cooler Temp. 0.7 °C
   IR GUN #IR-15 (CF **-0.7**°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# HC157842
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: _____

WI-NC-099

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ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-167329-1
Client Project/Site: 11208058, RACER Bay City

For:
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Attn: Ms. Ruth Mickle

Denise D Heckler

Authorized for release by:
6/16/2022 12:51:59 PM

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

Table of Contents

Case Narrative

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

Job ID: 240-167329-1

Job ID: 240-167329-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-167329-1

Comments
The BOD was analyzed at NEORSD.

Receipt
The sample was received on 5/27/2022 10:00 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 4.7º 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: Surrogate recovery for the following method blank was outside the upper control limit: W-11208058-052622-SSH-EFF2022 (240-167329-1). The sample associated with this blank did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

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 2540D: Insufficient sample volume was provided to produce results within the specifications of SM 2540D which requires at least 2.5 mg dried residue with a sample volume not to exceed 1L. A sample volume less than 1L, that yielded less than 2.5 mg dried residue, was provided for the following sample: W-11208058-052622-SSH-EFF2022 (240-167329-1).

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: 240-167329-1
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
S1+	Surrogate recovery exceeds control limits, high biased.
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
F1	MS and/or MSD recovery exceeds control limits.
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, RACER Bay City

Job ID: 240-167329-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-167329-1	W-11208058-052622-SSH-EFF2022	Water	05/26/22 10:10	05/27/22 10:00

Detection Summary

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

Job ID: 240-167329-1

Client Sample ID: W-11208058-052622-SSH-EFF2022 — Lab Sample ID: 240-167329-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.32	J	2.0	0.20	ug/L	1		200.7 Rev 4.4	Total Recoverable
Copper	25	B	20	3.5	ug/L	1		200.7 Rev 4.4	Total Recoverable
Iron	490		100	83	ug/L	1		200.7 Rev 4.4	Total Recoverable
Nickel	7.0	J	20	2.2	ug/L	1		200.7 Rev 4.4	Total Recoverable
HEM	5.5		4.8	0.98	mg/L	1		1664A	Total/NA
Chemical Oxygen Demand	34	F1	10	1.8	mg/L	1		410.4	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		4500 H+ B-2000	Total/NA
Ammonia	7.1		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Suspended Solids	2.2	J	6.7	1.7	mg/L	1		SM 2540D	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: 240-167329-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
410.4	COD	MCAWW	TAL CAN
4500 H+ B-2000	pH	SM	TAL CAN
4500 NH3 H	Ammonia	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM4500 P E-1999	Phosphorus	SM	TAL CAN
Subcontract	BOD	None	NEORSD
200.7	Preparation, Total Recoverable Metals	EPA	TAL CAN
245.1	Preparation, Mercury	EPA	TAL CAN
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL 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.

None = None

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

Laboratory References:

NEORSD = Northeast Ohio Regional Sewer District, 4747 East 49th Street, Cuyahoga Heights, OH 44125, TEL (216)641-6000

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

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

Job ID: 240-167329-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Client Sample ID: W-11208058-052622-SSH-EFF2022
Date Collected: 05/26/22 10:10
Date Received: 05/27/22 10:00

Lab Sample ID: 240-167329-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			06/07/22 02:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*56 - 136*		*06/07/22 02:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*128*		*62 - 137*		*06/07/22 02:54*	*1*
Toluene-d8 (Surr)	*98*		*78 - 122*		*06/07/22 02:54*	*1*

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

Job ID: 240-167329-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: W-11208058-052622-SSH-EFF2022
Date Collected: 05/26/22 10:10
Date Received: 05/27/22 10:00

Lab Sample ID: 240-167329-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.099	U	0.099	0.055	ug/L		06/09/22 08:22	06/13/22 10:11	1
Aroclor-1221	0.099	U	0.099	0.056	ug/L		06/09/22 08:22	06/13/22 10:11	1
Aroclor-1232	0.099	U	0.099	0.073	ug/L		06/09/22 08:22	06/13/22 10:11	1
Aroclor-1242	0.099	U	0.099	0.075	ug/L		06/09/22 08:22	06/13/22 10:11	1
Aroclor-1248	0.099	U	0.099	0.050	ug/L		06/09/22 08:22	06/13/22 10:11	1
Aroclor-1254	0.099	U	0.099	0.040	ug/L		06/09/22 08:22	06/13/22 10:11	1
Aroclor-1260	0.099	U	0.099	0.046	ug/L		06/09/22 08:22	06/13/22 10:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*10 - 114*	*06/09/22 08:22*	*06/13/22 10:11*	*1*
Tetrachloro-m-xylene	*81*		*15 - 131*	*06/09/22 08:22*	*06/13/22 10:11*	*1*

Client Sample Results

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

Job ID: 240-167329-1

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

Client Sample ID: W-11208058-052622-SSH-EFF2022
Date Collected: 05/26/22 10:10
Date Received: 05/27/22 10:00

Lab Sample ID: 240-167329-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		05/31/22 12:00	06/01/22 23:06	1
Cadmium	**0.32**	**J**	2.0	0.20	ug/L		05/31/22 12:00	06/01/22 23:06	1
Chromium	5.0	U	5.0	4.0	ug/L		05/31/22 12:00	06/01/22 23:06	1
Copper	**25**	**B**	20	3.5	ug/L		05/31/22 12:00	06/01/22 23:06	1
Iron	**490**		100	83	ug/L		05/31/22 12:00	06/01/22 23:06	1
Nickel	**7.0**	**J**	20	2.2	ug/L		05/31/22 12:00	06/01/22 23:06	1
Lead	3.0	U	3.0	2.8	ug/L		05/31/22 12:00	06/01/22 23:06	1

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

Job ID: 240-167329-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: W-11208058-052622-SSH-EFF2022
Date Collected: 05/26/22 10:10
Date Received: 05/27/22 10:00

Lab Sample ID: 240-167329-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		05/31/22 12:00	06/01/22 15:51	1

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

Job ID: 240-167329-1

General Chemistry

Client Sample ID: W-11208058-052622-SSH-EFF2022
Date Collected: 05/26/22 10:10
Date Received: 05/27/22 10:00

Lab Sample ID: 240-167329-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	**5.5**		4.8	0.98	mg/L			06/08/22 08:48	1
Chemical Oxygen Demand	**34**	**F1**	10	1.8	mg/L			06/02/22 11:54	1
pH	**7.4**	**HF**	0.1	0.1	SU			06/01/22 08:44	1
Ammonia	**7.1**		0.20	0.076	mg/L			06/01/22 12:54	1
Total Suspended Solids	**2.2**	**J**	6.7	1.7	mg/L			06/02/22 10:40	1
Total Phosphorus as P	0.10	U	0.10	0.017	mg/L			06/08/22 09:04	1

