



March 27, 2020

Reference No. 012607

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

Dear Ms. Jose:

**Re: DWSD Semi Annual Report – SD6 94508
(September 2019 through February 2020)
12950 Eckles Road
Livonia, Michigan 48150
Permit No.: SD6 94508**

GHD Services Inc. (GHD) is providing the attached documents for the reporting requirements of Special Discharge Permit SD6 94508 for the period of September 2019 through February 2020 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.

The June 2019 revised Special Discharge Permit (SD6-94508) included a requirement for the following submittals:

<u>Task</u>	<u>Target Completion Date</u>
Summary of Laboratory Treatability Study	September 30, 2019
Summary of Groundwater Levels/Water Evaluation	September 30, 2019
Proposed Comprehensive PFAS Remedy	December 31, 2019

A summary of site characterization activities was submitted to GLWA in a memorandum dated August 30, 2019. A summary of the Additional Permeable Reactive Barrier Treatability Study was submitted on September 30, 2019 and an Area 1 Groundwater Elevation Monitoring Summary was submitted on September 30, 2019. A Proposed Area 1 Conceptual Remedy Plan (PFAS Elimination plan) was also submitted to GLWA on December 30, 2019 to satisfy the special discharge permit requirements.

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. There has been no discharge since January 31, 2020. Procurement of components and installation activities are currently being conducted. 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 dewatering methods and discharge to the sanitary sewer, if any, are determined and implemented.

Section D: Reporting Requirements

- Reporting Period: September 1, 2019 to February 29, 2020.
- Dates of Sampling: January 16, 2020; January 23, 2020; and January 28, 2020. Laboratory analytical reports are attached.
- The groundwater treatment plant had a scheduled shut down September 1, 2019 through January 14, 2020 and February 1, 2020 through February 29, 2020.
- All samples were collected from the effluent sampling port of Tank T12.
- Total Monthly Discharges (gallons):
 - September 2019: 0
 - October 2019: 0
 - November 2019: 0
 - December 2019: 0
 - January 2020: 945,854
 - February 2020: 0
- Total Flow to Date (since 2000): 190,642,766 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.

Sincerely,

GHD

A handwritten signature in blue ink, appearing to read "Chris Meincke", is written over a faint, light blue circular stamp.

Christopher J. Meincke, P.E.

CJM/ds/24

Encl.

cc: Dave Favero, RACER

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - September 2019**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
09/01/19	None	None			GWTP Shutdown Month of September
09/02/19	None	None			
09/03/19	None	None			
09/04/19	None	None			
09/05/19	None	None			
09/06/19	None	None			
09/07/19	None	None			
09/08/19	None	None			
09/09/19	None	None			
09/10/19	None	None			
09/11/19	None	None			
09/12/19	None	None			
09/13/19	None	None			
09/14/19	None	None			
09/15/19	None	None			
09/16/19	None	None			
09/17/19	None	None			
09/18/19	None	None			
09/19/19	None	None			
09/20/19	None	None			
09/21/19	None	None			
09/22/19	None	None			
09/23/19	None	None			
09/24/19	None	None			
09/25/19	None	None			
09/26/19	None	None			
09/27/19	None	None			
09/28/19	None	None			
09/29/19	None	None			
09/30/19	None	None			

Total Monthly Discharge (gal)

0

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - October 2019**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
10/01/19	None	None			GWTP Shutdown Month of October
10/02/19	None	None			
10/03/19	None	None			
10/04/19	None	None			
10/05/19	None	None			
10/06/19	None	None			
10/07/19	None	None			
10/08/19	None	None			
10/09/19	None	None			
10/10/19	None	None			
10/11/19	None	None			
10/12/19	None	None			
10/13/19	None	None			
10/14/19	None	None			
10/15/19	None	None			
10/16/19	None	None			
10/17/19	None	None			
10/18/19	None	None			
10/19/19	None	None			
10/20/19	None	None			
10/21/19	None	None			
10/22/19	None	None			
10/23/19	None	None			
10/24/19	None	None			
10/25/19	None	None			
10/26/19	None	None			
10/27/19	None	None			
10/28/19	None	None			
10/29/19	None	None			
10/30/19	None	None			
10/31/19	None	None			

Total Monthly Discharge (gal)

0

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - November 2019**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
11/01/19	None	None			GWTP Shutdown Month of November
11/02/19	None	None			
11/03/19	None	None			
11/04/19	None	None			
11/05/19	None	None			
11/06/19	None	None			
11/07/19	None	None			
11/08/19	None	None			
11/09/19	None	None			
11/10/19	None	None			
11/11/19	None	None			
11/12/19	None	None			
11/13/19	None	None			
11/14/19	None	None			
11/15/19	None	None			
11/16/19	None	None			
11/17/19	None	None			
11/18/19	None	None			
11/19/19	None	None			
11/20/19	None	None			
11/21/19	None	None			
11/22/19	None	None			
11/23/19	None	None			
11/24/19	None	None			
11/25/19	None	None			
11/26/19	None	None			
11/27/19	None	None			
11/28/19	None	None			
11/29/19	None	None			
11/30/19	None	None			

Total Monthly Discharge (gal)

0

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - December 2019**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
12/01/19	None	None			GWTP Shutdown Month of December
12/02/19	None	None			
12/03/19	None	None			
12/04/19	None	None			
12/05/19	None	None			
12/06/19	None	None			
12/07/19	None	None			
12/08/19	None	None			
12/09/19	None	None			
12/10/19	None	None			
12/11/19	None	None			
12/12/19	None	None			
12/13/19	None	None			
12/14/19	None	None			
12/15/19	None	None			
12/16/19	None	None			
12/17/19	None	None			
12/18/19	None	None			
12/19/19	None	None			
12/20/19	None	None			
12/21/19	None	None			
12/22/19	None	None			
12/23/19	None	None			
12/24/19	None	None			
12/25/19	None	None			
12/26/19	None	None			
12/27/19	None	None			
12/28/19	None	None			
12/29/19	None	None			
12/30/19	None	None			
12/31/19	None	None			

Total Monthly Discharge (gal)

0

SECTION D: REPORTING REQUIREMENTS/b) iii)

12950 Eckles Road

Livonia, MI 48150

Permit No.: SD6-94508

Maintenance Log - January 2020

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
01/01/20	None	None			
01/02/20	None	None			
01/03/20	None	None			
01/04/20	None	None			
01/05/20	None	None			
01/06/20	None	None			
01/07/20	None	None			
01/08/20	None	None			
01/09/20	None	None			
01/10/20	None	None			
01/11/20	None	None			
01/12/20	None	None			
01/13/20	None	None			
01/14/20	None	None		0	
01/15/20	None	None		57,390	
01/16/20	None	None	WT-012607-011620-CM-001 WT-012607-011620-CM-002 EB-012607-011620-CM-003 TB-012607-011620	59,939	Discharge Sample (Annual&PFAS) Field Duplicate (PFAS) Equipment Blank (PFAS) Trip Blank (VOCs)
01/17/20	None	None		64,222	
01/18/20	None	None			
01/19/20	None	None			
01/20/20	None	None		165,101	
01/21/20	None	None		55,566	
01/22/20	None	None		69,292	
01/23/20	None	None	WT-012607-012320-CM-001 WT-012607-012320-CM-002 EB-012607-012320-CM-003	55,609	Discharge Sample (PFAS) Field Duplicate (PFAS) Equipment Blank (PFAS)
01/24/20	None	None		44,909	
01/25/20	None	None			
01/26/20	None	None			
01/27/20	None	None		152,370	
01/28/20	None	None	WT-012607-012820-CM-001 WT-012607-012820-CM-002 EB-012607-012820-CM-003	68,262	Discharge Sample (PFAS) Field Duplicate (PFAS) Equipment Blank (PFAS)
01/29/20	None	None		34,799	
01/30/20	None	None		53,569	
01/31/20	None	None		64,827	

Total Monthly Discharge (gal) 945,854

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - February 2020**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
02/01/20	None	None			GWTP Shutdown Month of February
02/02/20	None	None			
02/03/20	None	None			
02/04/20	None	None			
02/05/20	None	None			
02/06/20	None	None			
02/07/20	None	None			
02/08/20	None	None			
02/09/20	None	None			
02/10/20	None	None			
02/11/20	None	None			
02/12/20	None	None			
02/13/20	None	None			
02/14/20	None	None			
02/15/20	None	None			
02/16/20	None	None			
02/17/20	None	None			
02/18/20	None	None			
02/19/20	None	None			
02/20/20	None	None			
02/21/20	None	None			
02/22/20	None	None			
02/23/20	None	None			
02/24/20	None	None			
02/25/20	None	None			
02/26/20	None	None			
02/27/20	None	None			
02/28/20	None	None			
02/29/20	None	None			

