

26850 Haggerty Road,
Farmington Hills, Michigan 48331
United States
www.ghd.com



Our ref: 012607A-LTR-2

September 15, 2021

Ms. Tessy Jose
City of Detroit
Great Lakes Water Authority
Industrial Waste Control Division
9300 W. Jefferson Avenue
Detroit, Michigan 48209

GLWA Semi Annual Report – SD6 94508
March 2021 through August 2021
12950 Eckles Road
Livonia, Michigan 48150
Permit No.: SD6 94508

Dear Ms. Jose:

GHD Services Inc. (GHD) is providing the attached documents for the reporting requirements of Special Discharge Permit SD6 94508 for the period of March 2021 through August 2021 for the RACER Eckles Road Site located at 12950 Eckles Road, Livonia, Michigan.

Special Discharge Permit SD6 94508 was issued in June 2011, renewed in June 2015, June 2019, and February 2020, and is effective through December 31, 2022. A Permit Renewal/Reapplication form was submitted to Great Lakes Water Authority (GLWA) on January 31, 2020 and a renewed Special Discharge Permit was issued effective February 10, 2020.

Based on the renewed special discharge permit effective February 10, 2020, treatment of the discharge with a carbon treatment system is required prior to discharge to the sanitary sewer system. A 1,000 lb granular activated carbon (GAC) vessel was installed during April through May 2020. Bag filter housings were also installed on the influent and effluent of the GAC vessel. A second bag filter housing was installed in August 2020 to address sediment/fines observed on the surface of the GAC within the vessel. Per previous communication with GLWA, RACER plans to continue to implement dewatering activities on an as-needed basis and in compliance with the February 2020 Special Discharge Permit (SD6-94508) to prevent unacceptable groundwater levels until final groundwater levels, dewatering methods and discharge to the sanitary sewer, if any, are determined and implemented. Note that redevelopment plans for the property are currently being implemented. To support redevelopment, the GAC vessel and bag filters were relocated outside the groundwater treatment building during August 2021 to allow for demolition of the building. The relocated treatment system is still functioning as designed.

A request to discharge water accumulated in the former stormwater clarifier and diversion chamber was submitted to GLWA via email on June 3, 2021, including characterization sample analytical results. Additional information requested by GLWA was submitted via email on June 8, 2021. An Addendum to Special Discharge Permit SD6 94508 for the discharge of accumulated stormwater dated June 10, 2021 was received from GLWA, effective June 10, 2021 through July 31, 2021.

Section D: Reporting Requirements

- Reporting Period: March 1, 2021 to August 30, 2021.
- Dates of Sampling: March 16, 2021; April 6, 2021, April 21, 2021, May 4, 2021, June 3, 2021, July 13, 2021, and August 3, 2021. Parts of the April 6, 2021 sample were delayed during shipping and a second sample was collected on April 21, 201 for the outstanding parameters requiring analysis. A sample of the accumulated water in the stormwater clarifier and diversion chamber was collected on April 16, 2021 for characterization purposes. Laboratory analytical reports are attached.
- All effluent samples were collected from the effluent bag filter sampling port downstream of the GAC vessel.
- All influent samples were collected from the influent bag filter sampling port upstream of the GAC vessel and influent bag filter.
- GWTP Total Monthly Discharges (gallons):
 - March 2021: 248,135
 - April 2021: 267,941
 - May 2021: 304,773
 - June 2021: 37,010
 - July 2021: 241,682
 - August 2021: 405,988
- Clarifier Total Monthly Discharges (gallons):
 - June 2021 (Clarifier): 280,440
 - July 2021 (Clarifier): 333,358
- Total Discharge (GWTP) during Reporting Period: 1,505,529 gallons.
- Total Discharge (Clarifier) during Reporting Period: 613,798 gallons
- Signature of GHD's authorized representative who is knowledgeable of the remediation Site's discharge.

GHD certifies that the discharge complied with the permit discharge limits.

Please contact me at (248) 893 3400 if you require further information or clarification.

Regards,



Chris Meincke

Associate

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chris.meincke@ghd.com

CM/mk/LTR-2

Attachments

Maintenance Log

Attachment 1 – Laboratory Analytical Reports for March 16, 2021 Samples

Attachment 2 – Laboratory Analytical Reports for April 6, 2021 Samples

Attachment 3 – Laboratory Analytical Reports for April 21, 2021 Samples

Attachment 4 – Laboratory Analytical Reports for May 4, 2021 Samples

Attachment 5 – Laboratory Analytical Reports for June 3, 2021 Samples

Attachment 6 – Laboratory Analytical Reports for July 13, 2021 Samples

Attachment 7 – Laboratory Analytical Reports for August 3, 2021 Samples

Attachment 8 – Laboratory Analytical Reports for Clarifier/Diversion Pit April 16, 2021 Samples

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - March 2021

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantity of Groundwater Discharged/Day (GAL) ⁽¹⁾	Notes
03/01/21	None	None			
03/02/21	None	None			
03/03/21	None	None			
03/04/21	None	None			
03/05/21	None	None			
03/06/21	None	None			
03/07/21	None	None		105,968	Discharge Volume - 3/1-3/7
03/08/21	None	None			
03/09/21	None	None			
03/10/21	None	None			
03/11/21	None	None			
03/12/21	None	None			
03/13/21	None	None			
03/14/21	None	None			
03/15/21	None	None			
03/16/21	None	None	WT-012607-031621-CM-001 - Effluent W-012607-031621-CM-002 - Influent FB-012607-031621-CM-003 - Field Blank	47,753	Discharge Volume - 3/7-3/16 March Discharge Sample
03/17/21	None	None			
03/18/21	None	None			
03/19/21	None	None			
03/20/21	None	None			
03/21/21	None	None			
03/22/21	None	None			
03/23/21	None	None		21,241	Discharge Volume - 3/16-3/23
03/24/21	None	None			
03/25/21	None	None			
03/26/21	None	None			
03/27/21	None	None			
03/28/21	None	None			
03/29/21	None	None			
03/30/21	None	None		57,721	Discharge Volume - 3/23-3/30
03/31/21	None	None		15,452	Discharge Volume - 3/30-3/31
Total Monthly Discharge (gal)				248,135	

(1) - Discharge Quantity is total from previous reading

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - April 2021

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantity of Groundwater Discharged/Day (GAL) ⁽¹⁾	Notes
04/01/21	None	None			
04/02/21	None	None			
04/03/21	None	None			
04/04/21	None	None			
04/05/21	None	None			
04/06/21	None	None	WT-012607-040621-CM-001 (effluent) W-012607-030621-CM-002 (influent) FB-012607-030621-CM-003 (field blank) WT-012607-030621-CM-004 (effluent)	31,102	Discharge Volume 3/30-4/6 Effluent/Influent Samples - Cooler's delayed by Fedex Samples 002, 003, 004 not analyzed Typo in COC sample id (sample date is 4/6/2021)
04/07/21	None	None			
04/08/21	None	None			
04/09/21	None	None			
04/10/21	None	None			
04/11/21	None	None		35,772	Discharge Volume 4/6-4/11
04/12/21	None	None			
04/13/21	None	None		28,716	Discharge Volume 4/11-4/13
04/14/21	None	None			
04/15/21	None	None			
04/16/21	None	None		19,091	Discharge Volume 4/13-4/16
04/17/21	None	None			
04/18/21	None	None			
04/19/21	None	None			
04/20/21	None	None			
04/21/21	None	None	WT-012607-042121-CM-001 (effluent) WT-012607-042121-CM-002 (effluent) W-012607-042121-CM-003 (influent) FB-012607--042121-CM-004 (field blank)	77,609	Discharge Volume 4/16-4/21 Effluent/Influent Sample Recollection for PFAS/Select Parameters
04/22/21	None	None			
04/23/21	None	None			
04/24/21	None	None			
04/25/21	None	None			
04/26/21	None	None			
04/27/21	None	None		73,219	Discharge Volume 4/21-4/27
04/28/21	None	None			
04/29/21	None	None			
04/30/21	None	None		2,432	Discharge Volume 4/27-4/30
Total Monthly Discharge (gal)				267,941	

(1) - Discharge Quantity is total from previous reading

SECTION D: REPORTING REQUIREMENTS/b) iii)

12950 Eckles Road

Livonia, MI 48150

Permit No.: SD6-94508

Maintenance Log - May 2021

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantity of Groundwater Discharged/Day (GAL) ⁽¹⁾	Notes
05/01/21	None	None			
05/02/21	None	None			
05/03/21	None	None			
05/04/21	None	None	WT-012607-050421-CM-002 (Eff) WT-012607-050421-CM-003 (Eff) W-012607-050421-CM-004 (Inf) FB-012607-050421-CM-005 (Blank)	40,821	Discharge Volume 4/30-5/4 Effluent/Influent Samples
05/05/21	None	None			
05/06/21	None	None			
05/07/21	None	None			
05/08/21	None	None			
05/09/21	None	None			
05/10/21	None	None			
05/11/21	None	None		100,295	Discharge Volume 5/4-5/11
05/12/21	None	None			
05/13/21	None	None			
05/14/21	None	None			
05/15/21	None	None		45,064	Discharge Volume 5/11-5/15
05/16/21	None	None			
05/17/21	None	None			
05/18/21	None	None		49,203	Discharge Volume 5/15-5/18
05/19/21	None	None			
05/20/21	None	None			
05/21/21	None	None			
05/22/21	None	None			
05/23/21	None	None			
05/24/21	None	None			
05/25/21	None	None			
05/26/21	None	Pump Modification Reduced Capacity		60,914	Discharge Volume 5/18-5/26 Power Loss/Network adapter malfunction Replumbed Utility Pump to GAC to continue operation
05/27/21	None	None			
05/28/21	None	None			
05/29/21	None	None		8,476	Discharge Volume 5/26-5/29
05/30/21	None	None			
05/31/21	None	None			

Total Monthly Discharge (gal)

304,773

(1) - Discharge Quantity is total from previous reading

SECTION D: REPORTING REQUIREMENTS/b) iii)

12950 Eckles Road

Livonia, MI 48150

Permit No.: SD6-94508

Maintenance Log - June 2021

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantity of Groundwater Discharged/Day (GAL) ⁽¹⁾	Notes
06/01/21	None	None			
06/02/21	None	None			
06/03/21	None	None	WT-012607-060321-CM-001 (Eff) WT-012607-060321-CM-002 (Eff) W-012607-060321-CM-003 (Inf) FB-012607-060321-CM-004 (Blank)	1,155	Discharge Volume 5/29-6/3 Effluent/Influent Samples
06/04/21	None	None			
06/05/21	None	None			
06/06/21	None	None			
06/07/21	None	None			
06/08/21	None	None			
06/09/21	None	None		5,892	Discharge Volume 6/3-6/9
06/10/21	None	None			
06/11/21	None	None			
06/12/21	None	None			
06/13/21	None	None			
06/14/21	None	None		15,616	Discharge Volume 6/9-6/14
06/15/21	None	None		2,368	Discharge Volume 6/14-6/15
06/16/21	None	None			
06/17/21	None	None			
06/18/21	None	None			
06/19/21	None	None			
06/20/21	None	None			
06/21/21	None	None		4,936	Discharge Volume 6/15-6/21
06/22/21	None	None			
06/23/21	None	None		1,496	Discharge Volume 6/21-6/23
06/24/21	None	None			
06/25/21	None	None			
06/26/21	None	None			
06/27/21	None	None			
06/28/21	None	None			
06/29/21	None	None		304	Discharge Volume 6/23-6/29 - 304 Gallons
06/30/21	None	None		5,243	Discharge Volume 6/29-6/30

Total Monthly Discharge (gal)

37,010

(1) - Discharge Quantity is total from previous reading

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - July 2021

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantity of Groundwater Discharged/Day (GAL) ⁽¹⁾	Notes
07/01/21	None	None		6,277	Discharge Volume 6/30-7/1
07/02/21	None	None		1,247	Discharge Volume 7/1-7/2
07/03/21	None	None			
07/04/21	None	None			
07/05/21	None	None			
07/06/21	None	None			
07/07/21	None	None		18,724	Discharge Volume 7/2-7/7
07/08/21	None	None			
07/09/21	None	None		13,379	Discharge Volume 7/7-7/9
07/10/21	None	None			
07/11/21	None	None			
07/12/21	None	None			
07/13/21	None	None	WT-012607-071321-CM-001 (Eff) WT-012607-071321-CM-002 (Eff) W-012607-071321-CM-003 (Inf) FB-012607-071321-CM-004 (Blank)	56,112	Discharge Volume 7/9-7/13 Effluent/Influent Samples
07/14/21	None	None			
07/15/21	None	None			
07/16/21	None	None			
07/17/21	None	None			
07/18/21	None	None		45,710	
07/19/21	None	None			
07/20/21	None	None		32,707	
07/21/21	None	None			
07/22/21	None	None			
07/23/21	None	None		19,007	
07/24/21	None	None			
07/25/21	None	None			
07/26/21	None	None		4,609	
07/27/21	None	None			
07/28/21	None	None		43,910	
07/29/21	None	None			
07/30/21	None	None			
07/31/21	None	None			

Total Monthly Discharge (gal) 241,682

(1) - Discharge Quantity is total from previous reading

SECTION D: REPORTING REQUIREMENTS/b) iii)

12950 Eckles Road

Livonia, MI 48150

Permit No.: SD6-94508

Maintenance Log - August 2021

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantity of Groundwater Discharged/Day (GAL) ⁽¹⁾	Notes
08/01/21	None	None		68,174	Discharge Volume - 7/28-8/1
08/02/21	None	None			
08/03/21	None	None	WT-012607-080321-CM-001 (Eff) WT-012607-080321-CM-002 (Eff) W-012607-080321-CM-003 (Inf) FB-012607-080321-CM-004 (Blank)	48,688	Discharge Volume 8/1-8/3 Effluent/Influent Samples
08/04/21	None	None			
08/05/21	None	None			
08/06/21	None	None		30,387	Discharge Volume - 8/3-8/6
08/07/21	None	None			
08/08/21	None	None			
08/09/21	None	None			
08/10/21	None	System Relocated Outside Building		66,199	GAC And Bag Filters moved outside GWTP building and replumbed Discharge Volume - 8/6-8/11
08/11/21	None	None		19,091	Discharge Volume - 8/11-8/12
08/12/21	None	None			
08/13/21	None	None		24,452	Discharge Volume - 8/12-8/13
08/14/21	None	None			
08/15/21	None	None			
08/16/21	None	None		43,541	Discharge Volume - 8/13-8/16
08/17/21	None	None			
08/18/21	None	None		26,228	Discharge Volume - 8/16-8/18
08/19/21	None	None			
08/20/21	None	None			
08/21/21	None	None			
08/22/21	None	None			
08/23/21	None	None		18,885	Discharge Volume 8/18-8/23
08/24/21	None	None			
08/25/21	None	None			
08/26/21	None	None			
08/27/21	None	None		9,075	Discharge Volume 8/23-8/27
08/28/21	None	None			
08/29/21	None	None			
08/30/21	None	None			
08/31/21	None	None		51,268	Discharge Volume 8/27-8/30

Total Monthly Discharge (gal)

405,988

(1) - Discharge Quantity is total from previous reading

Attachments

Attachment 1

March 16, 2021 Samples

WT-012607-031621-CM-001 (effluent)

W-012607-031621-CM-002 (influent)

FB-012607-031621-CM-003 (Field Blank)

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-145973-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
3/27/2021 1:11:57 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Job ID: 240-145973-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-145973-1

Comments

No additional comments.

Receipt

The samples were received on 3/17/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.6° C.

GC Semi VOA

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

Metals

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

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

General Chemistry

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

Organic Prep

Methods 3510C, 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-477265.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Qualifiers

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-145973-1	WT-012607-031621-CM-001	Water	03/16/21 17:25	03/17/21 10:10	

1

2

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14

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Client Sample ID: WT-012607-031621-CM-001

Lab Sample ID: 240-145973-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.34		0.050	mg/L	1		200.7 Rev 4.4	Total
								Recoverable
Nickel	0.85		0.010	mg/L	1		200.7 Rev 4.4	Total
								Recoverable
Chromium, hexavalent	0.34		0.010	mg/L	1		3500-Cr B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Method	Method Description	Protocol	Laboratory
608.3	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
3500-Cr B-2011	Chromium, Hexavalent	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
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

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

Laboratory References:

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

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

Client Sample ID: WT-012607-031621-CM-001

Date Collected: 03/16/21 17:25

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.096	U	0.096	ug/L		03/18/21 08:28	03/19/21 09:29	1
Aroclor-1221	0.096	U	0.096	ug/L		03/18/21 08:28	03/19/21 09:29	1
Aroclor-1232	0.096	U	0.096	ug/L		03/18/21 08:28	03/19/21 09:29	1
Aroclor-1242	0.096	U	0.096	ug/L		03/18/21 08:28	03/19/21 09:29	1
Aroclor-1248	0.096	U	0.096	ug/L		03/18/21 08:28	03/19/21 09:29	1
Aroclor-1254	0.096	U	0.096	ug/L		03/18/21 08:28	03/19/21 09:29	1
Aroclor-1260	0.096	U	0.096	ug/L		03/18/21 08:28	03/19/21 09:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 114			03/18/21 08:28	03/19/21 09:29	1
Tetrachloro-m-xylene	70		15 - 131			03/18/21 08:28	03/19/21 09:29	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

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

Client Sample ID: WT-012607-031621-CM-001

Date Collected: 03/16/21 17:25

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.34		0.050	mg/L		03/18/21 14:00	03/22/21 21:11	1
Nickel	0.85		0.010	mg/L		03/18/21 14:00	03/22/21 21:11	1
Lead	0.050	U	0.050	mg/L		03/18/21 14:00	03/22/21 21:11	1
Zinc	0.020	U	0.020	mg/L		03/18/21 14:00	03/22/21 21:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-031621-CM-001

Date Collected: 03/16/21 17:25

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		03/18/21 12:00	03/19/21 14:31	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

General Chemistry

Client Sample ID: WT-012607-031621-CM-001

Date Collected: 03/16/21 17:25

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L			03/26/21 08:52	1
Chromium, hexavalent	0.34		0.010	mg/L			03/17/21 11:34	1
Total Suspended Solids	4.0	U	4.0	mg/L			03/18/21 09:59	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

GC Semi VOA

Prep Batch: 477265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	608	
MB 240-477265/9-A	Method Blank	Total/NA	Water	608	
LCS 240-477265/10-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 477416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	608.3	477265
MB 240-477265/9-A	Method Blank	Total/NA	Water	608.3	477265
LCS 240-477265/10-A	Lab Control Sample	Total/NA	Water	608.3	477265

Metals

Prep Batch: 477288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total Recoverable	Water	200.7	
MB 240-477288/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-477288/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 477290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	245.1	
MB 240-477290/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-477290/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 477533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	245.1	477290
MB 240-477290/1-A	Method Blank	Total/NA	Water	245.1	477290
LCS 240-477290/2-A	Lab Control Sample	Total/NA	Water	245.1	477290

Analysis Batch: 477805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total Recoverable	Water	200.7 Rev 4.4	477288
MB 240-477288/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	477288
LCS 240-477288/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	477288

General Chemistry

Analysis Batch: 477159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	3500-Cr B-2011	
MB 240-477159/3	Method Blank	Total/NA	Water	3500-Cr B-2011	
LCS 240-477159/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2011	

Analysis Batch: 477295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	SM 2540D	
MB 240-477295/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-477295/2	Lab Control Sample	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

General Chemistry

Analysis Batch: 478408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	1664A	
MB 240-478408/1	Method Blank	Total/NA	Water	1664A	
LCS 240-478408/2	Lab Control Sample	Total/NA	Water	1664A	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

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

Lab Sample ID: MB 240-477265/9-A

Matrix: Water

Analysis Batch: 477416

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 477265

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		03/18/21 08:28	03/19/21 07:47	1
Aroclor-1221	0.10	U	0.10	ug/L		03/18/21 08:28	03/19/21 07:47	1
Aroclor-1232	0.10	U	0.10	ug/L		03/18/21 08:28	03/19/21 07:47	1
Aroclor-1242	0.10	U	0.10	ug/L		03/18/21 08:28	03/19/21 07:47	1
Aroclor-1248	0.10	U	0.10	ug/L		03/18/21 08:28	03/19/21 07:47	1
Aroclor-1254	0.10	U	0.10	ug/L		03/18/21 08:28	03/19/21 07:47	1
Aroclor-1260	0.10	U	0.10	ug/L		03/18/21 08:28	03/19/21 07:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		10 - 114	03/18/21 08:28	03/19/21 07:47	1
Tetrachloro-m-xylene	69		15 - 131	03/18/21 08:28	03/19/21 07:47	1

Lab Sample ID: LCS 240-477265/10-A

Matrix: Water

Analysis Batch: 477416

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 477265

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	1.59		ug/L		64	50 - 140
Aroclor-1260	2.50	1.60		ug/L		64	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	75		10 - 114
Tetrachloro-m-xylene	60		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-477288/1-A

Matrix: Water

Analysis Batch: 477805

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 477288

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		03/18/21 14:00	03/22/21 19:54	1
Nickel	0.010	U	0.010	mg/L		03/18/21 14:00	03/22/21 19:54	1
Lead	0.050	U	0.050	mg/L		03/18/21 14:00	03/22/21 19:54	1
Zinc	0.020	U	0.020	mg/L		03/18/21 14:00	03/22/21 19:54	1

Lab Sample ID: LCS 240-477288/2-A

Matrix: Water

Analysis Batch: 477805

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 477288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.995		mg/L		99	85 - 115
Nickel	1.00	1.04		mg/L		104	85 - 115
Lead	1.00	0.995		mg/L		100	85 - 115
Zinc	1.00	1.04		mg/L		104	85 - 115

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-477290/1-A
Matrix: Water
Analysis Batch: 477533

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477290

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		03/18/21 12:00	03/19/21 14:01	1

Lab Sample ID: LCS 240-477290/2-A
Matrix: Water
Analysis Batch: 477533

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 477290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00510		mg/L		102	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-478408/1
Matrix: Water
Analysis Batch: 478408

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L			03/26/21 08:52	1

Lab Sample ID: LCS 240-478408/2
Matrix: Water
Analysis Batch: 478408

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	38.80		mg/L		97	78 - 114

Method: 3500-Cr B-2011 - Chromium, Hexavalent

Lab Sample ID: MB 240-477159/3
Matrix: Water
Analysis Batch: 477159

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	U	0.010	mg/L			03/17/21 11:10	1

Lab Sample ID: LCS 240-477159/4
Matrix: Water
Analysis Batch: 477159

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.250	0.253		mg/L		101	80 - 123

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

Lab Sample ID: MB 240-477295/1
Matrix: Water
Analysis Batch: 477295

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			03/18/21 09:59	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

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

Lab Sample ID: LCS 240-477295/2

Matrix: Water

Analysis Batch: 477295

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	30.1	25.0		mg/L		83	64 - 120

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Method: 608.3 - 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)
240-145973-1	WT-012607-031621-CM-001	76	70
LCS 240-477265/10-A	Lab Control Sample	75	60
MB 240-477265/9-A	Method Blank	83	69

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Client Sample ID: WT-012607-031621-CM-001

Lab Sample ID: 240-145973-1

Date Collected: 03/16/21 17:25

Matrix: Water

Date Received: 03/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			477265	03/18/21 08:28	MDH	TAL CAN
Total/NA	Analysis	608.3		1	477416	03/19/21 09:29	CSC	TAL CAN
Total Recoverable	Prep	200.7			477288	03/18/21 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	477805	03/22/21 21:11	KLC	TAL CAN
Total/NA	Prep	245.1			477290	03/18/21 12:00	MRL	TAL CAN
Total/NA	Analysis	245.1		1	477533	03/19/21 14:31	SLD	TAL CAN
Total/NA	Analysis	1664A		1	478408	03/26/21 08:52	JMR	TAL CAN
Total/NA	Analysis	3500-Cr B-2011		1	477159	03/17/21 11:34	KLR	TAL CAN
Total/NA	Analysis	SM 2540D		1	477295	03/18/21 09:59	JR	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21 *
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21 *
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

Eurofins TestAmerica, Canton

Ver: 11/01/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Canton Facility				Login # : <u>145973</u>
Client <u>GHD</u>		Site Name _____		Cooler unpacked by: _____
Cooler Received on <u>3-17-21</u>		Opened on <u>3-17-21</u>		<u>Matt Snipe</u>
FedEx: 1 st Grd ☒ Exp ☐ UPS ☐ FAS ☐ Clipper ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ☐				
Receipt After-hours: Drop-off Date/Time _____ Storage Location _____				
TestAmerica Cooler # <u>1A</u> Foam Box ☐ Client Cooler ☐ Box ☐ Other ☐ Packing material used: <u>Bubble Wrap</u> Foam ☐ Plastic Bag ☐ None ☐ Other ☐ COOLANT: <u>Wet Ice</u> Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐				
1. Cooler temperature upon receipt ☐ See Multiple Cooler Form IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp. <u>1.5</u> °C Corrected Cooler Temp. <u>1.6</u> °C IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C				
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u> 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 (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# <u>HC022887</u> 14. Were VOAs on the COC? Yes ☒ No ☐ NA ☐ 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 ☐				
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____ Concerning _____				

Tests that are not
checked for pH by
Receiving:

 VOAs
Oil and Grease
TOC

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: _____	

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-031621-CM-001	240-145973-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-031621-CM-001	240-145973-H-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-031621-CM-001	240-145973-I-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-145973-2

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
3/27/2021 1:14:48 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Job ID: 240-145973-2

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-145973-2

Comments

No additional comments.

Receipt

The samples were received on 3/17/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.6° C.

LCMS

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgement was used to positively identify the analyte.

Method 537 (modified): The following field blank sample has a detection for Perfluorooctane Sulfonic Acid (PFOS) greater than the reporting limit. The sample was re-analyzed with concurring result. Due to insufficient sample to re-extract, the data have been reported: FB-012607-031621-CM-003 (240-145973-3)

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

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-471917.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Sample Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-145973-1	WT-012607-031621-CM-001	Water	03/16/21 17:25	03/17/21 10:10	
240-145973-2	W-012607-031621-CM-002	Water	03/16/21 17:20	03/17/21 10:10	
240-145973-3	FB-012607-031621-CM-003	Water	03/16/21 17:30	03/17/21 10:10	

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Client Sample ID: WT-012607-031621-CM-001

Lab Sample ID: 240-145973-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.4		4.6	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.2	J	1.9	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.72	J	1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.37	J	1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.92	J	1.9	0.79	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.36	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.0	J I	1.9	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.4	I	1.9	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: W-012607-031621-CM-002

Lab Sample ID: 240-145973-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.2		4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.6		1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.8		1.9	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.4	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.3	J I	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.3	I	1.9	0.54	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-012607-031621-CM-003

Lab Sample ID: 240-145973-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	8.7		1.9	0.50	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-031621-CM-001

Date Collected: 03/16/21 17:25

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.4		4.6	2.2	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluoropentanoic acid (PFPeA)	1.2	J	1.9	0.45	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorohexanoic acid (PFHxA)	0.72	J	1.9	0.54	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluoroheptanoic acid (PFHpA)	0.37	J	1.9	0.23	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorooctanoic acid (PFOA)	0.92	J	1.9	0.79	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorononanoic acid (PFNA)	1.9	U	1.9	0.25	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.29	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.0	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.51	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	1.2	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.68	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorobutanesulfonic acid (PFBS)	0.36	J	1.9	0.19	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluoropentanesulfonic acid (PFPeS)	1.9	U	1.9	0.28	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorohexanesulfonic acid (PFHxS)	1.0	J I	1.9	0.53	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.9	U	1.9	0.18	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorooctanesulfonic acid (PFOS)	9.4	I	1.9	0.50	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.34	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.30	ng/L		03/19/21 04:47	03/20/21 07:49	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.91	ng/L		03/19/21 04:47	03/20/21 07:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.6	U	4.6	1.1	ng/L		03/19/21 04:47	03/20/21 07:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.6	U	4.6	1.2	ng/L		03/19/21 04:47	03/20/21 07:49	1
4:2 FTS	1.9	U	1.9	0.22	ng/L		03/19/21 04:47	03/20/21 07:49	1
6:2 FTS	4.6	U	4.6	2.3	ng/L		03/19/21 04:47	03/20/21 07:49	1
8:2 FTS	1.9	U	1.9	0.43	ng/L		03/19/21 04:47	03/20/21 07:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.37	ng/L		03/19/21 04:47	03/20/21 07:49	1
HFPO-DA (GenX)	3.7	U	3.7	1.4	ng/L		03/19/21 04:47	03/20/21 07:49	1
F-53B Major	1.9	U	1.9	0.22	ng/L		03/19/21 04:47	03/20/21 07:49	1
F-53B Minor	1.9	U	1.9	0.30	ng/L		03/19/21 04:47	03/20/21 07:49	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C5 PFPeA	97		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C2 PFHxA	101		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C4 PFHpA	104		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C4 PFOA	111		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C5 PFNA	100		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C2 PFDA	106		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C2 PFUnA	102		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C2 PFDoA	108		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C2 PFTeDA	124		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C3 PFBS	103		25 - 150	03/19/21 04:47	03/20/21 07:49	1
18O2 PFHxS	104		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C4 PFOS	106		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C8 FOSA	101		25 - 150	03/19/21 04:47	03/20/21 07:49	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: WT-012607-031621-CM-001

Date Collected: 03/16/21 17:25

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-1

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d3-NMeFOSAA	123		25 - 150	03/19/21 04:47	03/20/21 07:49	1
d5-NEtFOSAA	130		25 - 150	03/19/21 04:47	03/20/21 07:49	1
M2-6:2 FTS	126		25 - 150	03/19/21 04:47	03/20/21 07:49	1
M2-8:2 FTS	126		25 - 150	03/19/21 04:47	03/20/21 07:49	1
M2-4:2 FTS	117		25 - 150	03/19/21 04:47	03/20/21 07:49	1
13C3 HFPO-DA	100		25 - 150	03/19/21 04:47	03/20/21 07:49	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: W-012607-031621-CM-002

Date Collected: 03/16/21 17:20

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	9.2		4.7	2.3	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluoropentanoic acid (PFPeA)	2.6		1.9	0.46	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorohexanoic acid (PFHxA)	2.2		1.9	0.55	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.9	0.24	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorooctanoic acid (PFOA)	4.8		1.9	0.80	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorononanoic acid (PFNA)	1.9	U	1.9	0.25	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.29	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.0	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.52	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	1.2	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.69	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorobutanesulfonic acid (PFBS)	1.4	J	1.9	0.19	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluoropentanesulfonic acid (PFPeS)	1.3	J I	1.9	0.28	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorohexanesulfonic acid (PFHxS)	6.3	I	1.9	0.54	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.9	U	1.9	0.18	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorooctanesulfonic acid (PFOS)	1.9	U	1.9	0.51	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.35	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.30	ng/L		03/19/21 04:47	03/20/21 07:58	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.92	ng/L		03/19/21 04:47	03/20/21 07:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.7	U	4.7	1.1	ng/L		03/19/21 04:47	03/20/21 07:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.7	U	4.7	1.2	ng/L		03/19/21 04:47	03/20/21 07:58	1
4:2 FTS	1.9	U	1.9	0.23	ng/L		03/19/21 04:47	03/20/21 07:58	1
6:2 FTS	4.7	U	4.7	2.4	ng/L		03/19/21 04:47	03/20/21 07:58	1
8:2 FTS	1.9	U	1.9	0.43	ng/L		03/19/21 04:47	03/20/21 07:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.38	ng/L		03/19/21 04:47	03/20/21 07:58	1
HFPO-DA (GenX)	3.8	U	3.8	1.4	ng/L		03/19/21 04:47	03/20/21 07:58	1
F-53B Major	1.9	U	1.9	0.23	ng/L		03/19/21 04:47	03/20/21 07:58	1
F-53B Minor	1.9	U	1.9	0.30	ng/L		03/19/21 04:47	03/20/21 07:58	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C5 PFPeA	88		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C2 PFHxA	98		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C4 PFHpA	107		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C4 PFOA	106		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C5 PFNA	109		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C2 PFDA	112		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C2 PFUnA	111		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C2 PFDoA	111		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C2 PFTeDA	105		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C3 PFBS	112		25 - 150	03/19/21 04:47	03/20/21 07:58	1
18O2 PFHxS	111		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C4 PFOS	110		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C8 FOSA	107		25 - 150	03/19/21 04:47	03/20/21 07:58	1
d3-NMeFOSAA	114		25 - 150	03/19/21 04:47	03/20/21 07:58	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: W-012607-031621-CM-002

Date Collected: 03/16/21 17:20

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-2

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	120		25 - 150	03/19/21 04:47	03/20/21 07:58	1
M2-6:2 FTS	129		25 - 150	03/19/21 04:47	03/20/21 07:58	1
M2-8:2 FTS	141		25 - 150	03/19/21 04:47	03/20/21 07:58	1
M2-4:2 FTS	111		25 - 150	03/19/21 04:47	03/20/21 07:58	1
13C3 HFPO-DA	99		25 - 150	03/19/21 04:47	03/20/21 07:58	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: FB-012607-031621-CM-003

Date Collected: 03/16/21 17:30

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.6	U	4.6	2.2	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluoropentanoic acid (PFPeA)	1.9	U	1.9	0.46	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorohexanoic acid (PFHxA)	1.9	U	1.9	0.54	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluoroheptanoic acid (PFHpA)	1.9	U	1.9	0.23	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorooctanoic acid (PFOA)	1.9	U	1.9	0.79	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorononanoic acid (PFNA)	1.9	U	1.9	0.25	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.29	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.0	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.51	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	1.2	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.68	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U	1.9	0.19	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluoropentanesulfonic acid (PFPeS)	1.9	U	1.9	0.28	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorohexanesulfonic acid (PFHxS)	1.9	U	1.9	0.53	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.9	U	1.9	0.18	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorooctanesulfonic acid (PFOS)	8.7		1.9	0.50	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.34	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.30	ng/L		03/19/21 04:47	03/20/21 08:07	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.91	ng/L		03/19/21 04:47	03/20/21 08:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.6	U	4.6	1.1	ng/L		03/19/21 04:47	03/20/21 08:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.6	U	4.6	1.2	ng/L		03/19/21 04:47	03/20/21 08:07	1
4:2 FTS	1.9	U	1.9	0.22	ng/L		03/19/21 04:47	03/20/21 08:07	1
6:2 FTS	4.6	U	4.6	2.3	ng/L		03/19/21 04:47	03/20/21 08:07	1
8:2 FTS	1.9	U	1.9	0.43	ng/L		03/19/21 04:47	03/20/21 08:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.37	ng/L		03/19/21 04:47	03/20/21 08:07	1
HFPO-DA (GenX)	3.7	U	3.7	1.4	ng/L		03/19/21 04:47	03/20/21 08:07	1
F-53B Major	1.9	U	1.9	0.22	ng/L		03/19/21 04:47	03/20/21 08:07	1
F-53B Minor	1.9	U	1.9	0.30	ng/L		03/19/21 04:47	03/20/21 08:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C5 PFPeA	99		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C2 PFHxA	100		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C4 PFHpA	105		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C4 PFOA	107		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C5 PFNA	97		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C2 PFDA	91		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C2 PFUnA	92		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C2 PFDoA	92		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C2 PFTeDA	105		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C3 PFBS	102		25 - 150				03/19/21 04:47	03/20/21 08:07	1
18O2 PFHxS	102		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C4 PFOS	93		25 - 150				03/19/21 04:47	03/20/21 08:07	1
13C8 FOSA	87		25 - 150				03/19/21 04:47	03/20/21 08:07	1
d3-NMeFOSAA	115		25 - 150				03/19/21 04:47	03/20/21 08:07	1
d5-NEtFOSAA	120		25 - 150				03/19/21 04:47	03/20/21 08:07	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: FB-012607-031621-CM-003

Date Collected: 03/16/21 17:30

Date Received: 03/17/21 10:10

Lab Sample ID: 240-145973-3

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	133		25 - 150	03/19/21 04:47	03/20/21 08:07	1
M2-8:2 FTS	126		25 - 150	03/19/21 04:47	03/20/21 08:07	1
M2-4:2 FTS	122		25 - 150	03/19/21 04:47	03/20/21 08:07	1
13C3 HFPO-DA	97		25 - 150	03/19/21 04:47	03/20/21 08:07	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

LCMS

Prep Batch: 471917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	3535	
240-145973-2	W-012607-031621-CM-002	Total/NA	Water	3535	
240-145973-3	FB-012607-031621-CM-003	Total/NA	Water	3535	
MB 320-471917/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-471917/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-471917/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 472385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-145973-1	WT-012607-031621-CM-001	Total/NA	Water	537 (modified)	471917
240-145973-2	W-012607-031621-CM-002	Total/NA	Water	537 (modified)	471917
240-145973-3	FB-012607-031621-CM-003	Total/NA	Water	537 (modified)	471917
MB 320-471917/1-A	Method Blank	Total/NA	Water	537 (modified)	471917
LCS 320-471917/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	471917
LCSD 320-471917/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	471917

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-471917/1-A

Matrix: Water

Analysis Batch: 472385

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 471917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0	U	5.0	2.4	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.73	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.57	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.37	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		03/19/21 04:47	03/20/21 07:12	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.98	ng/L		03/19/21 04:47	03/20/21 07:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.0	U	5.0	1.2	ng/L		03/19/21 04:47	03/20/21 07:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.0	U	5.0	1.3	ng/L		03/19/21 04:47	03/20/21 07:12	1
4:2 FTS	2.0	U	2.0	0.24	ng/L		03/19/21 04:47	03/20/21 07:12	1
6:2 FTS	5.0	U	5.0	2.5	ng/L		03/19/21 04:47	03/20/21 07:12	1
8:2 FTS	2.0	U	2.0	0.46	ng/L		03/19/21 04:47	03/20/21 07:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.40	ng/L		03/19/21 04:47	03/20/21 07:12	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		03/19/21 04:47	03/20/21 07:12	1
F-53B Major	2.0	U	2.0	0.24	ng/L		03/19/21 04:47	03/20/21 07:12	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		03/19/21 04:47	03/20/21 07:12	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	98		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C5 PFPeA	98		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C2 PFHxA	100		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C4 PFHpA	104		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C4 PFOA	105		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C5 PFNA	100		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C2 PFDA	106		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C2 PFUnA	95		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C2 PFDoA	113		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C2 PFTeDA	105		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C3 PFBS	98		25 - 150	03/19/21 04:47	03/20/21 07:12	1
18O2 PFHxS	102		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C4 PFOS	103		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C8 FOSA	95		25 - 150	03/19/21 04:47	03/20/21 07:12	1
d3-NMeFOSAA	118		25 - 150	03/19/21 04:47	03/20/21 07:12	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-471917/1-A

Matrix: Water

Analysis Batch: 472385

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 471917

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	120		25 - 150	03/19/21 04:47	03/20/21 07:12	1
M2-6:2 FTS	66		25 - 150	03/19/21 04:47	03/20/21 07:12	1
M2-8:2 FTS	126		25 - 150	03/19/21 04:47	03/20/21 07:12	1
M2-4:2 FTS	121		25 - 150	03/19/21 04:47	03/20/21 07:12	1
13C3 HFPO-DA	98		25 - 150	03/19/21 04:47	03/20/21 07:12	1

Lab Sample ID: LCS 320-471917/2-A

Matrix: Water

Analysis Batch: 472385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 471917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.7		ng/L		97	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	38.9		ng/L		97	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	38.9		ng/L		97	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	40.4		ng/L		101	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	37.3		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	40.0	42.8		ng/L		107	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	39.1		ng/L		98	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	41.8		ng/L		104	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	37.0		ng/L		92	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	36.5		ng/L		91	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	41.4		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	34.5		ng/L		97	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	35.2		ng/L		94	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.6		ng/L		98	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	37.8		ng/L		99	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	37.1		ng/L		100	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	37.8		ng/L		98	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	37.6		ng/L		98	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	39.9		ng/L		100	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.2		ng/L		96	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.1		ng/L		103	76 - 136
4:2 FTS	37.4	35.8		ng/L		96	79 - 139
6:2 FTS	37.9	34.7		ng/L		91	59 - 175
8:2 FTS	38.3	37.2		ng/L		97	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	36.8		ng/L		98	79 - 139
HFPO-DA (GenX)	40.0	40.0		ng/L		100	51 - 173
F-53B Major	37.3	36.8		ng/L		99	75 - 135

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-471917/2-A

Matrix: Water

Analysis Batch: 472385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 471917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	36.1		ng/L		96	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	102		25 - 150				
13C5 PFPeA	101		25 - 150				
13C2 PFHxA	104		25 - 150				
13C4 PFHpA	102		25 - 150				
13C4 PFOA	111		25 - 150				
13C5 PFNA	104		25 - 150				
13C2 PFDA	109		25 - 150				
13C2 PFUnA	110		25 - 150				
13C2 PFDoA	118		25 - 150				
13C2 PFTeDA	100		25 - 150				
13C3 PFBS	106		25 - 150				
18O2 PFHxS	104		25 - 150				
13C4 PFOS	108		25 - 150				
13C8 FOSA	104		25 - 150				
d3-NMeFOSAA	129		25 - 150				
d5-NEtFOSAA	130		25 - 150				
M2-6:2 FTS	133		25 - 150				
M2-8:2 FTS	136		25 - 150				
M2-4:2 FTS	120		25 - 150				
13C3 HFPO-DA	100		25 - 150				

Lab Sample ID: LCSD 320-471917/3-A

Matrix: Water

Analysis Batch: 472385

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 471917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	39.9		ng/L		100	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)	40.0	37.9		ng/L		95	71 - 131	3	30
Perfluorohexanoic acid (PFHxA)	40.0	39.9		ng/L		100	73 - 133	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	38.2		ng/L		96	72 - 132	6	30
Perfluorooctanoic acid (PFOA)	40.0	37.7		ng/L		94	70 - 130	1	30
Perfluorononanoic acid (PFNA)	40.0	39.5		ng/L		99	75 - 135	8	30
Perfluorodecanoic acid (PFDA)	40.0	34.8		ng/L		87	76 - 136	12	30
Perfluoroundecanoic acid (PFUnA)	40.0	42.8		ng/L		107	68 - 128	2	30
Perfluorododecanoic acid (PFDoA)	40.0	34.1		ng/L		85	71 - 131	8	30
Perfluorotridecanoic acid (PFTriA)	40.0	35.1		ng/L		88	71 - 131	4	30
Perfluorotetradecanoic acid (PFTeA)	40.0	36.4		ng/L		91	70 - 130	13	30
Perfluorobutanesulfonic acid (PFBS)	35.4	35.2		ng/L		100	67 - 127	2	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	36.8		ng/L		98	66 - 126	4	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.6		ng/L		100	59 - 119	3	30

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-471917/3-A

Matrix: Water

Analysis Batch: 472385

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 471917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.6		ng/L		101	76 - 136	2	30
Perfluorooctanesulfonic acid (PFOS)	37.1	37.7		ng/L		102	70 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	38.4	37.9		ng/L		99	75 - 135	0	30
Perfluorodecanesulfonic acid (PFDS)	38.6	38.9		ng/L		101	71 - 131	3	30
Perfluorooctanesulfonamide (FOSA)	40.0	40.5		ng/L		101	73 - 133	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.8		ng/L		99	76 - 136	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.6		ng/L		102	76 - 136	1	30
4:2 FTS	37.4	35.1		ng/L		94	79 - 139	2	30
6:2 FTS	37.9	36.8		ng/L		97	59 - 175	6	30
8:2 FTS	38.3	39.1		ng/L		102	75 - 135	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	37.9		ng/L		101	79 - 139	3	30
HFPO-DA (GenX)	40.0	39.7		ng/L		99	51 - 173	1	30
F-53B Major	37.3	38.0		ng/L		102	75 - 135	3	30
F-53B Minor	37.7	38.3		ng/L		102	54 - 114	6	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	98		25 - 150
13C5 PFPeA	100		25 - 150
13C2 PFHxA	100		25 - 150
13C4 PFHpA	105		25 - 150
13C4 PFOA	109		25 - 150
13C5 PFNA	105		25 - 150
13C2 PFDA	110		25 - 150
13C2 PFUnA	103		25 - 150
13C2 PFDoA	112		25 - 150
13C2 PFTeDA	110		25 - 150
13C3 PFBS	101		25 - 150
18O2 PFHxS	102		25 - 150
13C4 PFOS	102		25 - 150
13C8 FOSA	96		25 - 150
d3-NMeFOSAA	123		25 - 150
d5-NEtFOSAA	129		25 - 150
M2-6:2 FTS	123		25 - 150
M2-8:2 FTS	122		25 - 150
M2-4:2 FTS	121		25 - 150
13C3 HFPO-DA	98		25 - 150

Eurofins TestAmerica, Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Client Sample ID: WT-012607-031621-CM-001

Lab Sample ID: 240-145973-1

Date Collected: 03/16/21 17:25

Matrix: Water

Date Received: 03/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			471917	03/19/21 04:47	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	472385	03/20/21 07:49	K1S	TAL SAC

Client Sample ID: W-012607-031621-CM-002

Lab Sample ID: 240-145973-2

Date Collected: 03/16/21 17:20

Matrix: Water

Date Received: 03/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			471917	03/19/21 04:47	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	472385	03/20/21 07:58	K1S	TAL SAC

Client Sample ID: FB-012607-031621-CM-003

Lab Sample ID: 240-145973-3

Date Collected: 03/16/21 17:30

Matrix: Water

Date Received: 03/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			471917	03/19/21 04:47	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	472385	03/20/21 08:07	K1S	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-21
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA000442021-2	07-31-21
New Hampshire	NELAP	2997	04-18-21
New Jersey	NELAP	CA005	06-30-21
New York	NELAP	11666	04-01-21
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-29-22
Pennsylvania	NELAP	68-01272	03-31-21
Texas	NELAP	T104704399-19-13	06-01-21
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-28-21 *
Vermont	State	VT-4040	04-16-21
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-21
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

Ver: 11/01/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Canton Facility				Login # : <u>145973</u>
Client <u>GHD</u>		Site Name _____		Cooler unpacked by: <u>Math Snipe</u>
Cooler Received on <u>3-17-21</u>		Opened on <u>3-17-21</u>		
FedEx: 1 st Grd ☒ Exp ☐ UPS ☐ FAS ☐ Clipper ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____				
Receipt After-hours: Drop-off Date/Time _____ Storage Location _____				
TestAmerica Cooler # <u>1A</u> Foam Box ☐ Client Cooler ☐ Box ☐ Other _____ Packing material used: <u>Bubble Wrap</u> Foam ☐ Plastic Bag ☐ None ☐ Other _____ COOLANT: <u>Wet Ice</u> Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐				
1. Cooler temperature upon receipt ☐ See Multiple Cooler Form IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp. <u>1.5</u> °C Corrected Cooler Temp. <u>1.6</u> °C IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C				
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u> 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 (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# <u>HC022887</u> 14. Were VOAs on the COC? Yes ☒ No ☐ NA ☐ 15. Were air bubbles >6 mm in any VOA vials? ☒ Yes ☐ No ☒ NA ☐ Larger than this. 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 ☐				
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____ Concerning _____				

Tests that are not checked for pH by Receiving:

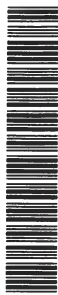
VOAs
Oil and Grease
TOC

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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-031621-CM-001	240-145973-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-031621-CM-001	240-145973-H-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-031621-CM-001	240-145973-I-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

[illegible]

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-145973-2

Login Number: 145973

List Number: 2

Creator: Cahill, Nicholas P

List Source: Eurofins TestAmerica, Sacramento

List Creation: 03/18/21 04:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-145973-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-145973-1	WT-012607-031621-CM-001	99	97	101	104	111	100	106	102
240-145973-2	W-012607-031621-CM-002	89	88	98	107	106	109	112	111
240-145973-3	FB-012607-031621-CM-003	101	99	100	105	107	97	91	92
LCS 320-471917/2-A	Lab Control Sample	102	101	104	102	111	104	109	110
LCSD 320-471917/3-A	Lab Control Sample Dup	98	100	100	105	109	105	110	103
MB 320-471917/1-A	Method Blank	98	98	100	104	105	100	106	95

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
240-145973-1	WT-012607-031621-CM-001	108	124	103	104	106	101	123	130
240-145973-2	W-012607-031621-CM-002	111	105	112	111	110	107	114	120
240-145973-3	FB-012607-031621-CM-003	92	105	102	102	93	87	115	120
LCS 320-471917/2-A	Lab Control Sample	118	100	106	104	108	104	129	130
LCSD 320-471917/3-A	Lab Control Sample Dup	112	110	101	102	102	96	123	129
MB 320-471917/1-A	Method Blank	113	105	98	102	103	95	118	120

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-145973-1	WT-012607-031621-CM-001	126	126	117	100
240-145973-2	W-012607-031621-CM-002	129	141	111	99
240-145973-3	FB-012607-031621-CM-003	133	126	122	97
LCS 320-471917/2-A	Lab Control Sample	133	136	120	100
LCSD 320-471917/3-A	Lab Control Sample Dup	123	122	121	98
MB 320-471917/1-A	Method Blank	66	126	121	98

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA

Eurofins TestAmerica, Canton

Attachment 2

April 6, 2021 Samples

WT-012607-030621-CM-001 (effluent)

W-012607-030621-CM-002 (influent)

FB-012607-030621-CM-003 (Field Blank)

WT-012607-030621-CM-004 (effluent)

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-147230-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
4/22/2021 11:41:23 AM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Job ID: 240-147230-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-147230-1

Comments

High cooler temp in second cooler. The cooler contained all the ambers. Per GHD will recollect: SVOC, Dioxin Screen, Pests, PCBs.

A revised COC was received on April 9, 2021. The IDs and the dates collected were revised.

Receipt

The samples were received on 4/8/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 13.5° C.