QC Association Summary

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

Job ID: 240-167329-1

GC/MS VOA

Analysis Batch: 529283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	624	
MB 240-529283/32	Method Blank	Total/NA	Water	624	
LCS 240-529283/33	Lab Control Sample	Total/NA	Water	624	

GC Semi VOA

Prep Batch: 529870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	608	
MB 240-529870/25-A	Method Blank	Total/NA	Water	608	
LCS 240-529870/26-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 530258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	608	529870
MB 240-529870/25-A	Method Blank	Total/NA	Water	608	529870
LCS 240-529870/26-A	Lab Control Sample	Total/NA	Water	608	529870

Metals

Prep Batch: 528535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total Recoverable	Water	200.7	
MB 240-528535/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-528535/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 528536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	245.1	
MB 240-528536/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-528536/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 528786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	245.1	528536
MB 240-528536/1-A	Method Blank	Total/NA	Water	245.1	528536
LCS 240-528536/2-A	Lab Control Sample	Total/NA	Water	245.1	528536

Analysis Batch: 528856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total Recoverable	Water	200.7 Rev 4.4	528535
MB 240-528535/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	528535
LCS 240-528535/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	528535

General Chemistry

Analysis Batch: 528688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	4500 H+ B-2000	
LCS 240-528688/2	Lab Control Sample	Total/NA	Water	4500 H+ B-2000	

General Chemistry

Analysis Batch: 528783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	4500 NH3 H	
MB 240-528783/46	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-528783/47	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Analysis Batch: 528913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	SM 2540D	
MB 240-528913/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-528913/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 528934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	410.4	
MB 240-528934/9	Method Blank	Total/NA	Water	410.4	
LCS 240-528934/10	Lab Control Sample	Total/NA	Water	410.4	
240-167329-1 MS	W-11208058-052622-SSH-EFF2022	Total/NA	Water	410.4	
240-167329-1 MSD	W-11208058-052622-SSH-EFF2022	Total/NA	Water	410.4	

Analysis Batch: 529693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	1664A	
MB 240-529693/1	Method Blank	Total/NA	Water	1664A	
LCS 240-529693/2	Lab Control Sample	Total/NA	Water	1664A	

Analysis Batch: 529703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167329-1	W-11208058-052622-SSH-EFF2022	Total/NA	Water	SM4500 P E-1999	
MB 240-529703/3	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-529703/4	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-529283/32
Matrix: Water
Analysis Batch: 529283

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			06/06/22 22:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*56 - 136*		*06/06/22 22:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*124*		*62 - 137*		*06/06/22 22:45*	*1*
Toluene-d8 (Surr)	*98*		*78 - 122*		*06/06/22 22:45*	*1*

Lab Sample ID: LCS 240-529283/33
Matrix: Water
Analysis Batch: 529283

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	24.8		ug/L		124	10 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*56 - 136*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*
Toluene-d8 (Surr)	*101*		*78 - 122*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-529870/25-A
Matrix: Water
Analysis Batch: 530258

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 529870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		06/09/22 08:22	06/13/22 09:40	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		06/09/22 08:22	06/13/22 09:40	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		06/09/22 08:22	06/13/22 09:40	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		06/09/22 08:22	06/13/22 09:40	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		06/09/22 08:22	06/13/22 09:40	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		06/09/22 08:22	06/13/22 09:40	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		06/09/22 08:22	06/13/22 09:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*117*	*S1+*	*10 - 114*	*06/09/22 08:22*	*06/13/22 09:40*	*1*
Tetrachloro-m-xylene	*101*		*15 - 131*	*06/09/22 08:22*	*06/13/22 09:40*	*1*

Lab Sample ID: LCS 240-529870/26-A
Matrix: Water
Analysis Batch: 530258

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 529870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	2.50	1.92		ug/L		77	50 - 114
Aroclor-1260	2.50	2.66		ug/L		106	8 - 127

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 240-529870/26-A
Matrix: Water
Analysis Batch: 530258

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 529870

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*113*		*10 - 114*
Tetrachloro-m-xylene	*73*		*15 - 131*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-528535/1-A
Matrix: Water
Analysis Batch: 528856

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 528535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		05/31/22 12:00	06/01/22 22:11	1
Cadmium	2.0	U	2.0	0.20	ug/L		05/31/22 12:00	06/01/22 22:11	1
Chromium	5.0	U	5.0	4.0	ug/L		05/31/22 12:00	06/01/22 22:11	1
Copper	3.80	J	20	3.5	ug/L		05/31/22 12:00	06/01/22 22:11	1
Iron	100	U	100	83	ug/L		05/31/22 12:00	06/01/22 22:11	1
Nickel	20	U	20	2.2	ug/L		05/31/22 12:00	06/01/22 22:11	1
Lead	3.0	U	3.0	2.8	ug/L		05/31/22 12:00	06/01/22 22:11	1

Lab Sample ID: LCS 240-528535/2-A
Matrix: Water
Analysis Batch: 528856

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 528535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	100	101		ug/L		101	85 - 115
Cadmium	1000	975		ug/L		97	85 - 115
Chromium	1000	968		ug/L		97	85 - 115
Copper	1000	963		ug/L		96	85 - 115
Iron	10000	9280		ug/L		93	85 - 115
Nickel	1000	996		ug/L		100	85 - 115
Lead	1000	949		ug/L		95	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-528536/1-A
Matrix: Water
Analysis Batch: 528786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 528536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		05/31/22 12:00	06/01/22 15:27	1

Lab Sample ID: LCS 240-528536/2-A
Matrix: Water
Analysis Batch: 528786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 528536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.38		ug/L		108	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-529693/1
Matrix: Water
Analysis Batch: 529693

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			06/08/22 08:48	1

Lab Sample ID: LCS 240-529693/2
Matrix: Water
Analysis Batch: 529693

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	34.50		mg/L		86	78 - 114

Method: 410.4 - COD

Lab Sample ID: MB 240-528934/9
Matrix: Water
Analysis Batch: 528934

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			06/02/22 11:54	1

Lab Sample ID: LCS 240-528934/10
Matrix: Water
Analysis Batch: 528934

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	59.0	55.7		mg/L		94	90 - 110

Lab Sample ID: 240-167329-1 MS
Matrix: Water
Analysis Batch: 528934

Client Sample ID: W-11208058-052622-SSH-EFF2022
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	34	F1	50.0	80.4		mg/L		92	90 - 110