Total Monthly Discharge (gal)

0

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - September 2019**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
9/1/2019	9/1/2019					System shut down for September
9/2/2019	9/2/2019					
9/3/2019	9/3/2019					
9/4/2019	9/4/2019					
9/5/2019	9/5/2019					
9/6/2019	9/6/2019					
9/7/2019	9/7/2019					
9/8/2019	9/8/2019					
9/9/2019	9/9/2019					
9/10/2019	9/10/2019					
9/11/2019	9/11/2019					
9/12/2019	9/12/2019					
9/13/2019	9/13/2019					
9/14/2019	9/14/2019					
9/15/2019	9/15/2019					
9/16/2019	9/16/2019					
9/17/2019	9/17/2019					
9/18/2019	9/18/2019					
9/19/2019	9/19/2019					
9/20/2019	9/20/2019					
9/21/2019	9/21/2019					
9/22/2019	9/22/2019					
9/23/2019	9/23/2019					
9/24/2019	9/24/2019					
9/25/2019	9/25/2019					
9/26/2019	9/26/2019					
9/27/2019	9/27/2019					
9/28/2019	9/28/2019					
9/29/2019	9/29/2019					
9/30/2019	9/30/2019					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - October 2019**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
10/1/2019	10/1/2019					System shut down for October
10/2/2019	10/2/2019					
10/3/2019	10/3/2019					
10/4/2019	10/4/2019					
10/5/2019	10/5/2019					
10/6/2019	10/6/2019					
10/7/2019	10/7/2019					
10/8/2019	10/8/2019					
10/9/2019	10/9/2019					
10/10/2019	10/10/2019					
10/11/2019	10/11/2019					
10/12/2019	10/12/2019					
10/13/2019	10/13/2019					
10/14/2019	10/14/2019					
10/15/2019	10/15/2019					
10/16/2019	10/16/2019					
10/17/2019	10/17/2019					
10/18/2019	10/18/2019					
10/19/2019	10/19/2019					
10/20/2019	10/20/2019					
10/21/2019	10/21/2019					
10/22/2019	10/22/2019					
10/23/2019	10/23/2019					
10/24/2019	10/24/2019					
10/25/2019	10/25/2019					
10/26/2019	10/26/2019					
10/27/2019	10/27/2019					
10/28/2019	10/28/2019					
10/29/2019	10/29/2019					
10/30/2019	10/30/2019					
10/31/2019	10/31/2019					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - November 2019**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
11/1/2019	11/1/2019					System shut down for November
11/2/2019	11/2/2019					
11/3/2019	11/3/2019					
11/4/2019	11/4/2019					
11/5/2019	11/5/2019					
11/6/2019	11/6/2019					
11/7/2019	11/7/2019					
11/8/2019	11/8/2019					
11/9/2019	11/9/2019					
11/10/2019	11/10/2019					
11/11/2019	11/11/2019					
11/12/2019	11/12/2019					
11/13/2019	11/13/2019					
11/14/2019	11/14/2019					
11/15/2019	11/15/2019					
11/16/2019	11/16/2019					
11/17/2019	11/17/2019					
11/18/2019	11/18/2019					
11/19/2019	11/19/2019					
11/20/2019	11/20/2019					
11/21/2019	11/21/2019					
11/22/2019	11/22/2019					
11/23/2019	11/23/2019					
11/24/2019	11/24/2019					
11/25/2019	11/25/2019					
11/26/2019	11/26/2019					
11/27/2019	11/27/2019					
11/28/2019	11/28/2019					
11/29/2019	11/29/2019					
11/30/2019	11/30/2019					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - December 2019**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
12/1/2019	12/1/2019					System shut down for December
12/2/2019	12/2/2019					
12/3/2019	12/3/2019					
12/4/2019	12/4/2019					
12/5/2019	12/5/2019					
12/6/2019	12/6/2019					
12/7/2019	12/7/2019					
12/8/2019	12/8/2019					
12/9/2019	12/9/2019					
12/10/2019	12/10/2019					
12/11/2019	12/11/2019					
12/12/2019	12/12/2019					
12/13/2019	12/13/2019					
12/14/2019	12/14/2019					
12/15/2019	12/15/2019					
12/16/2019	12/16/2019					
12/17/2019	12/17/2019					
12/18/2019	12/18/2019					
12/19/2019	12/19/2019					
12/20/2019	12/20/2019					
12/21/2019	12/21/2019					
12/22/2019	12/22/2019					
12/23/2019	12/23/2019					
12/24/2019	12/24/2019					
12/25/2019	12/25/2019					
12/26/2019	12/26/2019					
12/27/2019	12/27/2019					
12/28/2019	12/28/2019					
12/29/2019	12/29/2019					
12/30/2019	12/30/2019					
12/31/2019	12/31/2019					

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log- ISCO Sample Analyses - January 2020

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
1/1/2020	1/1/2020					
1/2/2020	1/2/2020					
1/3/2020	1/3/2020					
1/4/2020	1/4/2020					
1/5/2020	1/5/2020					
1/6/2020	1/6/2020					
1/7/2020	1/7/2020					
1/8/2020	1/8/2020					
1/9/2020	1/9/2020					
1/10/2020	1/10/2020					
1/11/2020	1/11/2020					
1/12/2020	1/12/2020					
1/13/2020	1/13/2020					
1/14/2020	1/14/2020	7.61				System Started
1/15/2020	1/15/2020	7.51				
1/16/2020	1/16/2020	7.46				
1/17/2020	1/17/2020	7.44	0.67	0.60	0.70	
1/18/2020	1/18/2020					
1/19/2020	1/19/2020					
1/20/2020	1/20/2020	7.46				
1/21/2020	1/21/2020	7.46				
1/22/2020	1/22/2020	7.49	0.48	0.60	0.70	
1/23/2020	1/23/2020	7.44				
1/24/2020	1/24/2020	7.44				
1/25/2020	1/25/2020					
1/26/2020	1/26/2020					
1/27/2020	1/27/2020	7.50				
1/28/2020	1/28/2020	7.51				
1/29/2020	1/29/2020	7.52				
1/30/2020	1/30/2020	7.52				
1/31/2020	1/31/2020	7.15	0.49	0.50	0.60	System Shut Down

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - February 2020**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
2/1/2020	2/1/2020					System shut down for February
2/2/2020	2/2/2020					
2/3/2020	2/3/2020					
2/4/2020	2/4/2020					
2/5/2020	2/5/2020					
2/6/2020	2/6/2020					
2/7/2020	2/7/2020					
2/8/2020	2/8/2020					
2/9/2020	2/9/2020					
2/10/2020	2/10/2020					
2/11/2020	2/11/2020					
2/12/2020	2/12/2020					
2/13/2020	2/13/2020					
2/14/2020	2/14/2020					
2/15/2020	2/15/2020					
2/16/2020	2/16/2020					
2/17/2020	2/17/2020					
2/18/2020	2/18/2020					
2/19/2020	2/19/2020					
2/20/2020	2/20/2020					
2/21/2020	2/21/2020					
2/22/2020	2/22/2020					
2/23/2020	2/23/2020					
2/24/2020	2/24/2020					
2/25/2020	2/25/2020					
2/26/2020	2/26/2020					
2/27/2020	2/27/2020					
2/28/2020	2/28/2020					

Attachment 1 - January 16, 2020 Samples
WT-012607-011620-CM-001 (effluent)
WT-012607-011620-CM-002 (effluent)
EB-012607-011620-CM-003 (Equip. Blank)
TB-012607-011620 (Trip Blank)
Laboratory Analytical Reports

ANALYTICAL REPORT

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

Laboratory Job ID: 240-125110-1

Client Project/Site: 12607, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
2/6/2020 8:56:51 AM

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

denise.heckler@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Sample Summary	5
Detection Summary	6
Method Summary	7
Client Sample Results	8
QC Association Summary	24
QC Sample Results	27
Surrogate Summary	39
Lab Chronicle	41
Certification Summary	42
Chain of Custody	44
Receipt Checklists	48
Isotope Dilution Summary	49
Field Data Sheets	50

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Case Narrative

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

Job ID: 240-125110-1

Job ID: 240-125110-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-125110-1

Comments

No additional comments.