Metals

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

General Chemistry

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

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Qualifiers

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.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-147230-1	WT-012607-040621-CM-001	Water	04/06/21 17:00	04/08/21 10:00	

1

2

3

4

5

6

7

8

9

10

11

12

13

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Client Sample ID: WT-012607-040621-CM-001

Lab Sample ID: 240-147230-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.33		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.89		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
Chromium, hexavalent	0.34		0.10	mg/L	10		3500-Cr B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Method	Method Description	Protocol	Laboratory
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
3500-Cr B-2011	Chromium, Hexavalent	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
200.7	Preparation, Total Recoverable Metals	EPA	TAL CAN
245.1	Preparation, Mercury	EPA	TAL CAN

Protocol References:

1664A = EPA-821-98-002
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

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

Client Sample ID: WT-012607-040621-CM-001

Date Collected: 04/06/21 17:00

Date Received: 04/08/21 10:00

Lab Sample ID: 240-147230-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.33		0.050	mg/L		04/09/21 14:00	04/12/21 15:56	1
Nickel	0.89		0.010	mg/L		04/09/21 14:00	04/12/21 15:56	1
Lead	0.050	U	0.050	mg/L		04/09/21 14:00	04/12/21 15:56	1
Zinc	0.020	U	0.020	mg/L		04/09/21 14:00	04/12/21 15:56	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-040621-CM-001

Date Collected: 04/06/21 17:00

Date Received: 04/08/21 10:00

Lab Sample ID: 240-147230-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		04/09/21 14:00	04/13/21 11:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

General Chemistry

Client Sample ID: WT-012607-040621-CM-001

Date Collected: 04/06/21 17:00

Date Received: 04/08/21 10:00

Lab Sample ID: 240-147230-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L			04/21/21 08:49	1
Chromium, hexavalent	0.34		0.10	mg/L			04/07/21 11:15	10
Total Suspended Solids	4.0	U	4.0	mg/L			04/13/21 12:23	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Metals

Prep Batch: 480522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total Recoverable	Water	200.7	
MB 240-480522/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-480522/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
240-147230-1 MS	WT-012607-040621-CM-001	Total Recoverable	Water	200.7	
240-147230-1 MSD	WT-012607-040621-CM-001	Total Recoverable	Water	200.7	

Prep Batch: 480527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total/NA	Water	245.1	
MB 240-480527/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-480527/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 480920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total Recoverable	Water	200.7 Rev 4.4	480522
MB 240-480522/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	480522
LCS 240-480522/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	480522
240-147230-1 MS	WT-012607-040621-CM-001	Total Recoverable	Water	200.7 Rev 4.4	480522
240-147230-1 MSD	WT-012607-040621-CM-001	Total Recoverable	Water	200.7 Rev 4.4	480522

Analysis Batch: 481063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total/NA	Water	245.1	480527
MB 240-480527/1-A	Method Blank	Total/NA	Water	245.1	480527
LCS 240-480527/2-A	Lab Control Sample	Total/NA	Water	245.1	480527

General Chemistry

Analysis Batch: 480109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total/NA	Water	3500-Cr B-2011	
MB 240-480109/3	Method Blank	Total/NA	Water	3500-Cr B-2011	
LCS 240-480109/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2011	
240-147230-1 MS	WT-012607-040621-CM-001	Total/NA	Water	3500-Cr B-2011	
240-147230-1 MSD	WT-012607-040621-CM-001	Total/NA	Water	3500-Cr B-2011	

Analysis Batch: 480954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total/NA	Water	SM 2540D	
MB 240-480954/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-480954/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 482089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total/NA	Water	1664A	
MB 240-482089/1	Method Blank	Total/NA	Water	1664A	
LCS 240-482089/2	Lab Control Sample	Total/NA	Water	1664A	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-480522/1-A

Matrix: Water

Analysis Batch: 480920

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 480522

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		04/09/21 14:00	04/12/21 15:18	1
Nickel	0.010	U	0.010	mg/L		04/09/21 14:00	04/12/21 15:18	1
Lead	0.050	U	0.050	mg/L		04/09/21 14:00	04/12/21 15:18	1
Zinc	0.020	U	0.020	mg/L		04/09/21 14:00	04/12/21 15:18	1

Lab Sample ID: LCS 240-480522/2-A

Matrix: Water

Analysis Batch: 480920

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 480522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.992		mg/L		99	85 - 115
Nickel	1.00	1.04		mg/L		104	85 - 115
Lead	1.00	0.973		mg/L		97	85 - 115
Zinc	1.00	1.09		mg/L		109	85 - 115

Lab Sample ID: 240-147230-1 MS

Matrix: Water

Analysis Batch: 480920

Client Sample ID: WT-012607-040621-CM-001

Prep Type: Total Recoverable

Prep Batch: 480522

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.33		1.00	1.28		mg/L		94	70 - 130
Nickel	0.89		1.00	1.87		mg/L		99	70 - 130
Lead	0.050	U	1.00	0.910		mg/L		91	70 - 130
Zinc	0.020	U	1.00	1.06		mg/L		106	70 - 130

Lab Sample ID: 240-147230-1 MSD

Matrix: Water

Analysis Batch: 480920

Client Sample ID: WT-012607-040621-CM-001

Prep Type: Total Recoverable

Prep Batch: 480522

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chromium	0.33		1.00	1.25		mg/L		91	70 - 130	2	20
Nickel	0.89		1.00	1.83		mg/L		94	70 - 130	2	20
Lead	0.050	U	1.00	0.885		mg/L		88	70 - 130	3	20
Zinc	0.020	U	1.00	1.03		mg/L		103	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-480527/1-A

Matrix: Water

Analysis Batch: 481063

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 480527

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		04/09/21 14:00	04/13/21 11:05	1

Lab Sample ID: LCS 240-480527/2-A

Matrix: Water

Analysis Batch: 481063

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 480527

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00516		mg/L		103	85 - 115

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-482089/1

Matrix: Water

Analysis Batch: 482089

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L			04/21/21 08:49	1

Lab Sample ID: LCS 240-482089/2

Matrix: Water

Analysis Batch: 482089

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	38.00		mg/L		95	78 - 114

Method: 3500-Cr B-2011 - Chromium, Hexavalent

Lab Sample ID: MB 240-480109/3

Matrix: Water

Analysis Batch: 480109

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	U	0.010	mg/L			04/07/21 11:13	1

Lab Sample ID: LCS 240-480109/4

Matrix: Water

Analysis Batch: 480109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.250	0.269		mg/L		107	80 - 123

Lab Sample ID: 240-147230-1 MS

Matrix: Water

Analysis Batch: 480109

Client Sample ID: WT-012607-040621-CM-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.34		2.50	2.80		mg/L		98	31 - 151

Lab Sample ID: 240-147230-1 MSD

Matrix: Water

Analysis Batch: 480109

Client Sample ID: WT-012607-040621-CM-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chromium, hexavalent	0.34		2.50	3.21		mg/L		115	31 - 151	14	20

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

Lab Sample ID: MB 240-480954/1

Matrix: Water

Analysis Batch: 480954

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			04/13/21 12:23	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

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

Lab Sample ID: LCS 240-480954/2

Matrix: Water

Analysis Batch: 480954

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	30.1	29.0		mg/L		96	64 - 120

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Client Sample ID: WT-012607-040621-CM-001

Lab Sample ID: 240-147230-1

Date Collected: 04/06/21 17:00

Matrix: Water

Date Received: 04/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			480522	04/09/21 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	480920	04/12/21 15:56	KLC	TAL CAN
Total/NA	Prep	245.1			480527	04/09/21 14:00	MRL	TAL CAN
Total/NA	Analysis	245.1		1	481063	04/13/21 11:16	SLD	TAL CAN
Total/NA	Analysis	1664A		1	482089	04/21/21 08:49	JMR	TAL CAN
Total/NA	Analysis	3500-Cr B-2011		10	480109	04/07/21 11:15	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	480954	04/13/21 12:23	AJ	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-22
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21 *
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

Eurofins TestAmerica, Canton

Chain of Custody Record

Client Information Client Contact: Chris Meincke Company: GHD Services Inc. Address: 26850 Haggerty Rd. City: Farmington Hills State, Zip: MI, 48331 Phone: _____ Email: chris.meincke@ghd.com Project Name: 12607-T37 annual, RACER Eckles Rd Site: _____		Lab PM: Denise D E-Mail: Denise.Heckler@Eurofins.com PWSID: _____		Carrier Tracking No(s): _____ State of Origin: <u>MI</u> Page: 1 of 1 Job #: _____		COC No: 240-81461-31703.1 Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2OAS 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: _____	
Analysis Requested Due Date Requested: _____ TAT Requested (days): _____ Compliance Project: ☐ Yes ☒ No Purchase Order Requested PO #: _____ WO #: 12607 Project #: 24005880 SSOW#: _____		Field Filtered Sample (Yes or No) _____ 624.1 LL_PREC - TTO VOCs _____ 3500 CR_B - Chromium, Hexavalent _____ 200.7 - Hg, Cr, Pb, Ni, Zn _____ 625.1_PREC - TTO SVOCs _____ 608.3_Pest_PREC - TTO Pesticides _____ 608.3_PCB_PREC - PCBs _____ 25400 - TSS _____ 1664A_NP - HEM _____ PFC_IDA - PFAS, Standard List (28 Analytes) _____		Total Number of Containers _____ Special Instructions/Note: <u>Cooler</u> <u>1 of 2</u>			
Sample Identification Sample ID: WT-012607-030621-CM-001 VN-012607-030621-CM-002 PB-012607-030621-CM-003 WT-012607-030621-CM-004 TB-012607-030621		Sample Date: 3-6-21 Sample Time: 17:00 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=oil): Water		Field Filtered Sample (Yes or No) _____ 624.1 LL_PREC - TTO VOCs _____ 3500 CR_B - Chromium, Hexavalent _____ 200.7 - Hg, Cr, Pb, Ni, Zn _____ 625.1_PREC - TTO SVOCs _____ 608.3_Pest_PREC - TTO Pesticides _____ 608.3_PCB_PREC - PCBs _____ 25400 - TSS _____ 1664A_NP - HEM _____ PFC_IDA - PFAS, Standard List (28 Analytes) _____			
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify) _____							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months							
Special Instructions/QC Requirements: _____							
Empty Kit Relinquished by: _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Date: 3-6-21/18:00 Date/Time: _____ Date/Time: _____ Date/Time: _____		Method of Shipment: _____ Date/Time: 4-7-21 1000 Date/Time: _____ Date/Time: _____			
Custody Seals Intact ☒ Yes ☐ No		Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks: _____			



Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 147230

Client GHD Site Name _____ Cooler unpacked by: _____
Cooler Received on 4-7-21 Opened on 4-7-21
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-11 (CF +0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2 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# HC022887
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not
checked for pH by
Receiving:

VOAs
Oil and Grease
TOC

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login # : 147230

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

[illegible]

☐ See Temperature Excursion Form

$$13.4 / 13.5$$

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-030621-CM-001	240-147230-F-1	Plastic 500ml - with Nitric Acid	_____	_____	_____	_____
WT-012607-030621-CM-001	240-147230-O-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-030621-CM-001	240-147230-P-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

Ver: 11/01/2020

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-147230-2

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
4/15/2021 4:46:58 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

Job ID: 240-147230-2

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-147230-2

Comments

High cooler temp in second cooler. The cooler contained all the ambers. Per GHD, the following will be recollected: SVOC, Dioxin Screen, Pests, PCBs.

A revised COC was received on April 9, 2021. The IDs and the dates collected were revised.

High cooler temp for PFAS delivery from Canton to Sacramento. Per GHD, the samples for PFAS will be recollected.

Receipt

The samples were received on 4/8/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 13.5° C.

GC/MS VOA

Method 624.1: The laboratory control sample (LCS) analyzed in batch 240-480642 was below the recovery control criteria for acrolein. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. This demonstrates the analyte reporting limit is valid, and it is acceptable to report ND results (non-detects). The samples associated with the LCS were non-detects for the affected analytes; therefore, the results were reported. The following samples are impacted: WT-012607-040621-CM-001 (240-147230-1), TB-012607-040621 (240-147230-5) and (LCS 240-480642/5).

Method 624.1: The following samples were received preserved with hydrochloric acid: WT-012607-040621-CM-001 (240-147230-1) and TB-012607-040621 (240-147230-5). The requested target analyte list contains 2-Chloroethyl vinyl ether, which degrades in an acidic medium.

Method 624.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-480642.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-147230-1	WT-012607-040621-CM-001	Water	04/06/21 17:00	04/08/21 10:00	
240-147230-5	TB-012607-040621	Water	04/06/21 00:00	04/08/21 10:00	

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

Client Sample ID: WT-012607-040621-CM-001

Lab Sample ID: 240-147230-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.40	J	1.0	0.17	ug/L	1		624.1	Total/NA

Client Sample ID: TB-012607-040621

Lab Sample ID: 240-147230-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN

Protocol References:

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

Laboratory References:

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

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

Client Sample ID: WT-012607-040621-CM-001

Date Collected: 04/06/21 17:00

Date Received: 04/08/21 10:00

Lab Sample ID: 240-147230-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			04/11/21 00:08	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			04/11/21 00:08	1
Toluene	1.0	U	1.0	0.14	ug/L			04/11/21 00:08	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			04/11/21 00:08	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			04/11/21 00:08	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			04/11/21 00:08	1
Bromoform	1.0	U	1.0	0.76	ug/L			04/11/21 00:08	1
Bromomethane	1.0	U	1.0	0.42	ug/L			04/11/21 00:08	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			04/11/21 00:08	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/11/21 00:08	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			04/11/21 00:08	1
Chloroethane	1.0	U	1.0	0.83	ug/L			04/11/21 00:08	1
2-Chloroethyl vinyl ether	10	U	10	0.26	ug/L			04/11/21 00:08	1
Chloroform	1.0	U	1.0	0.13	ug/L			04/11/21 00:08	1
Chloromethane	1.0	U	1.0	0.20	ug/L			04/11/21 00:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/11/21 00:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/11/21 00:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			04/11/21 00:08	1
1,1-Dichloroethane	0.40	J	1.0	0.17	ug/L			04/11/21 00:08	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			04/11/21 00:08	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/11/21 00:08	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.19	ug/L			04/11/21 00:08	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			04/11/21 00:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			04/11/21 00:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			04/11/21 00:08	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			04/11/21 00:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			04/11/21 00:08	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/11/21 00:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			04/11/21 00:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			04/11/21 00:08	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			04/11/21 00:08	1
Acrolein	20	U *-	20	2.1	ug/L			04/11/21 00:08	1
Acrylonitrile	20	U	20	1.1	ug/L			04/11/21 00:08	1
1,3-Dichloropropene, Total	2.0	U	2.0	1.3	ug/L			04/11/21 00:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		47 - 134		04/11/21 00:08	1
1,2-Dichloroethane-d4 (Surr)	94		75 - 130		04/11/21 00:08	1
Toluene-d8 (Surr)	104		69 - 122		04/11/21 00:08	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

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

Client Sample ID: TB-012607-040621

Date Collected: 04/06/21 00:00

Date Received: 04/08/21 10:00

Lab Sample ID: 240-147230-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			04/11/21 00:29	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			04/11/21 00:29	1
Toluene	1.0	U	1.0	0.14	ug/L			04/11/21 00:29	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			04/11/21 00:29	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			04/11/21 00:29	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			04/11/21 00:29	1
Bromoform	1.0	U	1.0	0.76	ug/L			04/11/21 00:29	1
Bromomethane	1.0	U	1.0	0.42	ug/L			04/11/21 00:29	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			04/11/21 00:29	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/11/21 00:29	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			04/11/21 00:29	1
Chloroethane	1.0	U	1.0	0.83	ug/L			04/11/21 00:29	1
2-Chloroethyl vinyl ether	10	U	10	0.26	ug/L			04/11/21 00:29	1
Chloroform	1.0	U	1.0	0.13	ug/L			04/11/21 00:29	1
Chloromethane	1.0	U	1.0	0.20	ug/L			04/11/21 00:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/11/21 00:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/11/21 00:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			04/11/21 00:29	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			04/11/21 00:29	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			04/11/21 00:29	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/11/21 00:29	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.19	ug/L			04/11/21 00:29	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			04/11/21 00:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			04/11/21 00:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			04/11/21 00:29	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			04/11/21 00:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			04/11/21 00:29	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/11/21 00:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			04/11/21 00:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			04/11/21 00:29	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			04/11/21 00:29	1
Acrolein	20	U *-	20	2.1	ug/L			04/11/21 00:29	1
Acrylonitrile	20	U	20	1.1	ug/L			04/11/21 00:29	1
1,3-Dichloropropene, Total	2.0	U	2.0	1.3	ug/L			04/11/21 00:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		47 - 134		04/11/21 00:29	1
1,2-Dichloroethane-d4 (Surr)	98		75 - 130		04/11/21 00:29	1
Toluene-d8 (Surr)	106		69 - 122		04/11/21 00:29	1

Eurofins TestAmerica, Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

GC/MS VOA

Analysis Batch: 480642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147230-1	WT-012607-040621-CM-001	Total/NA	Water	624.1	
240-147230-5	TB-012607-040621	Total/NA	Water	624.1	
MB 240-480642/8	Method Blank	Total/NA	Water	624.1	
LCS 240-480642/5	Lab Control Sample	Total/NA	Water	624.1	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

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

Lab Sample ID: MB 240-480642/8

Matrix: Water

Analysis Batch: 480642

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			04/10/21 17:09	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			04/10/21 17:09	1
Toluene	1.0	U	1.0	0.14	ug/L			04/10/21 17:09	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			04/10/21 17:09	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			04/10/21 17:09	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			04/10/21 17:09	1
Bromoform	1.0	U	1.0	0.76	ug/L			04/10/21 17:09	1
Bromomethane	1.0	U	1.0	0.42	ug/L			04/10/21 17:09	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			04/10/21 17:09	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/10/21 17:09	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			04/10/21 17:09	1
Chloroethane	1.0	U	1.0	0.83	ug/L			04/10/21 17:09	1
2-Chloroethyl vinyl ether	10	U	10	0.26	ug/L			04/10/21 17:09	1
Chloroform	1.0	U	1.0	0.13	ug/L			04/10/21 17:09	1
Chloromethane	1.0	U	1.0	0.20	ug/L			04/10/21 17:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/10/21 17:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/10/21 17:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			04/10/21 17:09	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			04/10/21 17:09	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			04/10/21 17:09	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/21 17:09	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.19	ug/L			04/10/21 17:09	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			04/10/21 17:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			04/10/21 17:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			04/10/21 17:09	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			04/10/21 17:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			04/10/21 17:09	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/10/21 17:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			04/10/21 17:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			04/10/21 17:09	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			04/10/21 17:09	1
Acrolein	20	U	20	2.1	ug/L			04/10/21 17:09	1
Acrylonitrile	20	U	20	1.1	ug/L			04/10/21 17:09	1
1,3-Dichloropropene, Total	2.0	U	2.0	1.3	ug/L			04/10/21 17:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		47 - 134		04/10/21 17:09	1
1,2-Dichloroethane-d4 (Surr)	97		75 - 130		04/10/21 17:09	1
Toluene-d8 (Surr)	108		69 - 122		04/10/21 17:09	1

Lab Sample ID: LCS 240-480642/5

Matrix: Water

Analysis Batch: 480642

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.4		ug/L		97	65 - 135
Ethylbenzene	20.0	21.8		ug/L		109	60 - 140
Toluene	20.0	22.4		ug/L		112	70 - 130

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

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

Lab Sample ID: LCS 240-480642/5

Matrix: Water

Analysis Batch: 480642

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	18.4		ug/L		92	5 - 195
Xylenes, Total	40.0	42.8		ug/L		107	78 - 122
Dichlorobromomethane	20.0	18.8		ug/L		94	65 - 135
Bromoform	20.0	19.3		ug/L		97	70 - 130
Bromomethane	20.0	12.4		ug/L		62	15 - 185
Carbon tetrachloride	20.0	18.0		ug/L		90	70 - 130
Chlorobenzene	20.0	21.1		ug/L		105	65 - 135
Chlorodibromomethane	20.0	20.9		ug/L		104	70 - 135
Chloroethane	20.0	14.6		ug/L		73	40 - 160
2-Chloroethyl vinyl ether	20.0	24.9		ug/L		124	0 - 225
Chloroform	20.0	17.7		ug/L		88	70 - 135
Chloromethane	20.0	19.3		ug/L		96	0 - 205
1,2-Dichlorobenzene	20.0	20.6		ug/L		103	65 - 135
1,3-Dichlorobenzene	20.0	22.0		ug/L		110	70 - 130
1,4-Dichlorobenzene	20.0	21.9		ug/L		109	65 - 135
1,1-Dichloroethane	20.0	19.8		ug/L		99	70 - 130
1,1-Dichloroethene	20.0	19.9		ug/L		99	50 - 150
1,2-Dichloroethane	20.0	18.1		ug/L		90	70 - 130
trans-1,2-Dichloroethene	20.0	20.2		ug/L		101	70 - 130
1,2-Dichloropropane	20.0	21.6		ug/L		108	35 - 165
cis-1,3-Dichloropropene	20.0	21.3		ug/L		107	25 - 175
trans-1,3-Dichloropropene	20.0	23.6		ug/L		118	50 - 150
Methylene Chloride	20.0	20.8		ug/L		104	60 - 140
1,1,2,2-Tetrachloroethane	20.0	25.5		ug/L		128	60 - 140
Tetrachloroethene	20.0	19.8		ug/L		99	70 - 130
1,1,1-Trichloroethane	20.0	18.6		ug/L		93	70 - 130
1,1,2-Trichloroethane	20.0	21.5		ug/L		108	70 - 130
Trichloroethene	20.0	17.4		ug/L		87	65 - 135
Acrolein	100	41.9	*-	ug/L		42	60 - 140
Acrylonitrile	200	210		ug/L		105	60 - 140
1,3-Dichloropropene, Total	40.0	44.9		ug/L		112	67 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		47 - 134
1,2-Dichloroethane-d4 (Surr)	90		75 - 130
Toluene-d8 (Surr)	108		69 - 122

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (47-134)	DCA (75-130)	TOL (69-122)
240-147230-1	WT-012607-040621-CM-001	103	94	104
240-147230-5	TB-012607-040621	108	98	106
LCS 240-480642/5	Lab Control Sample	106	90	108
MB 240-480642/8	Method Blank	112	97	108

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

Client Sample ID: WT-012607-040621-CM-001

Lab Sample ID: 240-147230-1

Date Collected: 04/06/21 17:00

Matrix: Water

Date Received: 04/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	480642	04/11/21 00:08	TJL1	TAL CAN

Client Sample ID: TB-012607-040621

Lab Sample ID: 240-147230-5

Date Collected: 04/06/21 00:00

Matrix: Water

Date Received: 04/08/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	480642	04/11/21 00:29	TJL1	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147230-2

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21 *
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21 *
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

Eurofins TestAmerica, Canton

Ver: 11/01/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 147230

Client GHD Site Name _____ Cooler unpacked by: _____
 Cooler Received on 4-7-21 Opened on 4-7-21
 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-11 (CF +0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2 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# HC022887
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

Login #: 147230

[illegible]

$$13.4 / 13.5$$

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-030621-CM-001	240-147230-F-1	Plastic 500ml - with Nitric Acid	_____	_____	_____	_____
WT-012607-030621-CM-001	240-147230-O-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-030621-CM-001	240-147230-P-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

Chain of Custody Record



Environment Testing
America

3-13-21

Client Information Client Contact: Chris Meincke Company: GHD Services Inc. Address: 26850 Haggerty Rd. City: Farmington Hills State, Zip: MI, 48331 Phone: Email: chris.meincke@ghd.com Project Name: 12607-T37 annual, RACER Eckles Rd Site:		Sampler: <i>Meincke</i> Phone: <i>248-883-3402</i> Lab PM: Heckler, Denise D E-Mail: Denise.Heckler@Eurofinset.com Carrier Tracking No(s): State of Origin: <i>MI</i> Page: 1 of 1 Job #:		COC No: 240-81461-31703.1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:			
Due Date Requested: TAT Requested (days): Compliance Project: ☐ Yes ☐ No Purchase Order Requested PO #: WO #: Project #: SSOW#:		Analysis Requested Perform MS/MSD (Yes or No) ☒ Field Filtered Sample (Yes or No) ☒ 62.1_LL_PREC - TTO VOCs ☒ 3500_CR_B - Chromium, Hexavalent ☒ 200.7 - Hg, Cr, Pb, Ni, Zn ☒ 625.1_PREC - TTO SVOCs ☒ 608.3_Pest_PREC - TTO Pesticides ☒ 608.3_PCB_PREC - PCBs ☒ 2540D - TSS ☒ 1664A_NP - HEM ☒ PFC_IDA - PFAS, Standard List (28 Analytes) ☒ Total Number of Containers ☒					
Sample Identification WT-012607-030621-CM-001 W-012607-030621-CM-002 PB-012607-030621-CM-003 WT-012607-030621-CM-004 TB-012607-030621		Sample Date 3-6-21 17:00 17:15 17:10 17:05	Sample Time 17:00 17:15 17:10 17:05	Sample Type (C=comp, G=grab) G G G G	Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air) Water Water Water Water	Preservation Code: G G G G	Special Instructions/Note: <i>Cooler</i> <i>1 of 2</i>
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 3-6-21 / 18:00		Company: GHD			
Relinquished by:		Date/Time:		Company:			
Relinquished by:		Date/Time:		Company:			
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Attachment 3

April 21, 2021 Samples

WT-012607-042121-CM-001 (effluent)

WT-012607-042121-CM-002 (effluent)

W-012607-042121-CM-003 (influent)

FB-012607-042121-CM-004 (Field Blank)

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-147987-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
5/3/2021 9:11:37 AM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Job ID: 240-147987-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-147987-1

Comments

No additional comments.

Receipt

The sample was received on 4/22/2021 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 3.4° C.

GC/MS Semi VOA

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

GC Semi VOA

Method 608.3: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WT-012607-042121-CM-001 (240-147987-1).

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

Organic Prep

Methods 3510C, 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-482513.

Methods 3510C, 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-482508.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Qualifiers

GC/MS Semi VOA

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.

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.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-147987-1	WT-012607-042121-CM-001	Water	04/21/21 13:00	04/22/21 09:40	

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Client Sample ID: WT-012607-042121-CM-001

Lab Sample ID: 240-147987-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.23	J B	9.7	0.11	ug/L	1		625.1	Total/NA
2,3,7,8-TCDD	NEG				NONE	1		625	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method	Method Description	Protocol	Laboratory
625	Dioxin Screen (GC/MS SIM)	40CFR136A	TAL CAN
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
608.3	Organochlorine Pesticides in Water	40CFR136A	TAL CAN
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL CAN
625	Liquid-Liquid Extraction	40CFR136A	TAL CAN

Protocol References:

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

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

Laboratory References:

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: WT-012607-042121-CM-001

Date Collected: 04/21/21 13:00

Date Received: 04/22/21 09:40

Lab Sample ID: 240-147987-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	9.7	U	9.7	0.17	ug/L		04/23/21 08:10	04/27/21 20:16	1
Benzo[a]pyrene	9.7	U	9.7	0.17	ug/L		04/23/21 08:10	04/27/21 20:16	1
Benzo[b]fluoranthene	9.7	U	9.7	0.15	ug/L		04/23/21 08:10	04/27/21 20:16	1
Benzo[g,h,i]perylene	9.7	U	9.7	0.17	ug/L		04/23/21 08:10	04/27/21 20:16	1
Acenaphthene	9.7	U	9.7	0.17	ug/L		04/23/21 08:10	04/27/21 20:16	1
Acenaphthylene	9.7	U	9.7	0.12	ug/L		04/23/21 08:10	04/27/21 20:16	1
Anthracene	9.7	U	9.7	0.13	ug/L		04/23/21 08:10	04/27/21 20:16	1
Benzo[k]fluoranthene	9.7	U	9.7	0.14	ug/L		04/23/21 08:10	04/27/21 20:16	1
Butyl benzyl phthalate	9.7	U	9.7	0.65	ug/L		04/23/21 08:10	04/27/21 20:16	1
Bis(2-chloroethoxy)methane	9.7	U	9.7	0.44	ug/L		04/23/21 08:10	04/27/21 20:16	1
Bis(2-chloroethyl)ether	9.7	U	9.7	0.39	ug/L		04/23/21 08:10	04/27/21 20:16	1
Bis(2-ethylhexyl) phthalate	9.7	U	9.7	2.2	ug/L		04/23/21 08:10	04/27/21 20:16	1
bis (2-chloroisopropyl) ether	9.7	U	9.7	0.53	ug/L		04/23/21 08:10	04/27/21 20:16	1
4-Bromophenyl phenyl ether	9.7	U	9.7	0.48	ug/L		04/23/21 08:10	04/27/21 20:16	1
2-Chloronaphthalene	9.7	U	9.7	0.47	ug/L		04/23/21 08:10	04/27/21 20:16	1
4-Chlorophenyl phenyl ether	9.7	U	9.7	0.53	ug/L		04/23/21 08:10	04/27/21 20:16	1
Chrysene	9.7	U	9.7	0.18	ug/L		04/23/21 08:10	04/27/21 20:16	1
Dibenz(a,h)anthracene	9.7	U	9.7	0.15	ug/L		04/23/21 08:10	04/27/21 20:16	1
Di-n-butyl phthalate	9.7	U	9.7	1.8	ug/L		04/23/21 08:10	04/27/21 20:16	1
3,3'-Dichlorobenzidine	9.7	U	9.7	1.1	ug/L		04/23/21 08:10	04/27/21 20:16	1
Diethyl phthalate	9.7	U	9.7	3.7	ug/L		04/23/21 08:10	04/27/21 20:16	1
Dimethyl phthalate	9.7	U	9.7	0.50	ug/L		04/23/21 08:10	04/27/21 20:16	1
2,4-Dinitrotoluene	9.7	U	9.7	2.0	ug/L		04/23/21 08:10	04/27/21 20:16	1
2,6-Dinitrotoluene	9.7	U	9.7	2.1	ug/L		04/23/21 08:10	04/27/21 20:16	1
Di-n-octyl phthalate	9.7	U	9.7	0.80	ug/L		04/23/21 08:10	04/27/21 20:16	1
Fluoranthene	9.7	U	9.7	0.16	ug/L		04/23/21 08:10	04/27/21 20:16	1
Fluorene	9.7	U	9.7	0.16	ug/L		04/23/21 08:10	04/27/21 20:16	1
Hexachlorobenzene	9.7	U	9.7	0.16	ug/L		04/23/21 08:10	04/27/21 20:16	1
Hexachlorobutadiene	9.7	U	9.7	0.53	ug/L		04/23/21 08:10	04/27/21 20:16	1
Hexachloroethane	9.7	U	9.7	0.38	ug/L		04/23/21 08:10	04/27/21 20:16	1
Indeno[1,2,3-cd]pyrene	9.7	U	9.7	0.13	ug/L		04/23/21 08:10	04/27/21 20:16	1
Isophorone	9.7	U	9.7	0.31	ug/L		04/23/21 08:10	04/27/21 20:16	1
Naphthalene	0.23	J B	9.7	0.11	ug/L		04/23/21 08:10	04/27/21 20:16	1
Nitrobenzene	9.7	U	9.7	0.50	ug/L		04/23/21 08:10	04/27/21 20:16	1
N-Nitrosodi-n-propylamine	9.7	U	9.7	0.25	ug/L		04/23/21 08:10	04/27/21 20:16	1
Phenanthrene	9.7	U	9.7	0.16	ug/L		04/23/21 08:10	04/27/21 20:16	1
Pyrene	9.7	U	9.7	0.17	ug/L		04/23/21 08:10	04/27/21 20:16	1
1,2,4-Trichlorobenzene	9.7	U	9.7	0.41	ug/L		04/23/21 08:10	04/27/21 20:16	1
4-Chloro-3-methylphenol	9.7	U	9.7	0.29	ug/L		04/23/21 08:10	04/27/21 20:16	1
2-Chlorophenol	9.7	U	9.7	0.27	ug/L		04/23/21 08:10	04/27/21 20:16	1
2,4-Dichlorophenol	9.7	U	9.7	0.25	ug/L		04/23/21 08:10	04/27/21 20:16	1
2,4-Dimethylphenol	9.7	U	9.7	0.50	ug/L		04/23/21 08:10	04/27/21 20:16	1
2,4-Dinitrophenol	49	U	49	6.0	ug/L		04/23/21 08:10	04/27/21 20:16	1
4,6-Dinitro-2-methylphenol	49	U	49	2.7	ug/L		04/23/21 08:10	04/27/21 20:16	1
2-Nitrophenol	9.7	U	9.7	0.55	ug/L		04/23/21 08:10	04/27/21 20:16	1
4-Nitrophenol	49	U	49	2.1	ug/L		04/23/21 08:10	04/27/21 20:16	1
Pentachlorophenol	9.7	U	9.7	3.0	ug/L		04/23/21 08:10	04/27/21 20:16	1
Phenol	9.7	U	9.7	0.12	ug/L		04/23/21 08:10	04/27/21 20:16	1
2,4,6-Trichlorophenol	9.7	U	9.7	1.7	ug/L		04/23/21 08:10	04/27/21 20:16	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: WT-012607-042121-CM-001

Date Collected: 04/21/21 13:00

Date Received: 04/22/21 09:40

Lab Sample ID: 240-147987-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzidine	4.9	U	4.9	1.8	ug/L		04/23/21 08:10	04/27/21 20:16	1
Hexachlorocyclopentadiene	9.7	U	9.7	1.7	ug/L		04/23/21 08:10	04/27/21 20:16	1
N-Nitrosodimethylamine	0.97	U	0.97	0.21	ug/L		04/23/21 08:10	04/27/21 20:16	1
N-Nitrosodiphenylamine	9.7	U	9.7	0.43	ug/L		04/23/21 08:10	04/27/21 20:16	1
1,2-Diphenylhydrazine	0.97	U	0.97	0.42	ug/L		04/23/21 08:10	04/27/21 20:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	30		10 - 120				04/23/21 08:10	04/27/21 20:16	1
2,4,6-Tribromophenol	61		33 - 120				04/23/21 08:10	04/27/21 20:16	1
Nitrobenzene-d5	73		33 - 120				04/23/21 08:10	04/27/21 20:16	1
Phenol-d5	16		10 - 120				04/23/21 08:10	04/27/21 20:16	1
Terphenyl-d14	85		36 - 122				04/23/21 08:10	04/27/21 20:16	1
2-Fluorobiphenyl (Surr)	74		38 - 120				04/23/21 08:10	04/27/21 20:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 625 - Dioxin Screen (GC/MS SIM)

Client Sample ID: WT-012607-042121-CM-001

Date Collected: 04/21/21 13:00

Date Received: 04/22/21 09:40

Lab Sample ID: 240-147987-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG				NONE		04/23/21 08:16	04/30/21 14:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 608.3 - Organochlorine Pesticides in Water

Client Sample ID: WT-012607-042121-CM-001

Date Collected: 04/21/21 13:00

Date Received: 04/22/21 09:40

Lab Sample ID: 240-147987-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.049	U	0.049	0.0023	ug/L		04/23/21 09:17	04/27/21 19:03	1
alpha-BHC	0.049	U	0.049	0.0019	ug/L		04/23/21 09:17	04/27/21 19:03	1
beta-BHC	0.049	U	0.049	0.0045	ug/L		04/23/21 09:17	04/27/21 19:03	1
delta-BHC	0.049	U	0.049	0.0042	ug/L		04/23/21 09:17	04/27/21 19:03	1
gamma-BHC (Lindane)	0.049	U	0.049	0.0024	ug/L		04/23/21 09:17	04/27/21 19:03	1
Chlordane (technical)	0.49	U	0.49	0.045	ug/L		04/23/21 09:17	04/27/21 19:03	1
4,4'-DDD	0.049	U	0.049	0.0051	ug/L		04/23/21 09:17	04/27/21 19:03	1
4,4'-DDE	0.049	U	0.049	0.0042	ug/L		04/23/21 09:17	04/27/21 19:03	1
4,4'-DDT	0.049	U	0.049	0.0047	ug/L		04/23/21 09:17	04/27/21 19:03	1
Dieldrin	0.049	U	0.049	0.0022	ug/L		04/23/21 09:17	04/27/21 19:03	1
Endosulfan I	0.049	U	0.049	0.0036	ug/L		04/23/21 09:17	04/27/21 19:03	1
Endosulfan II	0.049	U	0.049	0.0022	ug/L		04/23/21 09:17	04/27/21 19:03	1
Endosulfan sulfate	0.049	U	0.049	0.0036	ug/L		04/23/21 09:17	04/27/21 19:03	1
Endrin	0.049	U	0.049	0.0024	ug/L		04/23/21 09:17	04/27/21 19:03	1
Endrin aldehyde	0.049	U	0.049	0.0045	ug/L		04/23/21 09:17	04/27/21 19:03	1
Heptachlor	0.049	U	0.049	0.0032	ug/L		04/23/21 09:17	04/27/21 19:03	1
Heptachlor epoxide	0.049	U	0.049	0.0025	ug/L		04/23/21 09:17	04/27/21 19:03	1
Toxaphene	1.9	U	1.9	0.056	ug/L		04/23/21 09:17	04/27/21 19:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 120				04/23/21 09:17	04/27/21 19:03	1
Tetrachloro-m-xylene	82		33 - 120				04/23/21 09:17	04/27/21 19:03	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

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

Client Sample ID: WT-012607-042121-CM-001

Date Collected: 04/21/21 13:00

Date Received: 04/22/21 09:40

Lab Sample ID: 240-147987-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.097	U	0.097	0.054	ug/L		04/23/21 09:07	04/27/21 08:13	1
Aroclor-1221	0.097	U	0.097	0.055	ug/L		04/23/21 09:07	04/27/21 08:13	1
Aroclor-1232	0.097	U	0.097	0.072	ug/L		04/23/21 09:07	04/27/21 08:13	1
Aroclor-1242	0.097	U	0.097	0.074	ug/L		04/23/21 09:07	04/27/21 08:13	1
Aroclor-1248	0.097	U	0.097	0.049	ug/L		04/23/21 09:07	04/27/21 08:13	1
Aroclor-1254	0.097	U	0.097	0.039	ug/L		04/23/21 09:07	04/27/21 08:13	1
Aroclor-1260	0.097	U	0.097	0.045	ug/L		04/23/21 09:07	04/27/21 08:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		10 - 114				04/23/21 09:07	04/27/21 08:13	1
Tetrachloro-m-xylene	103		15 - 131				04/23/21 09:07	04/27/21 08:13	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

GC/MS Semi VOA

Prep Batch: 482487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	625	
MB 240-482487/20-A	Method Blank	Total/NA	Water	3510C	
LCS 240-482487/21-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 482489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	3510C	
MB 240-482489/7-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 483041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	625.1	482487
MB 240-482487/20-A	Method Blank	Total/NA	Water	625.1	482487
LCS 240-482487/21-A	Lab Control Sample	Total/NA	Water	625.1	482487

Analysis Batch: 483603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	625	482489
MB 240-482489/7-A	Method Blank	Total/NA	Water	625	482489

GC Semi VOA

Prep Batch: 482508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	608	
MB 240-482508/18-A	Method Blank	Total/NA	Water	3510C	
LCS 240-482508/19-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 482513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	608	
MB 240-482513/10-A	Method Blank	Total/NA	Water	3510C	
LCS 240-482513/11-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 482880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	608.3	482508
MB 240-482508/18-A	Method Blank	Total/NA	Water	608.3	482508
LCS 240-482508/19-A	Lab Control Sample	Total/NA	Water	608.3	482508

Analysis Batch: 483057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147987-1	WT-012607-042121-CM-001	Total/NA	Water	608.3	482513
MB 240-482513/10-A	Method Blank	Total/NA	Water	608.3	482513
LCS 240-482513/11-A	Lab Control Sample	Total/NA	Water	608.3	482513

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 625 - Dioxin Screen (GC/MS SIM)

Lab Sample ID: MB 240-482489/7-A

Matrix: Water

Analysis Batch: 483603

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG				NONE		04/23/21 08:16	04/30/21 13:04	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-482487/20-A

Matrix: Water

Analysis Batch: 483041

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	10	U	10	0.17	ug/L		04/23/21 08:10	04/27/21 18:33	1
Benzo[a]pyrene	10	U	10	0.17	ug/L		04/23/21 08:10	04/27/21 18:33	1
Benzo[b]fluoranthene	10	U	10	0.15	ug/L		04/23/21 08:10	04/27/21 18:33	1
Benzo[g,h,i]perylene	10	U	10	0.18	ug/L		04/23/21 08:10	04/27/21 18:33	1
Acenaphthene	10	U	10	0.17	ug/L		04/23/21 08:10	04/27/21 18:33	1
Acenaphthylene	10	U	10	0.13	ug/L		04/23/21 08:10	04/27/21 18:33	1
Anthracene	10	U	10	0.14	ug/L		04/23/21 08:10	04/27/21 18:33	1
Benzo[k]fluoranthene	10	U	10	0.14	ug/L		04/23/21 08:10	04/27/21 18:33	1
Butyl benzyl phthalate	10	U	10	0.67	ug/L		04/23/21 08:10	04/27/21 18:33	1
Bis(2-chloroethoxy)methane	10	U	10	0.46	ug/L		04/23/21 08:10	04/27/21 18:33	1
Bis(2-chloroethyl)ether	10	U	10	0.40	ug/L		04/23/21 08:10	04/27/21 18:33	1
Bis(2-ethylhexyl) phthalate	10	U	10	2.2	ug/L		04/23/21 08:10	04/27/21 18:33	1
bis (2-chloroisopropyl) ether	10	U	10	0.55	ug/L		04/23/21 08:10	04/27/21 18:33	1
4-Bromophenyl phenyl ether	10	U	10	0.50	ug/L		04/23/21 08:10	04/27/21 18:33	1
2-Chloronaphthalene	10	U	10	0.48	ug/L		04/23/21 08:10	04/27/21 18:33	1
4-Chlorophenyl phenyl ether	10	U	10	0.55	ug/L		04/23/21 08:10	04/27/21 18:33	1
Chrysene	10	U	10	0.19	ug/L		04/23/21 08:10	04/27/21 18:33	1
Dibenz(a,h)anthracene	10	U	10	0.15	ug/L		04/23/21 08:10	04/27/21 18:33	1
Di-n-butyl phthalate	10	U	10	1.8	ug/L		04/23/21 08:10	04/27/21 18:33	1
3,3'-Dichlorobenzidine	10	U	10	1.2	ug/L		04/23/21 08:10	04/27/21 18:33	1
Diethyl phthalate	10	U	10	3.8	ug/L		04/23/21 08:10	04/27/21 18:33	1
Dimethyl phthalate	10	U	10	0.52	ug/L		04/23/21 08:10	04/27/21 18:33	1
2,4-Dinitrotoluene	10	U	10	2.1	ug/L		04/23/21 08:10	04/27/21 18:33	1
2,6-Dinitrotoluene	10	U	10	2.1	ug/L		04/23/21 08:10	04/27/21 18:33	1
Di-n-octyl phthalate	10	U	10	0.82	ug/L		04/23/21 08:10	04/27/21 18:33	1
Fluoranthene	10	U	10	0.16	ug/L		04/23/21 08:10	04/27/21 18:33	1
Fluorene	10	U	10	0.17	ug/L		04/23/21 08:10	04/27/21 18:33	1
Hexachlorobenzene	10	U	10	0.16	ug/L		04/23/21 08:10	04/27/21 18:33	1
Hexachlorobutadiene	10	U	10	0.54	ug/L		04/23/21 08:10	04/27/21 18:33	1
Hexachloroethane	10	U	10	0.40	ug/L		04/23/21 08:10	04/27/21 18:33	1
Indeno[1,2,3-cd]pyrene	10	U	10	0.14	ug/L		04/23/21 08:10	04/27/21 18:33	1
Isophorone	10	U	10	0.32	ug/L		04/23/21 08:10	04/27/21 18:33	1
Naphthalene	0.207	J	10	0.11	ug/L		04/23/21 08:10	04/27/21 18:33	1
Nitrobenzene	10	U	10	0.51	ug/L		04/23/21 08:10	04/27/21 18:33	1
N-Nitrosodi-n-propylamine	10	U	10	0.25	ug/L		04/23/21 08:10	04/27/21 18:33	1
Phenanthrene	10	U	10	0.17	ug/L		04/23/21 08:10	04/27/21 18:33	1
Pyrene	10	U	10	0.18	ug/L		04/23/21 08:10	04/27/21 18:33	1
1,2,4-Trichlorobenzene	10	U	10	0.43	ug/L		04/23/21 08:10	04/27/21 18:33	1
4-Chloro-3-methylphenol	10	U	10	0.30	ug/L		04/23/21 08:10	04/27/21 18:33	1
2-Chlorophenol	10	U	10	0.27	ug/L		04/23/21 08:10	04/27/21 18:33	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-482487/20-A

Matrix: Water

Analysis Batch: 483041

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	10	U	10	0.26	ug/L		04/23/21 08:10	04/27/21 18:33	1
2,4-Dimethylphenol	10	U	10	0.52	ug/L		04/23/21 08:10	04/27/21 18:33	1
2,4-Dinitrophenol	50	U	50	6.2	ug/L		04/23/21 08:10	04/27/21 18:33	1
4,6-Dinitro-2-methylphenol	50	U	50	2.8	ug/L		04/23/21 08:10	04/27/21 18:33	1
2-Nitrophenol	10	U	10	0.56	ug/L		04/23/21 08:10	04/27/21 18:33	1
4-Nitrophenol	50	U	50	2.2	ug/L		04/23/21 08:10	04/27/21 18:33	1
Pentachlorophenol	10	U	10	3.1	ug/L		04/23/21 08:10	04/27/21 18:33	1
Phenol	10	U	10	0.13	ug/L		04/23/21 08:10	04/27/21 18:33	1
2,4,6-Trichlorophenol	10	U	10	1.8	ug/L		04/23/21 08:10	04/27/21 18:33	1
Benzidine	5.0	U	5.0	1.9	ug/L		04/23/21 08:10	04/27/21 18:33	1
Hexachlorocyclopentadiene	10	U	10	1.8	ug/L		04/23/21 08:10	04/27/21 18:33	1
N-Nitrosodimethylamine	1.0	U	1.0	0.22	ug/L		04/23/21 08:10	04/27/21 18:33	1
N-Nitrosodiphenylamine	10	U	10	0.44	ug/L		04/23/21 08:10	04/27/21 18:33	1
1,2-Diphenylhydrazine	1.0	U	1.0	0.43	ug/L		04/23/21 08:10	04/27/21 18:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	46		10 - 120	04/23/21 08:10	04/27/21 18:33	1
2,4,6-Tribromophenol	78		33 - 120	04/23/21 08:10	04/27/21 18:33	1
Nitrobenzene-d5	77		33 - 120	04/23/21 08:10	04/27/21 18:33	1
Phenol-d5	28		10 - 120	04/23/21 08:10	04/27/21 18:33	1
Terphenyl-d14	100		36 - 122	04/23/21 08:10	04/27/21 18:33	1
2-Fluorobiphenyl (Surr)	85		38 - 120	04/23/21 08:10	04/27/21 18:33	1

Lab Sample ID: LCS 240-482487/21-A

Matrix: Water

Analysis Batch: 483041

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	20.0	16.0		ug/L		80	33 - 143
Benzo[a]pyrene	20.0	16.3		ug/L		81	17 - 163
Benzo[b]fluoranthene	20.0	16.0		ug/L		80	24 - 159
Benzo[g,h,i]perylene	20.0	17.3		ug/L		86	0 - 219
Acenaphthene	20.0	15.0		ug/L		75	47 - 145
Acenaphthylene	20.0	14.8		ug/L		74	33 - 145
Anthracene	20.0	15.3		ug/L		76	27 - 133
Benzo[k]fluoranthene	20.0	16.6		ug/L		83	11 - 162
Butyl benzyl phthalate	20.0	16.0		ug/L		80	0 - 152
Bis(2-chloroethoxy)methane	20.0	16.2		ug/L		81	33 - 184
Bis(2-chloroethyl)ether	20.0	16.2		ug/L		81	12 - 158
Bis(2-ethylhexyl) phthalate	20.0	16.4		ug/L		82	8 - 158
bis (2-chloroisopropyl) ether	20.0	17.7		ug/L		88	36 - 166
4-Bromophenyl phenyl ether	20.0	16.4		ug/L		82	53 - 127
2-Chloronaphthalene	20.0	15.1		ug/L		75	60 - 120
4-Chlorophenyl phenyl ether	20.0	15.1		ug/L		75	25 - 158
Chrysene	20.0	15.9		ug/L		79	17 - 168
Dibenz(a,h)anthracene	20.0	16.6		ug/L		83	0 - 227
Di-n-butyl phthalate	20.0	16.6		ug/L		83	1 - 120
3,3'-Dichlorobenzidine	40.0	30.4		ug/L		76	0 - 262

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-482487/21-A

Matrix: Water

Analysis Batch: 483041

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	20.0	14.3		ug/L		72	0 - 120
Dimethyl phthalate	20.0	14.4		ug/L		72	0 - 120
2,4-Dinitrotoluene	20.0	15.2		ug/L		76	39 - 139
2,6-Dinitrotoluene	20.0	16.7		ug/L		84	50 - 158
Di-n-octyl phthalate	20.0	15.8		ug/L		79	4 - 146
Fluoranthene	20.0	17.2		ug/L		86	26 - 137
Fluorene	20.0	15.0		ug/L		75	59 - 121
Hexachlorobenzene	20.0	16.1		ug/L		80	0 - 152
Hexachlorobutadiene	20.0	14.9		ug/L		74	24 - 120
Hexachloroethane	20.0	15.2		ug/L		76	40 - 120
Indeno[1,2,3-cd]pyrene	20.0	16.8		ug/L		84	0 - 171
Isophorone	20.0	16.1		ug/L		80	21 - 196
Naphthalene	20.0	15.4		ug/L		77	21 - 133
Nitrobenzene	20.0	16.9		ug/L		85	35 - 180
N-Nitrosodi-n-propylamine	20.0	16.8		ug/L		84	0 - 230
Phenanthrene	20.0	15.5		ug/L		78	54 - 120
Pyrene	20.0	15.9		ug/L		80	52 - 120
1,2,4-Trichlorobenzene	20.0	15.2		ug/L		76	44 - 142
4-Chloro-3-methylphenol	20.0	15.0		ug/L		75	22 - 147
2-Chlorophenol	20.0	14.8		ug/L		74	23 - 134
2,4-Dichlorophenol	20.0	15.6		ug/L		78	39 - 135
2,4-Dimethylphenol	20.0	13.6		ug/L		68	32 - 120
2,4-Dinitrophenol	40.0	26.4	J	ug/L		66	0 - 191
4,6-Dinitro-2-methylphenol	40.0	30.1	J	ug/L		75	0 - 181
2-Nitrophenol	20.0	14.7		ug/L		74	29 - 182
4-Nitrophenol	40.0	10.9	J	ug/L		27	0 - 132
Pentachlorophenol	40.0	25.7		ug/L		64	14 - 176
Phenol	20.0	5.21	J	ug/L		26	5 - 120
2,4,6-Trichlorophenol	20.0	15.1		ug/L		75	37 - 144
Benzidine	40.0	23.1		ug/L		58	21 - 120
Hexachlorocyclopentadiene	20.0	13.4		ug/L		67	20 - 120
N-Nitrosodimethylamine	20.0	9.18		ug/L		46	10 - 120
N-Nitrosodiphenylamine	20.0	16.6		ug/L		83	61 - 120
1,2-Diphenylhydrazine	20.0	18.4		ug/L		92	51 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	42		10 - 120
2,4,6-Tribromophenol	81		33 - 120
Nitrobenzene-d5	82		33 - 120
Phenol-d5	25		10 - 120
Terphenyl-d14	91		36 - 122
2-Fluorobiphenyl (Surr)	79		38 - 120

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 240-482513/10-A

Matrix: Water

Analysis Batch: 483057

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.050	U	0.050	0.0024	ug/L		04/23/21 09:17	04/27/21 19:42	1
alpha-BHC	0.050	U	0.050	0.0020	ug/L		04/23/21 09:17	04/27/21 19:42	1
beta-BHC	0.050	U	0.050	0.0046	ug/L		04/23/21 09:17	04/27/21 19:42	1
delta-BHC	0.050	U	0.050	0.0043	ug/L		04/23/21 09:17	04/27/21 19:42	1
gamma-BHC (Lindane)	0.050	U	0.050	0.0025	ug/L		04/23/21 09:17	04/27/21 19:42	1
Chlordane (technical)	0.50	U	0.50	0.047	ug/L		04/23/21 09:17	04/27/21 19:42	1
4,4'-DDD	0.050	U	0.050	0.0053	ug/L		04/23/21 09:17	04/27/21 19:42	1
4,4'-DDE	0.050	U	0.050	0.0043	ug/L		04/23/21 09:17	04/27/21 19:42	1
4,4'-DDT	0.050	U	0.050	0.0048	ug/L		04/23/21 09:17	04/27/21 19:42	1
Dieldrin	0.050	U	0.050	0.0023	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endosulfan I	0.050	U	0.050	0.0037	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endosulfan II	0.050	U	0.050	0.0023	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endosulfan sulfate	0.050	U	0.050	0.0037	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endrin	0.050	U	0.050	0.0025	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endrin aldehyde	0.050	U	0.050	0.0046	ug/L		04/23/21 09:17	04/27/21 19:42	1
Heptachlor	0.050	U	0.050	0.0033	ug/L		04/23/21 09:17	04/27/21 19:42	1
Heptachlor epoxide	0.050	U	0.050	0.0026	ug/L		04/23/21 09:17	04/27/21 19:42	1
Toxaphene	2.0	U	2.0	0.058	ug/L		04/23/21 09:17	04/27/21 19:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		10 - 120	04/23/21 09:17	04/27/21 19:42	1
Tetrachloro-m-xylene	77		33 - 120	04/23/21 09:17	04/27/21 19:42	1

Lab Sample ID: LCS 240-482513/11-A

Matrix: Water

Analysis Batch: 483057

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.250	0.215		ug/L		86	42 - 140
alpha-BHC	0.250	0.212		ug/L		85	37 - 140
beta-BHC	0.250	0.203		ug/L		81	17 - 147
delta-BHC	0.250	0.221		ug/L		88	19 - 140
gamma-BHC (Lindane)	0.250	0.181		ug/L		73	32 - 140
4,4'-DDD	0.250	0.230		ug/L		92	31 - 141
4,4'-DDE	0.250	0.182		ug/L		73	30 - 145
4,4'-DDT	0.250	0.250		ug/L		100	25 - 160
Dieldrin	0.250	0.227		ug/L		91	36 - 146
Endosulfan I	0.250	0.164		ug/L		65	45 - 153
Endosulfan II	0.250	0.172		ug/L		69	0 - 202
Endosulfan sulfate	0.250	0.221		ug/L		88	26 - 144
Endrin	0.250	0.214		ug/L		86	30 - 147
Endrin aldehyde	0.250	0.207		ug/L		83	47 - 120
Heptachlor	0.250	0.233		ug/L		93	34 - 140
Heptachlor epoxide	0.250	0.217		ug/L		87	37 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	76		10 - 120
Tetrachloro-m-xylene	81		33 - 120

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

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

Lab Sample ID: MB 240-482508/18-A

Matrix: Water

Analysis Batch: 482880

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482508

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		04/23/21 09:07	04/27/21 07:29	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		04/23/21 09:07	04/27/21 07:29	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		04/23/21 09:07	04/27/21 07:29	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		04/23/21 09:07	04/27/21 07:29	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		04/23/21 09:07	04/27/21 07:29	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		04/23/21 09:07	04/27/21 07:29	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		04/23/21 09:07	04/27/21 07:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		10 - 114	04/23/21 09:07	04/27/21 07:29	1
Tetrachloro-m-xylene	98		15 - 131	04/23/21 09:07	04/27/21 07:29	1

Lab Sample ID: LCS 240-482508/19-A

Matrix: Water

Analysis Batch: 482880

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	1.46		ug/L		58	50 - 140
Aroclor-1260	2.50	1.33		ug/L		53	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	68		10 - 114
Tetrachloro-m-xylene	70		15 - 131

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (10-120)	TBP (33-120)	NBZ (33-120)	PHL (10-120)	TPHL (36-122)	FBP (38-120)
240-147987-1	WT-012607-042121-CM-001	30	61	73	16	85	74
LCS 240-482487/21-A	Lab Control Sample	42	81	82	25	91	79
MB 240-482487/20-A	Method Blank	46	78	77	28	100	85

Surrogate Legend

2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-120)	DCBP2 (10-120)	TCX1 (33-120)	TCX2 (33-120)
240-147987-1	WT-012607-042121-CM-001	105	87	93	82
LCS 240-482513/11-A	Lab Control Sample	88	76	88	81
MB 240-482513/10-A	Method Blank	93	79	87	77

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2 (10-114)	TCX2 (15-131)
240-147987-1	WT-012607-042121-CM-001	89	103
LCS 240-482508/19-A	Lab Control Sample	68	70
MB 240-482508/18-A	Method Blank	96	98

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Client Sample ID: WT-012607-042121-CM-001

Lab Sample ID: 240-147987-1

Date Collected: 04/21/21 13:00

Matrix: Water

Date Received: 04/22/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			482489	04/23/21 08:16	SDE	TAL CAN
Total/NA	Analysis	625		1	483603	04/30/21 14:00	MRU	TAL CAN
Total/NA	Prep	625			482487	04/23/21 08:10	SDE	TAL CAN
Total/NA	Analysis	625.1		1	483041	04/27/21 20:16	MRU	TAL CAN
Total/NA	Prep	608			482508	04/23/21 09:07	MDH	TAL CAN
Total/NA	Analysis	608.3		1	482880	04/27/21 08:13	LSH	TAL CAN
Total/NA	Prep	608			482513	04/23/21 09:17	MDH	TAL CAN
Total/NA	Analysis	608.3		1	483057	04/27/21 19:03	BPM	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-147987-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-22
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21 *
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

Eurofins TestAmerica, Canton

Ver: 11/01/2020

Eurofins TestAmerica Canton Sample Receipt Form/Narrative				Login # : <u>147987</u>	
Canton Facility					
Client <u>BHD</u>		Site Name _____		Cooler unpacked by: _____	
Cooler Received on <u>4-22-21</u>		Opened on <u>4-22-21</u>			
FedEx: 1 st Grd ☒ Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____					
Receipt After-hours: Drop-off Date/Time			Storage Location		
TestAmerica Cooler # <u>Y4</u>		Foam Box	Client Cooler	Box	Other _____
Packing material used: <u>Bubble</u> Wrap		Foam	Plastic Bag	None	Other _____
COOLANT: <u>Wet Ice</u>		Blue Ice	Dry Ice	Water	None
1. Cooler temperature upon receipt ☐ See Multiple Cooler Form IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp. <u>3.3</u> °C Corrected Cooler Temp. <u>3.4</u> °C IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C					
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u>				☒ 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 (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)?				☒ Yes ☐ No	
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# <u>HC022887</u>	
14. Were VOAs on the COC?				☒ Yes ☐ No ☐ NA	
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 ☐ NA	
17. Was a LL Hg or Me Hg trip blank present? _____				☒ Yes ☐ No ☐ NA	
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____					
Concerning _____					

Tests that are not
checked for pH by
Receiving:

VOAs
Oil and Grease
TOC

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

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-72737-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
4/29/2021 3:46:00 PM

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

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
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.
α	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

Case Narrative

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Job ID: 320-72737-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-72737-1

Comments

No additional comments.