Lab Sample ID: 240-167329-1 MSD
Matrix: Water
Analysis Batch: 528934

Client Sample ID: W-11208058-052622-SSH-EFF2022
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	34	F1	50.0	78.5	F1	mg/L		88	90 - 110	2	20

Method: 4500 H+ B-2000 - pH

Lab Sample ID: LCS 240-528688/2
Matrix: Water
Analysis Batch: 528688

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	9.33	9.2		SU		99	97 - 103

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-528783/46
Matrix: Water
Analysis Batch: 528783

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			06/01/22 12:30	1

Lab Sample ID: LCS 240-528783/47
Matrix: Water
Analysis Batch: 528783

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	6.19		mg/L		97	90 - 110

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

Lab Sample ID: MB 240-528913/1
Matrix: Water
Analysis Batch: 528913

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			06/02/22 10:40	1

Lab Sample ID: LCS 240-528913/2
Matrix: Water
Analysis Batch: 528913

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	45.0	34.5		mg/L		77	64 - 120

Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-529703/3
Matrix: Water
Analysis Batch: 529703

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			06/08/22 09:04	1

Lab Sample ID: LCS 240-529703/4
Matrix: Water
Analysis Batch: 529703

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	0.631	0.620		mg/L		98	77 - 120

Surrogate Summary

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

Job ID: 240-167329-1

Method: 624 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DCA	TOL
Lab Sample ID	Client Sample ID	(56-136)	(62-137)	(78-122)
240-167329-1	W-11208058-052622-SSH-EFF2	99	128	98
LCS 240-529283/33	Lab Control Sample	107	101	101
MB 240-529283/32	Method Blank	99	124	98

Surrogate Legend

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

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2	TCX2
Lab Sample ID	Client Sample ID	(10-114)	(15-131)
240-167329-1	W-11208058-052622-SSH-EFF2	80	81
LCS 240-529870/26-A	Lab Control Sample	113	73
MB 240-529870/25-A	Method Blank	117 S1+	101

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Lab Chronicle

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

Job ID: 240-167329-1

Client Sample ID: W-11208058-052622-SSH-EFF2022

Lab Sample ID: 240-167329-1

Date Collected: 05/26/22 10:10

Matrix: Water

Date Received: 05/27/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	529283	06/07/22 02:54	HMB	TAL CAN
Total/NA	Prep	608			529870	06/09/22 08:22	SDE	TAL CAN
Total/NA	Analysis	608		1	530258	06/13/22 10:11	LSH	TAL CAN
Total Recoverable	Prep	200.7			528535	05/31/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	528856	06/01/22 23:06	KLC	TAL CAN
Total/NA	Prep	245.1			528536	05/31/22 12:00	SHB	TAL CAN
Total/NA	Analysis	245.1		1	528786	06/01/22 15:51	DSH	TAL CAN
Total/NA	Analysis	1664A		1	529693	06/08/22 08:48	JMR	TAL CAN
Total/NA	Analysis	410.4		1	528934	06/02/22 11:54	KMS	TAL CAN
Total/NA	Analysis	4500 H+ B-2000		1	528688	06/01/22 08:44	MED	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	528783	06/01/22 12:54	AJ	TAL CAN
Total/NA	Analysis	SM 2540D		1	528913	06/02/22 10:40	MED	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	529703	06/08/22 09:04	BLW	TAL CAN

Laboratory References:

NEORSD = Northeast Ohio Regional Sewer District, 4747 East 49th Street, Cuyahoga Heights, OH 44125, TEL (216)641-6000

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 240-167329-1
Project/Site: 11208058, 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	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-17	08-31-22
Virginia	NELAP	11570	09-14-22
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

Chain of Custody Record

4.7/4.7

eurofins | Environment Testing America

Client Information	Sampler: S. Hoovemeyer	Lab PM: Heckler, Denise D	Carrier Tracking No(s):	COC No: 240-94256-28267.1
Client Contact: Ms. Ruth Mickle	Phone: 616 437 7734	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: MI	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #:
Address: 26850 Haggerty Rd.	Due Date Requested: 6/8/22			
City: Farmington Hills	TAT Requested (days): 14			
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No			
Phone: 248 893 3700	PO #: Purchase Order Requested			
Email: ruth.mickle@ghd.com	WO #: 11208058			
Project Name: 11208058, RACER Bay City	Project #: 24006288			
Site: effluent	SSOW#:			

Analysis Requested

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	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)	200.7 - Select Metals	410.4, 4500_P_E, SM4500NH3_D	624_LL - Vinyl chloride	608_PCB - PCBs	5210B - BOD	2540D, SM4500_H+	1664A_NP - HEM	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	S	A	N	N	N	S		
W-11208058-052622-SSH-EFF2022	5/26/22	1010	C, G	Water	N	N	X	X	X	X	X	X	X		

240-167329 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	[signature]	5/26/22 1400	GHD	[signature]	5.27.22 1000	ETNC
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.: 1761862 1761863	Cooler Temperature(s) °C and Other Remarks:

Ver: 06.08.2021

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6/16/2022

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

Client GHD Site Name _____ Cooler unpacked by: Nancy Boyer

Cooler Received on 5-27-22 Opened on 5-27-22

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

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

Eurofins Cooler # 4 ~~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 **0.0** °C) Observed Cooler Temp. 4.7 °C Corrected Cooler Temp. 4.7 °C
   IR GUN #IR-15 (CF **-0.7**°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# **HC157842**
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: _____

WI-NC-099


Do Not Lift Using This Tag
eurofins
Environment Testing
TestAmerica
Part # 159470-434 MTW EXP 01/23
SHIP DATE: 14APR22
ACTWGT: 10.00 LB MAN
CAD: 0562065/CAFE3511
SIGNATURE REQUIRED
EUROFINS TESTAMERICA BARBERTON
180 S VAN BUREN
BARBERTON OH 44203
REF: S240 - 94256
RMA:
FedEx
Express
FedEx
TRK# 0221 5293 4345 7335
FRI - 27 MAY 10:30A
PRIORITY OVERNIGHT
XN CAKA
44203
OH - US
CLE
EXP 04/23

Northeast Ohio Regional Sewer District Analytical Services

4747 E. 49th Street, Cleveland, OH 44125

(216) 641-6000

Monday, June 13, 2022

Nate Pietras
Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203

RE: Eurofins, TBOD, 13312

Version: v.0

Dear Nate Pietras

The Northeast Ohio Regional Sewer District Analytical Services Department received 1 sample(s) on Friday, May 27, 2022, for the analyses presented in the following report.

