



January 26, 2018

Reference No. 012610

City of Bay City WWTP  
Attn: IPP Coordinator  
2905 North Water Street  
Bay City, Michigan  
U.S.A. 48708

To Whom It May Concern:

**Re: Semi-Annual Compliance Report (July 1 to December 31, 2017)  
RACER Bay City Industrial Land  
Bay City, Michigan**

The following letter has been prepared by GHD on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) in accordance with Part 4 Section 3 of Industrial User (IU) permit No. 120807 as the semi-annual compliance report for the period July 1 to December 31, 2017 for RACER's groundwater extraction and treatment system located at the north end of Crotty Street in Bay City, Michigan (Site).

The groundwater extraction and treatment system operated consistently for the semi-annual period with the exception of short periods when the system was down for maintenance or as a result of an alarm condition.

Table 1 presents the results of the required semi-annual effluent sample collected from the RACER groundwater extraction and treatment system on November 30, 2017. Attachment 1 presents a copy of the laboratory analytical report. The analytical results did not identify an exceedance of the daily maximum discharge levels specified in the permit, and there were no other conditions, events or circumstances identified that did not meet other permit requirements. Table 2 presents the flow readings collected periodically from the flow meter. As previously identified to you, the flow volumes appear to be light when compared to previous flow rates. A new flow meter will be installed in the first quarter of 2018 to improve the accuracy of the flow volumes.

The RACER groundwater extraction and treatment system is operated and maintained by Steve Hoevermeyer (GHD) who maintains the designation of Waste Treatment Plan Operator – Industrial or Commercial (A-1d Impoundment, A-2b Filtration of Wastewater, B-2c Oil-Water Separation, and B-3b Carbon Adsorption).

See Attachment 2 for the certification statement prepared in accordance with Section 106-23(d) of the Bay City sewer ordinance.



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

Sincerely,

GHD

A handwritten signature in blue ink, appearing to read "J. Pardys". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

John-Eric Pardys, P.Eng.

JEP/wg/3

cc: Grant Trigger (RACER)  
Dave Favero (RACER)

Encl. Table 1 – Effluent Results Summary  
Table 2 – Flow Meter Readings  
Attachment 1 – Laboratory Analytical Report  
Attachment 2 – Certification Statement

**Analytical Results Summary  
Effluent Sampling  
Bay City Industrial Land  
Bay City, Michigan**

**Sample Location:**  
**Sample ID:**  
**Sample Date:**

**effluent-GWTS  
WT-12610-113017-SSH-02-17  
11/30/17**

<b>Parameters</b>	<b>Units</b>	<b>Daily Maximum</b>	
<b>VOAs</b>		<b>(Bay City Industrial User Permit)</b>	
Vinyl chloride	mg/L	0.002	0.001 U
<b>Metals</b>			
Cadmium	mg/L	0.057	0.002 U
Chromium	mg/L	6.812	0.005 U
Copper	mg/L	1.476	0.02 U
Iron	mg/L		0.4
Lead	mg/L	0.632	0.003 U
Mercury	mg/L	ND	0.0002 U
Nickel	mg/L	2.548	0.074
Silver	mg/L	0.2	0.005 U
<b>Pesticides</b>			
Aroclor-1016 (PCB-1016)	mg/L	ND	0.000096 U
Aroclor-1221 (PCB-1221)	mg/L	ND	0.000096 U
Aroclor-1232 (PCB-1232)	mg/L	ND	0.000096 U
Aroclor-1242 (PCB-1242)	mg/L	ND	0.000096 U
Aroclor-1248 (PCB-1248)	mg/L	ND	0.000096 U
Aroclor-1254 (PCB-1254)	mg/L	ND	0.000096 U
Aroclor-1260 (PCB-1260)	mg/L	ND	0.000096 U
<b>Wet</b>			
Ammonia	mg/L	30	0.2
Biochemical oxygen demand (BOD)	mg/L	835	2.0 U
Chemical oxygen demand (COD)	mg/L	1670	13
Oil and grease (HEM), polar	mg/L	100	4.7 U
pH, lab	s.u.	6.5 to 11.0	7.2 HF
Phosphorus	mg/L	13.8	0.10 U
Total suspended solids (TSS)	mg/L	1336	4.0 U

**Notes:**

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.