Receipt

The samples were received on 4/22/2021 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4° C.

LCMS

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analytes were outside of the established ratio limits. The qualitative identification of the analytes have some degree of uncertainty, and the reported values may have some high bias. However, analyst judgment was used to positively identify the analytes: WT-012607-042121-CM-002 (320-72737-1) and W-012607-042121-CM-003 (320-72737-2).

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

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-483355.

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

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Client Sample ID: WT-012607-042121-CM-002

Lab Sample ID: 320-72737-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.3		4.3	2.1	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.5	J	1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.5	J	1.7	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.58	J	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.2		1.7	0.73	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.85	J	1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.55	J	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.1	I	1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.43	J I	1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	30	I	1.7	0.47	ng/L	1		537 (modified)	Total/NA

Client Sample ID: W-012607-042121-CM-003

Lab Sample ID: 320-72737-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.6		4.4	2.1	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		1.8	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.7		1.8	0.51	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		1.8	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.0		1.8	0.74	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.32	J	1.8	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.5	J	1.8	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.9	I	1.8	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.5	J I	1.8	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	110	I	1.8	0.47	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-012607-042121-CM-004

Lab Sample ID: 320-72737-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.57	J	1.7	0.49	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Client Sample ID: WT-012607-042121-CM-002

Lab Sample ID: 320-72737-1

Date Collected: 04/21/21 13:00

Matrix: Water

Date Received: 04/22/21 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	7.3		4.3	2.1	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluoropentanoic acid (PFPeA)	1.5	J	1.7	0.42	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorohexanoic acid (PFHxA)	1.5	J	1.7	0.50	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluoroheptanoic acid (PFHpA)	0.58	J	1.7	0.22	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorooctanoic acid (PFOA)	2.2		1.7	0.73	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.27	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.95	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.47	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.63	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorobutanesulfonic acid (PFBS)	0.85	J	1.7	0.17	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluoropentanesulfonic acid (PFPeS)	0.55	J	1.7	0.26	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorohexanesulfonic acid (PFHxS)	2.1	I	1.7	0.49	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.43	J I	1.7	0.16	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorooctanesulfonic acid (PFOS)	30	I	1.7	0.47	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.32	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.28	ng/L		04/26/21 19:28	04/28/21 08:48	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.85	ng/L		04/26/21 19:28	04/28/21 08:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.3	U	4.3	1.0	ng/L		04/26/21 19:28	04/28/21 08:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.3	U	4.3	1.1	ng/L		04/26/21 19:28	04/28/21 08:48	1
4:2 FTS	1.7	U	1.7	0.21	ng/L		04/26/21 19:28	04/28/21 08:48	1
6:2 FTS	4.3	U	4.3	2.2	ng/L		04/26/21 19:28	04/28/21 08:48	1
8:2 FTS	1.7	U	1.7	0.40	ng/L		04/26/21 19:28	04/28/21 08:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.35	ng/L		04/26/21 19:28	04/28/21 08:48	1
HFPO-DA (GenX)	3.5	U	3.5	1.3	ng/L		04/26/21 19:28	04/28/21 08:48	1
F-53B Major	1.7	U	1.7	0.21	ng/L		04/26/21 19:28	04/28/21 08:48	1
F-53B Minor	1.7	U	1.7	0.28	ng/L		04/26/21 19:28	04/28/21 08:48	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	87		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C5 PFPeA	75		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C2 PFHxA	95		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C4 PFHpA	97		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C4 PFOA	94		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C5 PFNA	96		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C2 PFDA	104		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C2 PFUnA	104		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C2 PFDoA	97		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C2 PFTeDA	102		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C3 PFBS	82		25 - 150	04/26/21 19:28	04/28/21 08:48	1
18O2 PFHxS	95		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C4 PFOS	109		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C8 FOSA	104		25 - 150	04/26/21 19:28	04/28/21 08:48	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Client Sample ID: WT-012607-042121-CM-002

Lab Sample ID: 320-72737-1

Date Collected: 04/21/21 13:00

Matrix: Water

Date Received: 04/22/21 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	106		25 - 150	04/26/21 19:28	04/28/21 08:48	1
d5-NEtFOSAA	115		25 - 150	04/26/21 19:28	04/28/21 08:48	1
M2-6:2 FTS	116		25 - 150	04/26/21 19:28	04/28/21 08:48	1
M2-8:2 FTS	140		25 - 150	04/26/21 19:28	04/28/21 08:48	1
M2-4:2 FTS	125		25 - 150	04/26/21 19:28	04/28/21 08:48	1
13C3 HFPO-DA	86		25 - 150	04/26/21 19:28	04/28/21 08:48	1

Client Sample ID: W-012607-042121-CM-003

Lab Sample ID: 320-72737-2

Date Collected: 04/21/21 13:05

Matrix: Water

Date Received: 04/22/21 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.6		4.4	2.1	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluoropentanoic acid (PFPeA)	1.8		1.8	0.43	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorohexanoic acid (PFHxA)	2.7		1.8	0.51	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluoroheptanoic acid (PFHpA)	2.0		1.8	0.22	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorooctanoic acid (PFOA)	5.0		1.8	0.74	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorononanoic acid (PFNA)	0.32 J		1.8	0.24	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorodecanoic acid (PFDA)	1.8 U		1.8	0.27	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluoroundecanoic acid (PFUnA)	1.8 U		1.8	0.96	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorododecanoic acid (PFDoA)	1.8 U		1.8	0.48	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorotridecanoic acid (PFTriA)	1.8 U		1.8	1.1	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorotetradecanoic acid (PFTeA)	1.8 U		1.8	0.64	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorobutanesulfonic acid (PFBS)	1.7 J		1.8	0.18	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluoropentanesulfonic acid (PFPeS)	1.5 J		1.8	0.26	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorohexanesulfonic acid (PFHxS)	5.9 I		1.8	0.50	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.5 J I		1.8	0.17	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorooctanesulfonic acid (PFOS)	110 I		1.8	0.47	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorononanesulfonic acid (PFNS)	1.8 U		1.8	0.32	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorodecanesulfonic acid (PFDS)	1.8 U		1.8	0.28	ng/L		04/26/21 19:28	04/28/21 08:57	1
Perfluorooctanesulfonamide (FOSA)	1.8 U		1.8	0.86	ng/L		04/26/21 19:28	04/28/21 08:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.4 U		4.4	1.1	ng/L		04/26/21 19:28	04/28/21 08:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.4 U		4.4	1.1	ng/L		04/26/21 19:28	04/28/21 08:57	1
4:2 FTS	1.8 U		1.8	0.21	ng/L		04/26/21 19:28	04/28/21 08:57	1
6:2 FTS	4.4 U		4.4	2.2	ng/L		04/26/21 19:28	04/28/21 08:57	1
8:2 FTS	1.8 U		1.8	0.40	ng/L		04/26/21 19:28	04/28/21 08:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.8 U		1.8	0.35	ng/L		04/26/21 19:28	04/28/21 08:57	1
HFPO-DA (GenX)	3.5 U		3.5	1.3	ng/L		04/26/21 19:28	04/28/21 08:57	1
F-53B Major	1.8 U		1.8	0.21	ng/L		04/26/21 19:28	04/28/21 08:57	1
F-53B Minor	1.8 U		1.8	0.28	ng/L		04/26/21 19:28	04/28/21 08:57	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150				04/26/21 19:28	04/28/21 08:57	1
13C5 PFPeA	56		25 - 150				04/26/21 19:28	04/28/21 08:57	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Client Sample ID: W-012607-042121-CM-003

Lab Sample ID: 320-72737-2

Date Collected: 04/21/21 13:05

Matrix: Water

Date Received: 04/22/21 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	89		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C4 PFHpA	79		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C4 PFOA	95		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C5 PFNA	90		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C2 PFDA	113		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C2 PFUnA	114		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C2 PFDoA	111		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C2 PFTeDA	108		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C3 PFBS	80		25 - 150	04/26/21 19:28	04/28/21 08:57	1
18O2 PFHxS	86		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C4 PFOS	97		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C8 FOSA	112		25 - 150	04/26/21 19:28	04/28/21 08:57	1
d3-NMeFOSAA	104		25 - 150	04/26/21 19:28	04/28/21 08:57	1
d5-NEtFOSAA	110		25 - 150	04/26/21 19:28	04/28/21 08:57	1
M2-6:2 FTS	127		25 - 150	04/26/21 19:28	04/28/21 08:57	1
M2-8:2 FTS	150		25 - 150	04/26/21 19:28	04/28/21 08:57	1
M2-4:2 FTS	133		25 - 150	04/26/21 19:28	04/28/21 08:57	1
13C3 HFPO-DA	80		25 - 150	04/26/21 19:28	04/28/21 08:57	1

Client Sample ID: FB-012607-042121-CM-004

Lab Sample ID: 320-72737-3

Date Collected: 04/21/21 13:10

Matrix: Water

Date Received: 04/22/21 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.3	U	4.3	2.0	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.42	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorohexanoic acid (PFHxA)	0.57	J	1.7	0.49	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.21	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorooctanoic acid (PFOA)	1.7	U	1.7	0.72	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.26	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.94	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.47	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.62	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorobutanesulfonic acid (PFBS)	1.7	U	1.7	0.17	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluoropentanesulfonic acid (PFPeS)	1.7	U	1.7	0.26	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.49	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.16	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorooctanesulfonic acid (PFOS)	1.7	U	1.7	0.46	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.32	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.27	ng/L		04/26/21 19:28	04/28/21 09:06	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.84	ng/L		04/26/21 19:28	04/28/21 09:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.3	U	4.3	1.0	ng/L		04/26/21 19:28	04/28/21 09:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.3	U	4.3	1.1	ng/L		04/26/21 19:28	04/28/21 09:06	1
4:2 FTS	1.7	U	1.7	0.20	ng/L		04/26/21 19:28	04/28/21 09:06	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Client Sample ID: FB-012607-042121-CM-004

Lab Sample ID: 320-72737-3

Date Collected: 04/21/21 13:10

Matrix: Water

Date Received: 04/22/21 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 FTS	4.3	U	4.3	2.1	ng/L		04/26/21 19:28	04/28/21 09:06	1
8:2 FTS	1.7	U	1.7	0.39	ng/L		04/26/21 19:28	04/28/21 09:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.34	ng/L		04/26/21 19:28	04/28/21 09:06	1
HFPO-DA (GenX)	3.4	U	3.4	1.3	ng/L		04/26/21 19:28	04/28/21 09:06	1
F-53B Major	1.7	U	1.7	0.20	ng/L		04/26/21 19:28	04/28/21 09:06	1
F-53B Minor	1.7	U	1.7	0.27	ng/L		04/26/21 19:28	04/28/21 09:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	86		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C5 PFPeA	78		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C2 PFHxA	92		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C4 PFHpA	91		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C4 PFOA	96		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C5 PFNA	94		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C2 PFDA	94		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C2 PFUnA	108		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C2 PFDoA	101		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C2 PFTeDA	96		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C3 PFBS	91		25 - 150				04/26/21 19:28	04/28/21 09:06	1
18O2 PFHxS	91		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C4 PFOS	104		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C8 FOSA	104		25 - 150				04/26/21 19:28	04/28/21 09:06	1
d3-NMeFOSAA	113		25 - 150				04/26/21 19:28	04/28/21 09:06	1
d5-NEtFOSAA	113		25 - 150				04/26/21 19:28	04/28/21 09:06	1
M2-6:2 FTS	93		25 - 150				04/26/21 19:28	04/28/21 09:06	1
M2-8:2 FTS	123		25 - 150				04/26/21 19:28	04/28/21 09:06	1
M2-4:2 FTS	98		25 - 150				04/26/21 19:28	04/28/21 09:06	1
13C3 HFPO-DA	83		25 - 150				04/26/21 19:28	04/28/21 09:06	1

Isotope Dilution Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-72737-1	WT-012607-042121-CM-002	87	75	95	97	94	96	104	104
320-72737-2	W-012607-042121-CM-003	81	56	89	79	95	90	113	114
320-72737-3	FB-012607-042121-CM-004	86	78	92	91	96	94	94	108
LCS 320-483355/2-A	Lab Control Sample	90	90	93	102	101	97	97	110
LCSD 320-483355/3-A	Lab Control Sample Dup	93	91	100	102	97	102	101	116
MB 320-483355/1-A	Method Blank	97	84	92	99	102	96	98	111

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
320-72737-1	WT-012607-042121-CM-002	97	102	82	95	109	104	106	115
320-72737-2	W-012607-042121-CM-003	111	108	80	86	97	112	104	110
320-72737-3	FB-012607-042121-CM-004	101	96	91	91	104	104	113	113
LCS 320-483355/2-A	Lab Control Sample	103	94	89	97	107	105	111	120
LCSD 320-483355/3-A	Lab Control Sample Dup	104	98	89	103	104	107	115	123
MB 320-483355/1-A	Method Blank	97	94	88	94	95	103	113	108

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
320-72737-1	WT-012607-042121-CM-002	116	140	125	86
320-72737-2	W-012607-042121-CM-003	127	150	133	80
320-72737-3	FB-012607-042121-CM-004	93	123	98	83
LCS 320-483355/2-A	Lab Control Sample	90	112	98	90
LCSD 320-483355/3-A	Lab Control Sample Dup	96	116	94	90
MB 320-483355/1-A	Method Blank	89	109	95	83

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-483355/1-A

Matrix: Water

Analysis Batch: 483800

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 483355

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0	U	5.0	2.4	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.73	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.57	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.37	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		04/26/21 19:28	04/28/21 06:27	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.98	ng/L		04/26/21 19:28	04/28/21 06:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.0	U	5.0	1.2	ng/L		04/26/21 19:28	04/28/21 06:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.0	U	5.0	1.3	ng/L		04/26/21 19:28	04/28/21 06:27	1
4:2 FTS	2.0	U	2.0	0.24	ng/L		04/26/21 19:28	04/28/21 06:27	1
6:2 FTS	5.0	U	5.0	2.5	ng/L		04/26/21 19:28	04/28/21 06:27	1
8:2 FTS	2.0	U	2.0	0.46	ng/L		04/26/21 19:28	04/28/21 06:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.40	ng/L		04/26/21 19:28	04/28/21 06:27	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		04/26/21 19:28	04/28/21 06:27	1
F-53B Major	2.0	U	2.0	0.24	ng/L		04/26/21 19:28	04/28/21 06:27	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		04/26/21 19:28	04/28/21 06:27	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	97		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C5 PFPeA	84		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C2 PFHxA	92		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C4 PFHpA	99		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C4 PFOA	102		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C5 PFNA	96		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C2 PFDA	98		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C2 PFUnA	111		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C2 PFDoA	97		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C2 PFTeDA	94		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C3 PFBS	88		25 - 150	04/26/21 19:28	04/28/21 06:27	1
18O2 PFHxS	94		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C4 PFOS	95		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C8 FOSA	103		25 - 150	04/26/21 19:28	04/28/21 06:27	1
d3-NMeFOSAA	113		25 - 150	04/26/21 19:28	04/28/21 06:27	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-483355/1-A

Matrix: Water

Analysis Batch: 483800

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 483355

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		25 - 150	04/26/21 19:28	04/28/21 06:27	1
M2-6:2 FTS	89		25 - 150	04/26/21 19:28	04/28/21 06:27	1
M2-8:2 FTS	109		25 - 150	04/26/21 19:28	04/28/21 06:27	1
M2-4:2 FTS	95		25 - 150	04/26/21 19:28	04/28/21 06:27	1
13C3 HFPO-DA	83		25 - 150	04/26/21 19:28	04/28/21 06:27	1

Lab Sample ID: LCS 320-483355/2-A

Matrix: Water

Analysis Batch: 483800

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 483355

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	39.1		ng/L		98	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	40.8		ng/L		102	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	42.9		ng/L		107	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	42.4		ng/L		106	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	40.2		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	40.0	44.7		ng/L		112	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	40.7		ng/L		102	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	38.4		ng/L		96	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	42.7		ng/L		107	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	40.5		ng/L		101	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	42.7		ng/L		107	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	38.9		ng/L		110	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	40.6		ng/L		108	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.4		ng/L		103	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.2		ng/L		100	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	32.9		ng/L		89	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	36.6		ng/L		95	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	41.0		ng/L		106	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	41.6		ng/L		104	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.0		ng/L		102	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.3		ng/L		98	76 - 136
4:2 FTS	37.4	42.0		ng/L		112	79 - 139
6:2 FTS	37.9	35.3		ng/L		93	59 - 175
8:2 FTS	38.3	38.9		ng/L		101	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	37.2		ng/L		99	79 - 139
HFPO-DA (GenX)	40.0	39.5		ng/L		99	51 - 173
F-53B Major	37.3	36.1		ng/L		97	75 - 135

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-483355/2-A

Matrix: Water

Analysis Batch: 483800

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 483355

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	37.1		ng/L		98	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	90		25 - 150				
13C5 PFPeA	90		25 - 150				
13C2 PFHxA	93		25 - 150				
13C4 PFHpA	102		25 - 150				
13C4 PFOA	101		25 - 150				
13C5 PFNA	97		25 - 150				
13C2 PFDA	97		25 - 150				
13C2 PFUnA	110		25 - 150				
13C2 PFDoA	103		25 - 150				
13C2 PFTeDA	94		25 - 150				
13C3 PFBS	89		25 - 150				
18O2 PFHxS	97		25 - 150				
13C4 PFOS	107		25 - 150				
13C8 FOSA	105		25 - 150				
d3-NMeFOSAA	111		25 - 150				
d5-NEtFOSAA	120		25 - 150				
M2-6:2 FTS	90		25 - 150				
M2-8:2 FTS	112		25 - 150				
M2-4:2 FTS	98		25 - 150				
13C3 HFPO-DA	90		25 - 150				

Lab Sample ID: LCSD 320-483355/3-A

Matrix: Water

Analysis Batch: 483800

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 483355

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	38.6		ng/L		97	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	40.0	39.7		ng/L		99	71 - 131	3	30
Perfluorohexanoic acid (PFHxA)	40.0	39.0		ng/L		98	73 - 133	9	30
Perfluoroheptanoic acid (PFHpA)	40.0	42.3		ng/L		106	72 - 132	0	30
Perfluorooctanoic acid (PFOA)	40.0	43.2		ng/L		108	70 - 130	7	30
Perfluorononanoic acid (PFNA)	40.0	42.9		ng/L		107	75 - 135	4	30
Perfluorodecanoic acid (PFDA)	40.0	43.3		ng/L		108	76 - 136	6	30
Perfluoroundecanoic acid (PFUnA)	40.0	38.8		ng/L		97	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)	40.0	42.2		ng/L		105	71 - 131	1	30
Perfluorotridecanoic acid (PFTriA)	40.0	41.6		ng/L		104	71 - 131	3	30
Perfluorotetradecanoic acid (PFTeA)	40.0	42.3		ng/L		106	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	35.4	36.0		ng/L		102	67 - 127	8	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	43.9		ng/L		117	66 - 126	8	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.8		ng/L		96	59 - 119	7	30

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-483355/3-A

Matrix: Water

Analysis Batch: 483800

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 483355

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.1		ng/L		105	76 - 136	5	30
Perfluorooctanesulfonic acid (PFOS)	37.1	35.9		ng/L		97	70 - 130	8	30
Perfluorononanesulfonic acid (PFNS)	38.4	38.9		ng/L		101	75 - 135	6	30
Perfluorodecanesulfonic acid (PFDS)	38.6	43.6		ng/L		113	71 - 131	6	30
Perfluorooctanesulfonamide (FOSA)	40.0	40.0		ng/L		100	73 - 133	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.8		ng/L		99	76 - 136	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.0		ng/L		100	76 - 136	2	30
4:2 FTS	37.4	39.3		ng/L		105	79 - 139	6	30
6:2 FTS	37.9	38.9		ng/L		103	59 - 175	10	30
8:2 FTS	38.3	36.9		ng/L		96	75 - 135	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	40.1		ng/L		106	79 - 139	7	30
HFPO-DA (GenX)	40.0	38.7		ng/L		97	51 - 173	2	30
F-53B Major	37.3	35.9		ng/L		96	75 - 135	1	30
F-53B Minor	37.7	35.9		ng/L		95	54 - 114	3	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	93		25 - 150
13C5 PFPeA	91		25 - 150
13C2 PFHxA	100		25 - 150
13C4 PFHpA	102		25 - 150
13C4 PFOA	97		25 - 150
13C5 PFNA	102		25 - 150
13C2 PFDA	101		25 - 150
13C2 PFUnA	116		25 - 150
13C2 PFDoA	104		25 - 150
13C2 PFTeDA	98		25 - 150
13C3 PFBS	89		25 - 150
18O2 PFHxS	103		25 - 150
13C4 PFOS	104		25 - 150
13C8 FOSA	107		25 - 150
d3-NMeFOSAA	115		25 - 150
d5-NEtFOSAA	123		25 - 150
M2-6:2 FTS	96		25 - 150
M2-8:2 FTS	116		25 - 150
M2-4:2 FTS	94		25 - 150
13C3 HFPO-DA	90		25 - 150

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

LCMS

Prep Batch: 483355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-72737-1	WT-012607-042121-CM-002	Total/NA	Water	3535	
320-72737-2	W-012607-042121-CM-003	Total/NA	Water	3535	
320-72737-3	FB-012607-042121-CM-004	Total/NA	Water	3535	
MB 320-483355/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-483355/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-483355/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 483800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-72737-1	WT-012607-042121-CM-002	Total/NA	Water	537 (modified)	483355
320-72737-2	W-012607-042121-CM-003	Total/NA	Water	537 (modified)	483355
320-72737-3	FB-012607-042121-CM-004	Total/NA	Water	537 (modified)	483355
MB 320-483355/1-A	Method Blank	Total/NA	Water	537 (modified)	483355
LCS 320-483355/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	483355
LCSD 320-483355/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	483355

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Client Sample ID: WT-012607-042121-CM-002

Lab Sample ID: 320-72737-1

Date Collected: 04/21/21 13:00

Matrix: Water

Date Received: 04/22/21 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			289.5 mL	10.00 mL	483355	04/26/21 19:28	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			483800	04/28/21 08:48	JY1	TAL SAC

Client Sample ID: W-012607-042121-CM-003

Lab Sample ID: 320-72737-2

Date Collected: 04/21/21 13:05

Matrix: Water

Date Received: 04/22/21 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			285.3 mL	10.00 mL	483355	04/26/21 19:28	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			483800	04/28/21 08:57	JY1	TAL SAC

Client Sample ID: FB-012607-042121-CM-004

Lab Sample ID: 320-72737-3

Date Collected: 04/21/21 13:10

Matrix: Water

Date Received: 04/22/21 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			293.3 mL	10.00 mL	483355	04/26/21 19:28	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			483800	04/28/21 09:06	JY1	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-21
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA000442021-2	07-31-21
New Jersey	NELAP	CA005	06-30-21
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	06-01-21
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-21
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Sacramento

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 320-72737-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-72737-1	WT-012607-042121-CM-002	Water	04/21/21 13:00	04/22/21 09:55	
320-72737-2	W-012607-042121-CM-003	Water	04/21/21 13:05	04/22/21 09:55	
320-72737-3	FB-012607-042121-CM-004	Water	04/21/21 13:10	04/22/21 09:55	

Client Information			Lab PM:		Carrier Tracking No(s)		COC No:	
Client Contact: Chris Meincke			Heckler, Denise D				240-82250-31468.1	
Company: GHD Services Inc.			E-Mail: Denise.Heckler@Eurofinset.com		State of Origin:		Page 1 of 1	
Address: 26850 Haggerty Rd. City Farmington Hills State, Zip: MI, 48331 Phone:			PWSID:				Job #:	
Due Date Requested:			Analysis Requested					
TAT Requested (days): 2 wk								
Compliance Project: ☐ Yes ☐ No								
PO #:								
Purchase Order Requested								
WO #:								
12607								
Project #:								
24005880								
SSOW#:								
Email: chris.meincke@ghd.com								
Project Name: 12607-T37. RACER Eckles Rd								
Site:								
Sample Identification			Preservation Code		Special Instructions/Note:			
Sample Date			Sample Time		Total Number of Containers			
4-21-21			13:00		X			
4-21-21			13:05		X			
4-21-21			13:10		X			
WT-012607-042121-CM-002			G		Water			
W-012607-042121-CM-003			G		Water			
PB-012607-042121-CM-004			G		Water			
Possible Hazard Identification			Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐					☐ 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:		Method of Shipment:			
Relinquished by:			Date/Time:		Date/Time:			
Relinquished by:			Date/Time:		Date/Time:			
Relinquished by:			Date/Time:		Date/Time:			
Custody Seal No.:			Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks			
160672			160672		1.4			

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 320-72737-1

Login Number: 72737

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Anderson, Marina M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1601672
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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.	False	No times & dates on containers samples 1-3
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment 4

May 4, 2021 Samples

WT-012607-050421-CM-002 (effluent)

WT-012607-050421-CM-003 (effluent)

W-012607-050421-CM-004 (influent)

FB-012607-050421-CM-005 (Field Blank)

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-148715-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
5/18/2021 2:51:48 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Job ID: 240-148715-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-148715-1

Comments

No additional comments.

Receipt

The samples were received on 5/5/2021 2:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9° C.

GC Semi VOA

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

Metals

Method 200.7 Rev 4.4: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: WT-012607-050421-CM-002 (240-148715-1). 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

Method SM 3500 CR B: The following sample(s) was received with less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: WT-012607-050421-CM-002 (240-148715-1).

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.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Qualifiers

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
H	Sample was prepped or analyzed beyond the specified holding time
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.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-148715-1	WT-012607-050421-CM-002	Water	05/04/21 15:30	05/05/21 14:30	

1

2

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14

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Client Sample ID: WT-012607-050421-CM-002

Lab Sample ID: 240-148715-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.51		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.84		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
Chromium, hexavalent	0.54	H	0.020	mg/L	2		3500-Cr B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Method	Method Description	Protocol	Laboratory
608.3	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
3500-Cr B-2011	Chromium, Hexavalent	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
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

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

Laboratory References:

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

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

Client Sample ID: WT-012607-050421-CM-002

Date Collected: 05/04/21 15:30

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		05/12/21 07:56	05/14/21 08:27	1
Aroclor-1221	0.095	U	0.095	ug/L		05/12/21 07:56	05/14/21 08:27	1
Aroclor-1232	0.095	U	0.095	ug/L		05/12/21 07:56	05/14/21 08:27	1
Aroclor-1242	0.095	U	0.095	ug/L		05/12/21 07:56	05/14/21 08:27	1
Aroclor-1248	0.095	U	0.095	ug/L		05/12/21 07:56	05/14/21 08:27	1
Aroclor-1254	0.095	U	0.095	ug/L		05/12/21 07:56	05/14/21 08:27	1
Aroclor-1260	0.095	U	0.095	ug/L		05/12/21 07:56	05/14/21 08:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 114			05/12/21 07:56	05/14/21 08:27	1
Tetrachloro-m-xylene	78		15 - 131			05/12/21 07:56	05/14/21 08:27	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

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

Client Sample ID: WT-012607-050421-CM-002

Date Collected: 05/04/21 15:30

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.51		0.050	mg/L		05/06/21 14:00	05/10/21 20:45	1
Nickel	0.84		0.010	mg/L		05/06/21 14:00	05/10/21 20:45	1
Lead	0.050	U	0.050	mg/L		05/06/21 14:00	05/10/21 20:45	1
Zinc	0.020	U	0.020	mg/L		05/06/21 14:00	05/10/21 20:45	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-050421-CM-002

Date Collected: 05/04/21 15:30

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		05/06/21 14:00	05/10/21 17:56	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

General Chemistry

Client Sample ID: WT-012607-050421-CM-002

Date Collected: 05/04/21 15:30

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L			05/18/21 08:42	1
Chromium, hexavalent	0.54	H	0.020	mg/L			05/05/21 15:45	2
Total Suspended Solids	4.0	U	4.0	mg/L			05/11/21 09:34	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

GC Semi VOA

Prep Batch: 485307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total/NA	Water	608	
MB 240-485307/23-A	Method Blank	Total/NA	Water	608	
LCS 240-485307/24-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 485734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total/NA	Water	608.3	485307
MB 240-485307/23-A	Method Blank	Total/NA	Water	608.3	485307
LCS 240-485307/24-A	Lab Control Sample	Total/NA	Water	608.3	485307

Metals

Prep Batch: 484411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total Recoverable	Water	200.7	
MB 240-484411/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-484411/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 484414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total/NA	Water	245.1	
MB 240-484414/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-484414/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 484965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total/NA	Water	245.1	484414
MB 240-484414/1-A	Method Blank	Total/NA	Water	245.1	484414
LCS 240-484414/2-A	Lab Control Sample	Total/NA	Water	245.1	484414

Analysis Batch: 485093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total Recoverable	Water	200.7 Rev 4.4	484411
MB 240-484411/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	484411
LCS 240-484411/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	484411

General Chemistry

Analysis Batch: 484165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total/NA	Water	3500-Cr B-2011	
MB 240-484165/3	Method Blank	Total/NA	Water	3500-Cr B-2011	
LCS 240-484165/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2011	

Analysis Batch: 485109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total/NA	Water	SM 2540D	
MB 240-485109/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-485109/2	Lab Control Sample	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

General Chemistry

Analysis Batch: 486276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-1	WT-012607-050421-CM-002	Total/NA	Water	1664A	
MB 240-486276/1	Method Blank	Total/NA	Water	1664A	
LCS 240-486276/2	Lab Control Sample	Total/NA	Water	1664A	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

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

Lab Sample ID: MB 240-485307/23-A

Matrix: Water

Analysis Batch: 485734

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 485307

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		05/12/21 07:56	05/14/21 07:29	1
Aroclor-1221	0.10	U	0.10	ug/L		05/12/21 07:56	05/14/21 07:29	1
Aroclor-1232	0.10	U	0.10	ug/L		05/12/21 07:56	05/14/21 07:29	1
Aroclor-1242	0.10	U	0.10	ug/L		05/12/21 07:56	05/14/21 07:29	1
Aroclor-1248	0.10	U	0.10	ug/L		05/12/21 07:56	05/14/21 07:29	1
Aroclor-1254	0.10	U	0.10	ug/L		05/12/21 07:56	05/14/21 07:29	1
Aroclor-1260	0.10	U	0.10	ug/L		05/12/21 07:56	05/14/21 07:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 114	05/12/21 07:56	05/14/21 07:29	1
Tetrachloro-m-xylene	82		15 - 131	05/12/21 07:56	05/14/21 07:29	1

Lab Sample ID: LCS 240-485307/24-A

Matrix: Water

Analysis Batch: 485734

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 485307

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	1.81		ug/L		72	50 - 140
Aroclor-1260	2.50	1.59		ug/L		64	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	76		10 - 114
Tetrachloro-m-xylene	72		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-484411/1-A

Matrix: Water

Analysis Batch: 485093

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 484411

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		05/06/21 14:00	05/10/21 18:58	1
Nickel	0.010	U	0.010	mg/L		05/06/21 14:00	05/10/21 18:58	1
Lead	0.050	U	0.050	mg/L		05/06/21 14:00	05/10/21 18:58	1
Zinc	0.020	U	0.020	mg/L		05/06/21 14:00	05/10/21 18:58	1

Lab Sample ID: LCS 240-484411/2-A

Matrix: Water

Analysis Batch: 485093

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 484411

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.976		mg/L		98	85 - 115
Nickel	1.00	0.960		mg/L		96	85 - 115
Lead	1.00	0.965		mg/L		97	85 - 115
Zinc	1.00	0.977		mg/L		98	85 - 115

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-484414/1-A
Matrix: Water
Analysis Batch: 484965

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 484414

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		05/06/21 14:00	05/10/21 17:16	1

Lab Sample ID: LCS 240-484414/2-A
Matrix: Water
Analysis Batch: 484965

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 484414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00477		mg/L		95	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-486276/1
Matrix: Water
Analysis Batch: 486276

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L			05/18/21 08:42	1

Lab Sample ID: LCS 240-486276/2
Matrix: Water
Analysis Batch: 486276

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	38.90		mg/L		97	78 - 114

Method: 3500-Cr B-2011 - Chromium, Hexavalent

Lab Sample ID: MB 240-484165/3
Matrix: Water
Analysis Batch: 484165

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	U	0.010	mg/L			05/05/21 09:07	1

Lab Sample ID: LCS 240-484165/4
Matrix: Water
Analysis Batch: 484165

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.250	0.239		mg/L		95	80 - 123

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

Lab Sample ID: MB 240-485109/1
Matrix: Water
Analysis Batch: 485109

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			05/11/21 09:34	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

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

Lab Sample ID: LCS 240-485109/2

Matrix: Water

Analysis Batch: 485109

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	72.9	75.0		mg/L		103	64 - 120

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP2	TCX2
		(10-114)	(15-131)
240-148715-1	WT-012607-050421-CM-002	76	78
LCS 240-485307/24-A	Lab Control Sample	76	72
MB 240-485307/23-A	Method Blank	87	82

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Client Sample ID: WT-012607-050421-CM-002

Lab Sample ID: 240-148715-1

Date Collected: 05/04/21 15:30

Matrix: Water

Date Received: 05/05/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			485307	05/12/21 07:56	BMB	TAL CAN
Total/NA	Analysis	608.3		1	485734	05/14/21 08:27	CSC	TAL CAN
Total Recoverable	Prep	200.7			484411	05/06/21 14:00	SLD	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	485093	05/10/21 20:45	DSH	TAL CAN
Total/NA	Prep	245.1			484414	05/06/21 14:00	SLD	TAL CAN
Total/NA	Analysis	245.1		1	484965	05/10/21 17:56	SLD	TAL CAN
Total/NA	Analysis	1664A		1	486276	05/18/21 08:42	JMR	TAL CAN
Total/NA	Analysis	3500-Cr B-2011		2	484165	05/05/21 15:45	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	485109	05/11/21 09:34	AJ	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-22
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21 *
Kentucky (UST)	State	112225	02-23-21 *
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

Eurofins TestAmerica, Canton

[illegible]

Eurofins TestAmerica Canton Sample Receipt Form/Narrative				Login # : <u>290-148715</u>	
Canton Facility					
Client <u>GHD</u>		Site Name _____		Cooler unpacked by: <u>Matt Sm</u>	
Cooler Received on <u>5-5-21</u>		Opened on <u>5-5-21</u>			
FedEx: 1 st Grd <u>Exp</u> UPS FAS Clipper		Client Drop Off		TestAmerica Courier Other _____	
Receipt After-hours: Drop-off Date/Time			Storage Location		
TestAmerica Cooler # <u>7A</u>		Foam Box		Client Cooler	
Box		Other			
Packing material used: <u>Bubble Wrap</u>		Foam		Plastic Bag	
None		Other			
COOLANT: <u>Wet Ice</u>		Blue Ice		Dry Ice	
Water		None			
1. Cooler temperature upon receipt		☐ See Multiple Cooler Form			
IR GUN# IR-11 (CF +0.1 °C)		Observed Cooler Temp. <u>3.8</u> °C		Corrected Cooler Temp. <u>3.9</u> °C	
IR GUN# IR-12 (CF +0.2 °C)		Observed Cooler Temp. _____ °C		Corrected Cooler Temp. _____ °C	
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u>		☒ 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 (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)?		☒ 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	
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	
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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-050421-CM-002	240-148715-C-1	Plastic 500ml - with Nitric Acid	_____	_____	_____	_____
WT-012607-050421-CM-002	240-148715-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-050421-CM-002	240-148715-G-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-148715-2

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
5/17/2021 1:48:47 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Job ID: 240-148715-2

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-148715-2

Comments

No additional comments.

Receipt

The samples were received on 5/5/2021 2:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9° C.

LCMS

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for several IDA in the following sample: W-012607-050421-CM-004 (240-148715-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-4:2 FTS in the following sample: WT-012607-050421-CM-003 (240-148715-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analytes were outside of the established ratio limits. The qualitative identification of the analytes have some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analytes.

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

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-487491.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Sample Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-148715-2	WT-012607-050421-CM-003	Water	05/04/21 15:30	05/05/21 14:30	
240-148715-3	W-012607-050421-CM-004	Water	05/04/21 15:35	05/05/21 14:30	
240-148715-4	FB-012607-050421-CM-005	Water	05/04/21 15:40	05/05/21 14:30	

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Client Sample ID: WT-012607-050421-CM-003

Lab Sample ID: 240-148715-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.1		4.0	1.9	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		1.6	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.8		1.6	0.47	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.67	J	1.6	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		1.6	0.68	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.25	J	1.6	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.78	J	1.6	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.60	J	1.6	0.24	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.70	J I	1.6	0.15	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	36	I	1.6	0.43	ng/L	1		537 (modified)	Total/NA

Client Sample ID: W-012607-050421-CM-004

Lab Sample ID: 240-148715-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	11		4.2	2.0	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.8		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.7		1.7	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.5	J	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.3		1.7	0.71	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.44	J	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.6	J	1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.4	J I	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	J I	1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	91	I	1.7	0.45	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-012607-050421-CM-005

Lab Sample ID: 240-148715-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-050421-CM-003

Date Collected: 05/04/21 15:30

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.1		4.0	1.9	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluoropentanoic acid (PFPeA)	1.8		1.6	0.39	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorohexanoic acid (PFHxA)	1.8		1.6	0.47	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluoroheptanoic acid (PFHpA)	0.67	J	1.6	0.20	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorooctanoic acid (PFOA)	2.5		1.6	0.68	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorononanoic acid (PFNA)	1.6	U	1.6	0.22	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorodecanoic acid (PFDA)	0.25	J	1.6	0.25	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluoroundecanoic acid (PFUnA)	1.6	U	1.6	0.89	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorododecanoic acid (PFDoA)	1.6	U	1.6	0.44	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorotridecanoic acid (PFTriA)	1.6	U	1.6	1.0	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorotetradecanoic acid (PFTeA)	1.6	U	1.6	0.59	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorobutanesulfonic acid (PFBS)	0.78	J	1.6	0.16	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluoropentanesulfonic acid (PFPeS)	0.60	J	1.6	0.24	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorohexanesulfonic acid (PFHxS)	1.6	U	1.6	0.46	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.70	J I	1.6	0.15	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorooctanesulfonic acid (PFOS)	36	I	1.6	0.43	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorononanesulfonic acid (PFNS)	1.6	U	1.6	0.30	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorodecanesulfonic acid (PFDS)	1.6	U	1.6	0.26	ng/L		05/09/21 19:10	05/11/21 18:57	1
Perfluorooctanesulfonamide (FOSA)	1.6	U	1.6	0.79	ng/L		05/09/21 19:10	05/11/21 18:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.0	U	4.0	0.97	ng/L		05/09/21 19:10	05/11/21 18:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.0	U	4.0	1.0	ng/L		05/09/21 19:10	05/11/21 18:57	1
4:2 FTS	1.6	U	1.6	0.19	ng/L		05/09/21 19:10	05/11/21 18:57	1
6:2 FTS	4.0	U	4.0	2.0	ng/L		05/09/21 19:10	05/11/21 18:57	1
8:2 FTS	1.6	U	1.6	0.37	ng/L		05/09/21 19:10	05/11/21 18:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.6	U	1.6	0.32	ng/L		05/09/21 19:10	05/11/21 18:57	1
HFPO-DA (GenX)	3.2	U	3.2	1.2	ng/L		05/09/21 19:10	05/11/21 18:57	1
F-53B Major	1.6	U	1.6	0.19	ng/L		05/09/21 19:10	05/11/21 18:57	1
F-53B Minor	1.6	U	1.6	0.26	ng/L		05/09/21 19:10	05/11/21 18:57	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	92		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C5 PFPeA	95		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C2 PFHxA	107		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C4 PFHpA	105		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C4 PFOA	105		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C5 PFNA	109		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C2 PFDA	92		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C2 PFUnA	94		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C2 PFDoA	87		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C2 PFTeDA	71		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C3 PFBS	105		25 - 150	05/09/21 19:10	05/11/21 18:57	1
18O2 PFHxS	106		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C4 PFOS	99		25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C8 FOSA	102		25 - 150	05/09/21 19:10	05/11/21 18:57	1
d3-NMeFOSAA	89		25 - 150	05/09/21 19:10	05/11/21 18:57	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: WT-012607-050421-CM-003

Date Collected: 05/04/21 15:30

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-2

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	88		25 - 150	05/09/21 19:10	05/11/21 18:57	1
M2-6:2 FTS	136		25 - 150	05/09/21 19:10	05/11/21 18:57	1
M2-8:2 FTS	123		25 - 150	05/09/21 19:10	05/11/21 18:57	1
M2-4:2 FTS	204	*5+	25 - 150	05/09/21 19:10	05/11/21 18:57	1
13C3 HFPO-DA	98		25 - 150	05/09/21 19:10	05/11/21 18:57	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: W-012607-050421-CM-004

Date Collected: 05/04/21 15:35

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	11		4.2	2.0	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluoropentanoic acid (PFPeA)	2.8		1.7	0.41	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorohexanoic acid (PFHxA)	2.7		1.7	0.48	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluoroheptanoic acid (PFHpA)	1.5 J		1.7	0.21	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorooctanoic acid (PFOA)	5.3		1.7	0.71	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorononanoic acid (PFNA)	0.44 J		1.7	0.22	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorodecanoic acid (PFDA)	1.7 U		1.7	0.26	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluoroundecanoic acid (PFUnA)	1.7 U		1.7	0.92	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorododecanoic acid (PFDoA)	1.7 U		1.7	0.46	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorotridecanoic acid (PFTriA)	1.7 U		1.7	1.1	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorotetradecanoic acid (PFTeA)	1.7 U		1.7	0.61	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorobutanesulfonic acid (PFBS)	1.6 J		1.7	0.17	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluoropentanesulfonic acid (PFPeS)	1.4 J I		1.7	0.25	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorohexanesulfonic acid (PFHxS)	1.7 U		1.7	0.47	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.6 J I		1.7	0.16	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorooctanesulfonic acid (PFOS)	91 I		1.7	0.45	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorononanesulfonic acid (PFNS)	1.7 U		1.7	0.31	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorodecanesulfonic acid (PFDS)	1.7 U		1.7	0.27	ng/L		05/09/21 19:10	05/11/21 19:06	1
Perfluorooctanesulfonamide (FOSA)	1.7 U		1.7	0.82	ng/L		05/09/21 19:10	05/11/21 19:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.2 U		4.2	1.0	ng/L		05/09/21 19:10	05/11/21 19:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.2 U		4.2	1.1	ng/L		05/09/21 19:10	05/11/21 19:06	1
4:2 FTS	1.7 U		1.7	0.20	ng/L		05/09/21 19:10	05/11/21 19:06	1
6:2 FTS	4.2 U		4.2	2.1	ng/L		05/09/21 19:10	05/11/21 19:06	1
8:2 FTS	1.7 U		1.7	0.38	ng/L		05/09/21 19:10	05/11/21 19:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7 U		1.7	0.33	ng/L		05/09/21 19:10	05/11/21 19:06	1
HFPO-DA (GenX)	3.3 U		3.3	1.2	ng/L		05/09/21 19:10	05/11/21 19:06	1
F-53B Major	1.7 U		1.7	0.20	ng/L		05/09/21 19:10	05/11/21 19:06	1
F-53B Minor	1.7 U		1.7	0.27	ng/L		05/09/21 19:10	05/11/21 19:06	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C5 PFPeA	105		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C2 PFHxA	109		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C4 PFHpA	115		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C4 PFOA	112		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C5 PFNA	122		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C2 PFDA	114		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C2 PFUnA	111		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C2 PFDoA	105		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C2 PFTeDA	90		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C3 PFBS	123		25 - 150	05/09/21 19:10	05/11/21 19:06	1
18O2 PFHxS	122		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C4 PFOS	118		25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C8 FOSA	119		25 - 150	05/09/21 19:10	05/11/21 19:06	1
d3-NMeFOSAA	106		25 - 150	05/09/21 19:10	05/11/21 19:06	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: W-012607-050421-CM-004

Date Collected: 05/04/21 15:35

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-3

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	96		25 - 150	05/09/21 19:10	05/11/21 19:06	1
M2-6:2 FTS	205	*5+	25 - 150	05/09/21 19:10	05/11/21 19:06	1
M2-8:2 FTS	167	*5+	25 - 150	05/09/21 19:10	05/11/21 19:06	1
M2-4:2 FTS	253	*5+	25 - 150	05/09/21 19:10	05/11/21 19:06	1
13C3 HFPO-DA	110		25 - 150	05/09/21 19:10	05/11/21 19:06	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: FB-012607-050421-CM-005