Receipt

The samples were received on 1/17/2020 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1° C.

GC/MS VOA

Method 624.1: The following samples were received preserved with hydrochloric acid: WT-012607-011620-CM-001 (240-125110-1) and TB-012607-011620 (240-125110-4). The requested target analyte list contains 2-Chloroethyl vinyl ether which is an acid-labile compound that degrades in an acidic medium.

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

No analytical or quality issues were noted, other than those described 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, M2-6:2 FTS and M2-8:2 FTS for the following samples: WT-012607-011620-CM-001 (240-125110-1) and WT-012607-011620-CM-002 (240-125110-2). 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 analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgement was used to positively identify the analyte.

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

General Chemistry

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

Organic Prep

Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-419570.

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-419700.

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-419704.

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: 240-125110-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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.

GC Semi VOA

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

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
B	Compound was found in the blank and sample.
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
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

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.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

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

Job ID: 240-125110-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-125110-1	WT-012607-011620-CM-001	Water	01/16/20 17:20	01/17/20 09:30	
240-125110-2	WT-012607-011620-CM-002	Water	01/16/20 17:10	01/17/20 09:30	
240-125110-3	EB-012607-011620-CM-003	Water	01/16/20 17:05	01/17/20 09:30	
240-125110-4	TB-012607-011620	Water	01/16/20 00:00	01/17/20 09:30	

Detection Summary

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

Job ID: 240-125110-1

Client Sample ID: WT-012607-011620-CM-001

Lab Sample ID: 240-125110-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	3.6		1.0	0.17	ug/L	1		624.1	Total/NA
1,1,1-Trichloroethane	3.6		1.0	0.24	ug/L	1		624.1	Total/NA
2,3,7,8-TCDD	NEG				NONE	1		625	Total/NA
Perfluorobutanoic acid (PFBA)	8.7	B	1.9	0.33	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.7		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.4		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)	4.5		1.9	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.68	J	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.5	J	1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.5	I B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.1	I	1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	130		1.9	0.51	ng/L	1		537 (modified)	Total/NA
Chromium	1.3		0.050	0.00063	mg/L	1		200.7 Rev 4.4	Total Recoverable
Nickel	0.85		0.010	0.0022	mg/L	1		200.7 Rev 4.4	Total Recoverable
Chromium, hexavalent	0.99		0.25	0.18	mg/L	25		3500-Cr B-2011	Total/NA
Total Suspended Solids	3.0	J	4.0	2.2	mg/L	1		SM 2540D	Total/NA

Client Sample ID: WT-012607-011620-CM-002

Lab Sample ID: 240-125110-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.7	B	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.3		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.9		1.9	0.56	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)	4.2		1.9	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.64	J	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTrIA)	2.4		1.9	1.2	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.96	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.9		1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.1	I B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.1	I	1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	130		1.9	0.52	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EB-012607-011620-CM-003

Lab Sample ID: 240-125110-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.50	J B	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.26	J B	1.9	0.16	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TB-012607-011620

Lab Sample ID: 240-125110-4

No Detections.

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: 240-125110-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
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
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
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
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL CAN
625	Liquid-Liquid Extraction	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"

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: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			01/22/20 20:54	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			01/22/20 20:54	1
Toluene	1.0	U	1.0	0.14	ug/L			01/22/20 20:54	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			01/22/20 20:54	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			01/22/20 20:54	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			01/22/20 20:54	1
Bromoform	1.0	U	1.0	0.76	ug/L			01/22/20 20:54	1
Bromomethane	1.0	U	1.0	0.42	ug/L			01/22/20 20:54	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			01/22/20 20:54	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			01/22/20 20:54	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			01/22/20 20:54	1
Chloroethane	1.0	U	1.0	0.83	ug/L			01/22/20 20:54	1
2-Chloroethyl vinyl ether	10	U	10	0.26	ug/L			01/22/20 20:54	1
Chloroform	1.0	U	1.0	0.13	ug/L			01/22/20 20:54	1
Chloromethane	1.0	U	1.0	0.20	ug/L			01/22/20 20:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			01/22/20 20:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			01/22/20 20:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			01/22/20 20:54	1
1,1-Dichloroethane	3.6		1.0	0.17	ug/L			01/22/20 20:54	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			01/22/20 20:54	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/22/20 20:54	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.19	ug/L			01/22/20 20:54	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			01/22/20 20:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			01/22/20 20:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			01/22/20 20:54	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			01/22/20 20:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			01/22/20 20:54	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			01/22/20 20:54	1
1,1,1-Trichloroethane	3.6		1.0	0.24	ug/L			01/22/20 20:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			01/22/20 20:54	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			01/22/20 20:54	1
Acrolein	20	U	20	2.1	ug/L			01/22/20 20:54	1
Acrylonitrile	20	U	20	1.1	ug/L			01/22/20 20:54	1
1,3-Dichloropropene, Total	2.0	U	2.0	1.3	ug/L			01/22/20 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		47 - 134		01/22/20 20:54	1
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		01/22/20 20:54	1
Toluene-d8 (Surr)	89		69 - 122		01/22/20 20:54	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: TB-012607-011620