**Flow Meter Readings  
Bay City Industrial Land  
Bay City, Michigan**

<b>Date</b>	<b>Flow Meter reading (gallons)</b>	<b>Cumulative Total: (gallons)</b>	<b>Volume to be invoiced annually (July to June 30)</b>	<b>Comments</b>
16-Jun-14	4593	18950	<b>18950</b>	- City invoiced for discharge
28-Jul-14	4593	18950		
18-Aug-14	4593	18950		
5-Sep-14	6337	20694		- Collected effluent sample
23-Sep-14	11504	25861		
23-Oct-14	31004	45361		
26-Nov-14	31004	45361		
29-Dec-14	31004	45361		
27-Jan-15	31004	45361		
13-Feb-15	46303	60660		
16-Mar-15				- Collected effluent sample
19-Mar-15	67425	81782		
30-Apr-15	175234	189591		
6-May-15	197766	212123		
18-Jun-15	224490	238847		
25-Jun-15	232315	246672		
30-Jun-15	232315	246672		
29-Jul-15	232315	246672		
28-Aug-15	241397	255754		
29-Sep-15	252638	266995		
30-Oct-15	260771	275128		
23-Nov-15	289731	304088		
10-Dec-15				- Collected effluent sample
30-Dec-15	351550	365907		
10-Feb-16	387410	401767		
29-Feb-16	394550	408907		
21-Mar-16	409836	424193		
27-Apr-16	462204	476561		
31-May-16	521920	536277		
14-Jun-16	528259	542616	<b>523666</b>	- Collected effluent sample, City invoiced for discharge
29-Jun-16	556457	570814		
20-Jul-16	561893	576250		
31-Aug-16	607298	621655		
30-Sep-16	607717	622074		
28-Oct-16	608865	623222		
11-Nov-16	608980	623337		
16-Dec-16	609074	623431		
14-Jan-17	609074	623431		
14-Jan-17	0	623431		
16-Jan-17				- Collected effluent sample
2-Feb-17	5813	629244		
27-Apr-17	55126	678557		
9-May-17				- Collected effluent sample
22-May-17	56722	680153		
13-Jun-17	56729	680160	<b>137544</b>	- City invoiced for discharge
28-Jun-17	56911	680342		
12-Jul-17	60991	684422		
25-Oct-17	73702	697039		
30-Nov-17				- Collected effluent sample

# Attachment 1 Laboratory Analytical Report

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-88685-1

Client Project/Site: 12610-T04, RACER Bay City

For:

GHD Services Inc.

26850 Haggerty Rd.

Farmington Hills, Michigan 48331

Attn: Ms. Ruth Mickle



Authorized for release by:

12/13/2017 8:34:35 AM

Denise Heckler, Project Manager II

(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)



### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

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

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

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# Case Narrative

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

**Job ID: 240-88685-1**

**Laboratory: TestAmerica Canton**

## Narrative

**Job Narrative**  
**240-88685-1**

### Comments

No additional comments.

### Receipt

The samples were received on 12/1/2017 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

### GC/MS VOA

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

### GC Semi VOA

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

### Metals

Method(s) 200.7 Rev 4.4: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: WT-12610-113017-SSH-02-17 (240-88685-1). 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

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

### Organic Prep

Method(s) 3520C, 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-306029.

Method(s) 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-306419.