Date Collected: 05/04/21 15:40

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.3	U	4.3	2.1	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.42	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.50	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.21	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorooctanoic acid (PFOA)	1.7	U	1.7	0.73	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.26	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.94	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.47	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.62	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorobutanesulfonic acid (PFBS)	1.7	U	1.7	0.17	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluoropentanesulfonic acid (PFPeS)	1.7	U	1.7	0.26	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.49	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.16	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorooctanesulfonic acid (PFOS)	1.7	U	1.7	0.46	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.32	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.27	ng/L		05/09/21 19:10	05/11/21 19:15	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.84	ng/L		05/09/21 19:10	05/11/21 19:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.3	U	4.3	1.0	ng/L		05/09/21 19:10	05/11/21 19:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.3	U	4.3	1.1	ng/L		05/09/21 19:10	05/11/21 19:15	1
4:2 FTS	1.7	U	1.7	0.21	ng/L		05/09/21 19:10	05/11/21 19:15	1
6:2 FTS	4.3	U	4.3	2.1	ng/L		05/09/21 19:10	05/11/21 19:15	1
8:2 FTS	1.7	U	1.7	0.39	ng/L		05/09/21 19:10	05/11/21 19:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.34	ng/L		05/09/21 19:10	05/11/21 19:15	1
HFPO-DA (GenX)	3.4	U	3.4	1.3	ng/L		05/09/21 19:10	05/11/21 19:15	1
F-53B Major	1.7	U	1.7	0.21	ng/L		05/09/21 19:10	05/11/21 19:15	1
F-53B Minor	1.7	U	1.7	0.27	ng/L		05/09/21 19:10	05/11/21 19:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	104		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C5 PFPeA	110		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C2 PFHxA	111		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C4 PFHpA	115		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C4 PFOA	113		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C5 PFNA	119		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C2 PFDA	113		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C2 PFUnA	118		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C2 PFDoA	104		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C2 PFTeDA	86		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C3 PFBS	106		25 - 150	05/09/21 19:10	05/11/21 19:15	1
18O2 PFHxS	112		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C4 PFOS	110		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C8 FOSA	108		25 - 150	05/09/21 19:10	05/11/21 19:15	1
d3-NMeFOSAA	110		25 - 150	05/09/21 19:10	05/11/21 19:15	1
d5-NEtFOSAA	115		25 - 150	05/09/21 19:10	05/11/21 19:15	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: FB-012607-050421-CM-005

Date Collected: 05/04/21 15:40

Date Received: 05/05/21 14:30

Lab Sample ID: 240-148715-4

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	128		25 - 150	05/09/21 19:10	05/11/21 19:15	1
M2-8:2 FTS	126		25 - 150	05/09/21 19:10	05/11/21 19:15	1
M2-4:2 FTS	136		25 - 150	05/09/21 19:10	05/11/21 19:15	1
13C3 HFPO-DA	112		25 - 150	05/09/21 19:10	05/11/21 19:15	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

LCMS

Prep Batch: 487491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-2	WT-012607-050421-CM-003	Total/NA	Water	3535	
240-148715-3	W-012607-050421-CM-004	Total/NA	Water	3535	
240-148715-4	FB-012607-050421-CM-005	Total/NA	Water	3535	
MB 320-487491/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-487491/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-487491/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 487988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-148715-2	WT-012607-050421-CM-003	Total/NA	Water	537 (modified)	487491
240-148715-3	W-012607-050421-CM-004	Total/NA	Water	537 (modified)	487491
240-148715-4	FB-012607-050421-CM-005	Total/NA	Water	537 (modified)	487491
MB 320-487491/1-A	Method Blank	Total/NA	Water	537 (modified)	487491
LCS 320-487491/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	487491
LCSD 320-487491/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	487491

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-487491/1-A

Matrix: Water

Analysis Batch: 487988

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 487491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0	U	5.0	2.4	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.73	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.57	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.37	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		05/09/21 19:10	05/11/21 18:02	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.98	ng/L		05/09/21 19:10	05/11/21 18:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.0	U	5.0	1.2	ng/L		05/09/21 19:10	05/11/21 18:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.0	U	5.0	1.3	ng/L		05/09/21 19:10	05/11/21 18:02	1
4:2 FTS	2.0	U	2.0	0.24	ng/L		05/09/21 19:10	05/11/21 18:02	1
6:2 FTS	5.0	U	5.0	2.5	ng/L		05/09/21 19:10	05/11/21 18:02	1
8:2 FTS	2.0	U	2.0	0.46	ng/L		05/09/21 19:10	05/11/21 18:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.40	ng/L		05/09/21 19:10	05/11/21 18:02	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		05/09/21 19:10	05/11/21 18:02	1
F-53B Major	2.0	U	2.0	0.24	ng/L		05/09/21 19:10	05/11/21 18:02	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		05/09/21 19:10	05/11/21 18:02	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C5 PFPeA	103		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C2 PFHxA	107		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C4 PFHpA	112		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C4 PFOA	113		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C5 PFNA	120		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C2 PFDA	107		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C2 PFUnA	119		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C2 PFDoA	118		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C2 PFTeDA	88		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C3 PFBS	101		25 - 150	05/09/21 19:10	05/11/21 18:02	1
18O2 PFHxS	112		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C4 PFOS	110		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C8 FOSA	106		25 - 150	05/09/21 19:10	05/11/21 18:02	1
d3-NMeFOSAA	108		25 - 150	05/09/21 19:10	05/11/21 18:02	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-487491/1-A

Matrix: Water

Analysis Batch: 487988

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 487491

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		25 - 150	05/09/21 19:10	05/11/21 18:02	1
M2-6:2 FTS	125		25 - 150	05/09/21 19:10	05/11/21 18:02	1
M2-8:2 FTS	133		25 - 150	05/09/21 19:10	05/11/21 18:02	1
M2-4:2 FTS	129		25 - 150	05/09/21 19:10	05/11/21 18:02	1
13C3 HFPO-DA	105		25 - 150	05/09/21 19:10	05/11/21 18:02	1

Lab Sample ID: LCS 320-487491/2-A

Matrix: Water

Analysis Batch: 487988

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 487491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	39.8		ng/L		99	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	41.8		ng/L		105	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	40.7		ng/L		102	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	44.4		ng/L		111	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	42.7		ng/L		107	70 - 130
Perfluorononanoic acid (PFNA)	40.0	38.8		ng/L		97	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	40.6		ng/L		101	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	38.9		ng/L		97	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	44.5		ng/L		111	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	39.1		ng/L		98	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	44.0		ng/L		110	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	36.4		ng/L		103	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	46.3		ng/L		123	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.9		ng/L		96	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.0		ng/L		102	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	38.0		ng/L		102	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	37.3		ng/L		97	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	37.8		ng/L		98	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	39.0		ng/L		98	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	46.1		ng/L		115	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.1		ng/L		103	76 - 136
4:2 FTS	37.4	32.2		ng/L		86	79 - 139
6:2 FTS	37.9	39.5		ng/L		104	59 - 175
8:2 FTS	38.3	41.2		ng/L		108	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	39.6		ng/L		105	79 - 139
HFPO-DA (GenX)	40.0	45.4		ng/L		113	51 - 173
F-53B Major	37.3	38.4		ng/L		103	75 - 135

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-487491/2-A

Matrix: Water

Analysis Batch: 487988

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 487491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	35.6		ng/L		94	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	107		25 - 150				
13C5 PFPeA	108		25 - 150				
13C2 PFHxA	111		25 - 150				
13C4 PFHpA	110		25 - 150				
13C4 PFOA	111		25 - 150				
13C5 PFNA	123		25 - 150				
13C2 PFDA	105		25 - 150				
13C2 PFUnA	116		25 - 150				
13C2 PFDoA	106		25 - 150				
13C2 PFTeDA	96		25 - 150				
13C3 PFBS	102		25 - 150				
18O2 PFHxS	110		25 - 150				
13C4 PFOS	111		25 - 150				
13C8 FOSA	109		25 - 150				
d3-NMeFOSAA	108		25 - 150				
d5-NEtFOSAA	105		25 - 150				
M2-6:2 FTS	130		25 - 150				
M2-8:2 FTS	122		25 - 150				
M2-4:2 FTS	142		25 - 150				
13C3 HFPO-DA	105		25 - 150				

Lab Sample ID: LCSD 320-487491/3-A

Matrix: Water

Analysis Batch: 487988

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 487491

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	41.4		ng/L		103	76 - 136	4	30
Perfluoropentanoic acid (PFPeA)	40.0	46.8		ng/L		117	71 - 131	11	30
Perfluorohexanoic acid (PFHxA)	40.0	42.1		ng/L		105	73 - 133	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	44.2		ng/L		111	72 - 132	0	30
Perfluorooctanoic acid (PFOA)	40.0	41.2		ng/L		103	70 - 130	4	30
Perfluorononanoic acid (PFNA)	40.0	40.0		ng/L		100	75 - 135	3	30
Perfluorodecanoic acid (PFDA)	40.0	39.8		ng/L		100	76 - 136	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	35.0		ng/L		88	68 - 128	10	30
Perfluorododecanoic acid (PFDoA)	40.0	41.1		ng/L		103	71 - 131	8	30
Perfluorotridecanoic acid (PFTriA)	40.0	40.3		ng/L		101	71 - 131	3	30
Perfluorotetradecanoic acid (PFTeA)	40.0	44.7		ng/L		112	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	35.4	35.6		ng/L		101	67 - 127	2	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	46.5		ng/L		124	66 - 126	0	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.4		ng/L		100	59 - 119	4	30

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-487491/3-A

Matrix: Water

Analysis Batch: 487988

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 487491

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.6		ng/L		107	76 - 136	4	30
Perfluorooctanesulfonic acid (PFOS)	37.1	37.3		ng/L		101	70 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	38.4	39.6		ng/L		103	75 - 135	6	30
Perfluorodecanesulfonic acid (PFDS)	38.6	38.1		ng/L		99	71 - 131	1	30
Perfluorooctanesulfonamide (FOSA)	40.0	42.0		ng/L		105	73 - 133	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	44.2		ng/L		111	76 - 136	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	34.8		ng/L		87	76 - 136	16	30
4:2 FTS	37.4	35.8		ng/L		96	79 - 139	11	30
6:2 FTS	37.9	34.6		ng/L		91	59 - 175	13	30
8:2 FTS	38.3	43.3		ng/L		113	75 - 135	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	41.5		ng/L		110	79 - 139	5	30
HFPO-DA (GenX)	40.0	42.8		ng/L		107	51 - 173	6	30
F-53B Major	37.3	38.7		ng/L		104	75 - 135	1	30
F-53B Minor	37.7	35.1		ng/L		93	54 - 114	1	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	103		25 - 150
13C5 PFPeA	105		25 - 150
13C2 PFHxA	112		25 - 150
13C4 PFHpA	114		25 - 150
13C4 PFOA	115		25 - 150
13C5 PFNA	121		25 - 150
13C2 PFDA	109		25 - 150
13C2 PFUnA	124		25 - 150
13C2 PFDoA	108		25 - 150
13C2 PFTeDA	94		25 - 150
13C3 PFBS	102		25 - 150
18O2 PFHxS	111		25 - 150
13C4 PFOS	111		25 - 150
13C8 FOSA	109		25 - 150
d3-NMeFOSAA	119		25 - 150
d5-NEtFOSAA	118		25 - 150
M2-6:2 FTS	138		25 - 150
M2-8:2 FTS	126		25 - 150
M2-4:2 FTS	133		25 - 150
13C3 HFPO-DA	109		25 - 150

Eurofins TestAmerica, Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Client Sample ID: WT-012607-050421-CM-003

Lab Sample ID: 240-148715-2

Date Collected: 05/04/21 15:30

Matrix: Water

Date Received: 05/05/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			487491	05/09/21 19:10	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	487988	05/11/21 18:57	K1S	TAL SAC

Client Sample ID: W-012607-050421-CM-004

Lab Sample ID: 240-148715-3

Date Collected: 05/04/21 15:35

Matrix: Water

Date Received: 05/05/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			487491	05/09/21 19:10	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	487988	05/11/21 19:06	K1S	TAL SAC

Client Sample ID: FB-012607-050421-CM-005

Lab Sample ID: 240-148715-4

Date Collected: 05/04/21 15:40

Matrix: Water

Date Received: 05/05/21 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			487491	05/09/21 19:10	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	487988	05/11/21 19:15	K1S	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-21
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA000442021-2	07-31-21
New Hampshire	NELAP	2997	04-18-22
New Jersey	NELAP	CA005	06-30-21
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	06-01-21
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

~~ni ni~~[illegible]

Eurofins TestAmerica Canton Sample Receipt Form/Narrative				Login # : <u>290-148715</u>	
Canton Facility					
Client <u>GHD</u>		Site Name _____		Cooler unpacked by: <u>Matt Sm</u>	
Cooler Received on <u>5-5-21</u>		Opened on <u>5-5-21</u>			
FedEx: 1 st Grd <u>Exp</u> UPS FAS Clipper		Client Drop Off		TestAmerica Courier Other _____	
Receipt After-hours: Drop-off Date/Time			Storage Location		
TestAmerica Cooler # <u>TA</u>		Foam Box		Client Cooler	
Box		Other			
Packing material used: <u>Bubble Wrap</u>		Foam		Plastic Bag	
None		Other			
COOLANT: <u>Wet Ice</u>		Blue Ice		Dry Ice	
Water		None			
1. Cooler temperature upon receipt		☐ See Multiple Cooler Form			
IR GUN# IR-11 (CF +0.1 °C)		Observed Cooler Temp <u>3.8</u> °C		Corrected Cooler Temp <u>3.9</u> °C	
IR GUN# IR-12 (CF +0.2 °C)		Observed Cooler Temp _____ °C		Corrected Cooler Temp _____ °C	
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u>		☒ 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 (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)?		☒ 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	
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	
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____					
Concerning _____					

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

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: _____			

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-050421-CM-002	240-148715-C-1	Plastic 500ml - with Nitric Acid	_____	_____	_____	_____
WT-012607-050421-CM-002	240-148715-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-050421-CM-002	240-148715-G-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____



Ver. 11/01/2020

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Environment Testing
TestAmerica

Sacramento Sample Receiving Notes

Place Field Sheet Label Here

Tracking #: 9148 7503 9755

Job: _____

SO / ☒ PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSC / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-06 Corr. Factor: (+/-) N/A °C
Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal: _____

Cooler ID: 2 of 2

Temp Observed: 0.7 °C Corrected: 0.7 °C
From: Temp Blank ☐ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials: NC Date: 5-6-21

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☒	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☒	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☒	☐	☒
Alkalinity has no headspace?	☒	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☒	☐	☒
Multiphasic samples are not present?	☒	☐	☐

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

Initials: NC Date: 5-6-21

Notes: _____

Trizma Lot #(s): _____

Login Completion

	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☐	☐	☒
Log Release checked in TALS?	☒	☐	☐

Initials: NC Date: 5-6-21

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-148715-2

Login Number: 148715

List Number: 2

Creator: Cahill, Nicholas P

List Source: Eurofins TestAmerica, Sacramento

List Creation: 05/06/21 06:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4c, 0.7c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-148715-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-148715-2	WT-012607-050421-CM-003	92	95	107	105	105	109	92	94
240-148715-3	W-012607-050421-CM-004	93	105	109	115	112	122	114	111
240-148715-4	FB-012607-050421-CM-005	104	110	111	115	113	119	113	118
LCS 320-487491/2-A	Lab Control Sample	107	108	111	110	111	123	105	116
LCSD 320-487491/3-A	Lab Control Sample Dup	103	105	112	114	115	121	109	124
MB 320-487491/1-A	Method Blank	99	103	107	112	113	120	107	119

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
240-148715-2	WT-012607-050421-CM-003	87	71	105	106	99	102	89	88
240-148715-3	W-012607-050421-CM-004	105	90	123	122	118	119	106	96
240-148715-4	FB-012607-050421-CM-005	104	86	106	112	110	108	110	115
LCS 320-487491/2-A	Lab Control Sample	106	96	102	110	111	109	108	105
LCSD 320-487491/3-A	Lab Control Sample Dup	108	94	102	111	111	109	119	118
MB 320-487491/1-A	Method Blank	118	88	101	112	110	106	108	105

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-148715-2	WT-012607-050421-CM-003	136	123	204 *5+	98
240-148715-3	W-012607-050421-CM-004	205 *5+	167 *5+	253 *5+	110
240-148715-4	FB-012607-050421-CM-005	128	126	136	112
LCS 320-487491/2-A	Lab Control Sample	130	122	142	105
LCSD 320-487491/3-A	Lab Control Sample Dup	138	126	133	109
MB 320-487491/1-A	Method Blank	125	133	129	105

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA



240-148715 Field Sheet

Tracking #: 9148 7503 9744

Job: _____

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-06 Corr. Factor: (+/-) N/A °C

Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal: _____

Cooler ID: 1 of 2

Temp Observed: 4.4 °C Corrected: 4.4 °C
From: Temp Blank ☒ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials: NC Date: 5-6-21

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☐	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

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

Initials: NC Date: 5-6-21

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☐	☐	☒
Log Release checked in TALS?	☒	☐	☐

Initials: NC Date: 5-6-21

Attachment 5

June 3, 2021 Samples

WT-012607-060321-CM-001 (effluent)

WT-012607-060321-CM-002 (effluent)

W-012607-060321-CM-003 (influent)

FB-012607-060321-CM-004 (Field Blank)

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-150676-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
6/17/2021 12:58:59 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Job ID: 240-150676-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-150676-1

Comments

No additional comments.

Receipt

The samples were received on 6/4/2021 10:10 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 3.8° C.

GC Semi VOA

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

Metals

Method 200.7 Rev 4.4: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: WT-012607-060321-CM-001 (240-150676-1) 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

Methods 3510C, 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-489514.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Qualifiers

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-150676-1	WT-012607-060321-CM-001	Water	06/03/21 12:40	06/04/21 10:10	

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Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Client Sample ID: WT-012607-060321-CM-001

Lab Sample ID: 240-150676-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.11		0.050	mg/L	1		200.7 Rev 4.4	Total
								Recoverable
Nickel	0.87		0.010	mg/L	1		200.7 Rev 4.4	Total
								Recoverable
Chromium, hexavalent	0.11		0.010	mg/L	1		3500-Cr B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Method	Method Description	Protocol	Laboratory
608.3	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
3500-Cr B-2011	Chromium, Hexavalent	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
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

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

Laboratory References:

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

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

Client Sample ID: WT-012607-060321-CM-001

Date Collected: 06/03/21 12:40

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.096	U	0.096	ug/L		06/08/21 09:25	06/10/21 09:18	1
Aroclor-1221	0.096	U	0.096	ug/L		06/08/21 09:25	06/10/21 09:18	1
Aroclor-1232	0.096	U	0.096	ug/L		06/08/21 09:25	06/10/21 09:18	1
Aroclor-1242	0.096	U	0.096	ug/L		06/08/21 09:25	06/10/21 09:18	1
Aroclor-1248	0.096	U	0.096	ug/L		06/08/21 09:25	06/10/21 09:18	1
Aroclor-1254	0.096	U	0.096	ug/L		06/08/21 09:25	06/10/21 09:18	1
Aroclor-1260	0.096	U	0.096	ug/L		06/08/21 09:25	06/10/21 09:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		10 - 114			06/08/21 09:25	06/10/21 09:18	1
Tetrachloro-m-xylene	91		15 - 131			06/08/21 09:25	06/10/21 09:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

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

Client Sample ID: WT-012607-060321-CM-001

Date Collected: 06/03/21 12:40

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.11		0.050	mg/L		06/07/21 14:00	06/08/21 18:31	1
Nickel	0.87		0.010	mg/L		06/07/21 14:00	06/08/21 18:31	1
Lead	0.050	U	0.050	mg/L		06/07/21 14:00	06/08/21 18:31	1
Zinc	0.020	U	0.020	mg/L		06/07/21 14:00	06/08/21 18:31	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-060321-CM-001

Date Collected: 06/03/21 12:40

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		06/07/21 14:00	06/08/21 11:43	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

General Chemistry

Client Sample ID: WT-012607-060321-CM-001

Date Collected: 06/03/21 12:40

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L			06/16/21 09:09	1
Chromium, hexavalent	0.11		0.010	mg/L			06/04/21 11:42	1
Total Suspended Solids	4.0	U	4.0	mg/L			06/10/21 09:13	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

GC Semi VOA

Prep Batch: 489514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total/NA	Water	608	
MB 240-489514/21-A	Method Blank	Total/NA	Water	608	
LCS 240-489514/22-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 489873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total/NA	Water	608.3	489514
MB 240-489514/21-A	Method Blank	Total/NA	Water	608.3	489514
LCS 240-489514/22-A	Lab Control Sample	Total/NA	Water	608.3	489514

Metals

Prep Batch: 489345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total Recoverable	Water	200.7	
MB 240-489345/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-489345/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
240-150676-1 MS	WT-012607-060321-CM-001	Total Recoverable	Water	200.7	
240-150676-1 MSD	WT-012607-060321-CM-001	Total Recoverable	Water	200.7	

Prep Batch: 489346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total/NA	Water	245.1	
MB 240-489346/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-489346/2-A	Lab Control Sample	Total/NA	Water	245.1	
240-150676-1 MS	WT-012607-060321-CM-001	Total/NA	Water	245.1	
240-150676-1 MSD	WT-012607-060321-CM-001	Total/NA	Water	245.1	

Analysis Batch: 489705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total Recoverable	Water	200.7 Rev 4.4	489345
MB 240-489345/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	489345
LCS 240-489345/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	489345
240-150676-1 MS	WT-012607-060321-CM-001	Total Recoverable	Water	200.7 Rev 4.4	489345
240-150676-1 MSD	WT-012607-060321-CM-001	Total Recoverable	Water	200.7 Rev 4.4	489345

Analysis Batch: 489797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total/NA	Water	245.1	489346
MB 240-489346/1-A	Method Blank	Total/NA	Water	245.1	489346
LCS 240-489346/2-A	Lab Control Sample	Total/NA	Water	245.1	489346
240-150676-1 MS	WT-012607-060321-CM-001	Total/NA	Water	245.1	489346
240-150676-1 MSD	WT-012607-060321-CM-001	Total/NA	Water	245.1	489346

General Chemistry

Analysis Batch: 489042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total/NA	Water	3500-Cr B-2011	
MB 240-489042/3	Method Blank	Total/NA	Water	3500-Cr B-2011	
LCS 240-489042/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2011	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

General Chemistry

Analysis Batch: 489977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total/NA	Water	SM 2540D	
MB 240-489977/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-489977/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 490884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-1	WT-012607-060321-CM-001	Total/NA	Water	1664A	
MB 240-490884/1	Method Blank	Total/NA	Water	1664A	
LCS 240-490884/2	Lab Control Sample	Total/NA	Water	1664A	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

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

Lab Sample ID: MB 240-489514/21-A

Matrix: Water

Analysis Batch: 489873

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 489514

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		06/08/21 09:25	06/10/21 08:42	1
Aroclor-1221	0.10	U	0.10	ug/L		06/08/21 09:25	06/10/21 08:42	1
Aroclor-1232	0.10	U	0.10	ug/L		06/08/21 09:25	06/10/21 08:42	1
Aroclor-1242	0.10	U	0.10	ug/L		06/08/21 09:25	06/10/21 08:42	1
Aroclor-1248	0.10	U	0.10	ug/L		06/08/21 09:25	06/10/21 08:42	1
Aroclor-1254	0.10	U	0.10	ug/L		06/08/21 09:25	06/10/21 08:42	1
Aroclor-1260	0.10	U	0.10	ug/L		06/08/21 09:25	06/10/21 08:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		10 - 114	06/08/21 09:25	06/10/21 08:42	1
Tetrachloro-m-xylene	102		15 - 131	06/08/21 09:25	06/10/21 08:42	1

Lab Sample ID: LCS 240-489514/22-A

Matrix: Water

Analysis Batch: 489873

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 489514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.23		ug/L		89	50 - 140
Aroclor-1260	2.50	1.77		ug/L		71	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	78		10 - 114
Tetrachloro-m-xylene	89		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-489345/1-A

Matrix: Water

Analysis Batch: 489705

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 489345

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		06/07/21 14:00	06/08/21 18:22	1
Nickel	0.010	U	0.010	mg/L		06/07/21 14:00	06/08/21 18:22	1
Lead	0.050	U	0.050	mg/L		06/07/21 14:00	06/08/21 18:22	1
Zinc	0.020	U	0.020	mg/L		06/07/21 14:00	06/08/21 18:22	1

Lab Sample ID: LCS 240-489345/2-A

Matrix: Water

Analysis Batch: 489705

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 489345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.937		mg/L		94	85 - 115
Nickel	1.00	0.977		mg/L		98	85 - 115
Lead	1.00	0.921		mg/L		92	85 - 115
Zinc	1.00	1.01		mg/L		101	85 - 115

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

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

Lab Sample ID: 240-150676-1 MS

Matrix: Water

Analysis Batch: 489705

Client Sample ID: WT-012607-060321-CM-001

Prep Type: Total Recoverable

Prep Batch: 489345

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.11		1.00	1.04		mg/L		93	70 - 130
Nickel	0.87		1.00	1.85		mg/L		98	70 - 130
Lead	0.050	U	1.00	0.908		mg/L		91	70 - 130
Zinc	0.020	U	1.00	1.01		mg/L		100	70 - 130

Lab Sample ID: 240-150676-1 MSD

Matrix: Water

Analysis Batch: 489705

Client Sample ID: WT-012607-060321-CM-001

Prep Type: Total Recoverable

Prep Batch: 489345

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.11		1.00	1.08		mg/L		97	70 - 130	4	20
Nickel	0.87		1.00	1.92		mg/L		105	70 - 130	4	20
Lead	0.050	U	1.00	0.943		mg/L		94	70 - 130	4	20
Zinc	0.020	U	1.00	1.04		mg/L		103	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-489346/1-A

Matrix: Water

Analysis Batch: 489797

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 489346

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		06/07/21 14:00	06/08/21 11:39	1

Lab Sample ID: LCS 240-489346/2-A

Matrix: Water

Analysis Batch: 489797

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 489346

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00526		mg/L		105	85 - 115

Lab Sample ID: 240-150676-1 MS

Matrix: Water

Analysis Batch: 489797

Client Sample ID: WT-012607-060321-CM-001

Prep Type: Total/NA

Prep Batch: 489346

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00100	0.00109		mg/L		109	70 - 130

Lab Sample ID: 240-150676-1 MSD

Matrix: Water

Analysis Batch: 489797

Client Sample ID: WT-012607-060321-CM-001

Prep Type: Total/NA

Prep Batch: 489346

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00020	U	0.00100	0.00105		mg/L		105	70 - 130	4	20

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-490884/1

Matrix: Water

Analysis Batch: 490884

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L			06/16/21 09:09	1

Lab Sample ID: LCS 240-490884/2

Matrix: Water

Analysis Batch: 490884

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	39.50		mg/L		99	78 - 114

Method: 3500-Cr B-2011 - Chromium, Hexavalent

Lab Sample ID: MB 240-489042/3

Matrix: Water

Analysis Batch: 489042

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	U	0.010	mg/L			06/04/21 08:26	1

Lab Sample ID: LCS 240-489042/4

Matrix: Water

Analysis Batch: 489042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.250	0.226		mg/L		91	80 - 123

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

Lab Sample ID: MB 240-489977/1

Matrix: Water

Analysis Batch: 489977

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			06/10/21 09:13	1

Lab Sample ID: LCS 240-489977/2

Matrix: Water

Analysis Batch: 489977

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	61.5	59.0		mg/L		96	64 - 120

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP1	TCX1
		(10-114)	(15-131)
240-150676-1	WT-012607-060321-CM-001	86	91
LCS 240-489514/22-A	Lab Control Sample	78	89
MB 240-489514/21-A	Method Blank	89	102

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Client Sample ID: WT-012607-060321-CM-001

Lab Sample ID: 240-150676-1

Date Collected: 06/03/21 12:40

Matrix: Water

Date Received: 06/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			489514	06/08/21 09:25	MDH	TAL CAN
Total/NA	Analysis	608.3		1	489873	06/10/21 09:18	LSH	TAL CAN
Total Recoverable	Prep	200.7			489345	06/07/21 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	489705	06/08/21 18:31	KLC	TAL CAN
Total/NA	Prep	245.1			489346	06/07/21 14:00	MRL	TAL CAN
Total/NA	Analysis	245.1		1	489797	06/08/21 11:43	SLD	TAL CAN
Total/NA	Analysis	1664A		1	490884	06/16/21 09:09	KLR	TAL CAN
Total/NA	Analysis	3500-Cr B-2011		1	489042	06/04/21 11:42	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	489977	06/10/21 09:13	AJ	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-21
Iowa	State	421	06-01-21 *
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

Eurofins TestAmerica, Canton

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : 150676
Canton Facility

Client GHD Site Name Racer Livonia Cooler unpacked by: me
Cooler Received on 6-4-21 Opened on 6-4-21
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-11 (CF +0.1 °C) Observed Cooler Temp. 3.7 °C Corrected Cooler Temp. 3.8 °C
IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No 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 (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)? Yes No
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# HC022887
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
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

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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			pH	Temp	Added (mls)	Lot #
WT-012607-060321-CM-001	240-150676-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-060321-CM-001	240-150676-F-1	Amber Glass 1 liter Wide - Sulfuric Acid	_____	_____	_____	_____
WT-012607-060321-CM-001	240-150676-G-1	Amber Glass 1 liter Wide - Sulfuric Acid	_____	_____	_____	_____

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-150676-2

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
6/14/2021 8:26:37 AM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Job ID: 240-150676-2

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-150676-2

Comments

No additional comments.

Receipt

The samples were received on 6/4/2021 10:10 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 3.8° C.

LCMS

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: W-012607-060321-CM-003 (240-150676-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte.

Method 537 (modified): The following sample exhibited matrix interferences for Perfluorooctanesulfonic acid (PFOS) causing elevation of the Reporting Limit (RL). WT-012607-060321-CM-002 (240-150676-2). The RL for the affected analyte has been raised to be equal to the matrix interferences.

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

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-496064.

Method 3535: The following sample is yellow and contain floating particulates at the bottom of the bottle prior to extraction: W-012607-060321-CM-003 (240-150676-3).

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: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
I	Value is EMPC (estimated maximum possible concentration).
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.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-150676-2	WT-012607-060321-CM-002	Water	06/03/21 12:40	06/04/21 10:10	
240-150676-3	W-012607-060321-CM-003	Water	06/03/21 12:35	06/04/21 10:10	
240-150676-4	FB-012607-060321-CM-004	Water	06/03/21 12:45	06/04/21 10:10	

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Client Sample ID: WT-012607-060321-CM-002

Lab Sample ID: 240-150676-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.9		4.2	2.0	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.82	J	1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.80	J	1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.25	J	1.7	0.17	ng/L	1		537 (modified)	Total/NA

Client Sample ID: W-012607-060321-CM-003

Lab Sample ID: 240-150676-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12		4.2	2.0	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.5		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.6	J	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.6		1.7	0.72	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.31	J	1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.5	J	1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.5	J	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.3	I	1.7	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	I	1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	91	I	1.7	0.46	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-012607-060321-CM-004

Lab Sample ID: 240-150676-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-060321-CM-002

Date Collected: 06/03/21 12:40

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	7.9		4.2	2.0	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluoropentanoic acid (PFPeA)	0.82	J	1.7	0.41	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorohexanoic acid (PFHxA)	0.80	J	1.7	0.49	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.21	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorooctanoic acid (PFOA)	1.7	U	1.7	0.72	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.26	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.93	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.46	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.62	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorobutanesulfonic acid (PFBS)	0.25	J	1.7	0.17	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluoropentanesulfonic acid (PFPeS)	1.7	U	1.7	0.25	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.48	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.16	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorooctanesulfonic acid (PFOS)	2.2	U G	2.2	2.2	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.31	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.27	ng/L		06/06/21 19:06	06/08/21 04:09	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.83	ng/L		06/06/21 19:06	06/08/21 04:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.2	U	4.2	1.0	ng/L		06/06/21 19:06	06/08/21 04:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.2	U	4.2	1.1	ng/L		06/06/21 19:06	06/08/21 04:09	1
4:2 FTS	1.7	U	1.7	0.20	ng/L		06/06/21 19:06	06/08/21 04:09	1
6:2 FTS	4.2	U	4.2	2.1	ng/L		06/06/21 19:06	06/08/21 04:09	1
8:2 FTS	1.7	U	1.7	0.39	ng/L		06/06/21 19:06	06/08/21 04:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.34	ng/L		06/06/21 19:06	06/08/21 04:09	1
HFPO-DA (GenX)	3.4	U	3.4	1.3	ng/L		06/06/21 19:06	06/08/21 04:09	1
F-53B Major	1.7	U	1.7	0.20	ng/L		06/06/21 19:06	06/08/21 04:09	1
F-53B Minor	1.7	U	1.7	0.27	ng/L		06/06/21 19:06	06/08/21 04:09	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C5 PFPeA	100		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C2 PFHxA	95		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C4 PFHpA	108		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C4 PFOA	96		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C5 PFNA	97		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C2 PFDA	92		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C2 PFUnA	77		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C2 PFDoA	84		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C2 PFTeDA	92		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C3 PFBS	95		25 - 150	06/06/21 19:06	06/08/21 04:09	1
18O2 PFHxS	95		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C4 PFOS	86		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C8 FOSA	89		25 - 150	06/06/21 19:06	06/08/21 04:09	1
d3-NMeFOSAA	77		25 - 150	06/06/21 19:06	06/08/21 04:09	1
d5-NEtFOSAA	93		25 - 150	06/06/21 19:06	06/08/21 04:09	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: WT-012607-060321-CM-002

Date Collected: 06/03/21 12:40

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-2

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	85		25 - 150	06/06/21 19:06	06/08/21 04:09	1
M2-8:2 FTS	96		25 - 150	06/06/21 19:06	06/08/21 04:09	1
M2-4:2 FTS	105		25 - 150	06/06/21 19:06	06/08/21 04:09	1
13C3 HFPO-DA	90		25 - 150	06/06/21 19:06	06/08/21 04:09	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: W-012607-060321-CM-003

Date Collected: 06/03/21 12:35

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	12		4.2	2.0	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluoropentanoic acid (PFPeA)	2.5		1.7	0.41	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorohexanoic acid (PFHxA)	3.1		1.7	0.49	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluoroheptanoic acid (PFHpA)	1.6	J	1.7	0.21	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorooctanoic acid (PFOA)	5.6		1.7	0.72	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorononanoic acid (PFNA)	0.31	J	1.7	0.23	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.26	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.93	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.46	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.62	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorobutanesulfonic acid (PFBS)	1.5	J	1.7	0.17	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluoropentanesulfonic acid (PFPeS)	1.5	J	1.7	0.25	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorohexanesulfonic acid (PFHxS)	6.3	I	1.7	0.48	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	I	1.7	0.16	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorooctanesulfonic acid (PFOS)	91	I	1.7	0.46	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.31	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.27	ng/L		06/06/21 19:06	06/08/21 04:18	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.83	ng/L		06/06/21 19:06	06/08/21 04:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.2	U	4.2	1.0	ng/L		06/06/21 19:06	06/08/21 04:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.2	U	4.2	1.1	ng/L		06/06/21 19:06	06/08/21 04:18	1
4:2 FTS	1.7	U	1.7	0.20	ng/L		06/06/21 19:06	06/08/21 04:18	1
6:2 FTS	4.2	U	4.2	2.1	ng/L		06/06/21 19:06	06/08/21 04:18	1
8:2 FTS	1.7	U	1.7	0.39	ng/L		06/06/21 19:06	06/08/21 04:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.34	ng/L		06/06/21 19:06	06/08/21 04:18	1
HFPO-DA (GenX)	3.4	U	3.4	1.3	ng/L		06/06/21 19:06	06/08/21 04:18	1
F-53B Major	1.7	U	1.7	0.20	ng/L		06/06/21 19:06	06/08/21 04:18	1
F-53B Minor	1.7	U	1.7	0.27	ng/L		06/06/21 19:06	06/08/21 04:18	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	83		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C5 PFPeA	85		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C2 PFHxA	94		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C4 PFHpA	100		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C4 PFOA	87		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C5 PFNA	98		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C2 PFDA	92		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C2 PFUnA	76		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C2 PFDoA	85		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C2 PFTeDA	75		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C3 PFBS	92		25 - 150	06/06/21 19:06	06/08/21 04:18	1
18O2 PFHxS	96		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C4 PFOS	83		25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C8 FOSA	89		25 - 150	06/06/21 19:06	06/08/21 04:18	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: W-012607-060321-CM-003

Date Collected: 06/03/21 12:35

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-3

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d3-NMeFOSAA	81		25 - 150	06/06/21 19:06	06/08/21 04:18	1
d5-NEtFOSAA	87		25 - 150	06/06/21 19:06	06/08/21 04:18	1
M2-6:2 FTS	166	*5+	25 - 150	06/06/21 19:06	06/08/21 04:18	1
M2-8:2 FTS	147		25 - 150	06/06/21 19:06	06/08/21 04:18	1
M2-4:2 FTS	213	*5+	25 - 150	06/06/21 19:06	06/08/21 04:18	1
13C3 HFPO-DA	91		25 - 150	06/06/21 19:06	06/08/21 04:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: FB-012607-060321-CM-004

Date Collected: 06/03/21 12:45

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.1	U	4.1	2.0	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluoropentanoic acid (PFPeA)	1.6	U	1.6	0.40	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorohexanoic acid (PFHxA)	1.6	U	1.6	0.47	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluoroheptanoic acid (PFHpA)	1.6	U	1.6	0.20	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorooctanoic acid (PFOA)	1.6	U	1.6	0.69	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorononanoic acid (PFNA)	1.6	U	1.6	0.22	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorodecanoic acid (PFDA)	1.6	U	1.6	0.25	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluoroundecanoic acid (PFUnA)	1.6	U	1.6	0.90	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorododecanoic acid (PFDoA)	1.6	U	1.6	0.45	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorotridecanoic acid (PFTriA)	1.6	U	1.6	1.1	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorotetradecanoic acid (PFTeA)	1.6	U	1.6	0.60	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorobutanesulfonic acid (PFBS)	1.6	U	1.6	0.16	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluoropentanesulfonic acid (PFPeS)	1.6	U	1.6	0.25	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorohexanesulfonic acid (PFHxS)	1.6	U	1.6	0.47	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	U	1.6	0.16	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorooctanesulfonic acid (PFOS)	1.6	U	1.6	0.44	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorononanesulfonic acid (PFNS)	1.6	U	1.6	0.30	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorodecanesulfonic acid (PFDS)	1.6	U	1.6	0.26	ng/L		06/06/21 19:06	06/08/21 04:27	1
Perfluorooctanesulfonamide (FOSA)	1.6	U	1.6	0.80	ng/L		06/06/21 19:06	06/08/21 04:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.1	U	4.1	0.98	ng/L		06/06/21 19:06	06/08/21 04:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.1	U	4.1	1.1	ng/L		06/06/21 19:06	06/08/21 04:27	1
4:2 FTS	1.6	U	1.6	0.20	ng/L		06/06/21 19:06	06/08/21 04:27	1
6:2 FTS	4.1	U	4.1	2.0	ng/L		06/06/21 19:06	06/08/21 04:27	1
8:2 FTS	1.6	U	1.6	0.38	ng/L		06/06/21 19:06	06/08/21 04:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.6	U	1.6	0.33	ng/L		06/06/21 19:06	06/08/21 04:27	1
HFPO-DA (GenX)	3.3	U	3.3	1.2	ng/L		06/06/21 19:06	06/08/21 04:27	1
F-53B Major	1.6	U	1.6	0.20	ng/L		06/06/21 19:06	06/08/21 04:27	1
F-53B Minor	1.6	U	1.6	0.26	ng/L		06/06/21 19:06	06/08/21 04:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	111		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C5 PFPeA	105		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C2 PFHxA	107		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C4 PFHpA	134		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C4 PFOA	109		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C5 PFNA	111		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C2 PFDA	116		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C2 PFUnA	90		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C2 PFDoA	109		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C2 PFTeDA	105		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C3 PFBS	115		25 - 150	06/06/21 19:06	06/08/21 04:27	1
18O2 PFHxS	112		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C4 PFOS	109		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C8 FOSA	103		25 - 150	06/06/21 19:06	06/08/21 04:27	1
d3-NMeFOSAA	108		25 - 150	06/06/21 19:06	06/08/21 04:27	1
d5-NEtFOSAA	105		25 - 150	06/06/21 19:06	06/08/21 04:27	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: FB-012607-060321-CM-004

Date Collected: 06/03/21 12:45

Date Received: 06/04/21 10:10

Lab Sample ID: 240-150676-4

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	102		25 - 150	06/06/21 19:06	06/08/21 04:27	1
M2-8:2 FTS	118		25 - 150	06/06/21 19:06	06/08/21 04:27	1
M2-4:2 FTS	113		25 - 150	06/06/21 19:06	06/08/21 04:27	1
13C3 HFPO-DA	103		25 - 150	06/06/21 19:06	06/08/21 04:27	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

LCMS

Prep Batch: 496064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-2	WT-012607-060321-CM-002	Total/NA	Water	3535	
240-150676-3	W-012607-060321-CM-003	Total/NA	Water	3535	
240-150676-4	FB-012607-060321-CM-004	Total/NA	Water	3535	
MB 320-496064/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-496064/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-496064/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 496474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-150676-2	WT-012607-060321-CM-002	Total/NA	Water	537 (modified)	496064
240-150676-3	W-012607-060321-CM-003	Total/NA	Water	537 (modified)	496064
240-150676-4	FB-012607-060321-CM-004	Total/NA	Water	537 (modified)	496064
MB 320-496064/1-A	Method Blank	Total/NA	Water	537 (modified)	496064
LCS 320-496064/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	496064

Analysis Batch: 496769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 320-496064/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	496064

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-496064/1-A

Matrix: Water

Analysis Batch: 496474

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 496064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0	U	5.0	2.4	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.73	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.57	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.37	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		06/06/21 19:06	06/08/21 01:34	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.98	ng/L		06/06/21 19:06	06/08/21 01:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.0	U	5.0	1.2	ng/L		06/06/21 19:06	06/08/21 01:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.0	U	5.0	1.3	ng/L		06/06/21 19:06	06/08/21 01:34	1
4:2 FTS	2.0	U	2.0	0.24	ng/L		06/06/21 19:06	06/08/21 01:34	1
6:2 FTS	5.0	U	5.0	2.5	ng/L		06/06/21 19:06	06/08/21 01:34	1
8:2 FTS	2.0	U	2.0	0.46	ng/L		06/06/21 19:06	06/08/21 01:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.40	ng/L		06/06/21 19:06	06/08/21 01:34	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		06/06/21 19:06	06/08/21 01:34	1
F-53B Major	2.0	U	2.0	0.24	ng/L		06/06/21 19:06	06/08/21 01:34	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		06/06/21 19:06	06/08/21 01:34	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C5 PFPeA	95		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C2 PFHxA	100		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C4 PFHpA	121		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C4 PFOA	96		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C5 PFNA	109		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C2 PFDA	101		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C2 PFUnA	90		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C2 PFDoA	97		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C2 PFTeDA	92		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C3 PFBS	92		25 - 150	06/06/21 19:06	06/08/21 01:34	1
18O2 PFHxS	96		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C4 PFOS	93		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C8 FOSA	93		25 - 150	06/06/21 19:06	06/08/21 01:34	1
d3-NMeFOSAA	99		25 - 150	06/06/21 19:06	06/08/21 01:34	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-496064/1-A

Matrix: Water

Analysis Batch: 496474

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 496064

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		25 - 150	06/06/21 19:06	06/08/21 01:34	1
M2-6:2 FTS	93		25 - 150	06/06/21 19:06	06/08/21 01:34	1
M2-8:2 FTS	93		25 - 150	06/06/21 19:06	06/08/21 01:34	1
M2-4:2 FTS	97		25 - 150	06/06/21 19:06	06/08/21 01:34	1
13C3 HFPO-DA	99		25 - 150	06/06/21 19:06	06/08/21 01:34	1

Lab Sample ID: LCS 320-496064/2-A

Matrix: Water

Analysis Batch: 496474

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 496064

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.1		ng/L		108	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	42.9		ng/L		107	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.2		ng/L		98	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	40.1		ng/L		100	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	41.4		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	40.0	42.2		ng/L		105	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	40.8		ng/L		102	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	43.8		ng/L		110	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	43.3		ng/L		108	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	42.3		ng/L		106	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	43.3		ng/L		108	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.9		ng/L		101	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	38.5		ng/L		103	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.2		ng/L		102	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	42.0		ng/L		110	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	37.5		ng/L		101	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	39.9		ng/L		104	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	44.0		ng/L		114	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	41.9		ng/L		105	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.9		ng/L		100	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.4		ng/L		101	76 - 136
4:2 FTS	37.4	36.5		ng/L		98	79 - 139
6:2 FTS	37.9	39.2		ng/L		103	59 - 175
8:2 FTS	38.3	43.0		ng/L		112	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	44.5		ng/L		118	79 - 139
HFPO-DA (GenX)	40.0	39.3		ng/L		98	51 - 173
F-53B Major	37.3	38.3		ng/L		103	75 - 135

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-496064/2-A

Matrix: Water

Analysis Batch: 496474

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 496064

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	40.7		ng/L		108	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	120		25 - 150				
13C5 PFPeA	114		25 - 150				
13C2 PFHxA	112		25 - 150				
13C4 PFHpA	128		25 - 150				
13C4 PFOA	115		25 - 150				
13C5 PFNA	111		25 - 150				
13C2 PFDA	117		25 - 150				
13C2 PFUnA	111		25 - 150				
13C2 PFDoA	116		25 - 150				
13C2 PFTeDA	102		25 - 150				
13C3 PFBS	104		25 - 150				
18O2 PFHxS	112		25 - 150				
13C4 PFOS	102		25 - 150				
13C8 FOSA	99		25 - 150				
d3-NMeFOSAA	112		25 - 150				
d5-NEtFOSAA	116		25 - 150				
M2-6:2 FTS	115		25 - 150				
M2-8:2 FTS	95		25 - 150				
M2-4:2 FTS	117		25 - 150				
13C3 HFPO-DA	116		25 - 150				

Lab Sample ID: LCSD 320-496064/3-A

Matrix: Water

Analysis Batch: 496769

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 496064

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	42.2		ng/L		105	76 - 136	2	30
Perfluoropentanoic acid (PFPeA)	40.0	43.4		ng/L		108	71 - 131	1	30
Perfluorohexanoic acid (PFHxA)	40.0	40.5		ng/L		101	73 - 133	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	42.6		ng/L		106	72 - 132	6	30
Perfluorooctanoic acid (PFOA)	40.0	42.9		ng/L		107	70 - 130	4	30
Perfluorononanoic acid (PFNA)	40.0	42.3		ng/L		106	75 - 135	0	30
Perfluorodecanoic acid (PFDA)	40.0	44.6		ng/L		112	76 - 136	9	30
Perfluoroundecanoic acid (PFUnA)	40.0	44.0		ng/L		110	68 - 128	0	30
Perfluorododecanoic acid (PFDoA)	40.0	41.5		ng/L		104	71 - 131	4	30
Perfluorotridecanoic acid (PFTriA)	40.0	40.5		ng/L		101	71 - 131	4	30
Perfluorotetradecanoic acid (PFTeA)	40.0	41.5		ng/L		104	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	35.4	39.3		ng/L		111	67 - 127	9	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	38.5		ng/L		103	66 - 126	0	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.1		ng/L		99	59 - 119	3	30

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-496064/3-A

Matrix: Water

Analysis Batch: 496769

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 496064

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.0		ng/L		105	76 - 136	5	30
Perfluorooctanesulfonic acid (PFOS)	37.1	37.0		ng/L		100	70 - 130	1	30
Perfluorononanesulfonic acid (PFNS)	38.4	37.9		ng/L		99	75 - 135	5	30
Perfluorodecanesulfonic acid (PFDS)	38.6	37.5		ng/L		97	71 - 131	16	30
Perfluorooctanesulfonamide (FOSA)	40.0	41.0		ng/L		102	73 - 133	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.3		ng/L		103	76 - 136	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	43.0		ng/L		107	76 - 136	6	30
4:2 FTS	37.4	40.1		ng/L		107	79 - 139	9	30
6:2 FTS	37.9	36.5		ng/L		96	59 - 175	7	30
8:2 FTS	38.3	46.5		ng/L		121	75 - 135	8	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	39.8		ng/L		106	79 - 139	11	30
HFPO-DA (GenX)	40.0	39.3		ng/L		98	51 - 173	0	30
F-53B Major	37.3	38.4		ng/L		103	75 - 135	0	30
F-53B Minor	37.7	34.6		ng/L		92	54 - 114	16	30

Isotope Dilution	%Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	97		25 - 150
13C5 PFPeA	90		25 - 150
13C2 PFHxA	87		25 - 150
13C4 PFHpA	105		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	91		25 - 150
13C2 PFUnA	78		25 - 150
13C2 PFDoA	96		25 - 150
13C2 PFTeDA	90		25 - 150
13C3 PFBS	95		25 - 150
18O2 PFHxS	107		25 - 150
13C4 PFOS	97		25 - 150
13C8 FOSA	92		25 - 150
d3-NMeFOSAA	92		25 - 150
d5-NEtFOSAA	84		25 - 150
M2-6:2 FTS	98		25 - 150
M2-8:2 FTS	88		25 - 150
M2-4:2 FTS	95		25 - 150
13C3 HFPO-DA	97		25 - 150

Eurofins TestAmerica, Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Client Sample ID: WT-012607-060321-CM-002

Lab Sample ID: 240-150676-2

Date Collected: 06/03/21 12:40

Matrix: Water

Date Received: 06/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496064	06/06/21 19:06	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	496474	06/08/21 04:09	RS1	TAL SAC

Client Sample ID: W-012607-060321-CM-003

Lab Sample ID: 240-150676-3

Date Collected: 06/03/21 12:35

Matrix: Water

Date Received: 06/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496064	06/06/21 19:06	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	496474	06/08/21 04:18	RS1	TAL SAC

Client Sample ID: FB-012607-060321-CM-004

Lab Sample ID: 240-150676-4

Date Collected: 06/03/21 12:45

Matrix: Water

Date Received: 06/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496064	06/06/21 19:06	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	496474	06/08/21 04:27	RS1	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Laboratory: Eurofins TestAmerica, Sacramento

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

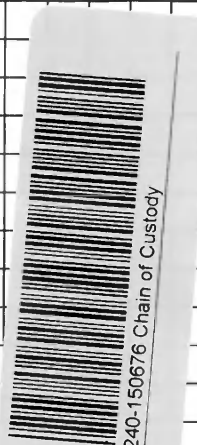
Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-21
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA000442021-2	07-31-21
New Hampshire	NELAP	2997	04-18-22
New Jersey	NELAP	CA005	06-30-21
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	05-31-22
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-22
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