Date Collected: 01/16/20 00:00

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			01/22/20 21:16	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			01/22/20 21:16	1
Toluene	1.0	U	1.0	0.14	ug/L			01/22/20 21:16	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			01/22/20 21:16	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			01/22/20 21:16	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			01/22/20 21:16	1
Bromoform	1.0	U	1.0	0.76	ug/L			01/22/20 21:16	1
Bromomethane	1.0	U	1.0	0.42	ug/L			01/22/20 21:16	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			01/22/20 21:16	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			01/22/20 21:16	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			01/22/20 21:16	1
Chloroethane	1.0	U	1.0	0.83	ug/L			01/22/20 21:16	1
2-Chloroethyl vinyl ether	10	U	10	0.26	ug/L			01/22/20 21:16	1
Chloroform	1.0	U	1.0	0.13	ug/L			01/22/20 21:16	1
Chloromethane	1.0	U	1.0	0.20	ug/L			01/22/20 21:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			01/22/20 21:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			01/22/20 21:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			01/22/20 21:16	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			01/22/20 21:16	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			01/22/20 21:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/22/20 21:16	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.19	ug/L			01/22/20 21:16	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			01/22/20 21:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			01/22/20 21:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			01/22/20 21:16	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			01/22/20 21:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			01/22/20 21:16	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			01/22/20 21:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			01/22/20 21:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			01/22/20 21:16	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			01/22/20 21:16	1
Acrolein	20	U	20	2.1	ug/L			01/22/20 21:16	1
Acrylonitrile	20	U	20	1.1	ug/L			01/22/20 21:16	1
1,3-Dichloropropene, Total	2.0	U	2.0	1.3	ug/L			01/22/20 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		47 - 134		01/22/20 21:16	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 130		01/22/20 21:16	1
Toluene-d8 (Surr)	90		69 - 122		01/22/20 21:16	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	9.5	U	9.5	0.16	ug/L		01/20/20 13:28	01/23/20 13:24	1
Benzo[a]pyrene	9.5	U	9.5	0.16	ug/L		01/20/20 13:28	01/23/20 13:24	1
Benzo[b]fluoranthene	9.5	U	9.5	0.15	ug/L		01/20/20 13:28	01/23/20 13:24	1
Benzo[g,h,i]perylene	9.5	U	9.5	0.17	ug/L		01/20/20 13:28	01/23/20 13:24	1
Acenaphthene	9.5	U	9.5	0.16	ug/L		01/20/20 13:28	01/23/20 13:24	1
Acenaphthylene	9.5	U	9.5	0.12	ug/L		01/20/20 13:28	01/23/20 13:24	1
Anthracene	9.5	U	9.5	0.13	ug/L		01/20/20 13:28	01/23/20 13:24	1
Benzo[k]fluoranthene	9.5	U	9.5	0.13	ug/L		01/20/20 13:28	01/23/20 13:24	1
Butyl benzyl phthalate	9.5	U	9.5	0.63	ug/L		01/20/20 13:28	01/23/20 13:24	1
Bis(2-chloroethoxy)methane	9.5	U	9.5	0.43	ug/L		01/20/20 13:28	01/23/20 13:24	1
Bis(2-chloroethyl)ether	9.5	U	9.5	0.38	ug/L		01/20/20 13:28	01/23/20 13:24	1
Bis(2-ethylhexyl) phthalate	9.5	U	9.5	2.1	ug/L		01/20/20 13:28	01/23/20 13:24	1
bis (2-chloroisopropyl) ether	9.5	U	9.5	0.52	ug/L		01/20/20 13:28	01/23/20 13:24	1
4-Bromophenyl phenyl ether	9.5	U	9.5	0.48	ug/L		01/20/20 13:28	01/23/20 13:24	1
2-Chloronaphthalene	9.5	U	9.5	0.46	ug/L		01/20/20 13:28	01/23/20 13:24	1
4-Chlorophenyl phenyl ether	9.5	U	9.5	0.52	ug/L		01/20/20 13:28	01/23/20 13:24	1
Chrysene	9.5	U	9.5	0.18	ug/L		01/20/20 13:28	01/23/20 13:24	1
Dibenz(a,h)anthracene	9.5	U	9.5	0.14	ug/L		01/20/20 13:28	01/23/20 13:24	1
Di-n-butyl phthalate	9.5	U	9.5	1.7	ug/L		01/20/20 13:28	01/23/20 13:24	1
3,3'-Dichlorobenzidine	9.5	U	9.5	1.1	ug/L		01/20/20 13:28	01/23/20 13:24	1
Diethyl phthalate	9.5	U	9.5	3.6	ug/L		01/20/20 13:28	01/23/20 13:24	1
Dimethyl phthalate	9.5	U	9.5	0.49	ug/L		01/20/20 13:28	01/23/20 13:24	1
2,4-Dinitrotoluene	9.5	U	9.5	2.0	ug/L		01/20/20 13:28	01/23/20 13:24	1
2,6-Dinitrotoluene	9.5	U	9.5	2.0	ug/L		01/20/20 13:28	01/23/20 13:24	1
Di-n-octyl phthalate	9.5	U	9.5	0.78	ug/L		01/20/20 13:28	01/23/20 13:24	1
Fluoranthene	9.5	U	9.5	0.15	ug/L		01/20/20 13:28	01/23/20 13:24	1
Fluorene	9.5	U	9.5	0.16	ug/L		01/20/20 13:28	01/23/20 13:24	1
Hexachlorobenzene	9.5	U	9.5	0.15	ug/L		01/20/20 13:28	01/23/20 13:24	1
Hexachlorobutadiene	9.5	U	9.5	0.52	ug/L		01/20/20 13:28	01/23/20 13:24	1
Hexachloroethane	9.5	U	9.5	0.38	ug/L		01/20/20 13:28	01/23/20 13:24	1
Indeno[1,2,3-cd]pyrene	9.5	U	9.5	0.13	ug/L		01/20/20 13:28	01/23/20 13:24	1
Isophorone	9.5	U	9.5	0.31	ug/L		01/20/20 13:28	01/23/20 13:24	1
Naphthalene	9.5	U	9.5	0.10	ug/L		01/20/20 13:28	01/23/20 13:24	1
Nitrobenzene	9.5	U	9.5	0.49	ug/L		01/20/20 13:28	01/23/20 13:24	1
N-Nitrosodi-n-propylamine	9.5	U	9.5	0.24	ug/L		01/20/20 13:28	01/23/20 13:24	1
Phenanthrene	9.5	U	9.5	0.16	ug/L		01/20/20 13:28	01/23/20 13:24	1
Pyrene	9.5	U	9.5	0.17	ug/L		01/20/20 13:28	01/23/20 13:24	1
1,2,4-Trichlorobenzene	9.5	U	9.5	0.41	ug/L		01/20/20 13:28	01/23/20 13:24	1
4-Chloro-3-methylphenol	9.5	U	9.5	0.28	ug/L		01/20/20 13:28	01/23/20 13:24	1
2-Chlorophenol	9.5	U	9.5	0.26	ug/L		01/20/20 13:28	01/23/20 13:24	1
2,4-Dichlorophenol	9.5	U	9.5	0.25	ug/L		01/20/20 13:28	01/23/20 13:24	1
2,4-Dimethylphenol	9.5	U	9.5	0.49	ug/L		01/20/20 13:28	01/23/20 13:24	1
2,4-Dinitrophenol	48	U	48	5.9	ug/L		01/20/20 13:28	01/23/20 13:24	1
4,6-Dinitro-2-methylphenol	48	U	48	2.7	ug/L		01/20/20 13:28	01/23/20 13:24	1
2-Nitrophenol	9.5	U	9.5	0.54	ug/L		01/20/20 13:28	01/23/20 13:24	1
4-Nitrophenol	48	U	48	2.1	ug/L		01/20/20 13:28	01/23/20 13:24	1
Pentachlorophenol	9.5	U	9.5	3.0	ug/L		01/20/20 13:28	01/23/20 13:24	1
Phenol	9.5	U	9.5	0.12	ug/L		01/20/20 13:28	01/23/20 13:24	1
2,4,6-Trichlorophenol	9.5	U	9.5	1.7	ug/L		01/20/20 13:28	01/23/20 13:24	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzidine	4.8	U	4.8	1.8	ug/L		01/20/20 13:28	01/23/20 13:24	1
Hexachlorocyclopentadiene	9.5	U	9.5	1.7	ug/L		01/20/20 13:28	01/23/20 13:24	1
N-Nitrosodimethylamine	0.95	U	0.95	0.21	ug/L		01/20/20 13:28	01/23/20 13:24	1
N-Nitrosodiphenylamine	9.5	U	9.5	0.42	ug/L		01/20/20 13:28	01/23/20 13:24	1
1,2-Diphenylhydrazine	0.95	U	0.95	0.41	ug/L		01/20/20 13:28	01/23/20 13:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	31		10 - 120				01/20/20 13:28	01/23/20 13:24	1
2,4,6-Tribromophenol	70		33 - 120				01/20/20 13:28	01/23/20 13:24	1
Nitrobenzene-d5	54		33 - 120				01/20/20 13:28	01/23/20 13:24	1
Phenol-d5	18		10 - 120				01/20/20 13:28	01/23/20 13:24	1
Terphenyl-d14	65		36 - 122				01/20/20 13:28	01/23/20 13:24	1
2-Fluorobiphenyl (Surr)	64		38 - 120				01/20/20 13:28	01/23/20 13:24	1

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG				NONE		01/20/20 13:38	01/24/20 09:12	1

Client Sample Results

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

Job ID: 240-125110-1

Method: 608.3 - Organochlorine Pesticides in Water

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.048	U	0.048	0.0023	ug/L		01/21/20 10:03	01/28/20 17:15	1
alpha-BHC	0.048	U	0.048	0.0019	ug/L		01/21/20 10:03	01/28/20 17:15	1
beta-BHC	0.048	U	0.048	0.0044	ug/L		01/21/20 10:03	01/28/20 17:15	1
delta-BHC	0.048	U	0.048	0.0041	ug/L		01/21/20 10:03	01/28/20 17:15	1
gamma-BHC (Lindane)	0.048	U	0.048	0.0024	ug/L		01/21/20 10:03	01/28/20 17:15	1
Chlordane (technical)	0.48	U	0.48	0.044	ug/L		01/21/20 10:03	01/28/20 17:15	1
4,4'-DDD	0.048	U	0.048	0.0050	ug/L		01/21/20 10:03	01/28/20 17:15	1
4,4'-DDE	0.048	U	0.048	0.0041	ug/L		01/21/20 10:03	01/28/20 17:15	1
4,4'-DDT	0.048	U	0.048	0.0046	ug/L		01/21/20 10:03	01/28/20 17:15	1
Dieldrin	0.048	U	0.048	0.0022	ug/L		01/21/20 10:03	01/28/20 17:15	1
Endosulfan I	0.048	U	0.048	0.0035	ug/L		01/21/20 10:03	01/28/20 17:15	1
Endosulfan II	0.048	U	0.048	0.0022	ug/L		01/21/20 10:03	01/28/20 17:15	1
Endosulfan sulfate	0.048	U	0.048	0.0035	ug/L		01/21/20 10:03	01/28/20 17:15	1
Endrin	0.048	U	0.048	0.0024	ug/L		01/21/20 10:03	01/28/20 17:15	1
Endrin aldehyde	0.048	U	0.048	0.0044	ug/L		01/21/20 10:03	01/28/20 17:15	1
Heptachlor	0.048	U	0.048	0.0031	ug/L		01/21/20 10:03	01/28/20 17:15	1
Heptachlor epoxide	0.048	U	0.048	0.0025	ug/L		01/21/20 10:03	01/28/20 17:15	1
Toxaphene	1.9	U	1.9	0.055	ug/L		01/21/20 10:03	01/28/20 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	58		10 - 120				01/21/20 10:03	01/28/20 17:15	1
Tetrachloro-m-xylene	59		33 - 120				01/21/20 10:03	01/28/20 17:15	1