Any issues with sample receipt and/or subsequent analytical events are noted in the Workorder Summary. Deviations from laboratory-defined and/or method-specified quality control requirements are similarly noted and subsequent sample results are qualified. Except for results flagged with AA, <, D, R, T, and/or F, qualification generally indicates results are estimated concentrations or estimated counts. Appropriate use of this report's data to satisfy any regulatory or other programmatic requirement(s) is the responsibility of the client and/or data end-users.

MDLs for BOD, solids, and E. coli are displayed due to reporting software limitations. Technically, MDLs are not applicable, nor can they be derived for these methods. As a result, MDLs are set to be equivalent to the practical quantitation limits dictated by regulation and/or method requirements.

The laboratory maintains NELAP accreditation for non-potable water, drinking water, and solids analyses (NH DES #2238) and is Ohio EPA certified for drinking water testing (OEPA #498, #1349). Analyses which are not accredited or certified are noted as such. Where applicable, any additional requirements found in 40 CFR 136 (Clean Water Act, Analytical Methods) and 40 CFR 141 (Safe Drinking Water Act, Monitoring and Analytical Requirements) have been incorporated into accredited methods.

If you have any questions related to these analytical results, please feel free to contact me.

Sincerely,

Jeroen Van Acker, Laboratory Data Specialist
vanackerj@neorsd.org
(216) 641-6000

Data Qualifiers

>: Above test range
A: Recovery (i.e. accuracy) QC criteria not met
AA, <: Below MDL or PQL
AE: Analytical data not valid
B: Target analyte detected in blank
D: BOD seed did not meet method performance criteria
F: BOD standard did not meet method recovery criteria
H: Received and/or analyzed past hold time
IN: Sample, analysis, or other issue
J: MDL ≤ Sample result < PQL
P: Precision QC criteria not met
R: >30% between high and low valid BOD dilution results
T: Sample received >24 hours after collection & outside of the required temperature range; result may not be accurate

NELAP Accreditation Status (Accr)

N: Not Accredited
NA: Not Applicable
PE: Pending
X: Suspended
Y: Accredited

Acronyms & Definitions

%R: Percent Recovery
AQ: Aqueous (non-potable water or liquid)
CCB: Continuing Calibration Blank
CCV: Continuing Calibration Verification
DF: Dilution Factor
DUP: Lab Duplicate
DW: Drinking Water
ICB: Initial Calibration Blank
ICV: Initial/Independent Calibration Verification
IS: Internal Standard
LCB: Laboratory Control Blank
LCS: Laboratory Control Standard
MDL: Method Detection Limit
MPN: Most Probable Number
MS: Matrix Spike
MSD: Matrix Spike Duplicate
NELAP: National Environmental Laboratory Accreditation Program
PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
RLC: Reporting Limit Check
S: Solid
SURR: Surrogate

Northeast Ohio Regional Sewer District Analytical Services

4747 E. 49th Street, Cleveland, OH 44125

(216) 641-6000

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received
13312001	WSSHEFF(240-167329-1)	AQ	SM5210 B	05/26/2022 10:10	05/27/2022 13:13

Northeast Ohio Regional Sewer District Analytical Services

4747 E. 49th Street, Cleveland, OH 44125

(216) 641-6000

Analytical Results

Lab ID:	13312001	**Date Collected:**	05/26/2022 10:10	**Matrix:**	Aqueous
Sample ID:	WSSHEFF(240-167329-1)	**Date Received:**	05/27/2022 13:13		

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	By	Accr
SM5210 B									
BOD, Total	<2.0	mg/L	2.0	2.0	1	05/27/22 17:13	05/27/22 17:13	DNM	Y

Batch Comments

ANCH/13622

BOD: B - The method blank did not meet acceptable quality control criteria and indicates blank contamination. Therefore, the result is considered an estimate.

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Heckler, Denise D	Carrier Tracking No(s):	COC No: 240-152628.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: Northeast Ohio Regional Sewer District		Accreditations Required (See note):		Job #: 240-167329-1
Address: 4747 East 49th Street,	Due Date Requested: 6/10/2022	**Analysis Requested**		**Preservation Codes:**
City: Cuyahoga Heights	TAT Requested (days):			
State, Zip: OH, 44125				
Phone: 216-641-6000(Tel)	PO #:			
Email:	WO #:			
Project Name: 11208058 or 12610, RACER Bay City	Project #: 24006288			
Site:	SSOW#:			Other:

Preservation Codes: A - HCL; B - NaOH; ...cetate; ...c Acid; ...SO4; ...H; ...hlor; ...orbic Acid; ...ater; ...A; ...A; 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)

WO: 13312
CLIENT: Eurofins TestAmerica (EUR001)
WO ID: Eurofins, TBOD

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (BOD)/ BOD	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
W-1120858-052622-SSH-EFF2022 (240-167329-1)	5/26/22	10:10 Eastern		Water			X	1	13312001

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ______ Months*
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Kacey Pratt	Date/Time: 5/27/22/1317	Company: EETNC	Received by: [signature]	Date/Time: 5/27/22 1313	Company: NEORSD
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: On ICE, ALL PASS		

Ver: 06/08/2021

Northeast Ohio Regional Sewer District Analytical Services
4747 E. 49th Street, Cleveland, OH 44125
(216) 641-0000

Preliminary Workorder Billables

WO:	13312	**Account:**	EUR001
WO ID:	Eurofins, TBOD	**Client:**	Eurofins TestAmerica
Create Date:	05/27/2022 13:44	**Profile:**	BOD & NO3NO2
Due Date:	06/13/2022 13:13	**PO:**	
WO TAT:	10 Work days from receipt	**Project Manager:**	J. Van Acker
Report:	NEORSD Workorder Report W/ QC	**Chain:**	13312

Report To: Nate Pietras
Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203

Invoice To: Nate Pietras
Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203

CC:

Invoice Summary

Description	TAT	Quantity
BOD by EPA5210 B	10	1

Charge Details

Lab ID	Sample ID	Collected	Received	TAT	Mx
13312001	WSSHEFF(240-167329-1)	05/26/2022 10:10	05/27/2022 13:13	W010	Aqueous
	BOD by EPA5210 B			*10*	

Reviewed By:
JVA
JUN 1 2022
Analytical Services
NEORSD

Friday, May 27, 2022 3:35:01 PM
Page 1 of 1

Northeast Ohio Regional Sewer District

External Client Sample Receipt Checklist

Form 5056-14

WO#: 13312 Client: Eurofins Checked / Logged In By (Initials): BH Employee ID: 11769

Turn Around Time (circle): Rush 24hrs Rush 48hrs Rush ___Days STD 10-Day TAT STD 15-Day TAT