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: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## 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
U	Indicates the analyte was analyzed for but not detected.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
s	Seeded Control Blank (SCB) Recovery High

## 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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

# Sample Summary

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-88685-1	WT-12610-113017-SSH-02-17	Water	11/30/17 14:00	12/01/17 09:45
240-88685-2	TB-12610-113017-SSH-03-17	Water	11/30/17 14:15	12/01/17 09:45

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# Detection Summary

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

**Client Sample ID: WT-12610-113017-SSH-02-17**

**Lab Sample ID: 240-88685-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	400		100	25	ug/L	1		200.7 Rev 4.4	Total
Nickel	74		20	1.6	ug/L	1		200.7 Rev 4.4	Recoverable Total
Chemical Oxygen Demand	13		10	4.1	mg/L	1		410.4	Recoverable Total/NA
pH	7.2	HF	0.1	0.1	SU	1		4500 H+ B-2000	Total/NA
Ammonia	0.20		0.20	0.093	mg/L	1		SM 4500 NH3 D	Total/NA

**Client Sample ID: TB-12610-113017-SSH-03-17**

**Lab Sample ID: 240-88685-2**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Method Summary

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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
5210B-2001	BOD, 5-Day	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 4500 NH3 D	Ammonia	SM	TAL CAN
SM4500 P E-1999	Phosphorus	SM	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.

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

#### Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

Client Sample ID: WT-12610-113017-SSH-02-17

Date Collected: 11/30/17 14:00

Date Received: 12/01/17 09:45

Lab Sample ID: 240-88685-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/06/17 02:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		69 - 120					12/06/17 02:49	1
1,2-Dichloroethane-d4 (Surr)	95		61 - 138					12/06/17 02:49	1
Toluene-d8 (Surr)	103		73 - 120					12/06/17 02:49	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

Client Sample ID: TB-12610-113017-SSH-03-17

Date Collected: 11/30/17 14:15

Date Received: 12/01/17 09:45

Lab Sample ID: 240-88685-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/06/17 03:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		69 - 120					12/06/17 03:11	1
1,2-Dichloroethane-d4 (Surr)	94		61 - 138					12/06/17 03:11	1
Toluene-d8 (Surr)	99		73 - 120					12/06/17 03:11	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

Client Sample ID: WT-12610-113017-SSH-02-17

Date Collected: 11/30/17 14:00

Date Received: 12/01/17 09:45

Lab Sample ID: 240-88685-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.096	U	0.096	0.048	ug/L		12/04/17 07:26	12/08/17 22:19	1
Aroclor-1221	0.096	U	0.096	0.087	ug/L		12/04/17 07:26	12/08/17 22:19	1
Aroclor-1232	0.096	U	0.096	0.067	ug/L		12/04/17 07:26	12/08/17 22:19	1
Aroclor-1242	0.096	U	0.096	0.058	ug/L		12/04/17 07:26	12/08/17 22:19	1
Aroclor-1248	0.096	U	0.096	0.048	ug/L		12/04/17 07:26	12/08/17 22:19	1
Aroclor-1254	0.096	U	0.096	0.029	ug/L		12/04/17 07:26	12/08/17 22:19	1
Aroclor-1260	0.096	U	0.096	0.038	ug/L		12/04/17 07:26	12/08/17 22:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		10 - 114	12/04/17 07:26	12/08/17 22:19	1
Tetrachloro-m-xylene	75		15 - 131	12/04/17 07:26	12/08/17 22:19	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

Client Sample ID: WT-12610-113017-SSH-02-17

Date Collected: 11/30/17 14:00

Date Received: 12/01/17 09:45

Lab Sample ID: 240-88685-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.92	ug/L		12/04/17 14:00	12/06/17 02:04	1
Cadmium	2.0	U	2.0	0.29	ug/L		12/04/17 14:00	12/06/17 02:04	1
Chromium	5.0	U	5.0	0.55	ug/L		12/04/17 14:00	12/06/17 02:04	1
Copper	20	U	20	3.9	ug/L		12/04/17 14:00	12/06/17 02:04	1
<b>Iron</b>	<b>400</b>		100	25	ug/L		12/04/17 14:00	12/06/17 02:04	1
<b>Nickel</b>	<b>74</b>		20	1.6	ug/L		12/04/17 14:00	12/06/17 02:04	1
Lead	3.0	U	3.0	1.9	ug/L		12/04/17 14:00	12/06/17 02:04	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12610-113017-SSH-02-17

Date Collected: 11/30/17 14:00

Date Received: 12/01/17 09:45

Lab Sample ID: 240-88685-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		12/04/17 14:00	12/06/17 15:34	1

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# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## General Chemistry