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		01/21/20 09:56	01/23/20 10:50	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		01/21/20 09:56	01/23/20 10:50	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		01/21/20 09:56	01/23/20 10:50	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		01/21/20 09:56	01/23/20 10:50	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		01/21/20 09:56	01/23/20 10:50	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		01/21/20 09:56	01/23/20 10:50	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		01/21/20 09:56	01/23/20 10:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		10 - 114				01/21/20 09:56	01/23/20 10:50	1
Tetrachloro-m-xylene	83		15 - 131				01/21/20 09:56	01/23/20 10:50	1

Client Sample Results

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

Job ID: 240-125110-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.7	B	1.9	0.33	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluoropentanoic acid (PFPeA)	3.7		1.9	0.47	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorohexanoic acid (PFHxA)	2.4		1.9	0.55	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.9	0.24	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorooctanoic acid (PFOA)	4.5		1.9	0.81	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorononanoic acid (PFNA)	0.68	J	1.9	0.26	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.30	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.0	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.52	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	1.2	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.28	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.9	0.19	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluoropentanesulfonic acid (PFPeS)	1.5	J	1.9	0.29	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorohexanesulfonic acid (PFHxS)	6.5	I B	1.9	0.16	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.1	I	1.9	0.18	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorooctanesulfonic acid (PFOS)	130		1.9	0.51	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.15	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.30	ng/L		01/24/20 06:45	01/26/20 15:57	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.33	ng/L		01/24/20 06:45	01/26/20 15:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	19	U	19	3.0	ng/L		01/24/20 06:45	01/26/20 15:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	19	U	19	1.8	ng/L		01/24/20 06:45	01/26/20 15:57	1
4:2 FTS	19	U	19	5.0	ng/L		01/24/20 06:45	01/26/20 15:57	1
6:2 FTS	19	U	19	1.9	ng/L		01/24/20 06:45	01/26/20 15:57	1
8:2 FTS	19	U	19	1.9	ng/L		01/24/20 06:45	01/26/20 15:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.17	ng/L		01/24/20 06:45	01/26/20 15:57	1
HFPO-DA (GenX)	3.8	U	3.8	1.4	ng/L		01/24/20 06:45	01/26/20 15:57	1
F-53B Major	1.9	U	1.9	0.23	ng/L		01/24/20 06:45	01/26/20 15:57	1
F-53B Minor	1.9	U	1.9	0.30	ng/L		01/24/20 06:45	01/26/20 15:57	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	83		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C5 PFPeA	76		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C2 PFHxA	105		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C4 PFHpA	106		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C4 PFOA	100		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C5 PFNA	109		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C2 PFDA	118		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C2 PFUnA	126		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C2 PFDoA	126		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C2 PFTeDA	127		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C3 PFBS	94		25 - 150	01/24/20 06:45	01/26/20 15:57	1
18O2 PFHxS	121		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C4 PFOS	114		25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C8 FOSA	116		25 - 150	01/24/20 06:45	01/26/20 15:57	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	102		25 - 150	01/24/20 06:45	01/26/20 15:57	1
d5-NEtFOSAA	111		25 - 150	01/24/20 06:45	01/26/20 15:57	1
M2-6:2 FTS	192	*	25 - 150	01/24/20 06:45	01/26/20 15:57	1
M2-8:2 FTS	211	*	25 - 150	01/24/20 06:45	01/26/20 15:57	1
M2-4:2 FTS	185	*	25 - 150	01/24/20 06:45	01/26/20 15:57	1
13C3 HFPO-DA	85		25 - 150	01/24/20 06:45	01/26/20 15:57	1

Client Sample Results

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

Job ID: 240-125110-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-011620-CM-002

Date Collected: 01/16/20 17:10

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	7.7	B	1.9	0.34	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluoropentanoic acid (PFPeA)	3.3		1.9	0.47	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorohexanoic acid (PFHxA)	1.9		1.9	0.56	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.9	0.24	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorooctanoic acid (PFOA)	4.2		1.9	0.81	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorononanoic acid (PFNA)	0.64	J	1.9	0.26	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.30	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.1	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.53	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorotridecanoic acid (PFTriA)	2.4		1.9	1.2	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.28	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorobutanesulfonic acid (PFBS)	0.96	J	1.9	0.19	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluoropentanesulfonic acid (PFPeS)	1.9		1.9	0.29	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorohexanesulfonic acid (PFHxS)	7.1	I B	1.9	0.16	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.1	I	1.9	0.18	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorooctanesulfonic acid (PFOS)	130		1.9	0.52	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.15	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.31	ng/L		01/24/20 06:45	01/26/20 16:07	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.34	ng/L		01/24/20 06:45	01/26/20 16:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	19	U	19	3.0	ng/L		01/24/20 06:45	01/26/20 16:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	19	U	19	1.8	ng/L		01/24/20 06:45	01/26/20 16:07	1
4:2 FTS	19	U	19	5.0	ng/L		01/24/20 06:45	01/26/20 16:07	1
6:2 FTS	19	U	19	1.9	ng/L		01/24/20 06:45	01/26/20 16:07	1
8:2 FTS	19	U	19	1.9	ng/L		01/24/20 06:45	01/26/20 16:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.17	ng/L		01/24/20 06:45	01/26/20 16:07	1
HFPO-DA (GenX)	3.8	U	3.8	1.4	ng/L		01/24/20 06:45	01/26/20 16:07	1
F-53B Major	1.9	U	1.9	0.23	ng/L		01/24/20 06:45	01/26/20 16:07	1
F-53B Minor	1.9	U	1.9	0.31	ng/L		01/24/20 06:45	01/26/20 16:07	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	79		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C5 PFPeA	67		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C2 PFHxA	100		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C4 PFHpA	104		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C4 PFOA	101		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C5 PFNA	115		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C2 PFDA	121		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C2 PFUnA	125		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C2 PFDoA	125		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C2 PFTeDA	127		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C3 PFBS	84		25 - 150	01/24/20 06:45	01/26/20 16:07	1
18O2 PFHxS	113		25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C4 PFOS	115		25 - 150	01/24/20 06:45	01/26/20 16:07	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-002

Date Collected: 01/16/20 17:10

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-2

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	110		25 - 150	01/24/20 06:45	01/26/20 16:07	1
d3-NMeFOSAA	96		25 - 150	01/24/20 06:45	01/26/20 16:07	1
d5-NEtFOSAA	108		25 - 150	01/24/20 06:45	01/26/20 16:07	1
M2-6:2 FTS	174	*	25 - 150	01/24/20 06:45	01/26/20 16:07	1
M2-8:2 FTS	196	*	25 - 150	01/24/20 06:45	01/26/20 16:07	1
M2-4:2 FTS	181	*	25 - 150	01/24/20 06:45	01/26/20 16:07	1
13C3 HFPO-DA	73		25 - 150	01/24/20 06:45	01/26/20 16:07	1

Client Sample Results

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

Job ID: 240-125110-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: EB-012607-011620-CM-003