Samples received on ICE?	Yes	☑	No	☐	N/A	☐
Sample temperatures w/in range if collected > 24 hrs and received on ICE? **If not w/in range: Temps recorded and if client elects to proceed with analysis, add T flag in LIMS and narrate**	Yes	☑	No	☐	N/A	☐
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Evidence tape or custody seals intact?	Yes	☐	No	☐	N/A	☑
COC present and complete?	Yes	☑	No	☐		
OEPA SSR/ODH DW form present and complete?	Yes	☐	No	☐	N/A	☑
COC agrees with sample container labels?	Yes	☑	No	☐		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for testing?	Yes	☑	No	☐		
All samples received within Hold Time?	Yes	☑	No	☐		
Are requested analyses appropriate and/or correct?	Yes	☑	No	☐		
Samples properly Field Preserved and/or Field Filtered?	Yes	☑	No	☐	N/A	☐
Did sample(s) require *Aliquoting? Preservation?* (circle)	Yes	☐	No	☑		

If Yes: 1) Date/Time Aliquot and/or Preserve: Analyst (Initials): EID:

2) Circle Preservative: NONE H_2SO_4 HNO_3 HCl NaOH Other =

Field Preserved Metals >24hrs pushed thru pH batching?	Yes	☐	NA	☑		
Did sample require Filtration in Sample Receiving?	Yes	☐	No	☑		

If Yes: 1) Date/Time Filtered: Analyst (Initials): EID:

2) Circle Test filtered for: DRP Cr^{6+} Hg Metals Chlorophyll Other =

BOD aliquot pH checked (if applicable), adjusted (6.5-7.5)? Yes ☑ N/A ☐

Cl_2 Check (circle): N/A (BOD) CN N_x Phenol 544/545 WETT Other:

If performed in Sample Receiving (circle): < 0.1 mg/L > 0.1 mg/L

Cl_2 to be checked in Lab Area (circle): Micro Organics Other_____

Supervisor, QA, PM or Client notified of any issues? Yes ☐ N/A ☑

Approved deviations **documented in writing** by client? Yes ☐ N/A ☑

Target Temperatures*
Water/WW General & Bacti = 0-6°C
Sludges/Solids = 0-6°C
*DW Bacteria = 0-10°C***
USEPA-544/545/546 = 0-10°C
OEPA 701.0 Tot. MC = 0-10°C
OEPA 705.0 qPCR HAB = 0-4°C
Metals/Hg = No requirement

*Samples collected w/in 24 hrs above temp range acceptable if they are received on ice. **Samples cannot be received frozen or contain ice.**
**Clients are encouraged but not required to hold DW Bacti samples to < 10°C during transit.

Sample Deviations, Corrective Actions, Other Comments:

Date/Time Client Contacted: **By (Initials):** **EID:**

Page 1 of 1

Date Revised: 3/30/202

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-172119-1
Client Project/Site: 11208058, RACER Bay City
Revision: 1

For:
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Attn: Ms. Ruth Mickle

Denise D Heckler

Authorized for release by:
9/20/2022 9:15:13 AM

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

Table of Contents

Job ID: 240-172119-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-172119-1

Comments
A COC was not received with the samples. The COC was provided via email.

One bottle with a "R" in the sample ID was received. It did not match up to any samples on the COC. It was assigned to sample GW-11208058-082322-BW-007 as there was only one amber received for this specific sample. This botle was not used in the analysis of GW-11208058-082322-BW-007.

The sampling dates are incorrect on the COC. Per GHD: Sample 1 was sampled on 8/22. Sample 2-10 were sampled on 8/23.

A revised report was provided on September 20, 2022. The PCB narrative was revised.

Receipt
The samples were received on 8/24/2022 10:30 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 3.2° C.

GC Semi VOA
Method 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: GW-11208058-082322-BW-002 (240-172119-2), GW-11208058-082322-BW-005 (240-172119-5), GW-11208058-082322-BW-006 (240-172119-6) and GW-11208058-082322-BW-007 (240-172119-7).

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-11208058-082322-BW-002 (240-172119-2), GW-11208058-082322-BW-006 (240-172119-6), GW-11208058-082322-BW-007 (240-172119-7), and GW-11208058-082322-BW-010 (240-172119-10). The samples have been quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

Method 8082A: The %RPD between the primary and confirmation column exceeded 40% for Aroclor 1242 for the following sample: GW-11208058-082322-BW-010 (240-172119-10). The lower value has been reported and qualified in accordance with the laboratory's SOP.

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 240-540756.

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: 240-172119-1

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: 240-172119-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-172119-1	GW-11208058-082222-BW-001	Water	08/22/22 17:22	08/24/22 10:30
240-172119-2	GW-11208058-082322-BW-002	Water	08/23/22 10:33	08/24/22 10:30
240-172119-3	GW-11208058-082322-BW-003	Water	08/23/22 11:21	08/24/22 10:30
240-172119-4	GW-11208058-082322-BW-004	Water	08/23/22 12:18	08/24/22 10:30
240-172119-5	GW-11208058-082322-BW-005	Water	08/23/22 13:12	08/24/22 10:30
240-172119-6	GW-11208058-082322-BW-006	Water	08/23/22 13:59	08/24/22 10:30
240-172119-7	GW-11208058-082322-BW-007	Water	08/23/22 15:04	08/24/22 10:30
240-172119-8	GW-11208058-082322-BW-008	Water	08/23/22 16:07	08/24/22 10:30
240-172119-9	GW-11208058-082322-BW-009	Water	08/23/22 16:08	08/24/22 10:30
240-172119-10	GW-11208058-082322-BW-010	Water	08/23/22 16:24	08/24/22 10:30

Detection Summary

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

Job ID: 240-172119-1

Client Sample ID: GW-11208058-082222-BW-001 — Lab Sample ID: 240-172119-1

No Detections.

Client Sample ID: GW-11208058-082322-BW-002 — Lab Sample ID: 240-172119-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	1.4		0.095	0.072	ug/L	1		8082A	Total/NA

Client Sample ID: GW-11208058-082322-BW-003 — Lab Sample ID: 240-172119-3

No Detections.

Client Sample ID: GW-11208058-082322-BW-004 — Lab Sample ID: 240-172119-4

No Detections.

Client Sample ID: GW-11208058-082322-BW-005 — Lab Sample ID: 240-172119-5

No Detections.

Client Sample ID: GW-11208058-082322-BW-006 — Lab Sample ID: 240-172119-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	0.31		0.095	0.072	ug/L	1		8082A	Total/NA

Client Sample ID: GW-11208058-082322-BW-007 — Lab Sample ID: 240-172119-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	0.30		0.095	0.072	ug/L	1		8082A	Total/NA

Client Sample ID: GW-11208058-082322-BW-008 — Lab Sample ID: 240-172119-8

No Detections.