Client Sample ID: WT-12610-113017-SSH-02-17

Date Collected: 11/30/17 14:00

Date Received: 12/01/17 09:45

Lab Sample ID: 240-88685-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	0.97	mg/L			12/12/17 08:14	1
<b>Chemical Oxygen Demand</b>	<b>13</b>		10	4.1	mg/L			12/06/17 14:09	1
<b>pH</b>	<b>7.2</b>	<b>HF</b>	0.1	0.1	SU			12/01/17 15:53	1
Biochemical Oxygen Demand	2.0	U	2.0	1.2	mg/L			12/01/17 14:49	1
Total Suspended Solids	4.0	U	4.0	2.2	mg/L			12/04/17 09:20	1
<b>Ammonia</b>	<b>0.20</b>		0.20	0.093	mg/L			12/06/17 09:56	1
Total Phosphorus as P	0.10	U	0.10	0.037	mg/L			12/04/17 13:45	1

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## GC/MS VOA

### Analysis Batch: 306349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	624	
240-88685-2	TB-12610-113017-SSH-03-17	Total/NA	Water	624	
MB 240-306349/7	Method Blank	Total/NA	Water	624	
LCS 240-306349/4	Lab Control Sample	Total/NA	Water	624	

## GC Semi VOA

### Prep Batch: 306029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	608	
MB 240-306029/15-A	Method Blank	Total/NA	Water	608	
LCS 240-306029/16-A	Lab Control Sample	Total/NA	Water	608	

### Analysis Batch: 306974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	608	306029
MB 240-306029/15-A	Method Blank	Total/NA	Water	608	306029

### Analysis Batch: 307119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-306029/16-A	Lab Control Sample	Total/NA	Water	608	306029

## Metals

### Prep Batch: 306063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total Recoverable	Water	200.7	
MB 240-306063/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-306063/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

### Prep Batch: 306065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	245.1	
MB 240-306065/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-306065/2-A	Lab Control Sample	Total/NA	Water	245.1	

### Analysis Batch: 306329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-306065/1-A	Method Blank	Total/NA	Water	245.1	306065
LCS 240-306065/2-A	Lab Control Sample	Total/NA	Water	245.1	306065

### Analysis Batch: 306330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total Recoverable	Water	200.7 Rev 4.4	306063
MB 240-306063/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	306063
LCS 240-306063/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	306063

### Analysis Batch: 306568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	245.1	306065

TestAmerica Canton

# QC Association Summary

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## General Chemistry

### Analysis Batch: 305882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	5210B-2001	
SCB 240-305882/2	Method Blank	Total/NA	Water	5210B-2001	
USB 240-305882/1	Method Blank	Total/NA	Water	5210B-2001	
LCS 240-305882/3	Lab Control Sample	Total/NA	Water	5210B-2001	

### Analysis Batch: 305897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	4500 H+ B-2000	
LCS 240-305897/2	Lab Control Sample	Total/NA	Water	4500 H+ B-2000	

### Analysis Batch: 306066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	SM 2540D	
MB 240-306066/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-306066/2	Lab Control Sample	Total/NA	Water	SM 2540D	

### Analysis Batch: 306177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	SM4500 P E-1999	
MB 240-306177/35	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-306177/36	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	

### Analysis Batch: 306496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	410.4	
MB 240-306496/9	Method Blank	Total/NA	Water	410.4	
LCS 240-306496/10	Lab Control Sample	Total/NA	Water	410.4	

### Analysis Batch: 306574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	SM 4500 NH3 D	
MB 240-306574/7	Method Blank	Total/NA	Water	SM 4500 NH3 D	
LCS 240-306574/8	Lab Control Sample	Total/NA	Water	SM 4500 NH3 D	

### Analysis Batch: 307287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88685-1	WT-12610-113017-SSH-02-17	Total/NA	Water	1664A	
MB 240-307287/1	Method Blank	Total/NA	Water	1664A	
LCS 240-307287/2	Lab Control Sample	Total/NA	Water	1664A	
240-88685-1 MS	WT-12610-113017-SSH-02-17	Total/NA	Water	1664A	