Date Collected: 01/16/20 17:05

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	J B	1.9	0.34	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluoropentanoic acid (PFPeA)	1.9	U	1.9	0.48	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorohexanoic acid (PFHxA)	1.9	U	1.9	0.56	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluoroheptanoic acid (PFHpA)	1.9	U	1.9	0.24	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorooctanoic acid (PFOA)	1.9	U	1.9	0.82	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorononanoic acid (PFNA)	1.9	U	1.9	0.26	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.30	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.1	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.53	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	1.3	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.28	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U	1.9	0.19	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluoropentanesulfonic acid (PFPeS)	1.9	U	1.9	0.29	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorohexanesulfonic acid (PFHxS)	0.26	J B	1.9	0.16	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.9	U	1.9	0.18	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorooctanesulfonic acid (PFOS)	1.9	U	1.9	0.52	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.16	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.31	ng/L		01/24/20 06:45	01/26/20 16:17	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.34	ng/L		01/24/20 06:45	01/26/20 16:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	19	U	19	3.0	ng/L		01/24/20 06:45	01/26/20 16:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	19	U	19	1.8	ng/L		01/24/20 06:45	01/26/20 16:17	1
4:2 FTS	19	U	19	5.0	ng/L		01/24/20 06:45	01/26/20 16:17	1
6:2 FTS	19	U	19	1.9	ng/L		01/24/20 06:45	01/26/20 16:17	1
8:2 FTS	19	U	19	1.9	ng/L		01/24/20 06:45	01/26/20 16:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.17	ng/L		01/24/20 06:45	01/26/20 16:17	1
HFPO-DA (GenX)	3.9	U	3.9	1.5	ng/L		01/24/20 06:45	01/26/20 16:17	1
F-53B Major	1.9	U	1.9	0.23	ng/L		01/24/20 06:45	01/26/20 16:17	1
F-53B Minor	1.9	U	1.9	0.31	ng/L		01/24/20 06:45	01/26/20 16:17	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	102		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C5 PFPeA	93		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C2 PFHxA	111		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C4 PFHpA	107		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C4 PFOA	104		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C5 PFNA	106		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C2 PFDA	108		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C2 PFUnA	110		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C2 PFDoA	107		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C2 PFTeDA	115		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C3 PFBS	99		25 - 150				01/24/20 06:45	01/26/20 16:17	1
18O2 PFHxS	109		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C4 PFOS	104		25 - 150				01/24/20 06:45	01/26/20 16:17	1
13C8 FOSA	98		25 - 150				01/24/20 06:45	01/26/20 16:17	1
d3-NMeFOSAA	92		25 - 150				01/24/20 06:45	01/26/20 16:17	1
d5-NEtFOSAA	103		25 - 150				01/24/20 06:45	01/26/20 16:17	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: EB-012607-011620-CM-003

Date Collected: 01/16/20 17:05

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-3

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	103		25 - 150	01/24/20 06:45	01/26/20 16:17	1
M2-8:2 FTS	105		25 - 150	01/24/20 06:45	01/26/20 16:17	1
M2-4:2 FTS	96		25 - 150	01/24/20 06:45	01/26/20 16:17	1
13C3 HFPO-DA	89		25 - 150	01/24/20 06:45	01/26/20 16:17	1

Client Sample Results

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

Job ID: 240-125110-1

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

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.3		0.050	0.00063	mg/L		01/20/20 14:00	01/22/20 21:26	1
Nickel	0.85		0.010	0.0022	mg/L		01/20/20 14:00	01/22/20 21:26	1
Lead	0.050	U	0.050	0.0028	mg/L		01/20/20 14:00	01/22/20 21:26	1
Zinc	0.020	U	0.020	0.0097	mg/L		01/20/20 14:00	01/22/20 21:26	1

Client Sample Results

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

Job ID: 240-125110-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00013	mg/L	—	01/20/20 12:00	01/21/20 11:24	1

Client Sample Results

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

Job ID: 240-125110-1

General Chemistry

Client Sample ID: WT-012607-011620-CM-001

Date Collected: 01/16/20 17:20

Date Received: 01/17/20 09:30

Lab Sample ID: 240-125110-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	0.97	mg/L			02/05/20 09:02	1
Chromium, hexavalent	0.99		0.25	0.18	mg/L			01/17/20 16:07	25
Total Suspended Solids	3.0	J	4.0	2.2	mg/L			01/21/20 12:01	1

QC Association Summary

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

Job ID: 240-125110-1

GC/MS VOA

Analysis Batch: 419873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	624.1	
240-125110-4	TB-012607-011620	Total/NA	Water	624.1	
MB 240-419873/8	Method Blank	Total/NA	Water	624.1	
LCS 240-419873/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 419570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	625	
MB 240-419570/4-A	Method Blank	Total/NA	Water	3510C	
LCS 240-419570/5-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 419572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	3510C	
MB 240-419572/4-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 419994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	625.1	419570
MB 240-419570/4-A	Method Blank	Total/NA	Water	625.1	419570
LCS 240-419570/5-A	Lab Control Sample	Total/NA	Water	625.1	419570

Analysis Batch: 420136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	625	419572
MB 240-419572/4-A	Method Blank	Total/NA	Water	625	419572

GC Semi VOA

Prep Batch: 419700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	608	
MB 240-419700/16-A	Method Blank	Total/NA	Water	3510C	
LCS 240-419700/17-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 419704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	608	
MB 240-419704/3-A	Method Blank	Total/NA	Water	3510C	
LCS 240-419704/4-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 419965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	608.3	419700
MB 240-419700/16-A	Method Blank	Total/NA	Water	608.3	419700
LCS 240-419700/17-A	Lab Control Sample	Total/NA	Water	608.3	419700

Analysis Batch: 420584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	608.3	419704

Eurofins TestAmerica, Canton

QC Association Summary

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

Job ID: 240-125110-1

GC Semi VOA (Continued)

Analysis Batch: 420584 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-419704/3-A	Method Blank	Total/NA	Water	608.3	419704
LCS 240-419704/4-A	Lab Control Sample	Total/NA	Water	608.3	419704

LCMS

Prep Batch: 352695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	3535	
240-125110-2	WT-012607-011620-CM-002	Total/NA	Water	3535	
240-125110-3	EB-012607-011620-CM-003	Total/NA	Water	3535	
MB 320-352695/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-352695/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 353101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	537 (modified)	352695
240-125110-2	WT-012607-011620-CM-002	Total/NA	Water	537 (modified)	352695
240-125110-3	EB-012607-011620-CM-003	Total/NA	Water	537 (modified)	352695
MB 320-352695/1-A	Method Blank	Total/NA	Water	537 (modified)	352695
LCS 320-352695/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	352695

Metals

Prep Batch: 419533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total Recoverable	Water	200.7	
MB 240-419533/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-419533/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
240-125110-1 MS	WT-012607-011620-CM-001	Total Recoverable	Water	200.7	
240-125110-1 MSD	WT-012607-011620-CM-001	Total Recoverable	Water	200.7	

Prep Batch: 419534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	245.1	
MB 240-419534/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-419534/2-A	Lab Control Sample	Total/NA	Water	245.1	
240-125110-1 MS	WT-012607-011620-CM-001	Total/NA	Water	245.1	
240-125110-1 MSD	WT-012607-011620-CM-001	Total/NA	Water	245.1	

Analysis Batch: 419820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	245.1	419534
MB 240-419534/1-A	Method Blank	Total/NA	Water	245.1	419534
LCS 240-419534/2-A	Lab Control Sample	Total/NA	Water	245.1	419534
240-125110-1 MS	WT-012607-011620-CM-001	Total/NA	Water	245.1	419534
240-125110-1 MSD	WT-012607-011620-CM-001	Total/NA	Water	245.1	419534

Analysis Batch: 419900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total Recoverable	Water	200.7 Rev 4.4	419533
MB 240-419533/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	419533
LCS 240-419533/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	419533

Eurofins TestAmerica, Canton

QC Association Summary

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

Job ID: 240-125110-1

Metals (Continued)

Analysis Batch: 419900 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1 MS	WT-012607-011620-CM-001	Total Recoverable	Water	200.7 Rev 4.4	419533
240-125110-1 MSD	WT-012607-011620-CM-001	Total Recoverable	Water	200.7 Rev 4.4	419533

General Chemistry

Analysis Batch: 419451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	3500-Cr B-2011	
MB 240-419451/3	Method Blank	Total/NA	Water	3500-Cr B-2011	
LCS 240-419451/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2011	
240-125110-1 MS	WT-012607-011620-CM-001	Total/NA	Water	3500-Cr B-2011	
240-125110-1 MSD	WT-012607-011620-CM-001	Total/NA	Water	3500-Cr B-2011	

Analysis Batch: 419727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	SM 2540D	
MB 240-419727/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-419727/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 421569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125110-1	WT-012607-011620-CM-001	Total/NA	Water	1664A	
MB 240-421569/1	Method Blank	Total/NA	Water	1664A	
LCS 240-421569/2	Lab Control Sample	Total/NA	Water	1664A	