Client Sample ID: GW-11208058-082322-BW-009 — Lab Sample ID: 240-172119-9

No Detections.

Client Sample ID: GW-11208058-082322-BW-010 — Lab Sample ID: 240-172119-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	7.0	p	0.50	0.38	ug/L	5		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: 240-172119-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

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, RACER Bay City

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082222-BW-001
Date Collected: 08/22/22 17:22
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		08/30/22 14:33	09/01/22 11:18	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		08/30/22 14:33	09/01/22 11:18	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		08/30/22 14:33	09/01/22 11:18	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		08/30/22 14:33	09/01/22 11:18	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		08/30/22 14:33	09/01/22 11:18	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		08/30/22 14:33	09/01/22 11:18	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		08/30/22 14:33	09/01/22 11:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*10 - 149*	*08/30/22 14:33*	*09/01/22 11:18*	*1*
DCB Decachlorobiphenyl	*66*		*10 - 174*	*08/30/22 14:33*	*09/01/22 11:18*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-002
Date Collected: 08/23/22 10:33
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/22 14:33	09/01/22 11:34	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/22 14:33	09/01/22 11:34	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/22 14:33	09/01/22 11:34	1
Aroclor-1242	**1.4**		0.095	0.072	ug/L		08/30/22 14:33	09/01/22 11:34	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/22 14:33	09/01/22 11:34	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/22 14:33	09/01/22 11:34	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/22 14:33	09/01/22 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*10 - 149*	*08/30/22 14:33*	*09/01/22 11:34*	*1*
DCB Decachlorobiphenyl	*69*		*10 - 174*	*08/30/22 14:33*	*09/01/22 11:34*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-003
Date Collected: 08/23/22 11:21
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.099	U	0.099	0.055	ug/L		08/30/22 14:33	09/01/22 11:49	1
Aroclor-1221	0.099	U	0.099	0.056	ug/L		08/30/22 14:33	09/01/22 11:49	1
Aroclor-1232	0.099	U	0.099	0.073	ug/L		08/30/22 14:33	09/01/22 11:49	1
Aroclor-1242	0.099	U	0.099	0.075	ug/L		08/30/22 14:33	09/01/22 11:49	1
Aroclor-1248	0.099	U	0.099	0.050	ug/L		08/30/22 14:33	09/01/22 11:49	1
Aroclor-1254	0.099	U	0.099	0.040	ug/L		08/30/22 14:33	09/01/22 11:49	1
Aroclor-1260	0.099	U	0.099	0.046	ug/L		08/30/22 14:33	09/01/22 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*10 - 149*	*08/30/22 14:33*	*09/01/22 11:49*	*1*
DCB Decachlorobiphenyl	*70*		*10 - 174*	*08/30/22 14:33*	*09/01/22 11:49*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-004
Date Collected: 08/23/22 12:18
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		08/30/22 14:33	09/01/22 12:05	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		08/30/22 14:33	09/01/22 12:05	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		08/30/22 14:33	09/01/22 12:05	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		08/30/22 14:33	09/01/22 12:05	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		08/30/22 14:33	09/01/22 12:05	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		08/30/22 14:33	09/01/22 12:05	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		08/30/22 14:33	09/01/22 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*10 - 149*	*08/30/22 14:33*	*09/01/22 12:05*	*1*
DCB Decachlorobiphenyl	*60*		*10 - 174*	*08/30/22 14:33*	*09/01/22 12:05*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-005
Date Collected: 08/23/22 13:12
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/22 14:33	09/01/22 12:21	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/22 14:33	09/01/22 12:21	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/22 14:33	09/01/22 12:21	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/22 14:33	09/01/22 12:21	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/22 14:33	09/01/22 12:21	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/22 14:33	09/01/22 12:21	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/22 14:33	09/01/22 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*10 - 149*	*08/30/22 14:33*	*09/01/22 12:21*	*1*
DCB Decachlorobiphenyl	*55*		*10 - 174*	*08/30/22 14:33*	*09/01/22 12:21*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-006
Date Collected: 08/23/22 13:59
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/22 14:33	09/01/22 12:37	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/22 14:33	09/01/22 12:37	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/22 14:33	09/01/22 12:37	1
Aroclor-1242	**0.31**		0.095	0.072	ug/L		08/30/22 14:33	09/01/22 12:37	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/22 14:33	09/01/22 12:37	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/22 14:33	09/01/22 12:37	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/22 14:33	09/01/22 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*10 - 149*	*08/30/22 14:33*	*09/01/22 12:37*	*1*
DCB Decachlorobiphenyl	*55*		*10 - 174*	*08/30/22 14:33*	*09/01/22 12:37*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-007
Date Collected: 08/23/22 15:04
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/22 14:33	09/01/22 12:53	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/22 14:33	09/01/22 12:53	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/22 14:33	09/01/22 12:53	1
Aroclor-1242	**0.30**		0.095	0.072	ug/L		08/30/22 14:33	09/01/22 12:53	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/22 14:33	09/01/22 12:53	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/22 14:33	09/01/22 12:53	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/22 14:33	09/01/22 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*84*		*10 - 149*	*08/30/22 14:33*	*09/01/22 12:53*	*1*
DCB Decachlorobiphenyl	*63*		*10 - 174*	*08/30/22 14:33*	*09/01/22 12:53*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-008
Date Collected: 08/23/22 16:07
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/22 14:33	09/01/22 13:09	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/22 14:33	09/01/22 13:09	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/22 14:33	09/01/22 13:09	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/22 14:33	09/01/22 13:09	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/22 14:33	09/01/22 13:09	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/22 14:33	09/01/22 13:09	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/22 14:33	09/01/22 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*10 - 149*	*08/30/22 14:33*	*09/01/22 13:09*	*1*
DCB Decachlorobiphenyl	*94*		*10 - 174*	*08/30/22 14:33*	*09/01/22 13:09*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-009
Date Collected: 08/23/22 16:08
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/22 14:33	09/01/22 13:24	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/22 14:33	09/01/22 13:24	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/22 14:33	09/01/22 13:24	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/22 14:33	09/01/22 13:24	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/22 14:33	09/01/22 13:24	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/22 14:33	09/01/22 13:24	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/22 14:33	09/01/22 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*10 - 149*	*08/30/22 14:33*	*09/01/22 13:24*	*1*
DCB Decachlorobiphenyl	*90*		*10 - 174*	*08/30/22 14:33*	*09/01/22 13:24*	*1*