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

**Lab Sample ID: MB 240-306349/7**

**Matrix: Water**

**Analysis Batch: 306349**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/05/17 18:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		69 - 120		12/05/17 18:57	1
1,2-Dichloroethane-d4 (Surr)	100		61 - 138		12/05/17 18:57	1
Toluene-d8 (Surr)	108		73 - 120		12/05/17 18:57	1

**Lab Sample ID: LCS 240-306349/4**

**Matrix: Water**

**Analysis Batch: 306349**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	20.0	19.4		ug/L		97	10 - 251

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		69 - 120
1,2-Dichloroethane-d4 (Surr)	102		61 - 138
Toluene-d8 (Surr)	112		73 - 120

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

**Lab Sample ID: MB 240-306029/15-A**

**Matrix: Water**

**Analysis Batch: 306974**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 306029**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.050	ug/L		12/04/17 07:26	12/08/17 20:31	1
Aroclor-1221	0.10	U	0.10	0.090	ug/L		12/04/17 07:26	12/08/17 20:31	1
Aroclor-1232	0.10	U	0.10	0.070	ug/L		12/04/17 07:26	12/08/17 20:31	1
Aroclor-1242	0.10	U	0.10	0.060	ug/L		12/04/17 07:26	12/08/17 20:31	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		12/04/17 07:26	12/08/17 20:31	1
Aroclor-1254	0.10	U	0.10	0.030	ug/L		12/04/17 07:26	12/08/17 20:31	1
Aroclor-1260	0.10	U	0.10	0.040	ug/L		12/04/17 07:26	12/08/17 20:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		10 - 114	12/04/17 07:26	12/08/17 20:31	1
Tetrachloro-m-xylene	63		15 - 131	12/04/17 07:26	12/08/17 20:31	1

**Lab Sample ID: LCS 240-306029/16-A**

**Matrix: Water**

**Analysis Batch: 307119**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 306029**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	1.95		ug/L		78	50 - 114
Aroclor-1260	2.50	2.11		ug/L		84	8 - 127

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

**Lab Sample ID: LCS 240-306029/16-A**  
**Matrix: Water**  
**Analysis Batch: 307119**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 306029**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	113		10 - 114
Tetrachloro-m-xylene	110		15 - 131

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

**Lab Sample ID: MB 240-306063/1-A**  
**Matrix: Water**  
**Analysis Batch: 306330**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 306063**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.92	ug/L		12/04/17 14:00	12/05/17 12:05	1
Cadmium	2.0	U	2.0	0.29	ug/L		12/04/17 14:00	12/05/17 12:05	1
Chromium	5.0	U	5.0	0.55	ug/L		12/04/17 14:00	12/05/17 12:05	1
Copper	20	U	20	3.9	ug/L		12/04/17 14:00	12/05/17 12:05	1
Iron	100	U	100	25	ug/L		12/04/17 14:00	12/05/17 12:05	1
Nickel	20	U	20	1.6	ug/L		12/04/17 14:00	12/05/17 12:05	1
Lead	3.0	U	3.0	1.9	ug/L		12/04/17 14:00	12/05/17 12:05	1

**Lab Sample ID: LCS 240-306063/2-A**  
**Matrix: Water**  
**Analysis Batch: 306330**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 306063**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits %Rec.
Silver	50.0	50.2		ug/L		100	85 - 115
Cadmium	50.0	49.6		ug/L		99	85 - 115
Chromium	200	194		ug/L		97	85 - 115
Copper	250	247		ug/L		99	85 - 115
Iron	1000	1010		ug/L		101	85 - 115
Nickel	500	498		ug/L		100	85 - 115
Lead	500	484		ug/L		97	85 - 115

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 240-306065/1-A**  
**Matrix: Water**  
**Analysis Batch: 306329**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 306065**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		12/04/17 14:00	12/05/17 09:48	1

**Lab Sample ID: LCS 240-306065/2-A**  
**Matrix: Water**  
**Analysis Batch: 306329**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 306065**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits %Rec.
Mercury	5.00	4.71		ug/L		94	85 - 115