Chain of Custody Record

MICHIGAN
190

Client Information		Sampler: <u>Meincke</u>		Lab PM: <u>Heckler, Denise D</u>	Carrier Tracking No(s):	COC No: 240-81131-31279.1
Client Contact: <u>Chris Meincke</u>		Phone: <u>248-843-3402</u>		E-Mail: <u>Denise.Heckler@Eurofinset.com</u>	State of Origin:	Page: Page 1 of 1
Company: <u>GHD Services Inc.</u>		PWSID:		Job #:		
Address: <u>26850 Haggerty Rd.</u>		Due Date Requested:		Analysis Requested		
City: <u>Farmington Hills</u>		TAT Requested (days): <u>2 wk</u>		Preservation Codes:		
State, Zip: <u>MI, 48331</u>		Compliance Project: <u>Yes</u> ☐ <u>No</u> ☐		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Phone:		PO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Email: <u>chris.meincke@ghd.com</u>		Purchase Order Requested		Total Number of containers		
Project Name: <u>12607-T37-monthly, RACER Eckles Rd</u>		WO # <u>12607</u>		Special Instructions/Note:		
Site: <u>RACER Livonia</u>		Project # <u>24005880</u>				
SSOW# <u>12607A-T37Y21-01</u>		Sample Date				
Sample Identification		Sample Type (C=comp, G=grab)	Sample Time	Sample Date	Preservation Code	Matrix (W=water, S=solid, O=other, B=bi-tissue, A=air)
WT-012607-060321-CM-001	G	12:40	6-3-21	X	X	Water
WT-012607-060321-CM-002		12:40		X	X	Water
W-012607-060321-CM-003		12:35		X	X	Water
FB-012607-060321-CM-004		12:45		X	X	Water
						
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological						
Deliverable Requested: I, II, III, IV, Other (specify)						
Empty Kit Relinquished by:						
Relinquished by: <u>[Signature]</u>		Date: <u>6-3-21 1300</u>		Company: <u>GHD</u>		
Relinquished by:		Date/Time:		Company:		
Relinquished by:		Date/Time:		Company:		
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No:		Company: <u>ETA</u>		
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months						
Special Instructions/QC Requirements:						
Method of Shipment:						
Received by: <u>[Signature]</u> Date/Time: <u>6-4-21 1010</u> Company: <u>ETA</u>						
Received by: Date/Time: Company:						
Cooler Temperature(s) °C and Other Remarks:						

Eurofins TestAmerica Canton Sample Receipt Form/Narrative		Login # : <u>150676</u>
Canton Facility		
Client <u>GHD</u>	Site Name <u>Racer Livonia</u>	Cooler unpacked by: <u>me</u>
Cooler Received on <u>6-4-21</u>	Opened on <u>6-4-21</u>	
FedEx: 1 st Grd <u>Exp</u> UPS FAS Clipper Client Drop Off TestAmerica Courier Other		
Receipt After-hours: Drop-off Date/Time		Storage Location
TestAmerica Cooler # <u>TA</u> Foam Box Client Cooler Box Other Packing material used: <u>Bubble Wrap</u> Foam Plastic Bag None Other COOLANT: <u>Wet Ice</u> Blue Ice Dry Ice Water None		
1. Cooler temperature upon receipt ☐ See Multiple Cooler Form IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp. <u>3.7</u> °C Corrected Cooler Temp. <u>3.8</u> °C IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C		
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>1</u> <u>Yes</u> No -Were the seals on the outside of the cooler(s) signed & dated? <u>Yes</u> No NA -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? <u>Yes</u> No NA -Were tamper/custody seals intact and uncompromised? <u>Yes</u> No NA		
3. Shippers' packing slip attached to the cooler(s)? <u>Yes</u> No		
4. Did custody papers accompany the sample(s)? <u>Yes</u> No		
5. Were the custody papers relinquished & signed in the appropriate place? <u>Yes</u> No		
6. Was/were the person(s) who collected the samples clearly identified on the COC? <u>Yes</u> No		
7. Did all bottles arrive in good condition (Unbroken)? <u>Yes</u> No		
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? <u>Yes</u> No		
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? <u>Y/N</u>		
10. Were correct bottle(s) used for the test(s) indicated? <u>Yes</u> No		
11. Sufficient quantity received to perform indicated analyses? <u>Yes</u> No		
12. Are these work share samples and all listed on the COC? <u>Yes</u> 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? <u>Yes</u> No NA pH Strip Lot# <u>HC022887</u>		
14. Were VOAs on the COC? <u>Yes</u> No		
15. Were air bubbles >6 mm in any VOA vials? Larger than this. <u>Yes</u> No <u>NA</u>		
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # <u>Yes</u> No		
17. Was a LL Hg or Me Hg trip blank present? <u>Yes</u> No		
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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			pH	Temp	Added (mls)	Lot #
WT-012607-060321-CM-001	240-150676-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-060321-CM-001	240-150676-F-1	Amber Glass 1 liter Wide - Sulfuric Acid	_____	_____	_____	_____
WT-012607-060321-CM-001	240-150676-G-1	Amber Glass 1 liter Wide - Sulfuric Acid	_____	_____	_____	_____



Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-150676-2

Login Number: 150676

List Number: 2

Creator: Cahill, Nicholas P

List Source: Eurofins TestAmerica, Sacramento

List Creation: 06/05/21 03:58 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4c 1.3c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-150676-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-150676-2	WT-012607-060321-CM-002	99	100	95	108	96	97	92	77
240-150676-3	W-012607-060321-CM-003	83	85	94	100	87	98	92	76
240-150676-4	FB-012607-060321-CM-004	111	105	107	134	109	111	116	90
LCS 320-496064/2-A	Lab Control Sample	120	114	112	128	115	111	117	111
LCSD 320-496064/3-A	Lab Control Sample Dup	97	90	87	105	98	101	91	78
MB 320-496064/1-A	Method Blank	99	95	100	121	96	109	101	90

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
240-150676-2	WT-012607-060321-CM-002	84	92	95	95	86	89	77	93
240-150676-3	W-012607-060321-CM-003	85	75	92	96	83	89	81	87
240-150676-4	FB-012607-060321-CM-004	109	105	115	112	109	103	108	105
LCS 320-496064/2-A	Lab Control Sample	116	102	104	112	102	99	112	116
LCSD 320-496064/3-A	Lab Control Sample Dup	96	90	95	107	97	92	92	84
MB 320-496064/1-A	Method Blank	97	92	92	96	93	93	99	103

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-150676-2	WT-012607-060321-CM-002	85	96	105	90
240-150676-3	W-012607-060321-CM-003	166 *5+	147	213 *5+	91
240-150676-4	FB-012607-060321-CM-004	102	118	113	103
LCS 320-496064/2-A	Lab Control Sample	115	95	117	116
LCSD 320-496064/3-A	Lab Control Sample Dup	98	88	95	97
MB 320-496064/1-A	Method Blank	93	93	97	99

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA



Environment Testing
TestAmerica

Sacramento Sample Receiving Notes



240-150676 Field Sheet

Job: _____

Tracking #: 9148 7504 3037

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-07 Corr. Factor: (+/-) _____ °C

Ice X Wet ✓ Gel _____ Other _____

Cooler Custody Seal: _____

Cooler ID: 1042

Temp Observed: 0.4 °C Corrected: 0.4 °C

From: Temp Blank ☐ Sample ☒

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials: DL Date: 6/5/21

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

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

Initials: Y

Date: 6/5/21

Notes: _____

Trizma Lot #(s): _____

Login Completion

	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☐	☐	☒
Log Release checked in TALS?	☒	☐	☐

Initials: Y

Date: 6/5/21

Tracking #: 914875043048

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-05 Corr. Factor: (+/-) - °C

Ice ☐ Wet ☐ Gel ☐ Other ☐

Cooler Custody Seal: _____

Cooler ID: 2072

Temp Observed: 1.3 °C Corrected: 1.3 °C
From: Temp Blank ☐ Sample ☒

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒
Initials: <u>DS</u>	Date: <u>6/5/21</u>		

Unpacking/Labeling The Samples	<u>Yes</u>	<u>No</u>	<u>NA</u>
CoC is complete w/o discrepancies?	☐	☐	☐
Samples compromised/tampered with?	☐	☐	☐
Sample containers have legible labels?	☐	☐	☐
Sample custody seal?	☐	☐	☐
Containers are not broken or leaking?	☐	☐	☐
Sample date/times are provided?	☐	☐	☐
Appropriate containers are used?	☐	☐	☐
Sample bottles are completely filled?	☐	☐	☐
Sample preservatives verified?	☐	☐	☐
Samples w/o discrepancies?	☐	☐	☐
Zero headspace?*	☐	☐	☐
Alkalinity has no headspace?	☐	☐	☐
Perchlorate has headspace?	☐	☐	☐
(Methods 314, 331, 6850)		☐	☐
Multiphasic samples are not present?	☐	☐	☐

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

Notes:

Trizma Lot #(s): _____

Login Completion	<u>Yes</u>	<u>No</u>	<u>NA</u>
Receipt Temperature on COC?	☐	☐	☐
Samples received within hold time?	☐	☐	☐
NCM Filed?	☐	☐	☐
Log Release checked in TALS?	☐	☐	☐

Initials: _____ Date: _____

Attachment 6

July 13, 2021 Samples

WT-012607-071321-CM-001 (effluent)

WT-012607-071321-CM-002 (effluent)

W-012607-071321-CM-003 (influent)

FB-012607-071321-CM-004 (Field Blank)

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-152769-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
7/23/2021 2:42:37 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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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Detection Summary	6
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Client Sample Results	8
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QC Sample Results	14
Surrogate Summary	17
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Certification Summary	19
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Case Narrative

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Job ID: 240-152769-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-152769-1

Comments

No additional comments.

Receipt

The samples were received on 7/14/2021 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6° C.

GC Semi VOA

Method 608.3: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WT-012607-071321-CM-001 (240-152769-1).

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

Metals

No analytical or quality issues were noted, other than those described 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

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

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Qualifiers

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-152769-1	WT-012607-071321-CM-001	Water	07/13/21 17:00	07/14/21 10:40

1

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Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Client Sample ID: WT-012607-071321-CM-001

Lab Sample ID: 240-152769-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.74		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.70		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
Chromium, hexavalent	1.4		0.050	mg/L	5		3500-Cr B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Method	Method Description	Protocol	Laboratory
608.3	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 BUF
3500-Cr B-2011	Chromium, Hexavalent	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
1664A	HEM and SGT-HEM (SPE)	1664A	TAL BUF
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

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

Laboratory References:

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

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

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

Client Sample ID: WT-012607-071321-CM-001

Date Collected: 07/13/21 17:00

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		07/15/21 10:46	07/19/21 12:58	1
Aroclor-1221	0.095	U	0.095	ug/L		07/15/21 10:46	07/19/21 12:58	1
Aroclor-1232	0.095	U	0.095	ug/L		07/15/21 10:46	07/19/21 12:58	1
Aroclor-1242	0.095	U	0.095	ug/L		07/15/21 10:46	07/19/21 12:58	1
Aroclor-1248	0.095	U	0.095	ug/L		07/15/21 10:46	07/19/21 12:58	1
Aroclor-1254	0.095	U	0.095	ug/L		07/15/21 10:46	07/19/21 12:58	1
Aroclor-1260	0.095	U	0.095	ug/L		07/15/21 10:46	07/19/21 12:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 114			07/15/21 10:46	07/19/21 12:58	1
Tetrachloro-m-xylene	81		15 - 131			07/15/21 10:46	07/19/21 12:58	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

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

Client Sample ID: WT-012607-071321-CM-001

Date Collected: 07/13/21 17:00

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.74		0.050	mg/L		07/15/21 14:00	07/18/21 01:04	1
Nickel	0.70		0.010	mg/L		07/15/21 14:00	07/18/21 01:04	1
Lead	0.050	U	0.050	mg/L		07/15/21 14:00	07/18/21 01:04	1
Zinc	0.020	U	0.020	mg/L		07/15/21 14:00	07/18/21 01:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-071321-CM-001

Date Collected: 07/13/21 17:00

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		07/15/21 14:00	07/20/21 12:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

General Chemistry

Client Sample ID: WT-012607-071321-CM-001

Date Collected: 07/13/21 17:00

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L		07/19/21 08:33	07/19/21 11:05	1
Chromium, hexavalent	1.4		0.050	mg/L			07/14/21 13:39	5
Total Suspended Solids	4.0	U	4.0	mg/L			07/16/21 08:14	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

GC Semi VOA

Prep Batch: 495195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	608	
MB 240-495195/19-A	Method Blank	Total/NA	Water	608	
LCS 240-495195/20-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 495528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	608.3	495195
MB 240-495195/19-A	Method Blank	Total/NA	Water	608.3	495195
LCS 240-495195/20-A	Lab Control Sample	Total/NA	Water	608.3	495195

Metals

Prep Batch: 495175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total Recoverable	Water	200.7	
MB 240-495175/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-495175/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 495180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	245.1	
MB 240-495180/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-495180/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 495502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total Recoverable	Water	200.7 Rev 4.4	495175
MB 240-495175/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	495175
LCS 240-495175/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	495175

Analysis Batch: 495997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	245.1	495180
MB 240-495180/1-A	Method Blank	Total/NA	Water	245.1	495180
LCS 240-495180/2-A	Lab Control Sample	Total/NA	Water	245.1	495180

General Chemistry

Analysis Batch: 494944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	3500-Cr B-2011	
MB 240-494944/3	Method Blank	Total/NA	Water	3500-Cr B-2011	
LCS 240-494944/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2011	

Analysis Batch: 495350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	SM 2540D	
MB 240-495350/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-495350/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Eurofins TestAmerica, Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

General Chemistry

Prep Batch: 589509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	1664A	
MB 480-589509/1-A	Method Blank	Total/NA	Water	1664A	
LCS 480-589509/2-A	Lab Control Sample	Total/NA	Water	1664A	

Analysis Batch: 589552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-1	WT-012607-071321-CM-001	Total/NA	Water	1664A	589509
MB 480-589509/1-A	Method Blank	Total/NA	Water	1664A	589509
LCS 480-589509/2-A	Lab Control Sample	Total/NA	Water	1664A	589509

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

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

Lab Sample ID: MB 240-495195/19-A

Matrix: Water

Analysis Batch: 495528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 495195

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		07/15/21 10:46	07/19/21 12:14	1
Aroclor-1221	0.10	U	0.10	ug/L		07/15/21 10:46	07/19/21 12:14	1
Aroclor-1232	0.10	U	0.10	ug/L		07/15/21 10:46	07/19/21 12:14	1
Aroclor-1242	0.10	U	0.10	ug/L		07/15/21 10:46	07/19/21 12:14	1
Aroclor-1248	0.10	U	0.10	ug/L		07/15/21 10:46	07/19/21 12:14	1
Aroclor-1254	0.10	U	0.10	ug/L		07/15/21 10:46	07/19/21 12:14	1
Aroclor-1260	0.10	U	0.10	ug/L		07/15/21 10:46	07/19/21 12:14	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	108		10 - 114			07/15/21 10:46	07/19/21 12:14	1
Tetrachloro-m-xylene	102		15 - 131			07/15/21 10:46	07/19/21 12:14	1

Lab Sample ID: LCS 240-495195/20-A

Matrix: Water

Analysis Batch: 495528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 495195

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.26		ug/L		90	50 - 140
Aroclor-1260	2.50	2.32		ug/L		93	8 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl	97		10 - 114				
Tetrachloro-m-xylene	92		15 - 131				

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-495175/1-A

Matrix: Water

Analysis Batch: 495502

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 495175

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		07/15/21 14:00	07/18/21 00:12	1
Nickel	0.010	U	0.010	mg/L		07/15/21 14:00	07/18/21 00:12	1
Lead	0.050	U	0.050	mg/L		07/15/21 14:00	07/18/21 00:12	1
Zinc	0.020	U	0.020	mg/L		07/15/21 14:00	07/18/21 00:12	1

Lab Sample ID: LCS 240-495175/2-A

Matrix: Water

Analysis Batch: 495502

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 495175

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.903		mg/L		90	85 - 115
Nickel	1.00	0.925		mg/L		93	85 - 115
Lead	1.00	0.869		mg/L		87	85 - 115
Zinc	1.00	0.960		mg/L		96	85 - 115

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-495180/1-A

Matrix: Water

Analysis Batch: 495997

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 495180

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		07/15/21 14:00	07/20/21 12:18	1

Lab Sample ID: LCS 240-495180/2-A

Matrix: Water

Analysis Batch: 495997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 495180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00489		mg/L		98	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-589509/1-A

Matrix: Water

Analysis Batch: 589552

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 589509

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		07/19/21 08:33	07/19/21 11:05	1

Lab Sample ID: LCS 480-589509/2-A

Matrix: Water

Analysis Batch: 589552

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 589509

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	35.90		mg/L		90	78 - 114

Method: 3500-Cr B-2011 - Chromium, Hexavalent

Lab Sample ID: MB 240-494944/3

Matrix: Water

Analysis Batch: 494944

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	U	0.010	mg/L			07/14/21 09:24	1

Lab Sample ID: LCS 240-494944/4

Matrix: Water

Analysis Batch: 494944

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.250	0.258		mg/L		103	80 - 123

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

Lab Sample ID: MB 240-495350/1

Matrix: Water

Analysis Batch: 495350

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			07/16/21 08:14	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

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

Lab Sample ID: LCS 240-495350/2

Matrix: Water

Analysis Batch: 495350

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	72.4	73.0		mg/L		101	64 - 120

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP1	TCX1
		(10-114)	(15-131)
240-152769-1	WT-012607-071321-CM-001	68	81
LCS 240-495195/20-A	Lab Control Sample	97	92
MB 240-495195/19-A	Method Blank	108	102

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Client Sample ID: WT-012607-071321-CM-001

Lab Sample ID: 240-152769-1

Date Collected: 07/13/21 17:00

Matrix: Water

Date Received: 07/14/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			495195	07/15/21 10:46	MDH	TAL CAN
Total/NA	Analysis	608.3		1	495528	07/19/21 12:58	KMG	TAL CAN
Total Recoverable	Prep	200.7			495175	07/15/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	495502	07/18/21 01:04	DSH	TAL CAN
Total/NA	Prep	245.1			495180	07/15/21 14:00	SHB	TAL CAN
Total/NA	Analysis	245.1		1	495997	07/20/21 12:37	SLD	TAL CAN
Total/NA	Prep	1664A			589509	07/19/21 08:33	MJB	TAL BUF
Total/NA	Analysis	1664A		1	589552	07/19/21 11:05	MJB	TAL BUF
Total/NA	Analysis	3500-Cr B-2011		5	494944	07/14/21 13:39	JMR	TAL CAN
Total/NA	Analysis	SM 2540D		1	495350	07/16/21 08:14	AJ	TAL CAN

Laboratory References:

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

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-21
Iowa	State	421	06-01-21 *
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

Laboratory: Eurofins TestAmerica, 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	07-07-21 *
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	10-01-21
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	01-01-22
Louisiana	NELAP	02031	06-30-22
Maine	State	NY00044	12-05-22
Maryland	State	294	04-02-22
Massachusetts	State	M-NY044	06-30-22
Michigan	State	9937	04-01-22
Michigan	State Program	9937	04-01-09 *
Minnesota	NELAP	1524384	01-01-22
New Hampshire	NELAP	2973	09-11-19 *
New Hampshire	NELAP	2337	11-19-21
New Jersey	NELAP	NY455	06-30-22
New York	NELAP	10026	04-01-22

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

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-1

Laboratory: Eurofins TestAmerica, 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
Oklahoma	State	9421	09-02-21
Oregon	NELAP	NY200003	06-12-22
Pennsylvania	NELAP	68-00281	07-31-21
Rhode Island	State	LAO00328	12-31-21
Tennessee	State	02970	03-31-22
Texas	NELAP	T104704412-18-10	07-31-21
USDA	US Federal Programs	P330-18-00039	02-06-21 *
Virginia	NELAP	460185	09-14-21
Washington	State	C784	02-10-22
Wisconsin	State	998310390	09-01-21

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

Eurofins TestAmerica, Canton

Client Information		Sampler: <u>Meincke</u>		Lab PM: <u>Heckler, Denise D</u>	Carrier Tracking No(s): <u>240-81132-31279.1</u>
Client Contact: <u>Chris Meincke</u>		Phone: <u>248 893-3402</u>		E-Mail: <u>Denise.Heckler@Eurofinset.com</u>	Page: <u>Page 1 of 1</u>
Company: <u>GHD Services Inc.</u>		PWSID: _____		Job #: _____	
Address: <u>26850 Haggerty Rd.</u>		Due Date Requested: _____			
City: <u>Farmington Hills</u>		TAT Requested (days): <u>2 wk</u>			
State, Zip: <u>MI, 48331</u>		Compliance Project: ☐ Yes ☒ No			
Phone: _____		PO #: _____			
Email: <u>chris.meincke@ghd.com</u>		Purchase Order Requested: _____			
Project Name: <u>12607-T37-monthly, RACER Eckles Rd</u>		WO #: <u>12607</u>			
Site: <u>RACER LIVONIA</u>		Project #: <u>24005880</u>			
SSOW#: <u>012607A-T37/21-01</u>		SSOW#: _____			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, B=BIOTASS, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	3500 CR - B - Chromium, Hexavalent	2007 - Hg, Cr, Pb, Ni, Zn	608.3 PCB - PREC - PCBs	2540D - TSS	1664A NP - HEM	PFC, IDA - (MOD) PFAS, Standard List (28 Analytes)	Analysis Requested	Preservation Codes:	Special Instructions/Note:
WT-012607-071321-CM-001	7-13-21	1700	G	Water	X	X	X	X	X	X	X	X		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____	
WT-012607-071321-CM-002		1705		Water								X			
W-012607-071321-CM-003		1710		Water								X			
PB-012607-071321-CM-004		1715		Water								X			
 240-152769 Chain of Custody															

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify) _____		Special Instructions/QC Requirements: _____	
Empty Kit Relinquished by: _____		Time: Date: _____	
Relinquished by: _____		Received by: _____	
Relinquished by: _____		Received by: _____	
Custody Seals Intact: ☐ Yes ☒ No		Cooler Temperature(s) °C and Other Remarks: _____	

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 152769

Client GHD services Site Name _____

Cooler unpacked by: Trent

Cooler Received on 7-14-21 Opened on 7-14-21

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

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

TestAmerica Cooler # 78 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-11 (CF +0.1 °C) Observed Cooler Temp. 3.5 °C Corrected Cooler Temp. 3.6 °C
IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No 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 (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)? Yes No

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# HC022887

14. Were VOAs on the COC? Yes No

15. Were air bubbles >6 mm in any VOA vials? Yes  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

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by: Ryan C

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: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-071321-CM-001	240-152769-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-071321-CM-001	240-152769-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-071321-CM-001	240-152769-G-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

Chain of Custody Record



Client Information (Sub Contract Lab) Client Contact: _____ Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 10 Hazelwood Drive, Amherst, NY 14228-2298 Phone: 716-691-2600(Tel) 716-691-7991(Fax) Email: _____ Project Name: 12607, RACER Eckles Rd Site: _____			Lab PM: Heckler, Denise D E-Mail: Denise.Heckler@Eurofinset.com Carrier Tracking No(s): 240-139616.1 State of Origin: Michigan Page: Page 1 of 1 Job #: 240-152769-1		
Due Date Requested: 7/27/2021 TAT Requested (days): _____ PO #: _____ WO #: _____ Project #: 24005880 SSOW#: _____			Analysis Requested Field Filtered Sample (Yes or No) ☒ Perform MS/MSD (Yes or No) ☒ 1664A_Calc/1664A_SPE HEM ☒		
Sample Identification - Client ID (Lab ID) WT-012607-071321-CM-001 (240-152769-1)			Sample Date 7/13/21		
Sample Time 17:00 Eastern			Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Water		
Sample Type (C=comp, G=grab) _____			Preservation Code _____		
Field Number of containers 2			Special Instructions/Note: _____		

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

Special Instructions/QC Requirements:

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____

Empty Kit Relinquished by:
 Relinquished by: *mm* Date: 7-14-21 1448
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Custody Seals Intact: _____ **Custody Seal No.:** 2,9 #1 ICE
 Δ Yes Δ No

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our 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/testis/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica.

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-152769-1

Login Number: 152769

List Number: 2

Creator: Kolb, Chris M

List Source: Eurofins TestAmerica, Buffalo

List Creation: 07/15/21 12:17 PM

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	2.9 ir gun #1 ice
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	

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-152769-2

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
7/20/2021 8:25:17 AM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

LINKS

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results through

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Job ID: 240-152769-2

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-152769-2

Comments

No additional comments.

Receipt

The samples were received on 7/14/2021 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6° C.

LCMS

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limit. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: W-012607-071321-CM-003 (240-152769-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-507191.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
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.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-152769-2	WT-012607-071321-CM-002	Water	07/13/21 17:05	07/14/21 10:40	
240-152769-3	W-012607-071321-CM-003	Water	07/13/21 17:10	07/14/21 10:40	
240-152769-4	FB-012607-071321-CM-004	Water	07/13/21 17:15	07/14/21 10:40	

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Client Sample ID: WT-012607-071321-CM-002

Lab Sample ID: 240-152769-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	11		4.3	2.0	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.0		1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.8		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.81	J	1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		1.7	0.73	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.34	J	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.55	J	1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.47	J	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.9	I	1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.59	J I	1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	46	I	1.7	0.46	ng/L	1		537 (modified)	Total/NA

Client Sample ID: W-012607-071321-CM-003

Lab Sample ID: 240-152769-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16		4.2	2.0	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.6		1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.3		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.9		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.9		1.7	0.72	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.42	J	1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.34	J	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.3	J	1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.96	J I	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.0	I	1.7	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.3	I	1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	140	I	1.7	0.46	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-012607-071321-CM-004

Lab Sample ID: 240-152769-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-071321-CM-002

Date Collected: 07/13/21 17:05

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	11		4.3	2.0	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluoropentanoic acid (PFPeA)	2.0		1.7	0.42	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorohexanoic acid (PFHxA)	1.8		1.7	0.49	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluoroheptanoic acid (PFHpA)	0.81	J	1.7	0.21	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorooctanoic acid (PFOA)	2.4		1.7	0.73	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorodecanoic acid (PFDA)	0.34	J	1.7	0.26	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.94	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.47	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.62	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorobutanesulfonic acid (PFBS)	0.55	J	1.7	0.17	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluoropentanesulfonic acid (PFPeS)	0.47	J	1.7	0.26	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorohexanesulfonic acid (PFHxS)	1.9	I	1.7	0.49	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.59	J I	1.7	0.16	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorooctanesulfonic acid (PFOS)	46	I	1.7	0.46	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.32	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.27	ng/L		07/15/21 19:26	07/16/21 17:46	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.84	ng/L		07/15/21 19:26	07/16/21 17:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.3	U	4.3	1.0	ng/L		07/15/21 19:26	07/16/21 17:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.3	U	4.3	1.1	ng/L		07/15/21 19:26	07/16/21 17:46	1
4:2 FTS	1.7	U	1.7	0.20	ng/L		07/15/21 19:26	07/16/21 17:46	1
6:2 FTS	4.3	U	4.3	2.1	ng/L		07/15/21 19:26	07/16/21 17:46	1
8:2 FTS	1.7	U	1.7	0.39	ng/L		07/15/21 19:26	07/16/21 17:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.34	ng/L		07/15/21 19:26	07/16/21 17:46	1
HFPO-DA (GenX)	3.4	U	3.4	1.3	ng/L		07/15/21 19:26	07/16/21 17:46	1
F-53B Major	1.7	U	1.7	0.20	ng/L		07/15/21 19:26	07/16/21 17:46	1
F-53B Minor	1.7	U	1.7	0.27	ng/L		07/15/21 19:26	07/16/21 17:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	87		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C5 PFPeA	89		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C2 PFHxA	91		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C4 PFHpA	96		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C4 PFOA	91		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C5 PFNA	97		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C2 PFDA	90		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C2 PFUnA	94		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C2 PFDoA	90		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C2 PFTeDA	89		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C3 PFBS	107		25 - 150	07/15/21 19:26	07/16/21 17:46	1
18O2 PFHxS	100		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C4 PFOS	99		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C8 FOSA	106		25 - 150	07/15/21 19:26	07/16/21 17:46	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: WT-012607-071321-CM-002

Date Collected: 07/13/21 17:05

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-2

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d3-NMeFOSAA	81		25 - 150	07/15/21 19:26	07/16/21 17:46	1
d5-NEtFOSAA	84		25 - 150	07/15/21 19:26	07/16/21 17:46	1
M2-6:2 FTS	141		25 - 150	07/15/21 19:26	07/16/21 17:46	1
M2-8:2 FTS	127		25 - 150	07/15/21 19:26	07/16/21 17:46	1
M2-4:2 FTS	143		25 - 150	07/15/21 19:26	07/16/21 17:46	1
13C3 HFPO-DA	93		25 - 150	07/15/21 19:26	07/16/21 17:46	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: W-012607-071321-CM-003

Date Collected: 07/13/21 17:10

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	16		4.2	2.0	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluoropentanoic acid (PFPeA)	3.6		1.7	0.42	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorohexanoic acid (PFHxA)	3.3		1.7	0.49	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluoroheptanoic acid (PFHpA)	1.9		1.7	0.21	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorooctanoic acid (PFOA)	5.9		1.7	0.72	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorononanoic acid (PFNA)	0.42	J	1.7	0.23	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorodecanoic acid (PFDA)	0.34	J	1.7	0.26	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.93	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.47	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.62	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorobutanesulfonic acid (PFBS)	1.3	J	1.7	0.17	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluoropentanesulfonic acid (PFPeS)	0.96	J I	1.7	0.25	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorohexanesulfonic acid (PFHxS)	7.0	I	1.7	0.48	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.3	I	1.7	0.16	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorooctanesulfonic acid (PFOS)	140	I	1.7	0.46	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.31	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.27	ng/L		07/15/21 19:26	07/16/21 17:55	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.83	ng/L		07/15/21 19:26	07/16/21 17:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.2	U	4.2	1.0	ng/L		07/15/21 19:26	07/16/21 17:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.2	U	4.2	1.1	ng/L		07/15/21 19:26	07/16/21 17:55	1
4:2 FTS	1.7	U	1.7	0.20	ng/L		07/15/21 19:26	07/16/21 17:55	1
6:2 FTS	4.2	U	4.2	2.1	ng/L		07/15/21 19:26	07/16/21 17:55	1
8:2 FTS	1.7	U	1.7	0.39	ng/L		07/15/21 19:26	07/16/21 17:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.34	ng/L		07/15/21 19:26	07/16/21 17:55	1
HFPO-DA (GenX)	3.4	U	3.4	1.3	ng/L		07/15/21 19:26	07/16/21 17:55	1
F-53B Major	1.7	U	1.7	0.20	ng/L		07/15/21 19:26	07/16/21 17:55	1
F-53B Minor	1.7	U	1.7	0.27	ng/L		07/15/21 19:26	07/16/21 17:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	79		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C5 PFPeA	89		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C2 PFHxA	88		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C4 PFHpA	94		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C4 PFOA	92		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C5 PFNA	97		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C2 PFDA	98		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C2 PFUnA	95		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C2 PFDoA	86		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C2 PFTeDA	92		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C3 PFBS	121		25 - 150	07/15/21 19:26	07/16/21 17:55	1
18O2 PFHxS	102		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C4 PFOS	99		25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C8 FOSA	109		25 - 150	07/15/21 19:26	07/16/21 17:55	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: W-012607-071321-CM-003

Date Collected: 07/13/21 17:10

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-3

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d3-NMeFOSAA	78		25 - 150	07/15/21 19:26	07/16/21 17:55	1
d5-NEtFOSAA	82		25 - 150	07/15/21 19:26	07/16/21 17:55	1
M2-6:2 FTS	186	*5+	25 - 150	07/15/21 19:26	07/16/21 17:55	1
M2-8:2 FTS	163	*5+	25 - 150	07/15/21 19:26	07/16/21 17:55	1
M2-4:2 FTS	171	*5+	25 - 150	07/15/21 19:26	07/16/21 17:55	1
13C3 HFPO-DA	94		25 - 150	07/15/21 19:26	07/16/21 17:55	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: FB-012607-071321-CM-004

Date Collected: 07/13/21 17:15

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.1	U	4.1	2.0	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.41	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.48	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.21	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorooctanoic acid (PFOA)	1.7	U	1.7	0.70	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.22	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.26	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.91	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.46	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	1.1	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.61	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorobutanesulfonic acid (PFBS)	1.7	U	1.7	0.17	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluoropentanesulfonic acid (PFPeS)	1.7	U	1.7	0.25	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.47	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.16	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorooctanesulfonic acid (PFOS)	1.7	U	1.7	0.45	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorononanesulfonic acid (PFNS)	1.7	U	1.7	0.31	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.27	ng/L		07/15/21 19:26	07/16/21 18:04	1
Perfluorooctanesulfonamide (FOSA)	1.7	U	1.7	0.81	ng/L		07/15/21 19:26	07/16/21 18:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.1	U	4.1	0.99	ng/L		07/15/21 19:26	07/16/21 18:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.1	U	4.1	1.1	ng/L		07/15/21 19:26	07/16/21 18:04	1
4:2 FTS	1.7	U	1.7	0.20	ng/L		07/15/21 19:26	07/16/21 18:04	1
6:2 FTS	4.1	U	4.1	2.1	ng/L		07/15/21 19:26	07/16/21 18:04	1
8:2 FTS	1.7	U	1.7	0.38	ng/L		07/15/21 19:26	07/16/21 18:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.7	U	1.7	0.33	ng/L		07/15/21 19:26	07/16/21 18:04	1
HFPO-DA (GenX)	3.3	U	3.3	1.2	ng/L		07/15/21 19:26	07/16/21 18:04	1
F-53B Major	1.7	U	1.7	0.20	ng/L		07/15/21 19:26	07/16/21 18:04	1
F-53B Minor	1.7	U	1.7	0.27	ng/L		07/15/21 19:26	07/16/21 18:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	87		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C5 PFPeA	85		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C2 PFHxA	84		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C4 PFHpA	94		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C4 PFOA	88		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C5 PFNA	90		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C2 PFDA	87		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C2 PFUnA	89		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C2 PFDoA	90		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C2 PFTeDA	78		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C3 PFBS	95		25 - 150	07/15/21 19:26	07/16/21 18:04	1
18O2 PFHxS	90		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C4 PFOS	87		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C8 FOSA	93		25 - 150	07/15/21 19:26	07/16/21 18:04	1
d3-NMeFOSAA	78		25 - 150	07/15/21 19:26	07/16/21 18:04	1
d5-NEtFOSAA	77		25 - 150	07/15/21 19:26	07/16/21 18:04	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: FB-012607-071321-CM-004

Date Collected: 07/13/21 17:15

Date Received: 07/14/21 10:40

Lab Sample ID: 240-152769-4

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	92		25 - 150	07/15/21 19:26	07/16/21 18:04	1
M2-8:2 FTS	99		25 - 150	07/15/21 19:26	07/16/21 18:04	1
M2-4:2 FTS	85		25 - 150	07/15/21 19:26	07/16/21 18:04	1
13C3 HFPO-DA	86		25 - 150	07/15/21 19:26	07/16/21 18:04	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

LCMS

Prep Batch: 507191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-2	WT-012607-071321-CM-002	Total/NA	Water	3535	
240-152769-3	W-012607-071321-CM-003	Total/NA	Water	3535	
240-152769-4	FB-012607-071321-CM-004	Total/NA	Water	3535	
MB 320-507191/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-507191/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-507191/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 507447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-152769-2	WT-012607-071321-CM-002	Total/NA	Water	537 (modified)	507191
240-152769-3	W-012607-071321-CM-003	Total/NA	Water	537 (modified)	507191
240-152769-4	FB-012607-071321-CM-004	Total/NA	Water	537 (modified)	507191
MB 320-507191/1-A	Method Blank	Total/NA	Water	537 (modified)	507191
LCS 320-507191/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	507191
LCSD 320-507191/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	507191

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-507191/1-A

Matrix: Water

Analysis Batch: 507447

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0	U	5.0	2.4	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.73	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.57	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.37	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		07/15/21 19:26	07/16/21 17:19	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.98	ng/L		07/15/21 19:26	07/16/21 17:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.0	U	5.0	1.2	ng/L		07/15/21 19:26	07/16/21 17:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.0	U	5.0	1.3	ng/L		07/15/21 19:26	07/16/21 17:19	1
4:2 FTS	2.0	U	2.0	0.24	ng/L		07/15/21 19:26	07/16/21 17:19	1
6:2 FTS	5.0	U	5.0	2.5	ng/L		07/15/21 19:26	07/16/21 17:19	1
8:2 FTS	2.0	U	2.0	0.46	ng/L		07/15/21 19:26	07/16/21 17:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.40	ng/L		07/15/21 19:26	07/16/21 17:19	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		07/15/21 19:26	07/16/21 17:19	1
F-53B Major	2.0	U	2.0	0.24	ng/L		07/15/21 19:26	07/16/21 17:19	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		07/15/21 19:26	07/16/21 17:19	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	85		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C5 PFPeA	81		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C2 PFHxA	80		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C4 PFHpA	84		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C4 PFOA	82		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C5 PFNA	85		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C2 PFDA	86		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C2 PFUnA	81		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C2 PFDoA	88		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C2 PFTeDA	84		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C3 PFBS	91		25 - 150	07/15/21 19:26	07/16/21 17:19	1
18O2 PFHxS	84		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C4 PFOS	86		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C8 FOSA	87		25 - 150	07/15/21 19:26	07/16/21 17:19	1
d3-NMeFOSAA	72		25 - 150	07/15/21 19:26	07/16/21 17:19	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-507191/1-A

Matrix: Water

Analysis Batch: 507447

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507191

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	75		25 - 150	07/15/21 19:26	07/16/21 17:19	1
M2-6:2 FTS	81		25 - 150	07/15/21 19:26	07/16/21 17:19	1
M2-8:2 FTS	88		25 - 150	07/15/21 19:26	07/16/21 17:19	1
M2-4:2 FTS	74		25 - 150	07/15/21 19:26	07/16/21 17:19	1
13C3 HFPO-DA	83		25 - 150	07/15/21 19:26	07/16/21 17:19	1

Lab Sample ID: LCS 320-507191/2-A

Matrix: Water

Analysis Batch: 507447

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	41.3		ng/L		103	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	42.7		ng/L		107	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	42.1		ng/L		105	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	44.6		ng/L		111	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	44.4		ng/L		111	70 - 130
Perfluorononanoic acid (PFNA)	40.0	43.0		ng/L		107	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	45.8		ng/L		115	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	48.2		ng/L		120	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	43.8		ng/L		109	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	37.6		ng/L		94	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	40.1		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	34.3		ng/L		97	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	33.3		ng/L		89	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.5		ng/L		103	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.8		ng/L		107	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	39.9		ng/L		107	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	40.0		ng/L		104	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	40.3		ng/L		105	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	41.2		ng/L		103	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	43.6		ng/L		109	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	44.9		ng/L		112	76 - 136
4:2 FTS	37.4	38.3		ng/L		103	79 - 139
6:2 FTS	37.9	39.3		ng/L		104	59 - 175
8:2 FTS	38.3	43.9		ng/L		114	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	39.3		ng/L		104	79 - 139
HFPO-DA (GenX)	40.0	43.8		ng/L		110	51 - 173
F-53B Major	37.3	39.1		ng/L		105	75 - 135

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-507191/2-A

Matrix: Water

Analysis Batch: 507447

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	34.1		ng/L		90	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	88		25 - 150				
13C5 PFPeA	89		25 - 150				
13C2 PFHxA	87		25 - 150				
13C4 PFHpA	86		25 - 150				
13C4 PFOA	89		25 - 150				
13C5 PFNA	91		25 - 150				
13C2 PFDA	84		25 - 150				
13C2 PFUnA	83		25 - 150				
13C2 PFDoA	85		25 - 150				
13C2 PFTeDA	85		25 - 150				
13C3 PFBS	99		25 - 150				
18O2 PFHxS	92		25 - 150				
13C4 PFOS	92		25 - 150				
13C8 FOSA	93		25 - 150				
d3-NMeFOSAA	77		25 - 150				
d5-NEtFOSAA	80		25 - 150				
M2-6:2 FTS	85		25 - 150				
M2-8:2 FTS	91		25 - 150				
M2-4:2 FTS	76		25 - 150				
13C3 HFPO-DA	88		25 - 150				

Lab Sample ID: LCSD 320-507191/3-A

Matrix: Water

Analysis Batch: 507447

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	42.8		ng/L		107	76 - 136	4	30
Perfluoropentanoic acid (PFPeA)	40.0	43.5		ng/L		109	71 - 131	2	30
Perfluorohexanoic acid (PFHxA)	40.0	43.6		ng/L		109	73 - 133	4	30
Perfluoroheptanoic acid (PFHpA)	40.0	42.8		ng/L		107	72 - 132	4	30
Perfluorooctanoic acid (PFOA)	40.0	45.2		ng/L		113	70 - 130	2	30
Perfluorononanoic acid (PFNA)	40.0	44.2		ng/L		110	75 - 135	3	30
Perfluorodecanoic acid (PFDA)	40.0	45.5		ng/L		114	76 - 136	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	45.8		ng/L		114	68 - 128	5	30
Perfluorododecanoic acid (PFDoA)	40.0	40.7		ng/L		102	71 - 131	7	30
Perfluorotridecanoic acid (PFTriA)	40.0	37.7		ng/L		94	71 - 131	0	30
Perfluorotetradecanoic acid (PFTeA)	40.0	42.7		ng/L		107	70 - 130	6	30
Perfluorobutanesulfonic acid (PFBS)	35.4	33.2		ng/L		94	67 - 127	3	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	33.9		ng/L		90	66 - 126	2	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.1		ng/L		102	59 - 119	1	30

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-507191/3-A

Matrix: Water

Analysis Batch: 507447

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.4		ng/L		109	76 - 136	1	30
Perfluorooctanesulfonic acid (PFOS)	37.1	41.1		ng/L		111	70 - 130	3	30
Perfluorononanesulfonic acid (PFNS)	38.4	41.4		ng/L		108	75 - 135	3	30
Perfluorodecanesulfonic acid (PFDS)	38.6	37.4		ng/L		97	71 - 131	8	30
Perfluorooctanesulfonamide (FOSA)	40.0	40.4		ng/L		101	73 - 133	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	43.1		ng/L		108	76 - 136	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	44.1		ng/L		110	76 - 136	2	30
4:2 FTS	37.4	35.7		ng/L		96	79 - 139	7	30
6:2 FTS	37.9	40.4		ng/L		107	59 - 175	3	30
8:2 FTS	38.3	44.9		ng/L		117	75 - 135	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	40.5		ng/L		107	79 - 139	3	30
HFPO-DA (GenX)	40.0	44.8		ng/L		112	51 - 173	2	30
F-53B Major	37.3	37.2		ng/L		100	75 - 135	5	30
F-53B Minor	37.7	33.8		ng/L		90	54 - 114	1	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	93		25 - 150
13C5 PFPeA	93		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	96		25 - 150
13C4 PFOA	93		25 - 150
13C5 PFNA	95		25 - 150
13C2 PFDA	91		25 - 150
13C2 PFUnA	96		25 - 150
13C2 PFDoA	87		25 - 150
13C2 PFTeDA	87		25 - 150
13C3 PFBS	105		25 - 150
18O2 PFHxS	98		25 - 150
13C4 PFOS	96		25 - 150
13C8 FOSA	95		25 - 150
d3-NMeFOSAA	77		25 - 150
d5-NEtFOSAA	78		25 - 150
M2-6:2 FTS	89		25 - 150
M2-8:2 FTS	83		25 - 150
M2-4:2 FTS	86		25 - 150
13C3 HFPO-DA	91		25 - 150

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Client Sample ID: WT-012607-071321-CM-002

Lab Sample ID: 240-152769-2

Date Collected: 07/13/21 17:05

Matrix: Water

Date Received: 07/14/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			507191	07/15/21 19:26	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	507447	07/16/21 17:46	RS1	TAL SAC

Client Sample ID: W-012607-071321-CM-003

Lab Sample ID: 240-152769-3

Date Collected: 07/13/21 17:10

Matrix: Water

Date Received: 07/14/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			507191	07/15/21 19:26	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	507447	07/16/21 17:55	RS1	TAL SAC

Client Sample ID: FB-012607-071321-CM-004

Lab Sample ID: 240-152769-4

Date Collected: 07/13/21 17:15

Matrix: Water

Date Received: 07/14/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			507191	07/15/21 19:26	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	507447	07/16/21 18:04	RS1	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-22
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA000442021-2	07-31-21
New Hampshire	NELAP	2997	04-18-22
New Jersey	NELAP	CA005	06-30-22
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	05-31-22
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-22
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 152769

Client GHD services Site Name _____ Cooler unpacked by: Trent
Cooler Received on 7-14-21 Opened on 7-14-21
FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

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

TestAmerica Cooler # 78 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-11 (CF +0.1 °C) Observed Cooler Temp. 3.5 °C Corrected Cooler Temp. 3.6 °C
IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 ☒ Yes ☐ No
-Were the seals on the outside of the cooler(s) signed & dated? ☒ Yes ☐ No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? ☒ Yes ☐ No 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 (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)? ☒ Yes ☐ No
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# HC022887
14. Were VOAs on the COC? ☒ Yes ☐ No
15. Were air bubbles >6 mm in any VOA vials? ☒ Yes ☐ No NA Larger than this.
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 Ryan C

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: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-071321-CM-001	240-152769-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-071321-CM-001	240-152769-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-071321-CM-001	240-152769-G-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____



Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-152769-2

Login Number: 152769

List Number: 3

Creator: Cahill, Nicholas P

List Source: Eurofins TestAmerica, Sacramento

List Creation: 07/15/21 02:46 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-152769-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-152769-2	WT-012607-071321-CM-002	87	89	91	96	91	97	90	94
240-152769-3	W-012607-071321-CM-003	79	89	88	94	92	97	98	95
240-152769-4	FB-012607-071321-CM-004	87	85	84	94	88	90	87	89
LCS 320-507191/2-A	Lab Control Sample	88	89	87	86	89	91	84	83
LCSD 320-507191/3-A	Lab Control Sample Dup	93	93	91	96	93	95	91	96
MB 320-507191/1-A	Method Blank	85	81	80	84	82	85	86	81

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
240-152769-2	WT-012607-071321-CM-002	90	89	107	100	99	106	81	84
240-152769-3	W-012607-071321-CM-003	86	92	121	102	99	109	78	82
240-152769-4	FB-012607-071321-CM-004	90	78	95	90	87	93	78	77
LCS 320-507191/2-A	Lab Control Sample	85	85	99	92	92	93	77	80
LCSD 320-507191/3-A	Lab Control Sample Dup	87	87	105	98	96	95	77	78
MB 320-507191/1-A	Method Blank	88	84	91	84	86	87	72	75

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-152769-2	WT-012607-071321-CM-002	141	127	143	93
240-152769-3	W-012607-071321-CM-003	186 *5+	163 *5+	171 *5+	94
240-152769-4	FB-012607-071321-CM-004	92	99	85	86
LCS 320-507191/2-A	Lab Control Sample	85	91	76	88
LCSD 320-507191/3-A	Lab Control Sample Dup	89	83	86	91
MB 320-507191/1-A	Method Blank	81	88	74	83

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA



Environment Testing
TestAmerica

Sacramento Sample Receiving Notes



240-152769 Field Sheet

Tracking #: 914875051425

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Job: _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-07 Corr. Factor: (+/-) _____ °C

Ice / Wet / Gel _____ Other _____

Cooler Custody Seal: _____

Cooler ID: _____

Temp Observed: 0.8 °C Corrected: 0.8 °C
From: Temp Blank ☐ Sample ☒

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials: DS Date: 7/15/21

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

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

Initials: DS Date: 7/15/21

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☐	☐	☒
Log Release checked in TALS?	☒	☐	☐

Initials: DS Date: 7/15/21

Attachment 7

August 03, 2021 Samples

WT-012607-080321-CM-001 (effluent)

WT-012607-080321-CM-002 (effluent)

W-012607-080321-CM-003 (influent)

FB-012607-080321-CM-004 (Field Blank)

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-153880-1

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
8/12/2021 2:54:12 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

LINKS

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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: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Job ID: 240-153880-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-153880-1

Comments

No additional comments.

Receipt

The samples were received on 8/4/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

GC Semi VOA

Method 608.3: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WT-012607-080321-CM-001 (240-153880-1).