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

Job ID: 240-172119-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: GW-11208058-082322-BW-010
Date Collected: 08/23/22 16:24
Date Received: 08/24/22 10:30

Lab Sample ID: 240-172119-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.50	U	0.50	0.28	ug/L		08/30/22 14:33	09/01/22 13:40	5
Aroclor-1221	0.50	U	0.50	0.28	ug/L		08/30/22 14:33	09/01/22 13:40	5
Aroclor-1232	0.50	U	0.50	0.37	ug/L		08/30/22 14:33	09/01/22 13:40	5
Aroclor-1242	**7.0**	**p**	0.50	0.38	ug/L		08/30/22 14:33	09/01/22 13:40	5
Aroclor-1248	0.50	U	0.50	0.25	ug/L		08/30/22 14:33	09/01/22 13:40	5
Aroclor-1254	0.50	U	0.50	0.20	ug/L		08/30/22 14:33	09/01/22 13:40	5
Aroclor-1260	0.50	U	0.50	0.23	ug/L		08/30/22 14:33	09/01/22 13:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*	*p*	*10 - 149*	*08/30/22 14:33*	*09/01/22 13:40*	*5*
DCB Decachlorobiphenyl	*78*		*10 - 174*	*08/30/22 14:33*	*09/01/22 13:40*	*5*

QC Association Summary

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

Job ID: 240-172119-1

GC Semi VOA

Prep Batch: 540756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-172119-1	GW-11208058-082222-BW-001	Total/NA	Water	3510C	
240-172119-2	GW-11208058-082322-BW-002	Total/NA	Water	3510C	
240-172119-3	GW-11208058-082322-BW-003	Total/NA	Water	3510C	
240-172119-4	GW-11208058-082322-BW-004	Total/NA	Water	3510C	
240-172119-5	GW-11208058-082322-BW-005	Total/NA	Water	3510C	
240-172119-6	GW-11208058-082322-BW-006	Total/NA	Water	3510C	
240-172119-7	GW-11208058-082322-BW-007	Total/NA	Water	3510C	
240-172119-8	GW-11208058-082322-BW-008	Total/NA	Water	3510C	
240-172119-9	GW-11208058-082322-BW-009	Total/NA	Water	3510C	
240-172119-10	GW-11208058-082322-BW-010	Total/NA	Water	3510C	
MB 240-540756/19-A	Method Blank	Total/NA	Water	3510C	
LCS 240-540756/20-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 540990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-172119-1	GW-11208058-082222-BW-001	Total/NA	Water	8082A	540756
240-172119-2	GW-11208058-082322-BW-002	Total/NA	Water	8082A	540756
240-172119-3	GW-11208058-082322-BW-003	Total/NA	Water	8082A	540756
240-172119-4	GW-11208058-082322-BW-004	Total/NA	Water	8082A	540756
240-172119-5	GW-11208058-082322-BW-005	Total/NA	Water	8082A	540756
240-172119-6	GW-11208058-082322-BW-006	Total/NA	Water	8082A	540756
240-172119-7	GW-11208058-082322-BW-007	Total/NA	Water	8082A	540756
240-172119-8	GW-11208058-082322-BW-008	Total/NA	Water	8082A	540756
240-172119-9	GW-11208058-082322-BW-009	Total/NA	Water	8082A	540756
240-172119-10	GW-11208058-082322-BW-010	Total/NA	Water	8082A	540756
MB 240-540756/19-A	Method Blank	Total/NA	Water	8082A	540756
LCS 240-540756/20-A	Lab Control Sample	Total/NA	Water	8082A	540756

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-540756/19-A
Matrix: Water
Analysis Batch: 540990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		08/30/22 14:33	09/01/22 09:11	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		08/30/22 14:33	09/01/22 09:11	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		08/30/22 14:33	09/01/22 09:11	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		08/30/22 14:33	09/01/22 09:11	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		08/30/22 14:33	09/01/22 09:11	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		08/30/22 14:33	09/01/22 09:11	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		08/30/22 14:33	09/01/22 09:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*10 - 149*	*08/30/22 14:33*	*09/01/22 09:11*	*1*
DCB Decachlorobiphenyl	*121*		*10 - 174*	*08/30/22 14:33*	*09/01/22 09:11*	*1*

Lab Sample ID: LCS 240-540756/20-A
Matrix: Water
Analysis Batch: 540990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	2.50	2.02		ug/L		81	28 - 140
Aroclor-1260	2.50	1.93		ug/L		77	39 - 153

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*89*		*10 - 149*
DCB Decachlorobiphenyl	*107*		*10 - 174*

Surrogate Summary

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

Job ID: 240-172119-1

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)										
240-172119-1	GW-11208058-082222-BW-001	72	66										
240-172119-2	GW-11208058-082322-BW-002	76	69										
240-172119-3	GW-11208058-082322-BW-003	82	70										
240-172119-4	GW-11208058-082322-BW-004	70	60										
240-172119-5	GW-11208058-082322-BW-005	73	55										
240-172119-6	GW-11208058-082322-BW-006	73	55										
240-172119-7	GW-11208058-082322-BW-007	84	63										
240-172119-8	GW-11208058-082322-BW-008	76	94										
240-172119-9	GW-11208058-082322-BW-009	75	90										
240-172119-10	GW-11208058-082322-BW-010	86 p	78										
LCS 240-540756/20-A	Lab Control Sample	89	107										
MB 240-540756/19-A	Method Blank	91	121										

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Lab Chronicle

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

Job ID: 240-172119-1

Client Sample ID: GW-11208058-082222-BW-001
Lab Sample ID: 240-172119-1
Date Collected: 08/22/22 17:22
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 11:18

Client Sample ID: GW-11208058-082322-BW-002
Lab Sample ID: 240-172119-2
Date Collected: 08/23/22 10:33
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 11:34

Client Sample ID: GW-11208058-082322-BW-003
Lab Sample ID: 240-172119-3
Date Collected: 08/23/22 11:21
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 11:49

Client Sample ID: GW-11208058-082322-BW-004
Lab Sample ID: 240-172119-4
Date Collected: 08/23/22 12:18
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 12:05

Client Sample ID: GW-11208058-082322-BW-005
Lab Sample ID: 240-172119-5
Date Collected: 08/23/22 13:12
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 12:21

Client Sample ID: GW-11208058-082322-BW-006
Lab Sample ID: 240-172119-6
Date Collected: 08/23/22 13:59
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 12:37

Lab Chronicle

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

Job ID: 240-172119-1

Client Sample ID: GW-11208058-082322-BW-007

Lab Sample ID: 240-172119-7
Date Collected: 08/23/22 15:04
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 12:53