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: MB 240-419873/8

Matrix: Water

Analysis Batch: 419873

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			01/22/20 13:06	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			01/22/20 13:06	1
Toluene	1.0	U	1.0	0.14	ug/L			01/22/20 13:06	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			01/22/20 13:06	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			01/22/20 13:06	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			01/22/20 13:06	1
Bromoform	1.0	U	1.0	0.76	ug/L			01/22/20 13:06	1
Bromomethane	1.0	U	1.0	0.42	ug/L			01/22/20 13:06	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			01/22/20 13:06	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			01/22/20 13:06	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			01/22/20 13:06	1
Chloroethane	1.0	U	1.0	0.83	ug/L			01/22/20 13:06	1
2-Chloroethyl vinyl ether	10	U	10	0.26	ug/L			01/22/20 13:06	1
Chloroform	1.0	U	1.0	0.13	ug/L			01/22/20 13:06	1
Chloromethane	1.0	U	1.0	0.20	ug/L			01/22/20 13:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			01/22/20 13:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			01/22/20 13:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			01/22/20 13:06	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			01/22/20 13:06	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			01/22/20 13:06	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/22/20 13:06	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.19	ug/L			01/22/20 13:06	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			01/22/20 13:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			01/22/20 13:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			01/22/20 13:06	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			01/22/20 13:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			01/22/20 13:06	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			01/22/20 13:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			01/22/20 13:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			01/22/20 13:06	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			01/22/20 13:06	1
Acrolein	20	U	20	2.1	ug/L			01/22/20 13:06	1
Acrylonitrile	20	U	20	1.1	ug/L			01/22/20 13:06	1
1,3-Dichloropropene, Total	2.0	U	2.0	1.3	ug/L			01/22/20 13:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		47 - 134		01/22/20 13:06	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 130		01/22/20 13:06	1
Toluene-d8 (Surr)	92		69 - 122		01/22/20 13:06	1

Lab Sample ID: LCS 240-419873/5

Matrix: Water

Analysis Batch: 419873

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	21.4		ug/L		107	65 - 135
Ethylbenzene	20.0	17.8		ug/L		89	60 - 140
Toluene	20.0	17.4		ug/L		87	70 - 130

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: LCS 240-419873/5

Matrix: Water

Analysis Batch: 419873

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	22.4		ug/L		112	5 - 195
Xylenes, Total	40.0	34.8		ug/L		87	78 - 122
Dichlorobromomethane	20.0	20.6		ug/L		103	65 - 135
Bromoform	20.0	16.2		ug/L		81	70 - 130
Bromomethane	20.0	23.0		ug/L		115	15 - 185
Carbon tetrachloride	20.0	20.5		ug/L		102	70 - 130
Chlorobenzene	20.0	17.6		ug/L		88	65 - 135
Chlorodibromomethane	20.0	16.5		ug/L		83	70 - 135
Chloroethane	20.0	23.6		ug/L		118	40 - 160
2-Chloroethyl vinyl ether	20.0	19.4		ug/L		97	0 - 225
Chloroform	20.0	20.6		ug/L		103	70 - 135
Chloromethane	20.0	20.9		ug/L		104	0 - 205
1,2-Dichlorobenzene	20.0	15.3		ug/L		77	65 - 135
1,3-Dichlorobenzene	20.0	16.3		ug/L		82	70 - 130
1,4-Dichlorobenzene	20.0	15.9		ug/L		80	65 - 135
1,1-Dichloroethane	20.0	20.6		ug/L		103	70 - 130
1,1-Dichloroethene	20.0	21.3		ug/L		106	50 - 150
1,2-Dichloroethane	20.0	19.7		ug/L		98	70 - 130
trans-1,2-Dichloroethene	20.0	20.4		ug/L		102	70 - 130
1,2-Dichloropropane	20.0	21.4		ug/L		107	35 - 165
cis-1,3-Dichloropropene	20.0	20.2		ug/L		101	25 - 175
trans-1,3-Dichloropropene	20.0	15.6		ug/L		78	50 - 150
Methylene Chloride	20.0	19.4		ug/L		97	60 - 140
1,1,2,2-Tetrachloroethane	20.0	16.8		ug/L		84	60 - 140
Tetrachloroethene	20.0	17.2		ug/L		86	70 - 130
1,1,1-Trichloroethane	20.0	20.9		ug/L		105	70 - 130
1,1,2-Trichloroethane	20.0	17.4		ug/L		87	70 - 130
Trichloroethene	20.0	21.2		ug/L		106	65 - 135
Acrolein	100	110		ug/L		110	60 - 140
Acrylonitrile	200	236		ug/L		118	60 - 140
1,3-Dichloropropene, Total	40.0	35.8		ug/L		90	67 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		47 - 134
1,2-Dichloroethane-d4 (Surr)	104		75 - 130
Toluene-d8 (Surr)	93		69 - 122

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

Lab Sample ID: MB 240-419572/4-A

Matrix: Water

Analysis Batch: 420136

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 419572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG				NONE		01/20/20 13:38	01/24/20 08:54	1

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: MB 240-419570/4-A

Matrix: Water

Analysis Batch: 419994

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 419570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	10	U	10	0.17	ug/L		01/20/20 13:28	01/23/20 09:06	1
Benzo[a]pyrene	10	U	10	0.17	ug/L		01/20/20 13:28	01/23/20 09:06	1
Benzo[b]fluoranthene	10	U	10	0.15	ug/L		01/20/20 13:28	01/23/20 09:06	1
Benzo[g,h,i]perylene	10	U	10	0.18	ug/L		01/20/20 13:28	01/23/20 09:06	1
Acenaphthene	10	U	10	0.17	ug/L		01/20/20 13:28	01/23/20 09:06	1
Acenaphthylene	10	U	10	0.13	ug/L		01/20/20 13:28	01/23/20 09:06	1
Anthracene	10	U	10	0.14	ug/L		01/20/20 13:28	01/23/20 09:06	1
Benzo[k]fluoranthene	10	U	10	0.14	ug/L		01/20/20 13:28	01/23/20 09:06	1
Butyl benzyl phthalate	10	U	10	0.67	ug/L		01/20/20 13:28	01/23/20 09:06	1
Bis(2-chloroethoxy)methane	10	U	10	0.46	ug/L		01/20/20 13:28	01/23/20 09:06	1
Bis(2-chloroethyl)ether	10	U	10	0.40	ug/L		01/20/20 13:28	01/23/20 09:06	1
Bis(2-ethylhexyl) phthalate	10	U	10	2.2	ug/L		01/20/20 13:28	01/23/20 09:06	1
bis (2-chloroisopropyl) ether	10	U	10	0.55	ug/L		01/20/20 13:28	01/23/20 09:06	1
4-Bromophenyl phenyl ether	10	U	10	0.50	ug/L		01/20/20 13:28	01/23/20 09:06	1
2-Chloronaphthalene	10	U	10	0.48	ug/L		01/20/20 13:28	01/23/20 09:06	1
4-Chlorophenyl phenyl ether	10	U	10	0.55	ug/L		01/20/20 13:28	01/23/20 09:06	1
Chrysene	10	U	10	0.19	ug/L		01/20/20 13:28	01/23/20 09:06	1
Dibenz(a,h)anthracene	10	U	10	0.15	ug/L		01/20/20 13:28	01/23/20 09:06	1
Di-n-butyl phthalate	10	U	10	1.8	ug/L		01/20/20 13:28	01/23/20 09:06	1
3,3'-Dichlorobenzidine	10	U	10	1.2	ug/L		01/20/20 13:28	01/23/20 09:06	1
Diethyl phthalate	10	U	10	3.8	ug/L		01/20/20 13:28	01/23/20 09:06	1
Dimethyl phthalate	10	U	10	0.52	ug/L		01/20/20 13:28	01/23/20 09:06	1
2,4-Dinitrotoluene	10	U	10	2.1	ug/L		01/20/20 13:28	01/23/20 09:06	1
2,6-Dinitrotoluene	10	U	10	2.1	ug/L		01/20/20 13:28	01/23/20 09:06	1
Di-n-octyl phthalate	10	U	10	0.82	ug/L		01/20/20 13:28	01/23/20 09:06	1
Fluoranthene	10	U	10	0.16	ug/L		01/20/20 13:28	01/23/20 09:06	1
Fluorene	10	U	10	0.17	ug/L		01/20/20 13:28	01/23/20 09:06	1
Hexachlorobenzene	10	U	10	0.16	ug/L		01/20/20 13:28	01/23/20 09:06	1
Hexachlorobutadiene	10	U	10	0.54	ug/L		01/20/20 13:28	01/23/20 09:06	1
Hexachloroethane	10	U	10	0.40	ug/L		01/20/20 13:28	01/23/20 09:06	1
Indeno[1,2,3-cd]pyrene	10	U	10	0.14	ug/L		01/20/20 13:28	01/23/20 09:06	1
Isophorone	10	U	10	0.32	ug/L		01/20/20 13:28	01/23/20 09:06	1
Naphthalene	10	U	10	0.11	ug/L		01/20/20 13:28	01/23/20 09:06	1
Nitrobenzene	10	U	10	0.51	ug/L		01/20/20 13:28	01/23/20 09:06	1
N-Nitrosodi-n-propylamine	10	U	10	0.25	ug/L		01/20/20 13:28	01/23/20 09:06	1
Phenanthrene	10	U	10	0.17	ug/L		01/20/20 13:28	01/23/20 09:06	1
Pyrene	10	U	10	0.18	ug/L		01/20/20 13:28	01/23/20 09:06	1
1,2,4-Trichlorobenzene	10	U	10	0.43	ug/L		01/20/20 13:28	01/23/20 09:06	1
4-Chloro-3-methylphenol	10	U	10	0.30	ug/L		01/20/20 13:28	01/23/20 09:06	1
2-Chlorophenol	10	U	10	0.27	ug/L		01/20/20 13:28	01/23/20 09:06	1
2,4-Dichlorophenol	10	U	10	0.26	ug/L		01/20/20 13:28	01/23/20 09:06	1
2,4-Dimethylphenol	10	U	10	0.52	ug/L		01/20/20 13:28	01/23/20 09:06	1
2,4-Dinitrophenol	50	U	50	6.2	ug/L		01/20/20 13:28	01/23/20 09:06	1
4,6-Dinitro-2-methylphenol	50	U	50	2.8	ug/L		01/20/20 13:28	01/23/20 09:06	1
2-Nitrophenol	10	U	10	0.56	ug/L		01/20/20 13:28	01/23/20 09:06	1
4-Nitrophenol	50	U	50	2.2	ug/L		01/20/20 13:28	01/23/20 09:06	1
Pentachlorophenol	10	U	10	3.1	ug/L		01/20/20 13:28	01/23/20 09:06	1
Phenol	10	U	10	0.13	ug/L		01/20/20 13:28	01/23/20 09:06	1