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

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

Organic Prep

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

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Qualifiers

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-153880-1	WT-012607-080321-CM-001	Water	08/03/21 16:30	08/04/21 10:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Client Sample ID: WT-012607-080321-CM-001

Lab Sample ID: 240-153880-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.45		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.53		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
Chromium, hexavalent	0.26		0.010	mg/L	1		3500-Cr B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Method	Method Description	Protocol	Laboratory
608.3	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 BUF
3500-Cr B-2011	Chromium, Hexavalent	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
1664A	HEM and SGT-HEM (SPE)	1664A	TAL BUF
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

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

Laboratory References:

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

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

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

Client Sample ID: WT-012607-080321-CM-001

Date Collected: 08/03/21 16:30

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		08/09/21 08:29	08/11/21 09:57	1
Aroclor-1221	0.095	U	0.095	ug/L		08/09/21 08:29	08/11/21 09:57	1
Aroclor-1232	0.095	U	0.095	ug/L		08/09/21 08:29	08/11/21 09:57	1
Aroclor-1242	0.095	U	0.095	ug/L		08/09/21 08:29	08/11/21 09:57	1
Aroclor-1248	0.095	U	0.095	ug/L		08/09/21 08:29	08/11/21 09:57	1
Aroclor-1254	0.095	U	0.095	ug/L		08/09/21 08:29	08/11/21 09:57	1
Aroclor-1260	0.095	U	0.095	ug/L		08/09/21 08:29	08/11/21 09:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	23		10 - 114			08/09/21 08:29	08/11/21 09:57	1
Tetrachloro-m-xylene	58		15 - 131			08/09/21 08:29	08/11/21 09:57	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

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

Client Sample ID: WT-012607-080321-CM-001

Date Collected: 08/03/21 16:30

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.45		0.050	mg/L		08/05/21 15:30	08/06/21 16:00	1
Nickel	0.53		0.010	mg/L		08/05/21 15:30	08/06/21 16:00	1
Lead	0.050	U	0.050	mg/L		08/05/21 15:30	08/06/21 16:00	1
Zinc	0.020	U	0.020	mg/L		08/05/21 15:30	08/06/21 16:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-080321-CM-001

Date Collected: 08/03/21 16:30

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		08/05/21 15:30	08/06/21 10:59	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

General Chemistry

Client Sample ID: WT-012607-080321-CM-001

Date Collected: 08/03/21 16:30

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L		08/11/21 08:31	08/11/21 14:19	1
Chromium, hexavalent	0.26		0.010	mg/L			08/04/21 11:23	1
Total Suspended Solids	4.0	U	4.0	mg/L			08/09/21 09:24	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

GC Semi VOA

Prep Batch: 498604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	608	
MB 240-498604/24-A	Method Blank	Total/NA	Water	608	
LCS 240-498604/25-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 498941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	608.3	498604
MB 240-498604/24-A	Method Blank	Total/NA	Water	608.3	498604
LCS 240-498604/25-A	Lab Control Sample	Total/NA	Water	608.3	498604

Metals

Prep Batch: 498244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total Recoverable	Water	200.7	
MB 240-498244/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-498244/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
240-153880-1 MS	WT-012607-080321-CM-001	Total Recoverable	Water	200.7	
240-153880-1 MSD	WT-012607-080321-CM-001	Total Recoverable	Water	200.7	

Prep Batch: 498250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	245.1	
MB 240-498250/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-498250/2-A	Lab Control Sample	Total/NA	Water	245.1	
240-153880-1 MS	WT-012607-080321-CM-001	Total/NA	Water	245.1	
240-153880-1 MSD	WT-012607-080321-CM-001	Total/NA	Water	245.1	

Analysis Batch: 498484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	245.1	498250
MB 240-498250/1-A	Method Blank	Total/NA	Water	245.1	498250
LCS 240-498250/2-A	Lab Control Sample	Total/NA	Water	245.1	498250
240-153880-1 MS	WT-012607-080321-CM-001	Total/NA	Water	245.1	498250
240-153880-1 MSD	WT-012607-080321-CM-001	Total/NA	Water	245.1	498250

Analysis Batch: 498503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total Recoverable	Water	200.7 Rev 4.4	498244
MB 240-498244/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	498244
LCS 240-498244/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	498244
240-153880-1 MS	WT-012607-080321-CM-001	Total Recoverable	Water	200.7 Rev 4.4	498244
240-153880-1 MSD	WT-012607-080321-CM-001	Total Recoverable	Water	200.7 Rev 4.4	498244

General Chemistry

Analysis Batch: 498099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	3500-Cr B-2011	
MB 240-498099/3	Method Blank	Total/NA	Water	3500-Cr B-2011	
LCS 240-498099/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2011	
240-153880-1 MS	WT-012607-080321-CM-001	Total/NA	Water	3500-Cr B-2011	

Eurofins TestAmerica, Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

General Chemistry (Continued)

Analysis Batch: 498099 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1 MSD	WT-012607-080321-CM-001	Total/NA	Water	3500-Cr B-2011	

Analysis Batch: 498634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	SM 2540D	
MB 240-498634/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-498634/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Prep Batch: 592455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	1664A	
MB 480-592455/1-A	Method Blank	Total/NA	Water	1664A	
LCS 480-592455/2-A	Lab Control Sample	Total/NA	Water	1664A	

Analysis Batch: 592541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-1	WT-012607-080321-CM-001	Total/NA	Water	1664A	592455
MB 480-592455/1-A	Method Blank	Total/NA	Water	1664A	592455
LCS 480-592455/2-A	Lab Control Sample	Total/NA	Water	1664A	592455

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

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

Lab Sample ID: MB 240-498604/24-A

Matrix: Water

Analysis Batch: 498941

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 498604

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		08/09/21 08:37	08/11/21 07:44	1
Aroclor-1221	0.10	U	0.10	ug/L		08/09/21 08:37	08/11/21 07:44	1
Aroclor-1232	0.10	U	0.10	ug/L		08/09/21 08:37	08/11/21 07:44	1
Aroclor-1242	0.10	U	0.10	ug/L		08/09/21 08:37	08/11/21 07:44	1
Aroclor-1248	0.10	U	0.10	ug/L		08/09/21 08:37	08/11/21 07:44	1
Aroclor-1254	0.10	U	0.10	ug/L		08/09/21 08:37	08/11/21 07:44	1
Aroclor-1260	0.10	U	0.10	ug/L		08/09/21 08:37	08/11/21 07:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		10 - 114	08/09/21 08:37	08/11/21 07:44	1
Tetrachloro-m-xylene	64		15 - 131	08/09/21 08:37	08/11/21 07:44	1

Lab Sample ID: LCS 240-498604/25-A

Matrix: Water

Analysis Batch: 498941

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 498604

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	1.43		ug/L		57	50 - 140
Aroclor-1260	2.50	1.52		ug/L		61	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	53		10 - 114
Tetrachloro-m-xylene	62		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-498244/1-A

Matrix: Water

Analysis Batch: 498503

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 498244

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		08/05/21 15:30	08/06/21 15:52	1
Nickel	0.010	U	0.010	mg/L		08/05/21 15:30	08/06/21 15:52	1
Lead	0.050	U	0.050	mg/L		08/05/21 15:30	08/06/21 15:52	1
Zinc	0.020	U	0.020	mg/L		08/05/21 15:30	08/06/21 15:52	1

Lab Sample ID: LCS 240-498244/2-A

Matrix: Water

Analysis Batch: 498503

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 498244

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.969		mg/L		97	85 - 115
Nickel	1.00	0.938		mg/L		94	85 - 115
Lead	1.00	0.924		mg/L		92	85 - 115
Zinc	1.00	0.944		mg/L		94	85 - 115

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

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

Lab Sample ID: 240-153880-1 MS

Matrix: Water

Analysis Batch: 498503

Client Sample ID: WT-012607-080321-CM-001

Prep Type: Total Recoverable

Prep Batch: 498244

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.45		1.00	1.51		mg/L		106	70 - 130
Nickel	0.53		1.00	1.56		mg/L		103	70 - 130
Lead	0.050	U	1.00	0.931		mg/L		93	70 - 130
Zinc	0.020	U	1.00	0.998		mg/L		100	70 - 130

Lab Sample ID: 240-153880-1 MSD

Matrix: Water

Analysis Batch: 498503

Client Sample ID: WT-012607-080321-CM-001

Prep Type: Total Recoverable

Prep Batch: 498244

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.45		1.00	1.49		mg/L		104	70 - 130	1	20
Nickel	0.53		1.00	1.56		mg/L		102	70 - 130	0	20
Lead	0.050	U	1.00	0.920		mg/L		92	70 - 130	1	20
Zinc	0.020	U	1.00	1.01		mg/L		101	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-498250/1-A

Matrix: Water

Analysis Batch: 498484

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 498250

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		08/05/21 15:30	08/06/21 10:55	1

Lab Sample ID: LCS 240-498250/2-A

Matrix: Water

Analysis Batch: 498484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 498250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00520		mg/L		104	85 - 115

Lab Sample ID: 240-153880-1 MS

Matrix: Water

Analysis Batch: 498484

Client Sample ID: WT-012607-080321-CM-001

Prep Type: Total/NA

Prep Batch: 498250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00100	0.00110		mg/L		110	70 - 130

Lab Sample ID: 240-153880-1 MSD

Matrix: Water

Analysis Batch: 498484

Client Sample ID: WT-012607-080321-CM-001

Prep Type: Total/NA

Prep Batch: 498250

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00020	U	0.00100	0.00104		mg/L		104	70 - 130	5	20

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-592455/1-A

Matrix: Water

Analysis Batch: 592541

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 592455

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		08/11/21 08:31	08/11/21 14:19	1

Lab Sample ID: LCS 480-592455/2-A

Matrix: Water

Analysis Batch: 592541

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 592455

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

Method: 3500-Cr B-2011 - Chromium, Hexavalent

Lab Sample ID: MB 240-498099/3

Matrix: Water

Analysis Batch: 498099

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	U	0.010	mg/L			08/04/21 11:23	1

Lab Sample ID: LCS 240-498099/4

Matrix: Water

Analysis Batch: 498099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.250	0.262		mg/L		105	80 - 123

Lab Sample ID: 240-153880-1 MS

Matrix: Water

Analysis Batch: 498099

Client Sample ID: WT-012607-080321-CM-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.26		0.250	0.548		mg/L		117	31 - 151

Lab Sample ID: 240-153880-1 MSD

Matrix: Water

Analysis Batch: 498099

Client Sample ID: WT-012607-080321-CM-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium, hexavalent	0.26		0.250	0.519		mg/L		105	31 - 151	6	20

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

Lab Sample ID: MB 240-498634/1

Matrix: Water

Analysis Batch: 498634

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			08/09/21 09:24	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

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

Lab Sample ID: LCS 240-498634/2

Matrix: Water

Analysis Batch: 498634

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	72.4	68.0		mg/L		94	64 - 120

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP2 (10-114)	TCX2 (15-131)
240-153880-1	WT-012607-080321-CM-001	23	58
LCS 240-498604/25-A	Lab Control Sample	53	62
MB 240-498604/24-A	Method Blank	72	64

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Client Sample ID: WT-012607-080321-CM-001

Lab Sample ID: 240-153880-1

Date Collected: 08/03/21 16:30

Matrix: Water

Date Received: 08/04/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			498604	08/09/21 08:29	BMB	TAL CAN
Total/NA	Analysis	608.3		1	498941	08/11/21 09:57	CSC	TAL CAN
Total Recoverable	Prep	200.7			498244	08/05/21 15:30	SHB	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	498503	08/06/21 16:00	KLC	TAL CAN
Total/NA	Prep	245.1			498250	08/05/21 15:30	SHB	TAL CAN
Total/NA	Analysis	245.1		1	498484	08/06/21 10:59	MRL	TAL CAN
Total/NA	Prep	1664A			592455	08/11/21 08:31	MJB	TAL BUF
Total/NA	Analysis	1664A		1	592541	08/11/21 14:19	MJB	TAL BUF
Total/NA	Analysis	3500-Cr B-2011		1	498099	08/04/21 11:23	KLR	TAL CAN
Total/NA	Analysis	SM 2540D		1	498634	08/09/21 09:24	AJ	TAL CAN

Laboratory References:

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

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

Laboratory: Eurofins TestAmerica, 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	07-07-21 *
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	10-01-21
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	01-01-22
Louisiana	NELAP	02031	06-30-22
Maine	State	NY00044	12-05-22
Maryland	State	294	04-02-22
Massachusetts	State	M-NY044	06-30-22
Michigan	State	9937	04-01-22
Michigan	State Program	9937	04-01-09 *
Minnesota	NELAP	1524384	01-01-22
New Hampshire	NELAP	2973	09-11-19 *
New Hampshire	NELAP	2337	11-19-21
New Jersey	NELAP	NY455	06-30-22
New York	NELAP	10026	04-01-22

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

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-1

Laboratory: Eurofins TestAmerica, 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
Oklahoma	State	9421	09-02-21
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	09-14-21
Washington	State	C784	02-10-22
Wisconsin	State	998310390	09-01-21

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 153880

Client GHD Site Name _____ Cooler unpacked by: Mat
Cooler Received on 8-4-21 Opened on 8-4-21
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

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

TestAmerica Cooler # 110 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-11 (CF +0.1 °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 3.7 °C
IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 ☒ Yes ☐ No
-Were the seals on the outside of the cooler(s) signed & dated? ☒ Yes ☐ No ☐ NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? ☒ Yes ☐ No ☐ 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 (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)? ☒ Yes ☐ No
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 ☐ NA
15. Were air bubbles >6 mm in any VOA vials? ☒ Yes ☐ No ☐ NA  Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ ☒ Yes ☐ No ☐ NA
17. Was a LL Hg or Me Hg trip blank present? ☒ Yes ☐ No ☐ NA

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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-080321-CM-001	240-153880-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-080321-CM-001	240-153880-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-080321-CM-001	240-153880-G-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record



eurofins

Client Information (Sub Contract Lab)				Sampler: Lab PM: Heckler, Denise D		Carrier Tracking No(s):		COC No: 240-140645.1	
Client Contact: Shipping/Receiving				Phone: E-Mail: Denise.Heckler@Eurofins.com		State of Origin: Michigan		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.				Address: 10 Hazelwood Drive, Amherst, NY, 14228-2298		Phone: 716-691-2600(Tel) 716-691-7991(Fax)		Job #: 240-153880-1	
Due Date Requested: 8/17/2021				TAT Requested (days):		PO #:		WO #:	
Project Name: 12607-T37, RACER Eckles Rd				Project #: 24005880		SSOW#:		Preservation Codes:	
Site:				Sample Date: 8/3/21		Sample Time: 16:30 Eastern		Sample Type (C=comp, G=grab):	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type	
WWT-012607-080321-CM-001 (240-153880-1)				8/3/21		16:30 Eastern		G=grab	
Matrix (W=water, S=solid, O=other)				Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Water						X		1664A_Calc/1664A_SPE HEM	
Total Number of containers				2		Special Instructions/Note:			
A - HCL				M - Hexane		N - None		O - AsNaO2	
B - NaOH				P - Na2O4S		Q - Na2SO3		R - Na2SO4	
C - Zn Acetate				S - H2SO4		T - TSP Dodecahydrate		U - Acetone	
D - Nitric Acid				V - MCAA		W - pH 4-5		Z - other (specify)	
E - NaHSO4				F - MeOH		G - Anchlor		H - Ascorbic Acid	
I - Ice				J - DI Water		K - EDTA		L - EDA	
Other:									

Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months	
Primary Deliverable Rank: 2		Special Instructions/QC Requirements:	
Date:		Time:	
Date/Time: 8-4-21 13:44		Date/Time: 8-5-21 1000	
Company: Eurofins		Company: Eurofins	
Date/Time:		Date/Time:	
Date/Time:		Date/Time:	
Custody Seal No.: Δ Yes Δ No		Custody Seal No.: Δ Yes Δ No	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-153880-1

Login Number: 153880

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

List Creation: 08/05/21 01:10 PM

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	2.4 ICE 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	

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-153880-2

Client Project/Site: 12607-T37, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
8/18/2021 8:19:28 AM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Job ID: 240-153880-2

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-153880-2

Comments

No additional comments.

Receipt

The samples were received on 8/4/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

LCMS

Method 537 (modified): The "I" qualifier means the transition mass ratios for the indicated analytes were outside of the established ratio limits. The qualitative identification of the analytes have some degree of uncertainty, and the reported values may have some high bias. However, analyst judgment was used to positively identify the analytes.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: W-012607-080321-CM-003 (240-153880-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-514342 and 320-514342.

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: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Sample Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-153880-2	WT-012607-080321-CM-002	Water	08/03/21 16:35	08/04/21 10:00
240-153880-3	W-012607-080321-CM-003	Water	08/03/21 16:40	08/04/21 10:00
240-153880-4	FB-012607-080321-CM-004	Water	08/03/21 16:45	08/04/21 10:00

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Detection Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Client Sample ID: WT-012607-080321-CM-002

Lab Sample ID: 240-153880-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	13		4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.8		1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.7		1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.1		1.9	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.95	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.45	J	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.1	I	1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.69	J I	1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	47	I	1.9	0.51	ng/L	1		537 (modified)	Total/NA

Client Sample ID: W-012607-080321-CM-003

Lab Sample ID: 240-153880-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	14		4.6	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.8		1.8	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.5		1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.7		1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	6.7		1.8	0.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.54	J	1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.4	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.77	J	1.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.5	I	1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	I	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	130	I	1.8	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-012607-080321-CM-004

Lab Sample ID: 240-153880-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-080321-CM-002

Date Collected: 08/03/21 16:35

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	13		4.7	2.3	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluoropentanoic acid (PFPeA)	2.8		1.9	0.46	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorohexanoic acid (PFHxA)	2.7		1.9	0.55	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.9	0.24	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorooctanoic acid (PFOA)	3.1		1.9	0.80	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorononanoic acid (PFNA)	1.9	U	1.9	0.26	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.29	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.0	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.52	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	1.2	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.69	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorobutanesulfonic acid (PFBS)	0.95	J	1.9	0.19	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluoropentanesulfonic acid (PFPeS)	0.45	J	1.9	0.28	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorohexanesulfonic acid (PFHxS)	2.1	I	1.9	0.54	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.69	J I	1.9	0.18	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorooctanesulfonic acid (PFOS)	47	I	1.9	0.51	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.35	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.30	ng/L		08/09/21 04:45	08/13/21 16:34	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.93	ng/L		08/09/21 04:45	08/13/21 16:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.7	U	4.7	1.1	ng/L		08/09/21 04:45	08/13/21 16:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.7	U	4.7	1.2	ng/L		08/09/21 04:45	08/13/21 16:34	1
4:2 FTS	1.9	U	1.9	0.23	ng/L		08/09/21 04:45	08/13/21 16:34	1
6:2 FTS	4.7	U	4.7	2.4	ng/L		08/09/21 04:45	08/13/21 16:34	1
8:2 FTS	1.9	U	1.9	0.44	ng/L		08/09/21 04:45	08/13/21 16:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.38	ng/L		08/09/21 04:45	08/13/21 16:34	1
HFPO-DA (GenX)	3.8	U	3.8	1.4	ng/L		08/09/21 04:45	08/13/21 16:34	1
F-53B Major	1.9	U	1.9	0.23	ng/L		08/09/21 04:45	08/13/21 16:34	1
F-53B Minor	1.9	U	1.9	0.30	ng/L		08/09/21 04:45	08/13/21 16:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	85		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C5 PFPeA	94		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C2 PFHxA	92		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C4 PFHpA	101		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C4 PFOA	96		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C5 PFNA	96		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C2 PFDA	99		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C2 PFUnA	94		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C2 PFDoA	89		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C2 PFTeDA	87		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C3 PFBS	111		25 - 150	08/09/21 04:45	08/13/21 16:34	1
18O2 PFHxS	92		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C4 PFOS	83		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C8 FOSA	96		25 - 150	08/09/21 04:45	08/13/21 16:34	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: WT-012607-080321-CM-002

Date Collected: 08/03/21 16:35

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-2

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d3-NMeFOSAA	85		25 - 150	08/09/21 04:45	08/13/21 16:34	1
d5-NEtFOSAA	98		25 - 150	08/09/21 04:45	08/13/21 16:34	1
M2-6:2 FTS	118		25 - 150	08/09/21 04:45	08/13/21 16:34	1
M2-8:2 FTS	94		25 - 150	08/09/21 04:45	08/13/21 16:34	1
M2-4:2 FTS	150		25 - 150	08/09/21 04:45	08/13/21 16:34	1
13C3 HFPO-DA	101		25 - 150	08/09/21 04:45	08/13/21 16:34	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: W-012607-080321-CM-003

Date Collected: 08/03/21 16:40

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	14		4.6	2.2	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluoropentanoic acid (PFPeA)	3.8		1.8	0.45	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorohexanoic acid (PFHxA)	4.5		1.8	0.53	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluoroheptanoic acid (PFHpA)	2.7		1.8	0.23	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorooctanoic acid (PFOA)	6.7		1.8	0.78	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorononanoic acid (PFNA)	0.54	J	1.8	0.25	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.29	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	1.0	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.51	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	1.2	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.67	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorobutanesulfonic acid (PFBS)	1.4	J	1.8	0.18	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluoropentanesulfonic acid (PFPeS)	0.77	J	1.8	0.28	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorohexanesulfonic acid (PFHxS)	5.5	I	1.8	0.53	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	I	1.8	0.18	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorooctanesulfonic acid (PFOS)	130	I	1.8	0.50	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorononanesulfonic acid (PFNS)	1.8	U	1.8	0.34	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.30	ng/L		08/09/21 05:25	08/13/21 16:43	1
Perfluorooctanesulfonamide (FOSA)	1.8	U	1.8	0.90	ng/L		08/09/21 05:25	08/13/21 16:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.6	U	4.6	1.1	ng/L		08/09/21 05:25	08/13/21 16:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.6	U	4.6	1.2	ng/L		08/09/21 05:25	08/13/21 16:43	1
4:2 FTS	1.8	U	1.8	0.22	ng/L		08/09/21 05:25	08/13/21 16:43	1
6:2 FTS	4.6	U	4.6	2.3	ng/L		08/09/21 05:25	08/13/21 16:43	1
8:2 FTS	1.8	U	1.8	0.42	ng/L		08/09/21 05:25	08/13/21 16:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.8	U	1.8	0.37	ng/L		08/09/21 05:25	08/13/21 16:43	1
HFPO-DA (GenX)	3.7	U	3.7	1.4	ng/L		08/09/21 05:25	08/13/21 16:43	1
F-53B Major	1.8	U	1.8	0.22	ng/L		08/09/21 05:25	08/13/21 16:43	1
F-53B Minor	1.8	U	1.8	0.30	ng/L		08/09/21 05:25	08/13/21 16:43	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	84		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C5 PFPeA	111		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C2 PFHxA	95		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C4 PFHpA	100		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C4 PFOA	106		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C5 PFNA	113		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C2 PFDA	111		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C2 PFUnA	89		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C2 PFDoA	104		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C2 PFTeDA	98		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C3 PFBS	136		25 - 150	08/09/21 05:25	08/13/21 16:43	1
18O2 PFHxS	100		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C4 PFOS	99		25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C8 FOSA	106		25 - 150	08/09/21 05:25	08/13/21 16:43	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: W-012607-080321-CM-003

Date Collected: 08/03/21 16:40

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-3

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d3-NMeFOSAA	99		25 - 150	08/09/21 05:25	08/13/21 16:43	1
d5-NEtFOSAA	103		25 - 150	08/09/21 05:25	08/13/21 16:43	1
M2-6:2 FTS	207	*5+	25 - 150	08/09/21 05:25	08/13/21 16:43	1
M2-8:2 FTS	154	*5+	25 - 150	08/09/21 05:25	08/13/21 16:43	1
M2-4:2 FTS	226	*5+	25 - 150	08/09/21 05:25	08/13/21 16:43	1
13C3 HFPO-DA	123		25 - 150	08/09/21 05:25	08/13/21 16:43	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: FB-012607-080321-CM-004

Date Collected: 08/03/21 16:45

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.5	U	4.5	2.2	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.44	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorohexanoic acid (PFHxA)	1.8	U	1.8	0.52	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluoroheptanoic acid (PFHpA)	1.8	U	1.8	0.22	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorooctanoic acid (PFOA)	1.8	U	1.8	0.76	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorononanoic acid (PFNA)	1.8	U	1.8	0.24	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.28	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	0.99	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.49	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	1.2	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.66	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorobutanesulfonic acid (PFBS)	1.8	U	1.8	0.18	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluoropentanesulfonic acid (PFPeS)	1.8	U	1.8	0.27	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorohexanesulfonic acid (PFHxS)	1.8	U	1.8	0.51	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	U	1.8	0.17	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorooctanesulfonic acid (PFOS)	1.8	U	1.8	0.49	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorononanesulfonic acid (PFNS)	1.8	U	1.8	0.33	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.29	ng/L		08/09/21 05:25	08/13/21 16:52	1
Perfluorooctanesulfonamide (FOSA)	1.8	U	1.8	0.88	ng/L		08/09/21 05:25	08/13/21 16:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.5	U	4.5	1.1	ng/L		08/09/21 05:25	08/13/21 16:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.5	U	4.5	1.2	ng/L		08/09/21 05:25	08/13/21 16:52	1
4:2 FTS	1.8	U	1.8	0.22	ng/L		08/09/21 05:25	08/13/21 16:52	1
6:2 FTS	4.5	U	4.5	2.2	ng/L		08/09/21 05:25	08/13/21 16:52	1
8:2 FTS	1.8	U	1.8	0.41	ng/L		08/09/21 05:25	08/13/21 16:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.8	U	1.8	0.36	ng/L		08/09/21 05:25	08/13/21 16:52	1
HFPO-DA (GenX)	3.6	U	3.6	1.3	ng/L		08/09/21 05:25	08/13/21 16:52	1
F-53B Major	1.8	U	1.8	0.22	ng/L		08/09/21 05:25	08/13/21 16:52	1
F-53B Minor	1.8	U	1.8	0.29	ng/L		08/09/21 05:25	08/13/21 16:52	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	96		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C5 PFPeA	97		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C2 PFHxA	92		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C4 PFHpA	116		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C4 PFOA	109		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C5 PFNA	102		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C2 PFDA	101		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C2 PFUnA	95		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C2 PFDoA	101		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C2 PFTeDA	102		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C3 PFBS	111		25 - 150	08/09/21 05:25	08/13/21 16:52	1
18O2 PFHxS	102		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C4 PFOS	90		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C8 FOSA	91		25 - 150	08/09/21 05:25	08/13/21 16:52	1
d3-NMeFOSAA	94		25 - 150	08/09/21 05:25	08/13/21 16:52	1
d5-NEtFOSAA	104		25 - 150	08/09/21 05:25	08/13/21 16:52	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: FB-012607-080321-CM-004

Date Collected: 08/03/21 16:45

Date Received: 08/04/21 10:00

Lab Sample ID: 240-153880-4

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	83		25 - 150	08/09/21 05:25	08/13/21 16:52	1
M2-8:2 FTS	90		25 - 150	08/09/21 05:25	08/13/21 16:52	1
M2-4:2 FTS	71		25 - 150	08/09/21 05:25	08/13/21 16:52	1
13C3 HFPO-DA	104		25 - 150	08/09/21 05:25	08/13/21 16:52	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

LCMS

Prep Batch: 514342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-2	WT-012607-080321-CM-002	Total/NA	Water	3535	
240-153880-3	W-012607-080321-CM-003	Total/NA	Water	3535	
240-153880-4	FB-012607-080321-CM-004	Total/NA	Water	3535	
MB 320-514342/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-514342/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-514342/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 516110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-153880-2	WT-012607-080321-CM-002	Total/NA	Water	537 (modified)	514342
240-153880-3	W-012607-080321-CM-003	Total/NA	Water	537 (modified)	514342
240-153880-4	FB-012607-080321-CM-004	Total/NA	Water	537 (modified)	514342
MB 320-514342/1-A	Method Blank	Total/NA	Water	537 (modified)	514342
LCS 320-514342/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	514342
LCSD 320-514342/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	514342

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-514342/1-A

Matrix: Water

Analysis Batch: 516110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 514342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0	U	5.0	2.4	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.73	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.57	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.37	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		08/09/21 04:45	08/13/21 14:35	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.98	ng/L		08/09/21 04:45	08/13/21 14:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.0	U	5.0	1.2	ng/L		08/09/21 04:45	08/13/21 14:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.0	U	5.0	1.3	ng/L		08/09/21 04:45	08/13/21 14:35	1
4:2 FTS	2.0	U	2.0	0.24	ng/L		08/09/21 04:45	08/13/21 14:35	1
6:2 FTS	5.0	U	5.0	2.5	ng/L		08/09/21 04:45	08/13/21 14:35	1
8:2 FTS	2.0	U	2.0	0.46	ng/L		08/09/21 04:45	08/13/21 14:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.40	ng/L		08/09/21 04:45	08/13/21 14:35	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		08/09/21 04:45	08/13/21 14:35	1
F-53B Major	2.0	U	2.0	0.24	ng/L		08/09/21 04:45	08/13/21 14:35	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		08/09/21 04:45	08/13/21 14:35	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	74		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C5 PFPeA	78		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C2 PFHxA	79		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C4 PFHpA	93		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C4 PFOA	87		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C5 PFNA	77		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C2 PFDA	81		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C2 PFUnA	76		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C2 PFDoA	81		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C2 PFTeDA	75		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C3 PFBS	87		25 - 150	08/09/21 04:45	08/13/21 14:35	1
18O2 PFHxS	84		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C4 PFOS	74		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C8 FOSA	73		25 - 150	08/09/21 04:45	08/13/21 14:35	1
d3-NMeFOSAA	76		25 - 150	08/09/21 04:45	08/13/21 14:35	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-514342/1-A

Matrix: Water

Analysis Batch: 516110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 514342

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	85		25 - 150	08/09/21 04:45	08/13/21 14:35	1
M2-6:2 FTS	70		25 - 150	08/09/21 04:45	08/13/21 14:35	1
M2-8:2 FTS	73		25 - 150	08/09/21 04:45	08/13/21 14:35	1
M2-4:2 FTS	58		25 - 150	08/09/21 04:45	08/13/21 14:35	1
13C3 HFPO-DA	83		25 - 150	08/09/21 04:45	08/13/21 14:35	1

Lab Sample ID: LCS 320-514342/2-A

Matrix: Water

Analysis Batch: 516110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 514342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.6		ng/L		109	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	41.5		ng/L		104	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	42.6		ng/L		107	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	39.6		ng/L		99	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	39.9		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	40.0	44.0		ng/L		110	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	41.3		ng/L		103	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	44.6		ng/L		111	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	38.2		ng/L		95	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	39.7		ng/L		99	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	45.0		ng/L		112	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	34.5		ng/L		98	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	40.2		ng/L		107	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.9		ng/L		99	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.3		ng/L		108	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	38.9		ng/L		105	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	39.2		ng/L		102	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	42.1		ng/L		109	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	41.0		ng/L		102	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	44.4		ng/L		111	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.2		ng/L		98	76 - 136
4:2 FTS	37.4	39.0		ng/L		104	79 - 139
6:2 FTS	37.9	34.9		ng/L		92	59 - 175
8:2 FTS	38.3	34.6		ng/L		90	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	44.9		ng/L		119	79 - 139
HFPO-DA (GenX)	40.0	38.9		ng/L		97	51 - 173
F-53B Major	37.3	35.6		ng/L		95	75 - 135

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-514342/2-A

Matrix: Water

Analysis Batch: 516110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 514342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	36.8		ng/L		98	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	86		25 - 150				
13C5 PFPeA	88		25 - 150				
13C2 PFHxA	87		25 - 150				
13C4 PFHpA	102		25 - 150				
13C4 PFOA	98		25 - 150				
13C5 PFNA	84		25 - 150				
13C2 PFDA	90		25 - 150				
13C2 PFUnA	92		25 - 150				
13C2 PFDoA	97		25 - 150				
13C2 PFTeDA	85		25 - 150				
13C3 PFBS	102		25 - 150				
18O2 PFHxS	96		25 - 150				
13C4 PFOS	88		25 - 150				
13C8 FOSA	91		25 - 150				
d3-NMeFOSAA	90		25 - 150				
d5-NEtFOSAA	101		25 - 150				
M2-6:2 FTS	77		25 - 150				
M2-8:2 FTS	88		25 - 150				
M2-4:2 FTS	68		25 - 150				
13C3 HFPO-DA	100		25 - 150				

Lab Sample ID: LCSD 320-514342/3-A

Matrix: Water

Analysis Batch: 516110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 514342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	43.7		ng/L		109	76 - 136	0	30
Perfluoropentanoic acid (PFPeA)	40.0	40.3		ng/L		101	71 - 131	3	30
Perfluorohexanoic acid (PFHxA)	40.0	41.2		ng/L		103	73 - 133	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	39.0		ng/L		97	72 - 132	2	30
Perfluorooctanoic acid (PFOA)	40.0	45.4		ng/L		114	70 - 130	13	30
Perfluorononanoic acid (PFNA)	40.0	42.5		ng/L		106	75 - 135	3	30
Perfluorodecanoic acid (PFDA)	40.0	40.3		ng/L		101	76 - 136	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	50.3		ng/L		126	68 - 128	12	30
Perfluorododecanoic acid (PFDoA)	40.0	38.0		ng/L		95	71 - 131	0	30
Perfluorotridecanoic acid (PFTriA)	40.0	40.2		ng/L		100	71 - 131	1	30
Perfluorotetradecanoic acid (PFTeA)	40.0	45.9		ng/L		115	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	35.4	35.0		ng/L		99	67 - 127	1	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	41.3		ng/L		110	66 - 126	3	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.9		ng/L		99	59 - 119	0	30

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-514342/3-A

Matrix: Water

Analysis Batch: 516110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 514342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.4		ng/L		109	76 - 136	0	30
Perfluorooctanesulfonic acid (PFOS)	37.1	38.8		ng/L		105	70 - 130	0	30
Perfluorononanesulfonic acid (PFNS)	38.4	38.1		ng/L		99	75 - 135	3	30
Perfluorodecanesulfonic acid (PFDS)	38.6	38.9		ng/L		101	71 - 131	8	30
Perfluorooctanesulfonamide (FOSA)	40.0	40.3		ng/L		101	73 - 133	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	44.8		ng/L		112	76 - 136	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.5		ng/L		101	76 - 136	3	30
4:2 FTS	37.4	40.6		ng/L		109	79 - 139	4	30
6:2 FTS	37.9	35.2		ng/L		93	59 - 175	1	30
8:2 FTS	38.3	35.2		ng/L		92	75 - 135	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	46.9		ng/L		124	79 - 139	4	30
HFPO-DA (GenX)	40.0	38.0		ng/L		95	51 - 173	2	30
F-53B Major	37.3	36.8		ng/L		99	75 - 135	3	30
F-53B Minor	37.7	37.6		ng/L		100	54 - 114	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	84		25 - 150
13C5 PFPeA	86		25 - 150
13C2 PFHxA	86		25 - 150
13C4 PFHpA	101		25 - 150
13C4 PFOA	91		25 - 150
13C5 PFNA	88		25 - 150
13C2 PFDA	91		25 - 150
13C2 PFUnA	87		25 - 150
13C2 PFDoA	89		25 - 150
13C2 PFTeDA	80		25 - 150
13C3 PFBS	100		25 - 150
18O2 PFHxS	94		25 - 150
13C4 PFOS	84		25 - 150
13C8 FOSA	83		25 - 150
d3-NMeFOSAA	91		25 - 150
d5-NEtFOSAA	90		25 - 150
M2-6:2 FTS	77		25 - 150
M2-8:2 FTS	82		25 - 150
M2-4:2 FTS	67		25 - 150
13C3 HFPO-DA	96		25 - 150

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Client Sample ID: WT-012607-080321-CM-002

Lab Sample ID: 240-153880-2

Date Collected: 08/03/21 16:35

Matrix: Water

Date Received: 08/04/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			514342	08/09/21 04:45	HK	TAL SAC
Total/NA	Analysis	537 (modified)		1	516110	08/13/21 16:34	JRB	TAL SAC

Client Sample ID: W-012607-080321-CM-003

Lab Sample ID: 240-153880-3

Date Collected: 08/03/21 16:40

Matrix: Water

Date Received: 08/04/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			514342	08/09/21 05:25	HK	TAL SAC
Total/NA	Analysis	537 (modified)		1	516110	08/13/21 16:43	JRB	TAL SAC

Client Sample ID: FB-012607-080321-CM-004

Lab Sample ID: 240-153880-4

Date Collected: 08/03/21 16:45

Matrix: Water

Date Received: 08/04/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			514342	08/09/21 05:25	HK	TAL SAC
Total/NA	Analysis	537 (modified)		1	516110	08/13/21 16:52	JRB	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-22
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Florida	NELAP	E87570	06-30-22
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-22
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA00044	08-31-22
New Hampshire	NELAP	2997	04-18-22
New Jersey	NELAP	CA005	06-30-22
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	05-31-22
US Fish & Wildlife	US Federal Programs	58448	07-31-22
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-22
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

Client Information		Sampler: <u>Mevette</u>		Lab PM: <u>Heckler, Denise D</u>	Carrier Tracking No(s): <u>240-81133-31279.1</u>
Client Contact: <u>Chris Meincke</u>		Phone: <u>248 893 3402</u>		E-Mail: <u>Denise.Heckler@Eurofinset.com</u>	State of Origin:
Company: <u>GHD Services Inc.</u>		PW/SID:		Page 1 of 1	
Address: <u>26850 Haggerty Rd.</u>		Due Date Requested:		Job #:	
City: <u>Farmington Hills</u>		TAT Requested (days): <u>2 WK</u>		Analysis Requested	
State, Zip: <u>MI, 48331</u>		Compliance Project: <u>Δ Yes Δ No</u>		Preservation Codes:	
Phone:		Purchase Order Requested		A - HCL M - Hexane B - NaOH N - None O - AsNaO2 C - Zn Acetate D - Nitric Acid P - Na2O4S E - NaHSO4 F - MeOH R - Na2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA W - pH 4-5 K - EDTA L - EDA Z - other (specify) Other:	
Email: <u>chris.meincke@ghd.com</u>		WO #:		Total Number of Containers	
Project Name: <u>12607-T37-monthly, RACER Eckles Rd</u>		Project #:		Special Instructions/Note:	
Site: <u>RACER LUCIA</u>		SSOW#:			
Sample Identification		Sample Date	Sample Time	Sample Type (G=grab, B=passive, O=on-site)	Matrix (W=water, S=solid, O=on-site)
<u>WT-012607-080321-CM-001</u>	<u>8-3-21</u>	<u>16:30</u>	<u>Water</u>	<u>Water</u>	<u>Water</u>
<u>WT-012607-080321-CM-002</u>	<u>16:35</u>	<u>Water</u>	<u>Water</u>	<u>Water</u>	<u>Water</u>
<u>W-012607-080321-CM-003</u>	<u>16:40</u>	<u>Water</u>	<u>Water</u>	<u>Water</u>	<u>Water</u>
<u>FB-012607-080321-CM-004</u>	<u>16:45</u>	<u>Water</u>	<u>Water</u>	<u>Water</u>	<u>Water</u>
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/OC Requirements:	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months		Special Instructions/OC Requirements:	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <u>[Signature]</u>		Date: <u>8/3/21</u>		Time: <u>1700</u>	
Relinquished by:		Date:		Time:	
Relinquished by:		Date:		Time:	
Custody Seal No.:		Custody Seal No.:		Custody Seal No.:	
Δ Yes Δ No		Δ Yes Δ No		Δ Yes Δ No	

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 153880

Client GHD Site Name _____ Cooler unpacked by: Mat
Cooler Received on 8-4-21 Opened on 8-4-21
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

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

TestAmerica Cooler # 110 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-11 (CF +0.1 °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 3.7 °C
IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 ☒ Yes ☐ No
-Were the seals on the outside of the cooler(s) signed & dated? ☒ Yes ☐ No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? ☒ Yes ☐ No 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 (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)? ☒ Yes ☐ No
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? ☒ Yes ☐ No NA  Larger than this.
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

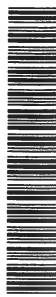
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
WT-012607-080321-CM-001	240-153880-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
WT-012607-080321-CM-001	240-153880-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
WT-012607-080321-CM-001	240-153880-G-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____

[illegible]

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-153880-2

Login Number: 153880

List Number: 3

Creator: Vang, Cheng

List Source: Eurofins TestAmerica, Sacramento

List Creation: 08/05/21 01:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: GHD Services Inc.
Project/Site: 12607-T37, RACER Eckles Rd

Job ID: 240-153880-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-153880-2	WT-012607-080321-CM-002	85	94	92	101	96	96	99	94
240-153880-3	W-012607-080321-CM-003	84	111	95	100	106	113	111	89
240-153880-4	FB-012607-080321-CM-004	96	97	92	116	109	102	101	95
LCS 320-514342/2-A	Lab Control Sample	86	88	87	102	98	84	90	92
LCSD 320-514342/3-A	Lab Control Sample Dup	84	86	86	101	91	88	91	87
MB 320-514342/1-A	Method Blank	74	78	79	93	87	77	81	76

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
240-153880-2	WT-012607-080321-CM-002	89	87	111	92	83	96	85	98
240-153880-3	W-012607-080321-CM-003	104	98	136	100	99	106	99	103
240-153880-4	FB-012607-080321-CM-004	101	102	111	102	90	91	94	104
LCS 320-514342/2-A	Lab Control Sample	97	85	102	96	88	91	90	101
LCSD 320-514342/3-A	Lab Control Sample Dup	89	80	100	94	84	83	91	90
MB 320-514342/1-A	Method Blank	81	75	87	84	74	73	76	85

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)				
240-153880-2	WT-012607-080321-CM-002	118	94	150	101				
240-153880-3	W-012607-080321-CM-003	207 *5+	154 *5+	226 *5+	123				
240-153880-4	FB-012607-080321-CM-004	83	90	71	104				
LCS 320-514342/2-A	Lab Control Sample	77	88	68	100				
LCSD 320-514342/3-A	Lab Control Sample Dup	77	82	67	96				
MB 320-514342/1-A	Method Blank	70	73	58	83				

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA

Attachment 8

April 16, 2021 Samples

WS-012607A-041621-VI-014 (Clarifier)

WS-012607A-041621-VI-015 (Diversion Pit)

Laboratory Analytical Reports

SWTS - Analytical Results Summary - Water (EGLE Criteria)
Building Decommissioning Assessment
RACER - Eckles Road
Livonia, Michigan

Sample Location	EGLE Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)								14	15	
Sample Identification	Residential	Non-Residential	Groundwater	Res Groundwater	Non-Res Groundwater	Water	Flammability &		WS-012607A-SWTS-041621-VI-014	WS-012607A-SWTS-041621-VI-015	
Sample Date	Drinking Water	Drinking Water	Surface Water	Volatilization	Volatilization	Solubility	Explosivity	RCRA	04/16/2021	04/16/2021	
Building			Interface	to Indoor	to Indoor		Screening		Clarifier	Diversion Pit	
Item Description				Air Inhalation	Air Inhalation		Levels		Water Sample	Water Sample	
Sample Location Notes	a	b	c	d	e	f	g	h	SWTS Clarifier water	SWTS Diversion Pit water	
Additional Comments									very clear through to ~15' deep	very clear through to ~10' deep	
Sample Type											
Parameters	Units										
Metals											
Chromium	mg/L	0.1	0.1	0.1	NLV	NLV		ID	5	0.01 U	0.00066 J
Lead	mg/L	0.004	0.004	G,X	NLV	NLV		ID	5	0.01 U	0.01 U
Mercury	mg/L	0.002	0.002	0.0000013	0.056	0.056	0.056	ID	0.2	0.0002 U	0.0002 U
Nickel	mg/L	0.1	0.1	0.073	NLV	NLV		ID		0.0027 J	0.0036 J
Zinc	mg/L	2.4	5	G	NLV	NLV		ID		0.05 U	0.11
Pesticides											
4,4'-DDD	mg/L	0.0091	0.037		NLV	NLV	0.09	ID		0.000048 U	0.00005 U
4,4'-DDE	mg/L	0.0043	0.015		NLV	NLV	0.12	ID		0.000048 U	0.00005 U
4,4'-DDT	mg/L	0.0036	0.01	0.00002	NLV	NLV	0.025			0.000048 U	0.00005 U
Aldrin	mg/L	0.000098	0.0004	0.00001	0.18	0.18	0.18	ID		0.000048 U	0.00005 U
alpha-BHC	mg/L	0.00043	0.0017		2	2	2	ID		0.000048 U	0.00005 U
alpha-Chlordane	mg/L	0.002	0.002	0.002	0.056	0.056	0.056	ID		0.000048 U	0.00005 U
beta-BHC	mg/L	0.00088	0.0036	ID	NLV	NLV	0.24	ID		0.000048 U	0.00005 U
delta-BHC	mg/L									0.000048 U	0.00005 U
Dieldrin	mg/L	0.00011	0.00043	0.00002	0.2	0.2	0.195	ID		0.000048 U	0.00005 U
Endosulfan I	mg/L									0.000048 U	0.00005 U
Endosulfan II	mg/L									0.000048 U	0.00005 U
Endosulfan sulfate	mg/L									0.000048 U	0.00005 U
Endrin	mg/L	0.002	0.002	ID	NLV	NLV	0.25	ID		0.000048 U	0.00005 U
Endrin aldehyde	mg/L									0.000048 U	0.00005 U
Endrin ketone	mg/L									0.000048 U	0.00005 U
gamma-BHC (lindane)	mg/L	0.0002	0.0002	0.00003	ID	ID	6.8	ID		0.000048 U	0.00005 U
gamma-Chlordane	mg/L	0.002	0.002	0.002	0.056	0.056	0.056	ID		0.000048 U	0.00005 U
Heptachlor	mg/L	0.0004	0.0004	0.00001	0.18	0.18	0.18	ID		0.000048 U	0.00005 U
Heptachlor epoxide	mg/L	0.0002	0.0002	ID	NLV	NLV	0.2	ID		0.000048 U	0.00005 U
Methoxychlor	mg/L	0.04	0.04		ID	ID	0.045	ID		0.000095 U	0.000099 U
Toxaphene	mg/L	0.003	0.003	0.001	NLV	NLV	0.74	ID		0.0019 U	0.002 U
Per/Polyfluoroalkyl Substances (PFAS)											
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonate	ng/L									1.8 U	2.8 U
2,2,3-Trifluoro-3-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]-propanoic acid (DONA)	ng/L									1.8 U	2.8 U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonate	ng/L									1.8 U	2.8 U
Fluorotelomer sulfonic acid (4:2)	ng/L									1.8 U	2.8 U

SWTS - Analytical Results Summary - Water (EGLE Criteria)
Building Decommissioning Assessment
RACER - Eckles Road
Livonia, Michigan

Sample Location	EGLE Generic Groundwater Cleanup Criteria- Residential and Nonresidential (1)								14	15
	Residential	Non-Residential	Groundwater	Res Groundwater	Non-Res Groundwater	Water	Flammability &		WS-012607A-SWTS-041621-VI-014	WS-012607A-SWTS-041621-VI-015
Sample Identification	Drinking Water	Drinking Water	Surface Water	Volatilization	Volatilization	Solubility	Explosivity	RCRA	04/16/2021	04/16/2021
Sample Date			Interface	to Indoor	to Indoor		Screening		Clarifier	Diversion Pit
Building				Air Inhalation	Air Inhalation		Levels		Water Sample	Water Sample
Item Description										
Sample Location Notes	a	b	c	d	e	f	g	h	SWTS Clarifier water	SWTS Diversion Pit water
Additional Comments									very clear through to ~15' deep	very clear through to ~10' deep
Sample Type										
Parameters	Units									
Fluorotelomer sulfonic acid (6:2)	ng/L								4.6 U	7.0 U
Fluorotelomer sulfonic acid (8:2)	ng/L								0.89 J	2.8 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ng/L	370	370	ID	ID				3.6 U	5.6 U
N-Ethyl perfluorooctane sulfonamidoacetic acid	ng/L								4.6 U	7.0 U
N-Methyl perfluorooctane sulfonamido acetic acid	ng/L								4.6 U	7.0 U
Perfluorobutane sulfonic acid (PFBS)	ng/L	420	420	ID	ID				0.71 J	1.7 J
Perfluorobutanoic acid (PFBA)	ng/L								10	8.0
Perfluorodecanesulfonic acid (PFDS)	ng/L								1.8 U	2.8 U
Perfluorodecanoic acid (PFDA)	ng/L								0.68 J	2.8 U
Perfluorododecanoic acid (PFDoDA)	ng/L								1.8 U	2.8 U
Perfluoroheptane sulfonic acid (PFHpS)	ng/L								1.8 U	2.8 U
Perfluoroheptanoic acid (PFHpA)	ng/L								2.1	1.6 J
Perfluorohexane sulfonic acid (PFHxS)	ng/L	51	51	ID	ID				1.2 JI	2.8 U
Perfluorohexanoic acid (PFHxA)	ng/L	400000	400000	ID	ID				3.1	2.7 J
Perfluorononane sulfonic acid (PFNS)	ng/L								1.8 U	2.8 U
Perfluorononanoic acid (PFNA)	ng/L	6	6	ID	ID				0.90 J	2.8 U
Perfluorooctane sulfonamide (FOSA)	ng/L								1.8 U	2.8 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	16	16	NLV	NLV	3100			8.7 U	6.2 I
Perfluorooctanoic acid (PFOA)	ng/L	8	8	ID	ID	9500000000			3.9	10 ^{nb}
Perfluoropentane sulfonic acid (PFPeS)	ng/L								0.36 J	2.8 U
Perfluoropentanoic acid (PFPeA)	ng/L								1.8	1.5 J
Perfluorotetradecanoic acid (PFTeDA)	ng/L								1.8 U	2.8 U
Perfluorotridecanoic acid (PFTTrDA)	ng/L								1.8 U	2.8 U
Perfluoroundecanoic acid (PFUnA)	ng/L								1.8 U	2.8 U
Semi-Volatile Organic Compounds (SVOCs)										
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	none	0.00000003	0.00000003	0.00000001	NLV	NLV	0.000019	ID	Neg	Neg
TCLP-Semi-Volatile Organic Compounds (SVOCs)										
1,4-Dichlorobenzene	mg/L							7.5	0.0040 U	0.0040 U
2,4,5-Trichlorophenol	mg/L							400	0.0040 U	0.0040 U
2,4,6-Trichlorophenol	mg/L							2	0.0040 U	0.0040 U
2,4-Dinitrotoluene	mg/L							0.13	0.0040 U	0.0040 U
2-Methylphenol	mg/L							200	0.0040 U	0.0040 U
3&4-Methylphenol	mg/L							200	0.0040 U	0.0040 U
Hexachlorobenzene	mg/L							0.13	0.00080 U	0.00080 U
Hexachlorobutadiene	mg/L							0.5	0.0040 U	0.0040 U

SWTS - Analytical Results Summary - Water (EGLE Criteria)
Building Decommissioning Assessment
RACER - Eckles Road
Livonia, Michigan

Sample Location	<u>EGLE Generic Groundwater Cleanup Criteria- Residential and Nonresidential (1)</u>							RCRA	14	15
	Residential	Non-Residential	Groundwater	Res Groundwater	Non-Res Groundwater	Water	Flammability &		WS-012607A-SWTS-041621-VI-014	WS-012607A-SWTS-041621-VI-015
Sample Identification	Drinking Water	Drinking Water	Surface Water	Volatilization	Volatilization	Solubility	Explosivity		04/16/2021	04/16/2021
Sample Date			Interface	to Indoor	to Indoor		Screening		Clarifier	Diversion Pit
Building				Air Inhalation	Air Inhalation		Levels		Water Sample	Water Sample
Item Description									SWTS Clarifier water	SWTS Diversion Pit water
Sample Location Notes	a	b	c	d	e	f	g	h	very clear through to ~15' deep	very clear through to ~10' deep
Additional Comments										
Sample Type										
Parameters	Units									
Hexachloroethane	mg/L							3	0.0040 U	0.0040 U
Nitrobenzene	mg/L							2	0.0040 U	0.0040 U
Pentachlorophenol	mg/L							100	0.016 U	0.016 U
Pyridine	mg/L							5	0.0040 U	0.0040 U
TCLP-Volatile Organic Compounds (VOCs)										
1,1-Dichloroethene	mg/L							0.7	0.025 U	0.025 U
1,2-Dichloroethane	mg/L							0.5	0.025 U	0.025 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L							200	0.25 U	0.25 U
Benzene	mg/L							0.5	0.025 U	0.025 U
Carbon tetrachloride	mg/L							0.5	0.025 U	0.025 U
Chlorobenzene	mg/L							100	0.025 U	0.025 U
Chloroform (Trichloromethane)	mg/L							6	0.025 U	0.025 U
Tetrachloroethene	mg/L							0.7	0.025 U	0.025 U
Trichloroethene	mg/L							0.5	0.025 U	0.025 U
Vinyl chloride	mg/L							0.2	0.025 U	0.025 U
General Chemistry										
Cyanide (total)	mg/L	0.2	0.2	0.0052	NLV	NLV	ID		0.010 U	0.010 U
Oil and grease (HEM), total	mg/L								5.0 U	54.3 U
Total suspended solids (TSS)	mg/L								4.0 U	4.0 U

Notes:

U - Not detected at the associated reporting limit.

J - Estimated concentration.

I - Value is EMPC (estimated maximum possible concentration)

(1) EGLE - Michigan Department of Environment, Great Lakes and Energy (EGLE) Generic cleanup criteria for residential and nonresidential category, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended

RCRA -Resource Conservation Recovery Act (RCRA) criteria for the toxicity characteristic (40 CFR 261.24).

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-147767-1

Client Project/Site: 12607, RACER Eckles Rd

For:

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

Attn: Mr. James Abston



Authorized for release by:
5/6/2021 2:20:23 PM

Denise Heckler, Project Manager II
(330)966-9477

Denise.Heckler@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Job ID: 240-147767-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-147767-1

Comments

COC did not match SSOW; per GHD, follow COC.

Insufficient sample for TCLP for samples: PS-012607A-SWTS-041621-VI-001 , PS-012607A-SWTS-041621-VI-002 , PS-012607A-SWTS-041621-VI-003 , PS-012607A-SWTS-041621-VI-004.