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-307287/1  
Matrix: Water  
Analysis Batch: 307287

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			12/12/17 08:14	1

Lab Sample ID: LCS 240-307287/2  
Matrix: Water  
Analysis Batch: 307287

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	35.40		mg/L		89	78 - 114

Lab Sample ID: 240-88685-1 MS  
Matrix: Water  
Analysis Batch: 307287

Client Sample ID: WT-12610-113017-SSH-02-17  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	4.7	U	37.5	31.99		mg/L		85	78 - 114

## Method: 410.4 - COD

Lab Sample ID: MB 240-306496/9  
Matrix: Water  
Analysis Batch: 306496

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	4.1	mg/L			12/06/17 14:05	1

Lab Sample ID: LCS 240-306496/10  
Matrix: Water  
Analysis Batch: 306496

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	55.2	52.9		mg/L		96	90 - 110

## Method: 4500 H+ B-2000 - pH

Lab Sample ID: LCS 240-305897/2  
Matrix: Water  
Analysis Batch: 305897

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	9.19	9.2		SU		100	97 - 103

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# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

**Lab Sample ID: SCB 240-305882/2**  
**Matrix: Water**  
**Analysis Batch: 305882**

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

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.19	s	2.0	1.2	mg/L			12/01/17 13:42	1

**Lab Sample ID: USB 240-305882/1**  
**Matrix: Water**  
**Analysis Batch: 305882**

**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	1.2	mg/L			12/01/17 13:40	1

**Lab Sample ID: LCS 240-305882/3**  
**Matrix: Water**  
**Analysis Batch: 305882**

**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	179		mg/L		91	85 - 115

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

**Lab Sample ID: MB 240-306066/1**  
**Matrix: Water**  
**Analysis Batch: 306066**

**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	2.2	mg/L			12/04/17 09:20	1

**Lab Sample ID: LCS 240-306066/2**  
**Matrix: Water**  
**Analysis Batch: 306066**

**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	58.1	57.0		mg/L		98	64 - 120

## Method: SM 4500 NH3 D - Ammonia

**Lab Sample ID: MB 240-306574/7**  
**Matrix: Water**  
**Analysis Batch: 306574**

**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	0.093	mg/L			12/06/17 09:21	1

**Lab Sample ID: LCS 240-306574/8**  
**Matrix: Water**  
**Analysis Batch: 306574**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.96	2.00		mg/L		102	85 - 114

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# QC Sample Results

Client: GHD Services Inc.  
 Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-306177/35  
 Matrix: Water  
 Analysis Batch: 306177

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	0.037	mg/L			12/04/17 13:45	1

Lab Sample ID: LCS 240-306177/36  
 Matrix: Water  
 Analysis Batch: 306177

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	0.665	0.730		mg/L		110	77 - 120

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

# Surrogate Summary

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (69-120)	DCA (61-138)	TOL (73-120)
240-88685-1	WT-12610-113017-SSH-02-17	89	95	103
240-88685-2	TB-12610-113017-SSH-03-17	89	94	99
LCS 240-306349/4	Lab Control Sample	102	102	112
MB 240-306349/7	Method Blank	97	100	108

#### 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)

Lab Sample ID	Client Sample ID	DCBP2 (10-114)	TCX2 (15-131)
240-88685-1	WT-12610-113017-SSH-02-17	75	75
MB 240-306029/15-A	Method Blank	70	63

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP1 (10-114)	TCX1 (15-131)
LCS 240-306029/16-A	Lab Control Sample	113	110