Client Sample ID: GW-11208058-082322-BW-008

Lab Sample ID: 240-172119-8
Date Collected: 08/23/22 16:07
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 13:09

Client Sample ID: GW-11208058-082322-BW-009

Lab Sample ID: 240-172119-9
Date Collected: 08/23/22 16:08
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		1	540990	RR	EET CAN	09/01/22 13:24

Client Sample ID: GW-11208058-082322-BW-010

Lab Sample ID: 240-172119-10
Date Collected: 08/23/22 16:24
Matrix: Water
Date Received: 08/24/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			540756	MDH	EET CAN	08/30/22 14:33
Total/NA	Analysis	8082A		5	540990	RR	EET CAN	09/01/22 13:40

Laboratory References:

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

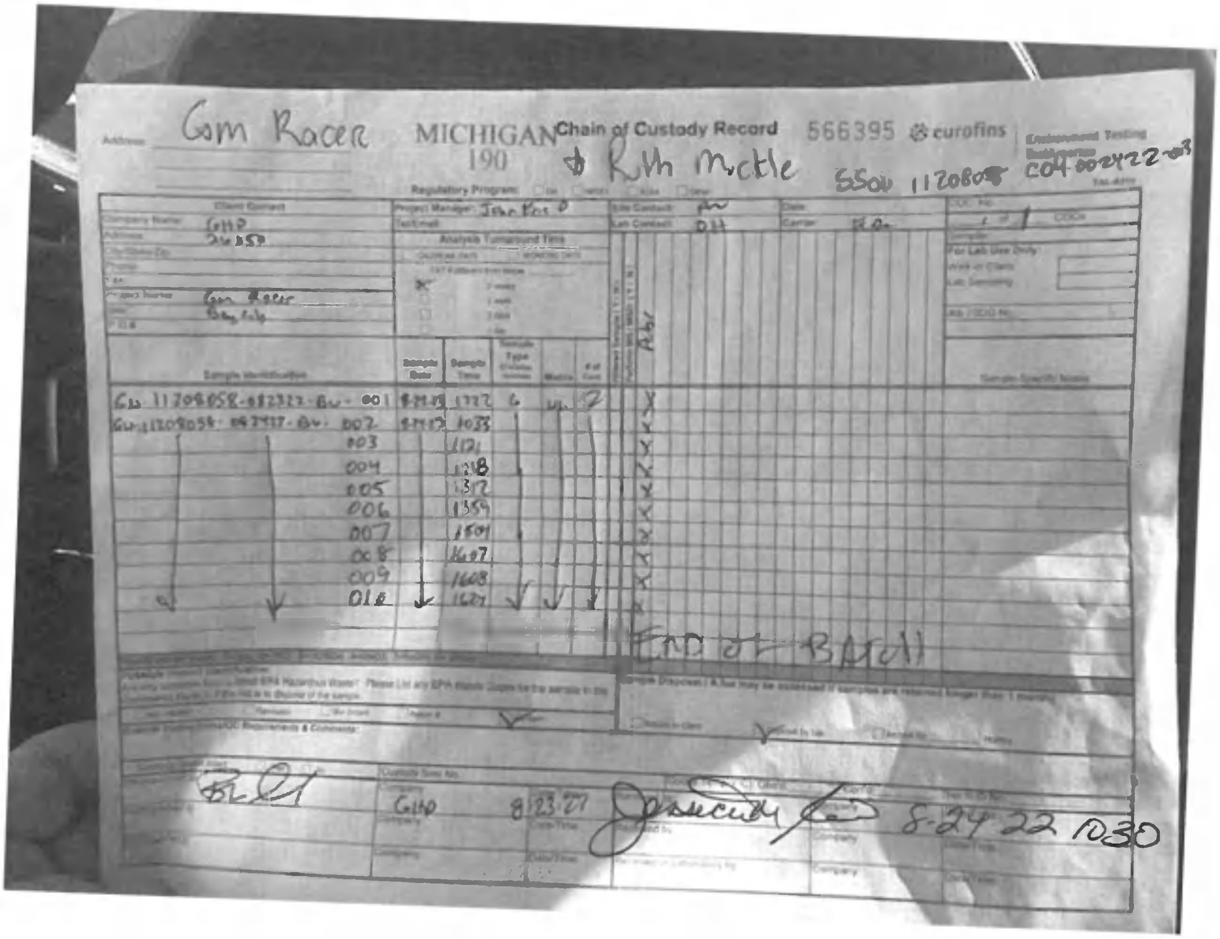
Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 240-172119-1
Project/Site: 11208058, 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
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	09-06-22
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22



Gsm Racer MICHIGAN 190 Chain of Custody Record 566395 eurofins Environment Testing

Kith Mackle 5500 1120808 C04-002422-03

Company Name: GHP

Project Name: Gsm Racer

Project Manager: John Kos

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
GW 11208058-082322-BW-001	8-23-22	1222	G	W	2
GW 11208058-082322-BW-002	8-23-22	1033			
003		1121			
004		1218			
005		1312			
006		1354			
007		1501			
008		1607			
009		1608			
010		1621			

End of Batch

Relinquished by: GHP 8-23-22

Received by: 8-24-22 1030

240-172119 Chain of Custody

1 2 3 4 5 6 7 8 9 10 11 12 13 14

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

Client GHD Site Name Racer Bay Cite Cooler unpacked by: Mandoly Blr

Cooler Received on 8-24-22 Opened on 8-24-22

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 8-24-22 ☐ See Multiple Cooler Form
   IR GUN# IR-13 (CF 0.0 °C) Observed Cooler Temp. ~~3.2~~ °C Corrected Cooler Temp. ______ °C
   IR GUN #IR-15 (CF ~~0.7~~ °C) 0.0°C 8-24-22 Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 3.2 °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? If yes, Questions 13-17 have been checked at the originating laboratory.	Yes (No)	
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes No (NA)	pH Strip Lot# HC~~------~~ 286797
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:

Amber Liters Rec'd for 1120858 samples-~~001~~ 002, 003, 004, 005, 006, 007, 008, 009, 010, and R. JWB 8-24-22
No COC. ~~Missing coolers?~~ Cooler was not missing. Client emailed COC. JWB 8-26-22

19. SAMPLE CONDITION Sample "R" is not on COC rec'd 8-26-22. JWB 8-26-22
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
Samples were received 8-24-22. Samples are listed as sampled on 8-24-22. Logged as 8-23-22. JWB 8-26-22
Sample(s) ____________ were further preserved in the laboratory.
Time preserved: ________ Preservative(s) added/Lot number(s): ____________

VOA Sample Preservation - Date/Time VOAs Frozen: ____________

WI-NC-099