Total metals added on samples PS-012607A-SWTS-041621-VI-001 , PS-012607A-SWTS-041621-VI-002 , PS-012607A-SWTS-041621-VI-003 , PS-012607A-SWTS-041621-VI-004 per GHD.

Receipt

The samples were received on 4/17/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.4° C and 1.5° C.

GC/MS VOA

Method 8260: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-482594.

Method 8260: The laboratory control sample (LCS) for analytical batch 240-482594 recovered outside control limits for styrene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260: The continuing calibration verification (CCV) analyzed in batch 240-482594 was outside the method criteria for some analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

GC/MS Semi VOA

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

GC Semi VOA

Method 8082A: The following samples required a Silica Gel clean-up, via EPA Method 3630C, to reduce matrix interferences: O-012607A-SWTS-041621-VI-005 (240-147767-5).5067430

Method 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: O-012607A-SWTS-041621-VI-005 (240-147767-5), (240-147892-A-1-A), (240-147892-A-1-B MS) and (240-147892-A-1-C MSD).

Method 8082A: Surrogate recovery for the following samples were outside control limits: PS-012607A-SWTS-041621-VI-001 (240-147767-1), (240-147767-A-1-B MS) and (240-147767-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: PS-012607A-SWTS-041621-VI-001 (240-147767-1), CK-012607A-SWTS-041621-VI-012 (240-147767-12), (240-147767-A-1-B MS) and (240-147767-A-1-C MSD).

Method 8082A: The following samples were diluted due to the nature of the sample matrix: PS-012607A-SWTS-041621-VI-001 (240-147767-1), CK-012607A-SWTS-041621-VI-012 (240-147767-12), (240-147767-A-1-B MS) and (240-147767-A-1-C MSD). Elevated reporting limits (RLs) are provided.

Method 8081A: The continuing calibration verification (CCV) associated with batch 240-483054 recovered above the upper control limit for Toxaphene Peak 3, Toxaphene Peak 4, Toxaphene Peak 5 and Toxaphene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: WS-012607A-SWTS-041621-VI-014

Case Narrative

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Job ID: 240-147767-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

(240-147767-14) and WS-012607A-SWTS-041621-VI-015 (240-147767-15).

Method 8082A: The following samples appear to contain polychlorinated biphenyls (PCBs); however, due to weathering, other environmental processes and/or contributions from the presence of multiple Aroclors, resulting in overlapping PCB patterns, the PCBs in the samples do not directly match any of the laboratory's Aroclor standards used for instrument calibration: PS-012607A-SWTS-041621-VI-002 (240-147767-2). The samples have been quantified and reported using the best overall Aroclor/standard pattern match.

Method 8082A: The following samples required a Silica Gel clean-up, via EPA Method 3630C, to reduce matrix interferences: PS-012607A-SWTS-041621-VI-002 (240-147767-2) and PS-012607A-SWTS-041621-VI-003 (240-147767-3).

Method 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: CK-012607A-SWTS-041621-VI-009 (240-147767-9).

Method 8082A: The following sample was diluted due to the nature of the sample matrix: PS-012607A-SWTS-041621-VI-004 (240-147767-4). Elevated reporting limits (RLs) are provided.

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

Metals

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

LCMS

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-4:2 FTS and M2-6:2 FTS in the following samples: WS-012607A-SWTS-041621-VI-014 (240-147767-14) and WS-012607A-SWTS-041621-VI-015 (240-147767-15). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgement was used to positively identify the analyte.

Method 537 (modified): The following sample exhibited matrix interferences for Perfluorooctanesulfonic acid (PFOS) causing elevation of the Reporting Limit (RL): WS-012607A-SWTS-041621-VI-014 (240-147767-14). The RL for the affected analyte has been raised to be equal to the matrix interferences, and a "G" qualifier applied.

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

General Chemistry

Method 1664A: The reference method requires samples to be preserved to a pH of 2 or less or analyzed within 4 hours of the collection time. The following samples were received at the laboratory with a pH of greater than 2: WS-012607A-SWTS-041621-VI-014 (240-147767-14) and WS-012607A-SWTS-041621-VI-015 (240-147767-15).

Method 1664A: Elevated reporting limits are provided for the following sample due to insufficient sample provided for analysis: WS-012607A-SWTS-041621-VI-015 (240-147767-15).

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 240-482513 and 240-482513.

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-483354.

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: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
I	Value is EMPC (estimated maximum possible concentration).
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.

Metals

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

General Chemistry

Qualifier	Qualifier Description
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.
α	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)

Eurofins TestAmerica, Canton

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-147767-14	WS-012607A-SWTS-041621-VI-014	Water	04/16/21 00:00	04/17/21 10:10	
240-147767-15	WS-012607A-SWTS-041621-VI-015	Water	04/16/21 00:00	04/17/21 10:10	

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Lab Sample ID: 240-147767-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	NEG				NONE	1		625	Total/NA
Perfluorobutanoic acid (PFBA)	10		4.6	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		1.8	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.1		1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		1.8	0.77	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.90	J	1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.68	J	1.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.36	J	1.8	0.27	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Client Sample ID: WS-012607A-SWTS-041621-VI-014
(Continued)

Lab Sample ID: 240-147767-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	1.2	J I	1.8	0.52	ng/L	1		537 (modified)	Total/NA
8:2 FTS	0.89	J	1.8	0.42	ng/L	1		537 (modified)	Total/NA
Nickel	2.7	J	40	2.2	ug/L	1		6010C	Total Recoverable

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Lab Sample ID: 240-147767-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	NEG				NONE	1		625	Total/NA
Perfluorobutanoic acid (PFBA)	8.0		7.0	3.4	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.5	J	2.8	0.69	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.7	J	2.8	0.82	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.6	J	2.8	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	10		2.8	1.2	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7	J	2.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.2	I	2.8	0.76	ng/L	1		537 (modified)	Total/NA
Chromium	0.66	J	10	0.63	ug/L	1		6010C	Total Recoverable
Nickel	3.6	J	40	2.2	ug/L	1		6010C	Total Recoverable
Zinc	110		50	9.7	ug/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
625	Dioxin Screen (GC/MS SIM)	40CFR136A	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8081A	Organochlorine Pesticides (GC)	SW846	TAL CAN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
6010B	Metals (ICP)	SW846	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7471A	Mercury (CVAA)	SW846	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
2540 D-2011	Total Suspended Solids (Dried at 103-105°C)	SM	TAL CAN
9012A	Cyanide, Total and/or Amenable	SW846	TAL CAN
1311	TCLP Extraction	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3050B	Preparation, Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
3540C	Soxhlet Extraction	SW846	TAL CAN
3580A	Waste Dilution	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN
7471A	Preparation, Mercury	SW846	TAL CAN
9012A	Cyanide, Total and/or Amenable, Distillation	SW846	TAL CAN
Part Size Red	Particle Size Reduction Preparation	None	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

None = None

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

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

Laboratory References:

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

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.00019	mg/L			04/26/21 02:26	1
1,2-Dichloroethane	0.025	U	0.025	0.00021	mg/L			04/26/21 02:26	1
2-Butanone (MEK)	0.25	U	0.25	0.0012	mg/L			04/26/21 02:26	1
Benzene	0.025	U	0.025	0.00013	mg/L			04/26/21 02:26	1
Carbon tetrachloride	0.025	U	0.025	0.00026	mg/L			04/26/21 02:26	1
Chlorobenzene	0.025	U	0.025	0.00014	mg/L			04/26/21 02:26	1
Chloroform	0.025	U	0.025	0.00013	mg/L			04/26/21 02:26	1
Tetrachloroethene	0.025	U	0.025	0.00015	mg/L			04/26/21 02:26	1
Trichloroethene	0.025	U	0.025	0.00010	mg/L			04/26/21 02:26	1
Vinyl chloride	0.025	U	0.025	0.00020	mg/L			04/26/21 02:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		74 - 124		04/26/21 02:26	1
4-Bromofluorobenzene (Surr)	99		77 - 120		04/26/21 02:26	1
Toluene-d8 (Surr)	104		80 - 120		04/26/21 02:26	1
Dibromofluoromethane (Surr)	83		80 - 120		04/26/21 02:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.00019	mg/L			04/26/21 02:48	1
1,2-Dichloroethane	0.025	U	0.025	0.00021	mg/L			04/26/21 02:48	1
2-Butanone (MEK)	0.25	U	0.25	0.0012	mg/L			04/26/21 02:48	1
Benzene	0.025	U	0.025	0.00013	mg/L			04/26/21 02:48	1
Carbon tetrachloride	0.025	U	0.025	0.00026	mg/L			04/26/21 02:48	1
Chlorobenzene	0.025	U	0.025	0.00014	mg/L			04/26/21 02:48	1
Chloroform	0.025	U	0.025	0.00013	mg/L			04/26/21 02:48	1
Tetrachloroethene	0.025	U	0.025	0.00015	mg/L			04/26/21 02:48	1
Trichloroethene	0.025	U	0.025	0.00010	mg/L			04/26/21 02:48	1
Vinyl chloride	0.025	U	0.025	0.00020	mg/L			04/26/21 02:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		74 - 124		04/26/21 02:48	1
4-Bromofluorobenzene (Surr)	98		77 - 120		04/26/21 02:48	1
Toluene-d8 (Surr)	105		80 - 120		04/26/21 02:48	1
Dibromofluoromethane (Surr)	83		80 - 120		04/26/21 02:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: TRIP BLANK
Date Collected: 04/16/21 00:00
Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			04/23/21 19:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			04/23/21 19:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			04/23/21 19:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			04/23/21 19:48	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			04/23/21 19:48	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			04/23/21 19:48	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			04/23/21 19:48	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			04/23/21 19:48	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			04/23/21 19:48	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/23/21 19:48	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/23/21 19:48	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			04/23/21 19:48	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/23/21 19:48	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			04/23/21 19:48	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			04/23/21 19:48	1
2-Hexanone	10	U	10	0.54	ug/L			04/23/21 19:48	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			04/23/21 19:48	1
Acetone	10	U	10	5.4	ug/L			04/23/21 19:48	1
Benzene	1.0	U	1.0	0.13	ug/L			04/23/21 19:48	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			04/23/21 19:48	1
Bromoform	1.0	U	1.0	0.76	ug/L			04/23/21 19:48	1
Bromomethane	1.0	U	1.0	0.42	ug/L			04/23/21 19:48	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			04/23/21 19:48	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			04/23/21 19:48	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/23/21 19:48	1
Chloroethane	1.0	U	1.0	0.83	ug/L			04/23/21 19:48	1
Chloroform	1.0	U	1.0	0.13	ug/L			04/23/21 19:48	1
Chloromethane	1.0	U	1.0	0.20	ug/L			04/23/21 19:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			04/23/21 19:48	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			04/23/21 19:48	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			04/23/21 19:48	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			04/23/21 19:48	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			04/23/21 19:48	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			04/23/21 19:48	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			04/23/21 19:48	1
Methyl acetate	10	U	10	1.7	ug/L			04/23/21 19:48	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			04/23/21 19:48	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			04/23/21 19:48	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			04/23/21 19:48	1
Styrene	1.0	U *	1.0	0.10	ug/L			04/23/21 19:48	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/23/21 19:48	1
Toluene	1.0	U	1.0	0.14	ug/L			04/23/21 19:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			04/23/21 19:48	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			04/23/21 19:48	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			04/23/21 19:48	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			04/23/21 19:48	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			04/23/21 19:48	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			04/23/21 19:48	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	115		69 - 122		04/23/21 19:48	1
<i>Dibromofluoromethane (Surr)</i>	87		78 - 129		04/23/21 19:48	1
<i>4-Bromofluorobenzene (Surr)</i>	106		47 - 134		04/23/21 19:48	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	92		75 - 130		04/23/21 19:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 625 - Dioxin Screen (GC/MS SIM)

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG				NONE		04/23/21 08:16	04/30/21 14:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 625 - Dioxin Screen (GC/MS SIM)

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG				NONE		04/23/21 08:16	04/30/21 14:35	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00033	mg/L		04/26/21 06:35	04/27/21 14:42	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.0020	mg/L		04/26/21 06:35	04/27/21 14:42	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	0.0018	mg/L		04/26/21 06:35	04/27/21 14:42	1
2,4-Dinitrotoluene	0.0040	U	0.0040	0.0021	mg/L		04/26/21 06:35	04/27/21 14:42	1
Hexachlorobenzene	0.00080	U	0.00080	0.00016	mg/L		04/26/21 06:35	04/27/21 14:42	1
Hexachlorobutadiene	0.0040	U	0.0040	0.00054	mg/L		04/26/21 06:35	04/27/21 14:42	1
Hexachloroethane	0.0040	U	0.0040	0.00040	mg/L		04/26/21 06:35	04/27/21 14:42	1
3 & 4 Methylphenol	0.0040	U	0.0040	0.00019	mg/L		04/26/21 06:35	04/27/21 14:42	1
2-Methylphenol	0.0040	U	0.0040	0.00021	mg/L		04/26/21 06:35	04/27/21 14:42	1
Nitrobenzene	0.0040	U	0.0040	0.00051	mg/L		04/26/21 06:35	04/27/21 14:42	1
Pentachlorophenol	0.016	U	0.016	0.0031	mg/L		04/26/21 06:35	04/27/21 14:42	1
Pyridine	0.0040	U	0.0040	0.00036	mg/L		04/26/21 06:35	04/27/21 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		39 - 120	04/26/21 06:35	04/27/21 14:42	1
2-Fluorophenol (Surr)	61		10 - 120	04/26/21 06:35	04/27/21 14:42	1
2,4,6-Tribromophenol (Surr)	68		33 - 120	04/26/21 06:35	04/27/21 14:42	1
Nitrobenzene-d5 (Surr)	67		33 - 120	04/26/21 06:35	04/27/21 14:42	1
Phenol-d5 (Surr)	53		10 - 120	04/26/21 06:35	04/27/21 14:42	1
Terphenyl-d14 (Surr)	83		36 - 122	04/26/21 06:35	04/27/21 14:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00033	mg/L		04/26/21 06:35	04/27/21 15:06	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.0020	mg/L		04/26/21 06:35	04/27/21 15:06	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	0.0018	mg/L		04/26/21 06:35	04/27/21 15:06	1
2,4-Dinitrotoluene	0.0040	U	0.0040	0.0021	mg/L		04/26/21 06:35	04/27/21 15:06	1
Hexachlorobenzene	0.00080	U	0.00080	0.00016	mg/L		04/26/21 06:35	04/27/21 15:06	1
Hexachlorobutadiene	0.0040	U	0.0040	0.00054	mg/L		04/26/21 06:35	04/27/21 15:06	1
Hexachloroethane	0.0040	U	0.0040	0.00040	mg/L		04/26/21 06:35	04/27/21 15:06	1
3 & 4 Methylphenol	0.0040	U	0.0040	0.00019	mg/L		04/26/21 06:35	04/27/21 15:06	1
2-Methylphenol	0.0040	U	0.0040	0.00021	mg/L		04/26/21 06:35	04/27/21 15:06	1
Nitrobenzene	0.0040	U	0.0040	0.00051	mg/L		04/26/21 06:35	04/27/21 15:06	1
Pentachlorophenol	0.016	U	0.016	0.0031	mg/L		04/26/21 06:35	04/27/21 15:06	1
Pyridine	0.0040	U	0.0040	0.00036	mg/L		04/26/21 06:35	04/27/21 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		39 - 120				04/26/21 06:35	04/27/21 15:06	1
2-Fluorophenol (Surr)	65		10 - 120				04/26/21 06:35	04/27/21 15:06	1
2,4,6-Tribromophenol (Surr)	69		33 - 120				04/26/21 06:35	04/27/21 15:06	1
Nitrobenzene-d5 (Surr)	75		33 - 120				04/26/21 06:35	04/27/21 15:06	1
Phenol-d5 (Surr)	55		10 - 120				04/26/21 06:35	04/27/21 15:06	1
Terphenyl-d14 (Surr)	87		36 - 122				04/26/21 06:35	04/27/21 15:06	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.048	U	0.048	0.0050	ug/L		04/23/21 09:17	04/27/21 19:16	1
4,4'-DDE	0.048	U	0.048	0.0041	ug/L		04/23/21 09:17	04/27/21 19:16	1
4,4'-DDT	0.048	U	0.048	0.0046	ug/L		04/23/21 09:17	04/27/21 19:16	1
Aldrin	0.048	U	0.048	0.0023	ug/L		04/23/21 09:17	04/27/21 19:16	1
alpha-BHC	0.048	U	0.048	0.0019	ug/L		04/23/21 09:17	04/27/21 19:16	1
cis-Chlordane	0.048	U	0.048	0.0030	ug/L		04/23/21 09:17	04/27/21 19:16	1
beta-BHC	0.048	U	0.048	0.0044	ug/L		04/23/21 09:17	04/27/21 19:16	1
delta-BHC	0.048	U	0.048	0.0041	ug/L		04/23/21 09:17	04/27/21 19:16	1
Dieldrin	0.048	U	0.048	0.0022	ug/L		04/23/21 09:17	04/27/21 19:16	1
Endosulfan I	0.048	U	0.048	0.0035	ug/L		04/23/21 09:17	04/27/21 19:16	1
Endosulfan II	0.048	U	0.048	0.0022	ug/L		04/23/21 09:17	04/27/21 19:16	1
Endosulfan sulfate	0.048	U	0.048	0.0035	ug/L		04/23/21 09:17	04/27/21 19:16	1
Endrin	0.048	U	0.048	0.0024	ug/L		04/23/21 09:17	04/27/21 19:16	1
Endrin aldehyde	0.048	U	0.048	0.0044	ug/L		04/23/21 09:17	04/27/21 19:16	1
Endrin ketone	0.048	U	0.048	0.0038	ug/L		04/23/21 09:17	04/27/21 19:16	1
gamma-BHC (Lindane)	0.048	U	0.048	0.0024	ug/L		04/23/21 09:17	04/27/21 19:16	1
trans-Chlordane	0.048	U	0.048	0.0048	ug/L		04/23/21 09:17	04/27/21 19:16	1
Heptachlor	0.048	U	0.048	0.0031	ug/L		04/23/21 09:17	04/27/21 19:16	1
Heptachlor epoxide	0.048	U	0.048	0.0025	ug/L		04/23/21 09:17	04/27/21 19:16	1
Methoxychlor	0.095	U	0.095	0.0045	ug/L		04/23/21 09:17	04/27/21 19:16	1
Toxaphene	1.9	U	1.9	0.055	ug/L		04/23/21 09:17	04/27/21 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		10 - 120				04/23/21 09:17	04/27/21 19:16	1
Tetrachloro-m-xylene	78		33 - 120				04/23/21 09:17	04/27/21 19:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.050	U	0.050	0.0052	ug/L		04/23/21 09:17	04/27/21 19:29	1
4,4'-DDE	0.050	U	0.050	0.0043	ug/L		04/23/21 09:17	04/27/21 19:29	1
4,4'-DDT	0.050	U	0.050	0.0048	ug/L		04/23/21 09:17	04/27/21 19:29	1
Aldrin	0.050	U	0.050	0.0024	ug/L		04/23/21 09:17	04/27/21 19:29	1
alpha-BHC	0.050	U	0.050	0.0020	ug/L		04/23/21 09:17	04/27/21 19:29	1
cis-Chlordane	0.050	U	0.050	0.0032	ug/L		04/23/21 09:17	04/27/21 19:29	1
beta-BHC	0.050	U	0.050	0.0046	ug/L		04/23/21 09:17	04/27/21 19:29	1
delta-BHC	0.050	U	0.050	0.0043	ug/L		04/23/21 09:17	04/27/21 19:29	1
Dieldrin	0.050	U	0.050	0.0023	ug/L		04/23/21 09:17	04/27/21 19:29	1
Endosulfan I	0.050	U	0.050	0.0037	ug/L		04/23/21 09:17	04/27/21 19:29	1
Endosulfan II	0.050	U	0.050	0.0023	ug/L		04/23/21 09:17	04/27/21 19:29	1
Endosulfan sulfate	0.050	U	0.050	0.0037	ug/L		04/23/21 09:17	04/27/21 19:29	1
Endrin	0.050	U	0.050	0.0025	ug/L		04/23/21 09:17	04/27/21 19:29	1
Endrin aldehyde	0.050	U	0.050	0.0046	ug/L		04/23/21 09:17	04/27/21 19:29	1
Endrin ketone	0.050	U	0.050	0.0040	ug/L		04/23/21 09:17	04/27/21 19:29	1
gamma-BHC (Lindane)	0.050	U	0.050	0.0025	ug/L		04/23/21 09:17	04/27/21 19:29	1
trans-Chlordane	0.050	U	0.050	0.0050	ug/L		04/23/21 09:17	04/27/21 19:29	1
Heptachlor	0.050	U	0.050	0.0033	ug/L		04/23/21 09:17	04/27/21 19:29	1
Heptachlor epoxide	0.050	U	0.050	0.0026	ug/L		04/23/21 09:17	04/27/21 19:29	1
Methoxychlor	0.099	U	0.099	0.0047	ug/L		04/23/21 09:17	04/27/21 19:29	1
Toxaphene	2.0	U	2.0	0.058	ug/L		04/23/21 09:17	04/27/21 19:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		10 - 120				04/23/21 09:17	04/27/21 19:29	1
Tetrachloro-m-xylene	81		33 - 120				04/23/21 09:17	04/27/21 19:29	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	10		4.6	2.2	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluoropentanoic acid (PFPeA)	1.8		1.8	0.45	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorohexanoic acid (PFHxA)	3.1		1.8	0.53	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluoroheptanoic acid (PFHpA)	2.1		1.8	0.23	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorooctanoic acid (PFOA)	3.9		1.8	0.77	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorononanoic acid (PFNA)	0.90 J		1.8	0.25	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorodecanoic acid (PFDA)	0.68 J		1.8	0.28	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluoroundecanoic acid (PFUnA)	1.8 U		1.8	1.0	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorododecanoic acid (PFDoA)	1.8 U		1.8	0.50	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorotridecanoic acid (PFTriA)	1.8 U		1.8	1.2	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorotetradecanoic acid (PFTeA)	1.8 U		1.8	0.66	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorobutanesulfonic acid (PFBS)	0.71 J		1.8	0.18	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluoropentanesulfonic acid (PFPeS)	0.36 J		1.8	0.27	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorohexanesulfonic acid (PFHxS)	1.2 J I		1.8	0.52	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8 U		1.8	0.17	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorooctanesulfonic acid (PFOS)	8.7 U G		8.7	8.7	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorononanesulfonic acid (PFNS)	1.8 U		1.8	0.34	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorodecanesulfonic acid (PFDS)	1.8 U		1.8	0.29	ng/L		04/26/21 19:20	05/03/21 20:34	1
Perfluorooctanesulfonamide (FOSA)	1.8 U		1.8	0.89	ng/L		04/26/21 19:20	05/03/21 20:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.6 U		4.6	1.1	ng/L		04/26/21 19:20	05/03/21 20:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.6 U		4.6	1.2	ng/L		04/26/21 19:20	05/03/21 20:34	1
4:2 FTS	1.8 U		1.8	0.22	ng/L		04/26/21 19:20	05/03/21 20:34	1
6:2 FTS	4.6 U		4.6	2.3	ng/L		04/26/21 19:20	05/03/21 20:34	1
8:2 FTS	0.89 J		1.8	0.42	ng/L		04/26/21 19:20	05/03/21 20:34	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	1.8 U		1.8	0.36	ng/L		04/26/21 19:20	05/03/21 20:34	1
HFPO-DA (GenX)	3.6 U		3.6	1.4	ng/L		04/26/21 19:20	05/03/21 20:34	1
F-53B Major	1.8 U		1.8	0.22	ng/L		04/26/21 19:20	05/03/21 20:34	1
F-53B Minor	1.8 U		1.8	0.29	ng/L		04/26/21 19:20	05/03/21 20:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	70		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C5 PFPeA	76		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C2 PFHxA	92		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C4 PFHpA	97		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C4 PFOA	98		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C5 PFNA	92		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C2 PFDA	93		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C2 PFUnA	93		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C2 PFDoA	82		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C2 PFTeDA	49		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C3 PFBS	75		25 - 150	04/26/21 19:20	05/03/21 20:34	1
18O2 PFHxS	85		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C4 PFOS	79		25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C8 FOSA	81		25 - 150	04/26/21 19:20	05/03/21 20:34	1
d3-NMeFOSAA	62		25 - 150	04/26/21 19:20	05/03/21 20:34	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	67		25 - 150	04/26/21 19:20	05/03/21 20:34	1
M2-6:2 FTS	199	*5+	25 - 150	04/26/21 19:20	05/03/21 20:34	1
M2-8:2 FTS	116		25 - 150	04/26/21 19:20	05/03/21 20:34	1
M2-4:2 FTS	206	*5+	25 - 150	04/26/21 19:20	05/03/21 20:34	1
13C3 HFPO-DA	91		25 - 150	04/26/21 19:20	05/03/21 20:34	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.0		7.0	3.4	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluoropentanoic acid (PFPeA)	1.5	J	2.8	0.69	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorohexanoic acid (PFHxA)	2.7	J	2.8	0.82	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluoroheptanoic acid (PFHpA)	1.6	J	2.8	0.35	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorooctanoic acid (PFOA)	10		2.8	1.2	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorononanoic acid (PFNA)	2.8	U	2.8	0.38	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorodecanoic acid (PFDA)	2.8	U	2.8	0.44	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluoroundecanoic acid (PFUnA)	2.8	U	2.8	1.5	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorododecanoic acid (PFDoA)	2.8	U	2.8	0.77	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorotridecanoic acid (PFTriA)	2.8	U	2.8	1.8	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorotetradecanoic acid (PFTeA)	2.8	U	2.8	1.0	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorobutanesulfonic acid (PFBS)	1.7	J	2.8	0.28	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluoropentanesulfonic acid (PFPeS)	2.8	U	2.8	0.42	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorohexanesulfonic acid (PFHxS)	2.8	U	2.8	0.80	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.8	U	2.8	0.27	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorooctanesulfonic acid (PFOS)	6.2	I	2.8	0.76	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorononanesulfonic acid (PFNS)	2.8	U	2.8	0.52	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorodecanesulfonic acid (PFDS)	2.8	U	2.8	0.45	ng/L		04/26/21 19:20	05/03/21 18:26	1
Perfluorooctanesulfonamide (FOSA)	2.8	U	2.8	1.4	ng/L		04/26/21 19:20	05/03/21 18:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	7.0	U	7.0	1.7	ng/L		04/26/21 19:20	05/03/21 18:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	7.0	U	7.0	1.8	ng/L		04/26/21 19:20	05/03/21 18:26	1
4:2 FTS	2.8	U	2.8	0.34	ng/L		04/26/21 19:20	05/03/21 18:26	1
6:2 FTS	7.0	U	7.0	3.5	ng/L		04/26/21 19:20	05/03/21 18:26	1
8:2 FTS	2.8	U	2.8	0.65	ng/L		04/26/21 19:20	05/03/21 18:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.8	U	2.8	0.56	ng/L		04/26/21 19:20	05/03/21 18:26	1
HFPO-DA (GenX)	5.6	U	5.6	2.1	ng/L		04/26/21 19:20	05/03/21 18:26	1
F-53B Major	2.8	U	2.8	0.34	ng/L		04/26/21 19:20	05/03/21 18:26	1
F-53B Minor	2.8	U	2.8	0.45	ng/L		04/26/21 19:20	05/03/21 18:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	77		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C5 PFPeA	80		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C2 PFHxA	85		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C4 PFHpA	88		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C4 PFOA	96		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C5 PFNA	105		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C2 PFDA	90		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C2 PFUnA	85		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C2 PFDoA	73		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C2 PFTeDA	70		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C3 PFBS	82		25 - 150	04/26/21 19:20	05/03/21 18:26	1
18O2 PFHxS	83		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C4 PFOS	75		25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C8 FOSA	82		25 - 150	04/26/21 19:20	05/03/21 18:26	1
d3-NMeFOSAA	56		25 - 150	04/26/21 19:20	05/03/21 18:26	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	55		25 - 150	04/26/21 19:20	05/03/21 18:26	1
M2-6:2 FTS	163	*5+	25 - 150	04/26/21 19:20	05/03/21 18:26	1
M2-8:2 FTS	109		25 - 150	04/26/21 19:20	05/03/21 18:26	1
M2-4:2 FTS	172	*5+	25 - 150	04/26/21 19:20	05/03/21 18:26	1
13C3 HFPO-DA	86		25 - 150	04/26/21 19:20	05/03/21 18:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 6010C - Metals (ICP) - Total Recoverable

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	10	U	10	0.63	ug/L		04/22/21 14:00	04/23/21 20:54	1
Nickel	2.7	J	40	2.2	ug/L		04/22/21 14:00	04/23/21 20:54	1
Lead	10	U	10	2.8	ug/L		04/22/21 14:00	04/23/21 20:54	1
Zinc	50	U	50	9.7	ug/L		04/22/21 14:00	04/23/21 20:54	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 6010C - Metals (ICP) - Total Recoverable

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.66	J	10	0.63	ug/L		04/22/21 14:00	04/23/21 20:58	1
Nickel	3.6	J	40	2.2	ug/L		04/22/21 14:00	04/23/21 20:58	1
Lead	10	U	10	2.8	ug/L		04/22/21 14:00	04/23/21 20:58	1
Zinc	110		50	9.7	ug/L		04/22/21 14:00	04/23/21 20:58	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 7470A - Mercury (CVAA)

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		04/22/21 14:00	04/23/21 14:49	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 7470A - Mercury (CVAA)

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		04/22/21 14:00	04/23/21 14:51	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

General Chemistry

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	1.0	mg/L			05/04/21 08:55	1
Total Suspended Solids	4.0	U	4.0	1.0	mg/L			04/22/21 09:54	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		04/26/21 08:47	04/26/21 10:17	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

General Chemistry

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Date Collected: 04/16/21 00:00

Date Received: 04/17/21 10:10

Lab Sample ID: 240-147767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	54.3	U	54.3	11.1	mg/L			05/04/21 08:55	1
Total Suspended Solids	4.0	U	4.0	1.0	mg/L			04/22/21 09:54	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		04/26/21 08:47	04/26/21 10:19	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

GC/MS VOA

Leach Batch: 482412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	TCLP	Water	1311	
240-147767-15	WS-012607A-SWTS-041621-VI-015	TCLP	Water	1311	
LB 240-482412/1-A MB	Method Blank	TCLP	Water	1311	

Analysis Batch: 482594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-17	TRIP BLANK	Total/NA	Water	8260C	
MB 240-482594/8	Method Blank	Total/NA	Water	8260C	
LCS 240-482594/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 482709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	TCLP	Water	8260B	482412
240-147767-15	WS-012607A-SWTS-041621-VI-015	TCLP	Water	8260B	482412
LB 240-482412/1-A MB	Method Blank	TCLP	Water	8260B	482412
LCS 240-482709/10	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Leach Batch: 482423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	TCLP	Water	1311	
240-147767-15	WS-012607A-SWTS-041621-VI-015	TCLP	Water	1311	

Prep Batch: 482489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	3510C	
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	3510C	
MB 240-482489/7-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 482720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	TCLP	Water	3510C	482423
240-147767-15	WS-012607A-SWTS-041621-VI-015	TCLP	Water	3510C	482423
MB 240-482720/16-A	Method Blank	Total/NA	Water	3510C	
LCS 240-482720/17-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 482933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	TCLP	Water	8270C	482720
240-147767-15	WS-012607A-SWTS-041621-VI-015	TCLP	Water	8270C	482720
MB 240-482720/16-A	Method Blank	Total/NA	Water	8270C	482720
LCS 240-482720/17-A	Lab Control Sample	Total/NA	Water	8270C	482720

Analysis Batch: 483603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	625	482489
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	625	482489
MB 240-482489/7-A	Method Blank	Total/NA	Water	625	482489

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

GC Semi VOA

Analysis Batch: 482249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-482304/12-A	Method Blank	Total/NA	Waste	8082A	482304
LCS 240-482304/13-A	Lab Control Sample	Total/NA	Waste	8082A	482304

Prep Batch: 482304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-5	O-012607A-SWTS-041621-VI-005	Total/NA	Waste	3580A	
240-147767-6	O-012607A-SWTS-041621-VI-006	Total/NA	Waste	3580A	
MB 240-482304/12-A	Method Blank	Total/NA	Waste	3580A	
LCS 240-482304/13-A	Lab Control Sample	Total/NA	Waste	3580A	

Analysis Batch: 482446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-5	O-012607A-SWTS-041621-VI-005	Total/NA	Waste	8082A	482304
240-147767-6	O-012607A-SWTS-041621-VI-006	Total/NA	Waste	8082A	482304

Prep Batch: 482486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-1	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	3540C	
240-147767-12	CK-012607A-SWTS-041621-VI-012	Total/NA	Solid	3540C	
240-147767-16	PS-012607A-SWTS-041621-VI-016	Total/NA	Solid	3540C	
MB 240-482486/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-482486/24-A	Lab Control Sample	Total/NA	Solid	3540C	
240-147767-1 MS	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	3540C	
240-147767-1 MSD	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	3540C	

Prep Batch: 482491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-2	PS-012607A-SWTS-041621-VI-002	Total/NA	Solid	3540C	
240-147767-3	PS-012607A-SWTS-041621-VI-003	Total/NA	Solid	3540C	
240-147767-10	EJ-012607A-SWTS-041621-VI-010	Total/NA	Solid	3540C	
240-147767-11	CK-012607A-SWTS-041621-VI-011	Total/NA	Solid	3540C	
240-147767-13	EP-012607A-SWTS-041621-VI-013	Total/NA	Solid	3540C	
MB 240-482491/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-482491/24-A	Lab Control Sample	Total/NA	Solid	3540C	

Prep Batch: 482506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-8	W-012607A-SWTS-041621-VI-008	Total/NA	Wipe	3540C	
MB 240-482506/2-A	Method Blank	Total/NA	Wipe	3540C	
LCS 240-482506/3-A	Lab Control Sample	Total/NA	Wipe	3540C	

Prep Batch: 482513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	3510C	
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	3510C	
MB 240-482513/10-A	Method Blank	Total/NA	Water	3510C	
LCS 240-482513/11-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 482667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-1	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	8082A	482486

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

GC Semi VOA (Continued)

Analysis Batch: 482667 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-12	CK-012607A-SWTS-041621-VI-012	Total/NA	Solid	8082A	482486
240-147767-16	PS-012607A-SWTS-041621-VI-016	Total/NA	Solid	8082A	482486
MB 240-482486/23-A	Method Blank	Total/NA	Solid	8082A	482486
LCS 240-482486/24-A	Lab Control Sample	Total/NA	Solid	8082A	482486
240-147767-1 MS	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	8082A	482486
240-147767-1 MSD	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	8082A	482486

Processed Batch: 482727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	Part Size Red	

Analysis Batch: 482886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-8	W-012607A-SWTS-041621-VI-008	Total/NA	Wipe	8082A	482506
MB 240-482506/2-A	Method Blank	Total/NA	Wipe	8082A	482506
LCS 240-482506/3-A	Lab Control Sample	Total/NA	Wipe	8082A	482506

Analysis Batch: 482898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-10	EJ-012607A-SWTS-041621-VI-010	Total/NA	Solid	8082A	482491
240-147767-11	CK-012607A-SWTS-041621-VI-011	Total/NA	Solid	8082A	482491
240-147767-13	EP-012607A-SWTS-041621-VI-013	Total/NA	Solid	8082A	482491
MB 240-482491/23-A	Method Blank	Total/NA	Solid	8082A	482491
LCS 240-482491/24-A	Lab Control Sample	Total/NA	Solid	8082A	482491

Prep Batch: 482974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-7	RM-012607A-SWTS-041621-VI-007	Total/NA	Solid	3540C	
240-147767-9	CK-012607A-SWTS-041621-VI-009	Total/NA	Solid	3540C	
MB 240-482974/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-482974/24-A	Lab Control Sample	Total/NA	Solid	3540C	

Analysis Batch: 483054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	8081A	482513
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	8081A	482513
MB 240-482513/10-A	Method Blank	Total/NA	Water	8081A	482513
LCS 240-482513/11-A	Lab Control Sample	Total/NA	Water	8081A	482513

Analysis Batch: 483129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-2	PS-012607A-SWTS-041621-VI-002	Total/NA	Solid	8082A	482491
240-147767-3	PS-012607A-SWTS-041621-VI-003	Total/NA	Solid	8082A	482491

Prep Batch: 483189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	3540C	482727
MB 240-483189/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-483189/24-A	Lab Control Sample	Total/NA	Solid	3540C	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

GC Semi VOA

Analysis Batch: 483252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-7	RM-012607A-SWTS-041621-VI-007	Total/NA	Solid	8082A	482974
240-147767-9	CK-012607A-SWTS-041621-VI-009	Total/NA	Solid	8082A	482974
MB 240-482974/23-A	Method Blank	Total/NA	Solid	8082A	482974
LCS 240-482974/24-A	Lab Control Sample	Total/NA	Solid	8082A	482974

Analysis Batch: 483447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-483189/23-A	Method Blank	Total/NA	Solid	8082A	483189
LCS 240-483189/24-A	Lab Control Sample	Total/NA	Solid	8082A	483189

Analysis Batch: 483502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	8082A	483189

LCMS

Prep Batch: 483354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	3535	
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	3535	
MB 320-483354/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-483354/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-483354/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 485665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	537 (modified)	483354
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	537 (modified)	483354
MB 320-483354/1-A	Method Blank	Total/NA	Water	537 (modified)	483354
LCS 320-483354/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	483354
LCSD 320-483354/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	483354

Metals

Prep Batch: 482327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total Recoverable	Water	3005A	
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total Recoverable	Water	3005A	
MB 240-482327/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-482327/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 482328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	7470A	
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	7470A	
MB 240-482328/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-482328/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 482336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-7	RM-012607A-SWTS-041621-VI-007	Total/NA	Solid	3050B	
240-147767-13	EP-012607A-SWTS-041621-VI-013	Total/NA	Solid	3050B	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Metals (Continued)

Prep Batch: 482336 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-16	PS-012607A-SWTS-041621-VI-016	Total/NA	Solid	3050B	
MB 240-482336/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 240-482336/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 482343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-7	RM-012607A-SWTS-041621-VI-007	Total/NA	Solid	7471A	
240-147767-13	EP-012607A-SWTS-041621-VI-013	Total/NA	Solid	7471A	
240-147767-16	PS-012607A-SWTS-041621-VI-016	Total/NA	Solid	7471A	
MB 240-482343/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 240-482343/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Analysis Batch: 482642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	7470A	482328
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	7470A	482328
MB 240-482328/1-A	Method Blank	Total/NA	Water	7470A	482328
LCS 240-482328/2-A	Lab Control Sample	Total/NA	Water	7470A	482328

Analysis Batch: 482643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-7	RM-012607A-SWTS-041621-VI-007	Total/NA	Solid	7471A	482343
240-147767-13	EP-012607A-SWTS-041621-VI-013	Total/NA	Solid	7471A	482343
240-147767-16	PS-012607A-SWTS-041621-VI-016	Total/NA	Solid	7471A	482343
MB 240-482343/1-A	Method Blank	Total/NA	Solid	7471A	482343
LCS 240-482343/2-A	Lab Control Sample	Total/NA	Solid	7471A	482343

Analysis Batch: 482702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-7	RM-012607A-SWTS-041621-VI-007	Total/NA	Solid	6010B	482336
240-147767-13	EP-012607A-SWTS-041621-VI-013	Total/NA	Solid	6010B	482336
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total Recoverable	Water	6010C	482327
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total Recoverable	Water	6010C	482327
240-147767-16	PS-012607A-SWTS-041621-VI-016	Total/NA	Solid	6010B	482336
MB 240-482327/1-A	Method Blank	Total Recoverable	Water	6010C	482327
MB 240-482336/1-A	Method Blank	Total/NA	Solid	6010B	482336
LCS 240-482327/2-A	Lab Control Sample	Total Recoverable	Water	6010C	482327
LCS 240-482336/2-A	Lab Control Sample	Total/NA	Solid	6010B	482336

Processed Batch: 482727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	Part Size Red	

Prep Batch: 483024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-1	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	3050B	
240-147767-2	PS-012607A-SWTS-041621-VI-002	Total/NA	Solid	3050B	
240-147767-3	PS-012607A-SWTS-041621-VI-003	Total/NA	Solid	3050B	
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	3050B	482727
MB 240-483024/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 240-483024/2-A	Lab Control Sample	Total/NA	Solid	3050B	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Metals

Prep Batch: 483043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-1	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	7471A	482727
240-147767-2	PS-012607A-SWTS-041621-VI-002	Total/NA	Solid	7471A	
240-147767-3	PS-012607A-SWTS-041621-VI-003	Total/NA	Solid	7471A	
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	7471A	
MB 240-483043/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 240-483043/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Analysis Batch: 483045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-1	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	7471A	483043
240-147767-2	PS-012607A-SWTS-041621-VI-002	Total/NA	Solid	7471A	483043
240-147767-3	PS-012607A-SWTS-041621-VI-003	Total/NA	Solid	7471A	483043
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	7471A	483043
MB 240-483043/1-A	Method Blank	Total/NA	Solid	7471A	483043
LCS 240-483043/2-A	Lab Control Sample	Total/NA	Solid	7471A	483043

Analysis Batch: 483437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-1	PS-012607A-SWTS-041621-VI-001	Total/NA	Solid	6010B	483024
240-147767-2	PS-012607A-SWTS-041621-VI-002	Total/NA	Solid	6010B	483024
240-147767-2	PS-012607A-SWTS-041621-VI-002	Total/NA	Solid	6010B	483024
240-147767-3	PS-012607A-SWTS-041621-VI-003	Total/NA	Solid	6010B	483024
240-147767-3	PS-012607A-SWTS-041621-VI-003	Total/NA	Solid	6010B	483024
240-147767-4	PS-012607A-SWTS-041621-VI-004	Total/NA	Solid	6010B	483024
MB 240-483024/1-A	Method Blank	Total/NA	Solid	6010B	483024
LCS 240-483024/2-A	Lab Control Sample	Total/NA	Solid	6010B	483024

General Chemistry

Analysis Batch: 482317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	2540 D-2011	2540 D-2011
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	2540 D-2011	
MB 240-482317/1	Method Blank	Total/NA	Water	2540 D-2011	
LCS 240-482317/2	Lab Control Sample	Total/NA	Water	2540 D-2011	

Prep Batch: 482748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	9012A	9012A
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	9012A	
MB 240-482748/1-A	Method Blank	Total/NA	Water	9012A	
LCS 240-482748/2-A	Lab Control Sample	Total/NA	Water	9012A	

Analysis Batch: 482781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	9012A	482748
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	9012A	482748
MB 240-482748/1-A	Method Blank	Total/NA	Water	9012A	482748
LCS 240-482748/2-A	Lab Control Sample	Total/NA	Water	9012A	482748
MRL 240-482781/10	Lab Control Sample	Total/NA	Water	9012A	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

General Chemistry

Analysis Batch: 483978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-147767-14	WS-012607A-SWTS-041621-VI-014	Total/NA	Water	1664A	
240-147767-15	WS-012607A-SWTS-041621-VI-015	Total/NA	Water	1664A	
MB 240-483978/1	Method Blank	Total/NA	Water	1664A	
LCS 240-483978/2	Lab Control Sample	Total/NA	Water	1664A	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 240-482709/10

Matrix: Water

Analysis Batch: 482709

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.00	0.928		mg/L		93	80 - 128
1,2-Dichloroethane	1.00	0.817		mg/L		82	67 - 125
2-Butanone (MEK)	2.00	1.99		mg/L		99	55 - 127
Benzene	1.00	0.951		mg/L		95	80 - 122
Carbon tetrachloride	1.00	0.854		mg/L		85	67 - 126
Chlorobenzene	1.00	1.03		mg/L		103	80 - 120
Chloroform	1.00	0.845		mg/L		84	80 - 120
Tetrachloroethene	1.00	0.992		mg/L		99	76 - 120
Trichloroethene	1.00	0.855		mg/L		86	77 - 120
Vinyl chloride	1.00	0.935		mg/L		94	60 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		74 - 124
4-Bromofluorobenzene (Surr)	103		77 - 120
Toluene-d8 (Surr)	110		80 - 120
Dibromofluoromethane (Surr)	84		80 - 120

Lab Sample ID: LB 240-482412/1-A MB

Matrix: Water

Analysis Batch: 482709

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.00019	mg/L			04/25/21 18:43	1
1,2-Dichloroethane	0.025	U	0.025	0.00021	mg/L			04/25/21 18:43	1
2-Butanone (MEK)	0.25	U	0.25	0.0012	mg/L			04/25/21 18:43	1
Benzene	0.025	U	0.025	0.00013	mg/L			04/25/21 18:43	1
Carbon tetrachloride	0.025	U	0.025	0.00026	mg/L			04/25/21 18:43	1
Chlorobenzene	0.025	U	0.025	0.00014	mg/L			04/25/21 18:43	1
Chloroform	0.025	U	0.025	0.00013	mg/L			04/25/21 18:43	1
Tetrachloroethene	0.025	U	0.025	0.00015	mg/L			04/25/21 18:43	1
Trichloroethene	0.025	U	0.025	0.00010	mg/L			04/25/21 18:43	1
Vinyl chloride	0.025	U	0.025	0.00020	mg/L			04/25/21 18:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		74 - 124		04/25/21 18:43	1
4-Bromofluorobenzene (Surr)	103		77 - 120		04/25/21 18:43	1
Toluene-d8 (Surr)	109		80 - 120		04/25/21 18:43	1
Dibromofluoromethane (Surr)	84		80 - 120		04/25/21 18:43	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-482594/8

Matrix: Water

Analysis Batch: 482594

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			04/23/21 17:57	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			04/23/21 17:57	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-482594/8

Matrix: Water

Analysis Batch: 482594

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			04/23/21 17:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			04/23/21 17:57	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			04/23/21 17:57	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			04/23/21 17:57	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			04/23/21 17:57	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			04/23/21 17:57	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			04/23/21 17:57	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/23/21 17:57	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/23/21 17:57	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			04/23/21 17:57	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			04/23/21 17:57	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			04/23/21 17:57	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			04/23/21 17:57	1
2-Hexanone	10	U	10	0.54	ug/L			04/23/21 17:57	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			04/23/21 17:57	1
Acetone	10	U	10	5.4	ug/L			04/23/21 17:57	1
Benzene	1.0	U	1.0	0.13	ug/L			04/23/21 17:57	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			04/23/21 17:57	1
Bromoform	1.0	U	1.0	0.76	ug/L			04/23/21 17:57	1
Bromomethane	1.0	U	1.0	0.42	ug/L			04/23/21 17:57	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			04/23/21 17:57	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			04/23/21 17:57	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/23/21 17:57	1
Chloroethane	1.0	U	1.0	0.83	ug/L			04/23/21 17:57	1
Chloroform	1.0	U	1.0	0.13	ug/L			04/23/21 17:57	1
Chloromethane	1.0	U	1.0	0.20	ug/L			04/23/21 17:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			04/23/21 17:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			04/23/21 17:57	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			04/23/21 17:57	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			04/23/21 17:57	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			04/23/21 17:57	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			04/23/21 17:57	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			04/23/21 17:57	1
Methyl acetate	10	U	10	1.7	ug/L			04/23/21 17:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			04/23/21 17:57	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			04/23/21 17:57	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			04/23/21 17:57	1
Styrene	1.0	U	1.0	0.10	ug/L			04/23/21 17:57	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/23/21 17:57	1
Toluene	1.0	U	1.0	0.14	ug/L			04/23/21 17:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			04/23/21 17:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			04/23/21 17:57	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			04/23/21 17:57	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			04/23/21 17:57	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			04/23/21 17:57	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			04/23/21 17:57	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-482594/8

Matrix: Water

Analysis Batch: 482594

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		69 - 122		04/23/21 17:57	1
Dibromofluoromethane (Surr)	84		78 - 129		04/23/21 17:57	1
4-Bromofluorobenzene (Surr)	102		47 - 134		04/23/21 17:57	1
1,2-Dichloroethane-d4 (Surr)	88		75 - 130		04/23/21 17:57	1

Lab Sample ID: LCS 240-482594/5

Matrix: Water

Analysis Batch: 482594

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	17.7		ug/L		88	65 - 141
1,1,2,2-Tetrachloroethane	20.0	24.1		ug/L		121	45 - 151
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.1		ug/L		85	54 - 148
1,1,2-Trichloroethane	20.0	21.0		ug/L		105	79 - 121
1,1-Dichloroethane	20.0	18.7		ug/L		94	74 - 126
1,1-Dichloroethene	20.0	18.4		ug/L		92	73 - 129
1,2,4-Trichlorobenzene	20.0	17.2		ug/L		86	47 - 120
1,2-Dibromo-3-Chloropropane	20.0	21.7		ug/L		109	34 - 136
Ethylene Dibromide	20.0	21.3		ug/L		107	73 - 120
1,2-Dichlorobenzene	20.0	20.3		ug/L		102	74 - 120
1,2-Dichloroethane	20.0	16.9		ug/L		85	66 - 129
1,2-Dichloropropane	20.0	20.4		ug/L		102	79 - 127
1,3-Dichlorobenzene	20.0	22.1		ug/L		110	74 - 120
1,4-Dichlorobenzene	20.0	21.7		ug/L		109	75 - 120
2-Butanone (MEK)	40.0	41.5		ug/L		104	41 - 151
2-Hexanone	40.0	51.6		ug/L		129	43 - 142
4-Methyl-2-pentanone (MIBK)	40.0	42.4		ug/L		106	43 - 145
Acetone	40.0	31.3		ug/L		78	33 - 155
Benzene	20.0	19.0		ug/L		95	77 - 123
Dichlorobromomethane	20.0	18.4		ug/L		92	73 - 122
Bromoform	20.0	20.1		ug/L		100	47 - 133
Bromomethane	20.0	12.6		ug/L		63	48 - 144
Carbon disulfide	20.0	19.9		ug/L		100	67 - 127
Carbon tetrachloride	20.0	17.5		ug/L		88	61 - 142
Chlorobenzene	20.0	20.9		ug/L		104	80 - 120
Chloroethane	20.0	14.4		ug/L		72	41 - 147
Chloroform	20.0	17.0		ug/L		85	74 - 127
Chloromethane	20.0	18.5		ug/L		93	46 - 148
cis-1,2-Dichloroethene	20.0	18.1		ug/L		91	75 - 124
cis-1,3-Dichloropropene	20.0	20.6		ug/L		103	68 - 128
Cyclohexane	20.0	19.3		ug/L		96	69 - 133
Chlorodibromomethane	20.0	21.1		ug/L		105	75 - 120
Dichlorodifluoromethane	20.0	17.1		ug/L		86	35 - 137
Ethylbenzene	20.0	21.1		ug/L		106	80 - 120
Isopropylbenzene	20.0	20.5		ug/L		102	73 - 123
Methyl acetate	40.0	40.0		ug/L		100	47 - 140
Methyl tert-butyl ether	20.0	17.5		ug/L		87	57 - 127
Methylcyclohexane	20.0	19.2		ug/L		96	64 - 123