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

**Client Sample ID: WT-12610-113017-SSH-02-17**

**Lab Sample ID: 240-88685-1**

**Date Collected: 11/30/17 14:00**

**Matrix: Water**

**Date Received: 12/01/17 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	306349	12/06/17 02:49	TJL1	TAL CAN
Total/NA	Prep	608			306029	12/04/17 07:26	SDE	TAL CAN
Total/NA	Analysis	608		1	306974	12/08/17 22:19	KMG	TAL CAN
Total Recoverable	Prep	200.7			306063	12/04/17 14:00	AJC	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	306330	12/06/17 02:04	KLC	TAL CAN
Total/NA	Prep	245.1			306065	12/04/17 14:00	AJC	TAL CAN
Total/NA	Analysis	245.1		1	306568	12/06/17 15:34	DSH	TAL CAN
Total/NA	Analysis	1664A		1	307287	12/12/17 08:14	BLW	TAL CAN
Total/NA	Analysis	410.4		1	306496	12/06/17 14:09	JMB	TAL CAN
Total/NA	Analysis	4500 H+ B-2000		1	305897	12/01/17 15:53	MMM	TAL CAN
Total/NA	Analysis	5210B-2001		1	305882	12/01/17 14:49	JESW	TAL CAN
Total/NA	Analysis	SM 2540D		1	306066	12/04/17 09:20	MMM	TAL CAN
Total/NA	Analysis	SM 4500 NH3 D		1	306574	12/06/17 09:56	JAS	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	306177	12/04/17 13:45	JWW	TAL CAN

**Client Sample ID: TB-12610-113017-SSH-03-17**

**Lab Sample ID: 240-88685-2**

**Date Collected: 11/30/17 14:15**

**Matrix: Water**

**Date Received: 12/01/17 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	306349	12/06/17 03:11	TJL1	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Accreditation/Certification Summary

Client: GHD Services Inc.  
Project/Site: 12610-T04, RACER Bay City

TestAmerica Job ID: 240-88685-1

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17 *
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-18
Kansas	NELAP	7	E-10336	01-31-18 *
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17 *
Minnesota	NELAP	5	039-999-348	12-31-17 *
Minnesota (Petrofund)	State Program	1	3506	07-31-18
Nevada	State Program	9	OH-000482008A	07-31-18
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-18
Texas	NELAP	6	T104704517-17-9	08-31-18
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-18
Washington	State Program	10	C971	01-12-18 *
West Virginia DEP	State Program	3	210	12-31-17 *

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

TestAmerica Canton




TestAmerica Canton Sample Receipt Form/Narrative  
Canton Facility

Client GHD Site Name \_\_\_\_\_ Cooler unpacked by: [Signature]  
Cooler Received on 12/1/17 Opened on 12/1/17  
FedEx: 1<sup>st</sup> Grd  Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

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

TestAmerica Cooler # \_\_\_\_\_ 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-8 (CF -0.3°C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.1 °C  
 IR GUN #36 (CF +0.3°C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN # 627 (CF -1.3°C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1  Yes  No  
 -Were the seals on the outside of the cooler(s) signed & dated?  Yes  No NA  
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?  Yes  No NA  
 -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 be reconciled with the COC?  Yes  No  
 9. Were correct bottle(s) used for the test(s) indicated?  Yes  No  
 10. Sufficient quantity received to perform indicated analyses?  Yes  No  
 11. Are these work share samples?  Yes  No  
 If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt?  Yes  No NA pH Strip Lot# HC730269  
 13. Were VOAs on the COC?  Yes  No  
 14. Were air bubbles >6 mm in any VOA vials?  Yes  No NA  Larger than this.  
 15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # \_\_\_\_\_  Yes  No  
 16. 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 \_\_\_\_\_

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES  
Samples processed by: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. 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)

18. SAMPLE PRESERVATION  
Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
WT-12610-113017-SSH-02-17	240-88685-G-1	Plastic 500ml - with Sulfuric Acid	<2	_____	_____
WT-12610-113017-SSH-02-17	240-88685-H-1	Plastic 500ml - with Sulfuric Acid	<2	_____	_____
WT-12610-113017-SSH-02-17	240-88685-I-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12610-113017-SSH-02-17	240-88685-M-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____
WT-12610-113017-SSH-02-17	240-88685-N-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____

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# Attachment 2 Certification Statement

Certification Statement

"I, David Favero, certify under penalty of law that this document (January 31, 2018 GHD Semi-Annual Compliance Report (July 1 to December 31, 2017)), and all attachments were prepared under by direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

*David Favero*

\_\_\_\_\_  
RACER, Deputy Cleanup Manager – Michigan

\_\_\_\_\_  
January 26, 2018

(Date)