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-482594/5

Matrix: Water

Analysis Batch: 482594

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	19.3		ug/L		97	63 - 134
Styrene	20.0	24.5	*+	ug/L		123	75 - 121
Tetrachloroethene	20.0	20.5		ug/L		102	70 - 125
Toluene	20.0	22.1		ug/L		110	79 - 122
trans-1,2-Dichloroethene	20.0	18.8		ug/L		94	74 - 130
trans-1,3-Dichloropropene	20.0	22.8		ug/L		114	64 - 120
Trichloroethene	20.0	17.6		ug/L		88	71 - 121
Trichlorofluoromethane	20.0	13.5		ug/L		67	52 - 148
Vinyl chloride	20.0	18.4		ug/L		92	61 - 134
Xylenes, Total	40.0	41.6		ug/L		104	78 - 122
m-Xylene & p-Xylene	20.0	21.1		ug/L		106	79 - 121
o-Xylene	20.0	20.5		ug/L		102	75 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	104		69 - 122
Dibromofluoromethane (Surr)	81		78 - 129
4-Bromofluorobenzene (Surr)	101		47 - 134
1,2-Dichloroethane-d4 (Surr)	85		75 - 130

Method: 625 - Dioxin Screen (GC/MS SIM)

Lab Sample ID: MB 240-482489/7-A

Matrix: Water

Analysis Batch: 483603

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG				NONE		04/23/21 08:16	04/30/21 13:04	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-482720/16-A

Matrix: Water

Analysis Batch: 482933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482720

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00033	mg/L		04/26/21 06:35	04/27/21 09:05	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.0020	mg/L		04/26/21 06:35	04/27/21 09:05	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	0.0018	mg/L		04/26/21 06:35	04/27/21 09:05	1
2,4-Dinitrotoluene	0.0040	U	0.0040	0.0021	mg/L		04/26/21 06:35	04/27/21 09:05	1
Hexachlorobenzene	0.00080	U	0.00080	0.00016	mg/L		04/26/21 06:35	04/27/21 09:05	1
Hexachlorobutadiene	0.0040	U	0.0040	0.00054	mg/L		04/26/21 06:35	04/27/21 09:05	1
Hexachloroethane	0.0040	U	0.0040	0.00040	mg/L		04/26/21 06:35	04/27/21 09:05	1
3 & 4 Methylphenol	0.0040	U	0.0040	0.00019	mg/L		04/26/21 06:35	04/27/21 09:05	1
2-Methylphenol	0.0040	U	0.0040	0.00021	mg/L		04/26/21 06:35	04/27/21 09:05	1
Nitrobenzene	0.0040	U	0.0040	0.00051	mg/L		04/26/21 06:35	04/27/21 09:05	1
Pentachlorophenol	0.016	U	0.016	0.0031	mg/L		04/26/21 06:35	04/27/21 09:05	1
Pyridine	0.0040	U	0.0040	0.00036	mg/L		04/26/21 06:35	04/27/21 09:05	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-482720/16-A

Matrix: Water

Analysis Batch: 482933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482720

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		39 - 120	04/26/21 06:35	04/27/21 09:05	1
2-Fluorophenol (Surr)	64		10 - 120	04/26/21 06:35	04/27/21 09:05	1
2,4,6-Tribromophenol (Surr)	78		33 - 120	04/26/21 06:35	04/27/21 09:05	1
Nitrobenzene-d5 (Surr)	73		33 - 120	04/26/21 06:35	04/27/21 09:05	1
Phenol-d5 (Surr)	56		10 - 120	04/26/21 06:35	04/27/21 09:05	1
Terphenyl-d14 (Surr)	82		36 - 122	04/26/21 06:35	04/27/21 09:05	1

Lab Sample ID: LCS 240-482720/17-A

Matrix: Water

Analysis Batch: 482933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0800	0.0677		mg/L		85	46 - 120
2,4,5-Trichlorophenol	0.0800	0.0718		mg/L		90	61 - 120
2,4,6-Trichlorophenol	0.0800	0.0682		mg/L		85	63 - 120
2,4-Dinitrotoluene	0.0800	0.0738		mg/L		92	66 - 120
Hexachlorobenzene	0.0800	0.0688		mg/L		86	57 - 120
Hexachlorobutadiene	0.0800	0.0650		mg/L		81	39 - 120
Hexachloroethane	0.0800	0.0638		mg/L		80	40 - 120
3 & 4 Methylphenol	0.0800	0.0680		mg/L		85	45 - 120
2-Methylphenol	0.0800	0.0711		mg/L		89	50 - 120
Nitrobenzene	0.0800	0.0711		mg/L		89	56 - 120
Pentachlorophenol	0.160	0.138		mg/L		86	32 - 120
Pyridine	0.160	0.0683		mg/L		43	18 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	83		39 - 120
2-Fluorophenol (Surr)	79		10 - 120
2,4,6-Tribromophenol (Surr)	91		33 - 120
Nitrobenzene-d5 (Surr)	90		33 - 120
Phenol-d5 (Surr)	69		10 - 120
Terphenyl-d14 (Surr)	96		36 - 122

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 240-482513/10-A

Matrix: Water

Analysis Batch: 483054

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.050	U	0.050	0.0053	ug/L		04/23/21 09:17	04/27/21 19:42	1
4,4'-DDE	0.050	U	0.050	0.0043	ug/L		04/23/21 09:17	04/27/21 19:42	1
4,4'-DDT	0.050	U	0.050	0.0048	ug/L		04/23/21 09:17	04/27/21 19:42	1
Aldrin	0.050	U	0.050	0.0024	ug/L		04/23/21 09:17	04/27/21 19:42	1
alpha-BHC	0.050	U	0.050	0.0020	ug/L		04/23/21 09:17	04/27/21 19:42	1
cis-Chlordane	0.050	U	0.050	0.0032	ug/L		04/23/21 09:17	04/27/21 19:42	1
beta-BHC	0.050	U	0.050	0.0046	ug/L		04/23/21 09:17	04/27/21 19:42	1
delta-BHC	0.050	U	0.050	0.0043	ug/L		04/23/21 09:17	04/27/21 19:42	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 240-482513/10-A

Matrix: Water

Analysis Batch: 483054

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	0.050	U	0.050	0.0023	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endosulfan I	0.050	U	0.050	0.0037	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endosulfan II	0.050	U	0.050	0.0023	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endosulfan sulfate	0.050	U	0.050	0.0037	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endrin	0.050	U	0.050	0.0025	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endrin aldehyde	0.050	U	0.050	0.0046	ug/L		04/23/21 09:17	04/27/21 19:42	1
Endrin ketone	0.050	U	0.050	0.0040	ug/L		04/23/21 09:17	04/27/21 19:42	1
gamma-BHC (Lindane)	0.050	U	0.050	0.0025	ug/L		04/23/21 09:17	04/27/21 19:42	1
trans-Chlordane	0.050	U	0.050	0.0050	ug/L		04/23/21 09:17	04/27/21 19:42	1
Heptachlor	0.050	U	0.050	0.0033	ug/L		04/23/21 09:17	04/27/21 19:42	1
Heptachlor epoxide	0.050	U	0.050	0.0026	ug/L		04/23/21 09:17	04/27/21 19:42	1
Methoxychlor	0.10	U	0.10	0.0047	ug/L		04/23/21 09:17	04/27/21 19:42	1
Toxaphene	2.0	U	2.0	0.058	ug/L		04/23/21 09:17	04/27/21 19:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93		10 - 120	04/23/21 09:17	04/27/21 19:42	1
Tetrachloro-m-xylene	87		33 - 120	04/23/21 09:17	04/27/21 19:42	1

Lab Sample ID: LCS 240-482513/11-A

Matrix: Water

Analysis Batch: 483054

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.250	0.246		ug/L		98	50 - 129
4,4'-DDE	0.250	0.246		ug/L		98	48 - 121
4,4'-DDT	0.250	0.265		ug/L		106	56 - 129
Aldrin	0.250	0.234		ug/L		94	39 - 120
alpha-BHC	0.250	0.239		ug/L		96	55 - 122
cis-Chlordane	0.250	0.247		ug/L		99	52 - 121
beta-BHC	0.250	0.229		ug/L		92	36 - 140
delta-BHC	0.250	0.236		ug/L		94	45 - 120
Dieldrin	0.250	0.246		ug/L		98	49 - 120
Endosulfan I	0.250	0.196		ug/L		78	25 - 120
Endosulfan II	0.250	0.191		ug/L		76	43 - 120
Endosulfan sulfate	0.250	0.279		ug/L		112	53 - 120
Endrin	0.250	0.248		ug/L		99	49 - 120
Endrin aldehyde	0.250	0.246		ug/L		99	47 - 120
Endrin ketone	0.250	0.249		ug/L		100	56 - 121
gamma-BHC (Lindane)	0.250	0.181		ug/L		73	42 - 120
trans-Chlordane	0.250	0.226		ug/L		90	52 - 122
Heptachlor	0.250	0.261		ug/L		104	50 - 120
Heptachlor epoxide	0.250	0.233		ug/L		93	50 - 120
Methoxychlor	0.250	0.254		ug/L		101	47 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	88		10 - 120
Tetrachloro-m-xylene	88		33 - 120

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

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

Lab Sample ID: MB 240-482304/12-A

Matrix: Waste

Analysis Batch: 482249

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	500	U	500	220	ug/Kg		04/22/21 09:13	04/22/21 10:21	1
Aroclor-1221	500	U	500	240	ug/Kg		04/22/21 09:13	04/22/21 10:21	1
Aroclor-1232	500	U	500	230	ug/Kg		04/22/21 09:13	04/22/21 10:21	1
Aroclor-1242	500	U	500	190	ug/Kg		04/22/21 09:13	04/22/21 10:21	1
Aroclor-1248	500	U	500	240	ug/Kg		04/22/21 09:13	04/22/21 10:21	1
Aroclor-1254	500	U	500	230	ug/Kg		04/22/21 09:13	04/22/21 10:21	1
Aroclor-1260	500	U	500	220	ug/Kg		04/22/21 09:13	04/22/21 10:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	117		23 - 160	04/22/21 09:13	04/22/21 10:21	1
DCB Decachlorobiphenyl	122		10 - 191	04/22/21 09:13	04/22/21 10:21	1

Lab Sample ID: LCS 240-482304/13-A

Matrix: Waste

Analysis Batch: 482249

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	10000	10200		ug/Kg		102	51 - 160
Aroclor-1260	10000	10000		ug/Kg		100	32 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	121		23 - 160
DCB Decachlorobiphenyl	125		10 - 191

Lab Sample ID: MB 240-482486/23-A

Matrix: Solid

Analysis Batch: 482667

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	50	U	50	22	ug/Kg		04/23/21 07:59	04/26/21 12:11	1
Aroclor-1221	50	U	50	24	ug/Kg		04/23/21 07:59	04/26/21 12:11	1
Aroclor-1232	50	U	50	23	ug/Kg		04/23/21 07:59	04/26/21 12:11	1
Aroclor-1242	50	U	50	19	ug/Kg		04/23/21 07:59	04/26/21 12:11	1
Aroclor-1248	50	U	50	24	ug/Kg		04/23/21 07:59	04/26/21 12:11	1
Aroclor-1254	50	U	50	23	ug/Kg		04/23/21 07:59	04/26/21 12:11	1
Aroclor-1260	50	U	50	22	ug/Kg		04/23/21 07:59	04/26/21 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		14 - 128	04/23/21 07:59	04/26/21 12:11	1
DCB Decachlorobiphenyl	90		10 - 132	04/23/21 07:59	04/26/21 12:11	1

Lab Sample ID: LCS 240-482486/24-A

Matrix: Solid

Analysis Batch: 482667

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482486

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	1000	845		ug/Kg		84	47 - 120
Aroclor-1260	1000	783		ug/Kg		78	46 - 120

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

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

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	91		14 - 128
DCB Decachlorobiphenyl	94		10 - 132

Lab Sample ID: 240-147767-1 MS
Matrix: Solid
Analysis Batch: 482667

Client Sample ID: PS-012607A-SWTS-041621-VI-001
Prep Type: Total/NA
Prep Batch: 482486

	Sample	Sample	Spike	MS	MS					
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
Aroclor-1016	680	U	8330	5690		ug/Kg		68	31 - 120	
Aroclor-1260	680	U F2	8330	4010		ug/Kg		48	21 - 122	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
Tetrachloro-m-xylene	182	S1+	14 - 128							
DCB Decachlorobiphenyl	48		10 - 132							

Lab Sample ID: 240-147767-1 MSD
Matrix: Solid
Analysis Batch: 482667

Client Sample ID: PS-012607A-SWTS-041621-VI-001
Prep Type: Total/NA
Prep Batch: 482486

	Sample	Sample	Spike	MSD	MSD						
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aroclor-1016	680	U F2	7040	2850	p F2	ug/Kg		40	31 - 120	86	30
Aroclor-1260	680	U F2	7040	2460	F2	ug/Kg		35	21 - 122	31	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
Tetrachloro-m-xylene	192	S1+	14 - 128								
DCB Decachlorobiphenyl	45		10 - 132								

Lab Sample ID: MB 240-482491/23-A
Matrix: Solid
Analysis Batch: 482898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482491

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Aroclor-1016	50	U	50	22	ug/Kg		04/23/21 08:18	04/27/21 07:14	1	
Aroclor-1221	50	U	50	24	ug/Kg		04/23/21 08:18	04/27/21 07:14	1	
Aroclor-1232	50	U	50	23	ug/Kg		04/23/21 08:18	04/27/21 07:14	1	
Aroclor-1242	50	U	50	19	ug/Kg		04/23/21 08:18	04/27/21 07:14	1	
Aroclor-1248	50	U	50	24	ug/Kg		04/23/21 08:18	04/27/21 07:14	1	
Aroclor-1254	50	U	50	23	ug/Kg		04/23/21 08:18	04/27/21 07:14	1	
Aroclor-1260	50	U	50	22	ug/Kg		04/23/21 08:18	04/27/21 07:14	1	
	MB	MB								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
Tetrachloro-m-xylene	93		14 - 128				04/23/21 08:18	04/27/21 07:14	1	
DCB Decachlorobiphenyl	97		10 - 132				04/23/21 08:18	04/27/21 07:14	1	

Lab Sample ID: LCS 240-482491/24-A
Matrix: Solid
Analysis Batch: 482898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482491

		Spike	LCS	LCS						
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits		%Rec.
Aroclor-1016		1000	802		ug/Kg		80	47 - 120		
Aroclor-1260		1000	775		ug/Kg		78	46 - 120		

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

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

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	96		14 - 128
DCB Decachlorobiphenyl	96		10 - 132

Lab Sample ID: MB 240-482506/2-A
Matrix: Wipe
Analysis Batch: 482886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482506

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.50	U	0.50		0.24	ug/Wipe			04/23/21 08:58	04/27/21 11:44	1
Aroclor-1221	0.50	U	0.50		0.23	ug/Wipe			04/23/21 08:58	04/27/21 11:44	1
Aroclor-1232	0.50	U	0.50		0.16	ug/Wipe			04/23/21 08:58	04/27/21 11:44	1
Aroclor-1242	0.50	U	0.50		0.20	ug/Wipe			04/23/21 08:58	04/27/21 11:44	1
Aroclor-1248	0.50	U	0.50		0.17	ug/Wipe			04/23/21 08:58	04/27/21 11:44	1
Aroclor-1254	0.50	U	0.50		0.14	ug/Wipe			04/23/21 08:58	04/27/21 11:44	1
Aroclor-1260	0.50	U	0.50		0.18	ug/Wipe			04/23/21 08:58	04/27/21 11:44	1

	MB	MB							Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits								
Tetrachloro-m-xylene	82		23 - 133						04/23/21 08:58	04/27/21 11:44	1
DCB Decachlorobiphenyl	100		21 - 145						04/23/21 08:58	04/27/21 11:44	1

Lab Sample ID: LCS 240-482506/3-A
Matrix: Wipe
Analysis Batch: 482886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482506

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Aroclor-1016	10.0	6.91		ug/Wipe		69		35 - 128
Aroclor-1260	10.0	7.56		ug/Wipe		76		38 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	76		23 - 133
DCB Decachlorobiphenyl	96		21 - 145

Lab Sample ID: MB 240-482974/23-A
Matrix: Solid
Analysis Batch: 483252

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482974

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	50	U	50		22	ug/Kg			04/27/21 09:37	04/28/21 17:48	1
Aroclor-1221	50	U	50		24	ug/Kg			04/27/21 09:37	04/28/21 17:48	1
Aroclor-1232	50	U	50		23	ug/Kg			04/27/21 09:37	04/28/21 17:48	1
Aroclor-1242	50	U	50		19	ug/Kg			04/27/21 09:37	04/28/21 17:48	1
Aroclor-1248	50	U	50		24	ug/Kg			04/27/21 09:37	04/28/21 17:48	1
Aroclor-1254	50	U	50		23	ug/Kg			04/27/21 09:37	04/28/21 17:48	1
Aroclor-1260	50	U	50		22	ug/Kg			04/27/21 09:37	04/28/21 17:48	1

	MB	MB							Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits								
Tetrachloro-m-xylene	94		14 - 128						04/27/21 09:37	04/28/21 17:48	1
DCB Decachlorobiphenyl	105		10 - 132						04/27/21 09:37	04/28/21 17:48	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

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

Lab Sample ID: LCS 240-482974/24-A

Matrix: Solid

Analysis Batch: 483252

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	1000	855		ug/Kg		85	47 - 120
Aroclor-1260	1000	851		ug/Kg		85	46 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	89		14 - 128
DCB Decachlorobiphenyl	98		10 - 132

Lab Sample ID: MB 240-483189/23-A

Matrix: Solid

Analysis Batch: 483447

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 483189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	50	U	50	22	ug/Kg		04/28/21 09:52	04/29/21 16:17	1
Aroclor-1221	50	U	50	24	ug/Kg		04/28/21 09:52	04/29/21 16:17	1
Aroclor-1232	50	U	50	23	ug/Kg		04/28/21 09:52	04/29/21 16:17	1
Aroclor-1242	50	U	50	19	ug/Kg		04/28/21 09:52	04/29/21 16:17	1
Aroclor-1248	50	U	50	24	ug/Kg		04/28/21 09:52	04/29/21 16:17	1
Aroclor-1254	50	U	50	23	ug/Kg		04/28/21 09:52	04/29/21 16:17	1
Aroclor-1260	50	U	50	22	ug/Kg		04/28/21 09:52	04/29/21 16:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		14 - 128	04/28/21 09:52	04/29/21 16:17	1
DCB Decachlorobiphenyl	101		10 - 132	04/28/21 09:52	04/29/21 16:17	1

Lab Sample ID: LCS 240-483189/24-A

Matrix: Solid

Analysis Batch: 483447

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 483189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	1000	732		ug/Kg		73	47 - 120
Aroclor-1260	1000	781		ug/Kg		78	46 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	81		14 - 128
DCB Decachlorobiphenyl	101		10 - 132

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-483354/1-A

Matrix: Water

Analysis Batch: 485665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 483354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0	U	5.0	2.4	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		04/26/21 19:20	05/03/21 17:59	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-483354/1-A

Matrix: Water

Analysis Batch: 485665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 483354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.73	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.57	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.37	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		04/26/21 19:20	05/03/21 17:59	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.98	ng/L		04/26/21 19:20	05/03/21 17:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.0	U	5.0	1.2	ng/L		04/26/21 19:20	05/03/21 17:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.0	U	5.0	1.3	ng/L		04/26/21 19:20	05/03/21 17:59	1
4:2 FTS	2.0	U	2.0	0.24	ng/L		04/26/21 19:20	05/03/21 17:59	1
6:2 FTS	5.0	U	5.0	2.5	ng/L		04/26/21 19:20	05/03/21 17:59	1
8:2 FTS	2.0	U	2.0	0.46	ng/L		04/26/21 19:20	05/03/21 17:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.40	ng/L		04/26/21 19:20	05/03/21 17:59	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		04/26/21 19:20	05/03/21 17:59	1
F-53B Major	2.0	U	2.0	0.24	ng/L		04/26/21 19:20	05/03/21 17:59	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		04/26/21 19:20	05/03/21 17:59	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	86		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C5 PFPeA	83		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C2 PFHxA	88		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C4 PFHpA	90		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C4 PFOA	98		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C5 PFNA	90		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C2 PFDA	88		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C2 PFUnA	98		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C2 PFDoA	96		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C2 PFTeDA	80		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C3 PFBS	79		25 - 150	04/26/21 19:20	05/03/21 17:59	1
18O2 PFHxS	87		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C4 PFOS	73		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C8 FOSA	76		25 - 150	04/26/21 19:20	05/03/21 17:59	1
d3-NMeFOSAA	64		25 - 150	04/26/21 19:20	05/03/21 17:59	1
d5-NEtFOSAA	75		25 - 150	04/26/21 19:20	05/03/21 17:59	1
M2-6:2 FTS	80		25 - 150	04/26/21 19:20	05/03/21 17:59	1
M2-8:2 FTS	104		25 - 150	04/26/21 19:20	05/03/21 17:59	1
M2-4:2 FTS	70		25 - 150	04/26/21 19:20	05/03/21 17:59	1
13C3 HFPO-DA	90		25 - 150	04/26/21 19:20	05/03/21 17:59	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: LCS 320-483354/2-A

Matrix: Water

Analysis Batch: 485665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 483354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.2		ng/L		95	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	42.7		ng/L		107	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	38.4		ng/L		96	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	39.9		ng/L		100	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	41.0		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	40.0	38.0		ng/L		95	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	44.7		ng/L		112	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	32.9		ng/L		82	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	40.5		ng/L		101	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	36.1		ng/L		90	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	44.1		ng/L		110	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	34.6		ng/L		98	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	35.0		ng/L		93	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.0		ng/L		94	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.6		ng/L		109	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	37.2		ng/L		100	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	35.7		ng/L		93	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	38.0		ng/L		98	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	43.7		ng/L		109	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.7		ng/L		104	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	43.4		ng/L		109	76 - 136
4:2 FTS	37.4	38.7		ng/L		104	79 - 139
6:2 FTS	37.9	45.0		ng/L		119	59 - 175
8:2 FTS	38.3	41.2		ng/L		108	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	42.9		ng/L		114	79 - 139
HFPO-DA (GenX)	40.0	38.8		ng/L		97	51 - 173
F-53B Major	37.3	42.5		ng/L		114	75 - 135
F-53B Minor	37.7	39.0		ng/L		103	54 - 114

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	87		25 - 150
13C5 PFPeA	87		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	94		25 - 150
13C4 PFOA	93		25 - 150
13C5 PFNA	97		25 - 150
13C2 PFDA	88		25 - 150

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-483354/2-A

Matrix: Water

Analysis Batch: 485665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 483354

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFUnA	104		25 - 150
13C2 PFDoA	100		25 - 150
13C2 PFTeDA	85		25 - 150
13C3 PFBS	87		25 - 150
18O2 PFHxS	91		25 - 150
13C4 PFOS	80		25 - 150
13C8 FOSA	79		25 - 150
d3-NMeFOSAA	71		25 - 150
d5-NEtFOSAA	70		25 - 150
M2-6:2 FTS	73		25 - 150
M2-8:2 FTS	92		25 - 150
M2-4:2 FTS	73		25 - 150
13C3 HFPO-DA	93		25 - 150

Lab Sample ID: LCSD 320-483354/3-A

Matrix: Water

Analysis Batch: 485665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 483354

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	39.2		ng/L		98	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)	40.0	38.4		ng/L		96	71 - 131	11	30
Perfluorohexanoic acid (PFHxA)	40.0	42.2		ng/L		105	73 - 133	9	30
Perfluoroheptanoic acid (PFHpA)	40.0	38.8		ng/L		97	72 - 132	3	30
Perfluorooctanoic acid (PFOA)	40.0	44.7		ng/L		112	70 - 130	9	30
Perfluorononanoic acid (PFNA)	40.0	37.6		ng/L		94	75 - 135	1	30
Perfluorodecanoic acid (PFDA)	40.0	38.5		ng/L		96	76 - 136	15	30
Perfluoroundecanoic acid (PFUnA)	40.0	34.2		ng/L		85	68 - 128	4	30
Perfluorododecanoic acid (PFDoA)	40.0	37.1		ng/L		93	71 - 131	9	30
Perfluorotridecanoic acid (PFTriA)	40.0	34.3		ng/L		86	71 - 131	5	30
Perfluorotetradecanoic acid (PFTeA)	40.0	39.5		ng/L		99	70 - 130	11	30
Perfluorobutanesulfonic acid (PFBS)	35.4	35.0		ng/L		99	67 - 127	1	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	38.5		ng/L		103	66 - 126	9	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.2		ng/L		91	59 - 119	2	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	37.4		ng/L		98	76 - 136	11	30
Perfluorooctanesulfonic acid (PFOS)	37.1	38.6		ng/L		104	70 - 130	4	30
Perfluorononanesulfonic acid (PFNS)	38.4	35.0		ng/L		91	75 - 135	2	30
Perfluorodecanesulfonic acid (PFDS)	38.6	38.4		ng/L		100	71 - 131	1	30
Perfluorooctanesulfonamide (FOSA)	40.0	42.1		ng/L		105	73 - 133	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.8		ng/L		100	76 - 136	5	30

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-483354/3-A

Matrix: Water

Analysis Batch: 485665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 483354

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	40.0	40.2		ng/L		100	76 - 136	8	30
4:2 FTS	37.4	38.0		ng/L		102	79 - 139	2	30
6:2 FTS	37.9	39.2		ng/L		103	59 - 175	14	30
8:2 FTS	38.3	43.7		ng/L		114	75 - 135	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	43.1		ng/L		114	79 - 139	0	30
HFPO-DA (GenX)	40.0	42.2		ng/L		105	51 - 173	8	30
F-53B Major	37.3	43.3		ng/L		116	75 - 135	2	30
F-53B Minor	37.7	38.1		ng/L		101	54 - 114	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	88		25 - 150
13C5 PFPeA	87		25 - 150
13C2 PFHxA	89		25 - 150
13C4 PFHpA	93		25 - 150
13C4 PFOA	94		25 - 150
13C5 PFNA	98		25 - 150
13C2 PFDA	96		25 - 150
13C2 PFUnA	97		25 - 150
13C2 PFDoA	99		25 - 150
13C2 PFTeDA	86		25 - 150
13C3 PFBS	87		25 - 150
18O2 PFHxS	89		25 - 150
13C4 PFOS	82		25 - 150
13C8 FOSA	75		25 - 150
d3-NMeFOSAA	67		25 - 150
d5-NEtFOSAA	74		25 - 150
M2-6:2 FTS	80		25 - 150
M2-8:2 FTS	89		25 - 150
M2-4:2 FTS	71		25 - 150
13C3 HFPO-DA	89		25 - 150

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-482336/1-A

Matrix: Solid

Analysis Batch: 482702

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482336

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	20	U	20	0.36	mg/Kg		04/22/21 14:00	04/23/21 11:25	1
Cadmium	0.20	U	0.20	0.048	mg/Kg		04/22/21 14:00	04/23/21 11:25	1
Chromium	0.50	U	0.50	0.15	mg/Kg		04/22/21 14:00	04/23/21 11:25	1
Silver	0.50	U	0.50	0.081	mg/Kg		04/22/21 14:00	04/23/21 11:25	1
Arsenic	1.0	U	1.0	0.32	mg/Kg		04/22/21 14:00	04/23/21 11:25	1
Lead	1.0	U	1.0	0.28	mg/Kg		04/22/21 14:00	04/23/21 11:25	1
Selenium	1.5	U	1.5	0.47	mg/Kg		04/22/21 14:00	04/23/21 11:25	1

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-482336/2-A
Matrix: Solid
Analysis Batch: 482702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482336

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	200	189		mg/Kg		95	80 - 120
Cadmium	100	96.1		mg/Kg		96	80 - 120
Chromium	100	93.7		mg/Kg		94	80 - 120
Silver	10.0	9.46		mg/Kg		95	80 - 120
Arsenic	200	191		mg/Kg		95	80 - 120
Lead	100	91.0		mg/Kg		91	80 - 120
Selenium	200	190		mg/Kg		95	80 - 120

Lab Sample ID: MB 240-483024/1-A
Matrix: Solid
Analysis Batch: 483437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483024

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	20	U	20	0.36	mg/Kg		04/27/21 14:00	04/30/21 05:57	1
Cadmium	0.20	U	0.20	0.048	mg/Kg		04/27/21 14:00	04/30/21 05:57	1
Chromium	0.50	U	0.50	0.15	mg/Kg		04/27/21 14:00	04/30/21 05:57	1
Silver	0.50	U	0.50	0.081	mg/Kg		04/27/21 14:00	04/30/21 05:57	1
Arsenic	1.0	U	1.0	0.32	mg/Kg		04/27/21 14:00	04/30/21 05:57	1
Lead	1.0	U	1.0	0.28	mg/Kg		04/27/21 14:00	04/30/21 05:57	1
Selenium	1.5	U	1.5	0.47	mg/Kg		04/27/21 14:00	04/30/21 05:57	1

Lab Sample ID: LCS 240-483024/2-A
Matrix: Solid
Analysis Batch: 483437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	200	182		mg/Kg		91	80 - 120
Cadmium	100	91.7		mg/Kg		92	80 - 120
Chromium	100	92.5		mg/Kg		93	80 - 120
Silver	10.0	9.06		mg/Kg		91	80 - 120
Arsenic	200	178		mg/Kg		89	80 - 120
Lead	100	91.5		mg/Kg		92	80 - 120
Selenium	200	179		mg/Kg		89	80 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 240-482327/1-A
Matrix: Water
Analysis Batch: 482702

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 482327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	10	U	10	0.63	ug/L		04/22/21 14:00	04/23/21 19:19	1
Nickel	40	U	40	2.2	ug/L		04/22/21 14:00	04/23/21 19:19	1
Lead	10	U	10	2.8	ug/L		04/22/21 14:00	04/23/21 19:19	1
Zinc	50	U	50	9.7	ug/L		04/22/21 14:00	04/23/21 19:19	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-482327/2-A
Matrix: Water
Analysis Batch: 482702

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 482327

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1000	916		ug/L		92	80 - 120
Nickel	1000	926		ug/L		93	80 - 120
Lead	1000	879		ug/L		88	80 - 120
Zinc	1000	983		ug/L		98	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-482328/1-A
Matrix: Water
Analysis Batch: 482642

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482328

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.139	J	0.20	0.13	ug/L		04/22/21 14:00	04/23/21 14:11	1

Lab Sample ID: LCS 240-482328/2-A
Matrix: Water
Analysis Batch: 482642

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482328

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	4.76		ug/L		95	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 240-482343/1-A
Matrix: Solid
Analysis Batch: 482643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10	U	0.10	0.018	mg/Kg		04/22/21 14:00	04/23/21 15:46	1

Lab Sample ID: LCS 240-482343/2-A
Matrix: Solid
Analysis Batch: 482643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.936		mg/Kg		112	80 - 120

Lab Sample ID: MB 240-483043/1-A
Matrix: Solid
Analysis Batch: 483045

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483043

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10	U	0.10	0.018	mg/Kg		04/27/21 14:00	04/27/21 20:18	1

Lab Sample ID: LCS 240-483043/2-A
Matrix: Solid
Analysis Batch: 483045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.846		mg/Kg		102	80 - 120

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-483978/1

Matrix: Water

Analysis Batch: 483978

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			05/04/21 08:55	1

Lab Sample ID: LCS 240-483978/2

Matrix: Water

Analysis Batch: 483978

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	39.30		mg/L		98	78 - 114

Method: 2540 D-2011 - Total Suspended Solids (Dried at 103-105°C)

Lab Sample ID: MB 240-482317/1

Matrix: Water

Analysis Batch: 482317

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			04/22/21 09:54	1

Lab Sample ID: LCS 240-482317/2

Matrix: Water

Analysis Batch: 482317

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	72.9	62.0		mg/L		85	64 - 120

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 240-482748/1-A

Matrix: Water

Analysis Batch: 482781

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 482748

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		04/26/21 08:47	04/26/21 09:45	1

Lab Sample ID: LCS 240-482748/2-A

Matrix: Water

Analysis Batch: 482781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 482748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.238	0.229		mg/L		96	85 - 115

Lab Sample ID: MRL 240-482781/10

Matrix: Water

Analysis Batch: 482781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0103		mg/L		103	70 - 130

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (74-124)	BFB (77-120)	TOL (80-120)	DBFM (80-120)
LCS 240-482709/10	Lab Control Sample	85	103	110	84
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
TOL = Toluene-d8 (Surr)					
DBFM = Dibromofluoromethane (Surr)					

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (74-124)	BFB (77-120)	TOL (80-120)	DBFM (80-120)
240-147767-14	WS-012607A-SWTS-041621-VI	91	99	104	83
240-147767-15	WS-012607A-SWTS-041621-V I-015	89	98	105	83
LB 240-482412/1-A MB	Method Blank	87	103	109	84
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
TOL = Toluene-d8 (Surr)					
DBFM = Dibromofluoromethane (Surr)					

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (69-122)	DBFM (78-129)	BFB (47-134)	DCA (75-130)
240-147767-17	TRIP BLANK	115	87	106	92
LCS 240-482594/5	Lab Control Sample	104	81	101	85
MB 240-482594/8	Method Blank	108	84	102	88
Surrogate Legend					
TOL = Toluene-d8 (Surr)					
DBFM = Dibromofluoromethane (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DCA = 1,2-Dichloroethane-d4 (Surr)					

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (39-120)	2FP (10-120)	TBP (33-120)	NBZ (33-120)	PHL (10-120)	TPHL (36-122)
LCS 240-482720/17-A	Lab Control Sample	83	79	91	90	69	96
MB 240-482720/16-A	Method Blank	73	64	78	73	56	82
Surrogate Legend							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Job ID: 240-147767-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (39-120)	2FP (10-120)	TBP (33-120)	NBZ (33-120)	PHL (10-120)	TPHL (36-122)
240-147767-14	WS-012607A-SWTS-041621-VI-	69	61	68	67	53	83
240-147767-15	WS-012607A-SWTS-041621-V I-015	72	65	69	75	55	87

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (10-120)	DCBP2 (10-120)	TCX1 (33-120)	TCX2 (33-120)
240-147767-14	WS-012607A-SWTS-041621-VI-	67	53	78	69
240-147767-15	WS-012607A-SWTS-041621-V I-015	78	61	81	64
LCS 240-482513/11-A	Lab Control Sample	88	76	88	81
MB 240-482513/10-A	Method Blank	93	79	87	77

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TCX1 (14-128)	TCX2 (14-128)	DCBP1 (10-132)	DCBP2 (10-132)
240-147767-1	PS-012607A-SWTS-041621-VI-	168 S1+		40	
240-147767-1 MS	PS-012607A-SWTS-041621-VI -001	182 S1+		48	
240-147767-1 MSD	PS-012607A-SWTS-041621-VI -001	192 S1+		45	
240-147767-2	PS-012607A-SWTS-041621-VI -002		70		69
240-147767-3	PS-012607A-SWTS-041621-VI -003		76 p		109 p
240-147767-4	PS-012607A-SWTS-041621-VI -004		85		99
240-147767-7	RM-012607A-SWTS-041621-VI -007	84		84 p	
240-147767-9	CK-012607A-SWTS-041621-VI -009	99	89	55	60

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TCX1 (14-128)	TCX2 (14-128)	DCBP1 (10-132)	DCBP2 (10-132)
240-147767-10	EJ-012607A-SWTS-041621-VI-C		58		48
240-147767-11	CK-012607A-SWTS-041621-VI-011		53		33
240-147767-12	CK-012607A-SWTS-041621-VI-012	102		85	
240-147767-13	EP-012607A-SWTS-041621-VI-013		76		84
240-147767-16	PS-012607A-SWTS-041621-VI-016	68		68	
LCS 240-482486/24-A	Lab Control Sample	91		94	
LCS 240-482491/24-A	Lab Control Sample		96		96
LCS 240-482974/24-A	Lab Control Sample	89		98	
LCS 240-483189/24-A	Lab Control Sample		81		101
MB 240-482486/23-A	Method Blank	88		90	
MB 240-482491/23-A	Method Blank		93		97
MB 240-482974/23-A	Method Blank	94		105	
MB 240-483189/23-A	Method Blank		77		101

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

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

Matrix: Waste

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (23-160)	DCBP1 (10-191)
240-147767-5	O-012607A-SWTS-041621-VI-005	96	73
240-147767-6	O-012607A-SWTS-041621-VI-006	91	82
LCS 240-482304/13-A	Lab Control Sample	121	125
MB 240-482304/12-A	Method Blank	117	122

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

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

Matrix: Wipe

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (23-133)	DCBP2 (21-145)
240-147767-8	W-012607A-SWTS-041621-VI-008	75	95
LCS 240-482506/3-A	Lab Control Sample	76	96
MB 240-482506/2-A	Method Blank	82	100

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Client Sample ID: PS-012607A-SWTS-041621-VI-001

Lab Sample ID: 240-147767-1

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482486	04/23/21 07:59	EMB	TAL CAN
Total/NA	Analysis	8082A		2	482667	04/26/21 17:08	KMG	TAL CAN
Total/NA	Prep	3050B			483024	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	483437	04/30/21 00:46	DSH	TAL CAN
Total/NA	Prep	7471A			483043	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	483045	04/27/21 21:08	SLD	TAL CAN

Client Sample ID: PS-012607A-SWTS-041621-VI-002

Lab Sample ID: 240-147767-2

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482491	04/23/21 08:18	EMB	TAL CAN
Total/NA	Analysis	8082A		1	483129	04/28/21 14:30	CSC	TAL CAN
Total/NA	Prep	3050B			483024	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	483437	04/30/21 00:50	DSH	TAL CAN
Total/NA	Prep	3050B			483024	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		10	483437	04/30/21 00:55	DSH	TAL CAN
Total/NA	Prep	7471A			483043	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	483045	04/27/21 21:10	SLD	TAL CAN

Client Sample ID: PS-012607A-SWTS-041621-VI-003

Lab Sample ID: 240-147767-3

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482491	04/23/21 08:18	EMB	TAL CAN
Total/NA	Analysis	8082A		1	483129	04/28/21 14:15	CSC	TAL CAN
Total/NA	Prep	3050B			483024	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	483437	04/30/21 00:59	DSH	TAL CAN
Total/NA	Prep	3050B			483024	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		5	483437	04/30/21 01:04	DSH	TAL CAN
Total/NA	Prep	7471A			483043	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	483045	04/27/21 21:12	SLD	TAL CAN

Client Sample ID: PS-012607A-SWTS-041621-VI-004

Lab Sample ID: 240-147767-4

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			482727	04/26/21 07:08	POP	TAL CAN
Total/NA	Prep	3540C			483189	04/28/21 09:52	ARR	TAL CAN
Total/NA	Analysis	8082A		5	483502	04/30/21 14:36	KMG	TAL CAN
Total/NA	Processed	Part Size Red			482727	04/26/21 07:08	POP	TAL CAN
Total/NA	Prep	3050B			483024	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	483437	04/30/21 01:16	DSH	TAL CAN

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Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Client Sample ID: PS-012607A-SWTS-041621-VI-004

Lab Sample ID: 240-147767-4

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			482727	04/26/21 07:08	POP	TAL CAN
Total/NA	Prep	7471A			483043	04/27/21 14:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	483045	04/27/21 21:14	SLD	TAL CAN

Client Sample ID: O-012607A-SWTS-041621-VI-005

Lab Sample ID: 240-147767-5

Date Collected: 04/16/21 00:00

Matrix: Waste

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3580A			482304	04/22/21 09:13	EMB	TAL CAN
Total/NA	Analysis	8082A		1	482446	04/23/21 09:18	LSH	TAL CAN

Client Sample ID: O-012607A-SWTS-041621-VI-006

Lab Sample ID: 240-147767-6

Date Collected: 04/16/21 00:00

Matrix: Waste

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3580A			482304	04/22/21 09:13	EMB	TAL CAN
Total/NA	Analysis	8082A		1	482446	04/23/21 09:35	LSH	TAL CAN

Client Sample ID: RM-012607A-SWTS-041621-VI-007

Lab Sample ID: 240-147767-7

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482974	04/27/21 09:37	ARR	TAL CAN
Total/NA	Analysis	8082A		1	483252	04/28/21 18:33	KMG	TAL CAN
Total/NA	Prep	3050B			482336	04/22/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	482702	04/23/21 12:55	DSH	TAL CAN
Total/NA	Prep	7471A			482343	04/22/21 14:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	482643	04/23/21 16:28	SLD	TAL CAN

Client Sample ID: W-012607A-SWTS-041621-VI-008

Lab Sample ID: 240-147767-8

Date Collected: 04/16/21 00:00

Matrix: Wipe

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482506	04/23/21 08:58	EMB	TAL CAN
Total/NA	Analysis	8082A		1	482886	04/27/21 11:31	CSC	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Client Sample ID: CK-012607A-SWTS-041621-VI-009

Lab Sample ID: 240-147767-9

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482974	04/27/21 09:37	ARR	TAL CAN
Total/NA	Analysis	8082A		5	483252	04/28/21 18:48	KMG	TAL CAN

Client Sample ID: EJ-012607A-SWTS-041621-VI-010

Lab Sample ID: 240-147767-10

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482491	04/23/21 08:18	EMB	TAL CAN
Total/NA	Analysis	8082A		1	482898	04/27/21 13:19	CSC	TAL CAN

Client Sample ID: CK-012607A-SWTS-041621-VI-011

Lab Sample ID: 240-147767-11

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482491	04/23/21 08:18	EMB	TAL CAN
Total/NA	Analysis	8082A		1	482898	04/27/21 13:34	CSC	TAL CAN

Client Sample ID: CK-012607A-SWTS-041621-VI-012

Lab Sample ID: 240-147767-12

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482486	04/23/21 07:59	EMB	TAL CAN
Total/NA	Analysis	8082A		2	482667	04/26/21 17:52	KMG	TAL CAN

Client Sample ID: EP-012607A-SWTS-041621-VI-013

Lab Sample ID: 240-147767-13

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482491	04/23/21 08:18	EMB	TAL CAN
Total/NA	Analysis	8082A		1	482898	04/27/21 13:05	CSC	TAL CAN
Total/NA	Prep	3050B			482336	04/22/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	482702	04/23/21 12:59	DSH	TAL CAN
Total/NA	Prep	7471A			482343	04/22/21 14:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	482643	04/23/21 16:30	SLD	TAL CAN

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Lab Sample ID: 240-147767-14

Date Collected: 04/16/21 00:00

Matrix: Water

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			482412	04/22/21 17:55	DRJ	TAL CAN
TCLP	Analysis	8260B		1	482709	04/26/21 02:26	TJL1	TAL CAN

Eurofins TestAmerica, Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Client Sample ID: WS-012607A-SWTS-041621-VI-014

Lab Sample ID: 240-147767-14

Date Collected: 04/16/21 00:00

Matrix: Water

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			482489	04/23/21 08:16	SDE	TAL CAN
Total/NA	Analysis	625		1	483603	04/30/21 14:18	MRU	TAL CAN
TCLP	Leach	1311			482423	04/22/21 16:15	DRJ	TAL CAN
TCLP	Prep	3510C			482720	04/26/21 06:35	SDE	TAL CAN
TCLP	Analysis	8270C		1	482933	04/27/21 14:42	JMG	TAL CAN
Total/NA	Prep	3510C			482513	04/23/21 09:17	MDH	TAL CAN
Total/NA	Analysis	8081A		1	483054	04/27/21 19:16	BPM	TAL CAN
Total/NA	Prep	3535			483354	04/26/21 19:20	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	485665	05/03/21 20:34	JRB	TAL SAC
Total Recoverable	Prep	3005A			482327	04/22/21 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6010C		1	482702	04/23/21 20:54	DSH	TAL CAN
Total/NA	Prep	7470A			482328	04/22/21 14:00	MRL	TAL CAN
Total/NA	Analysis	7470A		1	482642	04/23/21 14:49	SLD	TAL CAN
Total/NA	Analysis	1664A		1	483978	05/04/21 08:55	JMR	TAL CAN
Total/NA	Analysis	2540 D-2011		1	482317	04/22/21 09:54	AJ	TAL CAN
Total/NA	Prep	9012A			482748	04/26/21 08:47	BLW	TAL CAN
Total/NA	Analysis	9012A		1	482781	04/26/21 10:17	BLW	TAL CAN

Client Sample ID: WS-012607A-SWTS-041621-VI-015

Lab Sample ID: 240-147767-15

Date Collected: 04/16/21 00:00

Matrix: Water

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			482412	04/22/21 17:55	DRJ	TAL CAN
TCLP	Analysis	8260B		1	482709	04/26/21 02:48	TJL1	TAL CAN
Total/NA	Prep	3510C			482489	04/23/21 08:16	SDE	TAL CAN
Total/NA	Analysis	625		1	483603	04/30/21 14:35	MRU	TAL CAN
TCLP	Leach	1311			482423	04/22/21 16:15	DRJ	TAL CAN
TCLP	Prep	3510C			482720	04/26/21 06:35	SDE	TAL CAN
TCLP	Analysis	8270C		1	482933	04/27/21 15:06	JMG	TAL CAN
Total/NA	Prep	3510C			482513	04/23/21 09:17	MDH	TAL CAN
Total/NA	Analysis	8081A		1	483054	04/27/21 19:29	BPM	TAL CAN
Total/NA	Prep	3535			483354	04/26/21 19:20	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	485665	05/03/21 18:26	JRB	TAL SAC
Total Recoverable	Prep	3005A			482327	04/22/21 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6010C		1	482702	04/23/21 20:58	DSH	TAL CAN
Total/NA	Prep	7470A			482328	04/22/21 14:00	MRL	TAL CAN
Total/NA	Analysis	7470A		1	482642	04/23/21 14:51	SLD	TAL CAN
Total/NA	Analysis	1664A		1	483978	05/04/21 08:55	JMR	TAL CAN
Total/NA	Analysis	2540 D-2011		1	482317	04/22/21 09:54	AJ	TAL CAN
Total/NA	Prep	9012A			482748	04/26/21 08:47	BLW	TAL CAN
Total/NA	Analysis	9012A		1	482781	04/26/21 10:19	BLW	TAL CAN

Eurofins TestAmerica, Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Client Sample ID: PS-012607A-SWTS-041621-VI-016

Lab Sample ID: 240-147767-16

Date Collected: 04/16/21 00:00

Matrix: Solid

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			482486	04/23/21 07:59	EMB	TAL CAN
Total/NA	Analysis	8082A		1	482667	04/26/21 18:07	KMG	TAL CAN
Total/NA	Prep	3050B			482336	04/22/21 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	482702	04/23/21 13:04	DSH	TAL CAN
Total/NA	Prep	7471A			482343	04/22/21 14:00	DEE	TAL CAN
Total/NA	Analysis	7471A		20	482643	04/23/21 16:47	SLD	TAL CAN

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-147767-17

Date Collected: 04/16/21 00:00

Matrix: Water

Date Received: 04/17/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	482594	04/23/21 19:48	TJL1	TAL CAN

Laboratory References:

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

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Laboratory: Eurofins TestAmerica, 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-22
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21 *
Kentucky (UST)	State	112225	02-23-21 *
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-21
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA000442021-2	07-31-21
New Jersey	NELAP	CA005	06-30-21
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	06-01-21
US Fish & Wildlife	US Federal Programs	58448	07-31-21

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

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Laboratory: Eurofins TestAmerica, Sacramento (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
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-21
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : 147767

Canton Facility

Client GAH Site Name _____ Cooler unpacked by: Ryan C

Cooler Received on 4-17-21 Opened on 4-17-21 1010

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

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

TestAmerica Cooler # 7A 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-11 (CF +0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2 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 (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)? Yes No

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# HC022887

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 # 59072 Yes No

17. Was a LL Hg or Me Hg trip blank present? Yes No

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

Concerning _____

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

Trip Blank VOA came with coolers but not on CoC. will add last.

Also... sample - 014 has 5 Unpreserved Ambers, and Sample - 015 has only 3... looks like sampler labeled -014 with 2 Preservatives... Also 2 BODs came with samples but not on CoC. Will log and run within hold time.

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

WI-NC-099 Cooler Receipt Form Page 2 - Multiple Coolers

Chain of Custody Record

Client Information (Sub Contract Lab)				Sampler: Lab PM: Heckler, Denise D Phone: E-Mail: Denise.Heckler@Eurofinset.com		Carrier Tracking No(s): 240-135440, 1 Page 1 of 1 Job #		COC No: 240-135440, 1	
Address: 8880 Riverside Parkway, City: West Sacramento State, Zip: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email:				Due Date Requested: 5/4/2021 TAT Requested (days):		Analysis Requested		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Project Name: 12607, RACER Eckles Rd Site:				Project #: 24005880 SSOW#:		PO #:		WO #:	
Sample Identification - Client ID (Lab ID)				Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		PFIC IDA/3535_PFC (MOD) PFAS, Standard List (28)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time			



Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-147767-1

Login Number: 147767

List Number: 2

Creator: Her, David A

List Source: Eurofins TestAmerica, Sacramento

List Creation: 04/24/21 12:40 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd

Job ID: 240-147767-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-147767-14	WS-012607A-SWTS-041621-VI.	70	76	92	97	98	92	93	93
240-147767-15	WS-012607A-SWTS-041621-V I-015	77	80	85	88	96	105	90	85
LCS 320-483354/2-A	Lab Control Sample	87	87	91	94	93	97	88	104
LCSD 320-483354/3-A	Lab Control Sample Dup	88	87	89	93	94	98	96	97
MB 320-483354/1-A	Method Blank	86	83	88	90	98	90	88	98

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
240-147767-14	WS-012607A-SWTS-041621-VI.	82	49	75	85	79	81	62	67
240-147767-15	WS-012607A-SWTS-041621-V I-015	73	70	82	83	75	82	56	55
LCS 320-483354/2-A	Lab Control Sample	100	85	87	91	80	79	71	70
LCSD 320-483354/3-A	Lab Control Sample Dup	99	86	87	89	82	75	67	74
MB 320-483354/1-A	Method Blank	96	80	79	87	73	76	64	75

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-147767-14	WS-012607A-SWTS-041621-VI.	199 *5+	116	206 *5+	91
240-147767-15	WS-012607A-SWTS-041621-V I-015	163 *5+	109	172 *5+	86
LCS 320-483354/2-A	Lab Control Sample	73	92	73	93
LCSD 320-483354/3-A	Lab Control Sample Dup	80	89	71	89
MB 320-483354/1-A	Method Blank	80	104	70	90

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA



Environment Testing
TestAmerica

Sacramento Sample Receiving Notes



240-147767 Field Sheet

Tracking # : 9148 7503 8174

Job: _____

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: 607 Corr. Factor: (+ / -) _____ °C

Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal: _____

Cooler ID: _____

Temp Observed: 1.0 °C Corrected: 1.0 °C

From: Temp Blank ☒ Sample ☐

Opening/Processing The Shipment

	Yes	No	NA
Cooler compromised/tampered with?	☐	☐	☐
Cooler Temperature is acceptable?	☐	☐	☐
Frozen samples show signs of thaw?	☐	☐	☐

Initials: DV Date: 4/24/14

Unpacking/Labeling The Samples

	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

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

Initials: DV Date: 4/24/14

Notes: _____

Trizma Lot #(s): _____

Login Completion

	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☐	☐	☒
Log Release checked in TALS?	☒	☐	☐

Initials: DV Date: 4/24/14