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: MB 240-419570/4-A

Matrix: Water

Analysis Batch: 419994

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 419570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	10	U	10	1.8	ug/L		01/20/20 13:28	01/23/20 09:06	1
Benzidine	5.0	U	5.0	1.9	ug/L		01/20/20 13:28	01/23/20 09:06	1
Hexachlorocyclopentadiene	10	U	10	1.8	ug/L		01/20/20 13:28	01/23/20 09:06	1
N-Nitrosodimethylamine	1.0	U	1.0	0.22	ug/L		01/20/20 13:28	01/23/20 09:06	1
N-Nitrosodiphenylamine	10	U	10	0.44	ug/L		01/20/20 13:28	01/23/20 09:06	1
1,2-Diphenylhydrazine	1.0	U	1.0	0.43	ug/L		01/20/20 13:28	01/23/20 09:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	43		10 - 120	01/20/20 13:28	01/23/20 09:06	1
2,4,6-Tribromophenol	79		33 - 120	01/20/20 13:28	01/23/20 09:06	1
Nitrobenzene-d5	72		33 - 120	01/20/20 13:28	01/23/20 09:06	1
Phenol-d5	25		10 - 120	01/20/20 13:28	01/23/20 09:06	1
Terphenyl-d14	92		36 - 122	01/20/20 13:28	01/23/20 09:06	1
2-Fluorobiphenyl (Surr)	80		38 - 120	01/20/20 13:28	01/23/20 09:06	1

Lab Sample ID: LCS 240-419570/5-A

Matrix: Water

Analysis Batch: 419994

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 419570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	20.0	16.6		ug/L		83	33 - 143
Benzo[a]pyrene	20.0	14.8		ug/L		74	17 - 163
Benzo[b]fluoranthene	20.0	15.2		ug/L		76	24 - 159
Benzo[g,h,i]perylene	20.0	18.1		ug/L		90	0 - 219
Acenaphthene	20.0	15.5		ug/L		77	47 - 145
Acenaphthylene	20.0	16.4		ug/L		82	33 - 145
Anthracene	20.0	16.3		ug/L		82	27 - 133
Benzo[k]fluoranthene	20.0	16.3		ug/L		81	11 - 162
Butyl benzyl phthalate	20.0	15.4		ug/L		77	0 - 152
Bis(2-chloroethoxy)methane	20.0	16.5		ug/L		82	33 - 184
Bis(2-chloroethyl)ether	20.0	16.5		ug/L		82	12 - 158
Bis(2-ethylhexyl) phthalate	20.0	15.6		ug/L		78	8 - 158
bis (2-chloroisopropyl) ether	20.0	22.5		ug/L		113	36 - 166
4-Bromophenyl phenyl ether	20.0	18.2		ug/L		91	53 - 127
2-Chloronaphthalene	20.0	15.0		ug/L		75	60 - 120
4-Chlorophenyl phenyl ether	20.0	15.1		ug/L		75	25 - 158
Chrysene	20.0	16.0		ug/L		80	17 - 168
Dibenz(a,h)anthracene	20.0	16.8		ug/L		84	0 - 227
Di-n-butyl phthalate	20.0	16.9		ug/L		85	1 - 120
3,3'-Dichlorobenzidine	40.0	46.5		ug/L		116	0 - 262
Diethyl phthalate	20.0	13.1		ug/L		66	0 - 120
Dimethyl phthalate	20.0	16.0		ug/L		80	0 - 120
2,4-Dinitrotoluene	20.0	16.5		ug/L		82	39 - 139
2,6-Dinitrotoluene	20.0	16.8		ug/L		84	50 - 158
Di-n-octyl phthalate	20.0	15.2		ug/L		76	4 - 146
Fluoranthene	20.0	16.9		ug/L		85	26 - 137
Fluorene	20.0	16.1		ug/L		81	59 - 121
Hexachlorobenzene	20.0	16.2		ug/L		81	0 - 152

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: LCS 240-419570/5-A

Matrix: Water

Analysis Batch: 419994

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 419570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	20.0	10.8		ug/L		54	24 - 120
Hexachloroethane	20.0	11.8		ug/L		59	40 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.4		ug/L		87	0 - 171
Isophorone	20.0	16.9		ug/L		85	21 - 196
Naphthalene	20.0	13.9		ug/L		70	21 - 133
Nitrobenzene	20.0	15.7		ug/L		79	35 - 180
N-Nitrosodi-n-propylamine	20.0	17.2		ug/L		86	0 - 230
Phenanthrene	20.0	15.3		ug/L		76	54 - 120
Pyrene	20.0	16.5		ug/L		82	52 - 120
1,2,4-Trichlorobenzene	20.0	11.6		ug/L		58	44 - 142
4-Chloro-3-methylphenol	20.0	14.3		ug/L		71	22 - 147
2-Chlorophenol	20.0	15.1		ug/L		76	23 - 134
2,4-Dichlorophenol	20.0	14.9		ug/L		74	39 - 135
2,4-Dimethylphenol	20.0	15.0		ug/L		75	32 - 120
2,4-Dinitrophenol	40.0	24.2	J	ug/L		61	0 - 191
4,6-Dinitro-2-methylphenol	40.0	27.6	J	ug/L		69	0 - 181
2-Nitrophenol	20.0	15.6		ug/L		78	29 - 182
4-Nitrophenol	40.0	9.05	J	ug/L		23	0 - 132
Pentachlorophenol	40.0	21.8		ug/L		54	14 - 176
Phenol	20.0	5.47	J	ug/L		27	5 - 120
2,4,6-Trichlorophenol	20.0	15.1		ug/L		76	37 - 144
Benzidine	40.0	17.4		ug/L		43	21 - 120
Hexachlorocyclopentadiene	20.0	8.00	J	ug/L		40	20 - 120
N-Nitrosodimethylamine	20.0	11.0		ug/L		55	10 - 120
N-Nitrosodiphenylamine	20.0	18.5		ug/L		92	61 - 120
1,2-Diphenylhydrazine	20.0	18.9		ug/L		95	51 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	47		10 - 120
2,4,6-Tribromophenol	84		33 - 120
Nitrobenzene-d5	78		33 - 120
Phenol-d5	29		10 - 120
Terphenyl-d14	89		36 - 122
2-Fluorobiphenyl (Surr)	76		38 - 120

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 240-419704/3-A

Matrix: Water

Analysis Batch: 420584

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 419704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.050	U	0.050	0.0024	ug/L		01/21/20 10:03	01/28/20 16:51	1
alpha-BHC	0.050	U	0.050	0.0020	ug/L		01/21/20 10:03	01/28/20 16:51	1
beta-BHC	0.050	U	0.050	0.0046	ug/L		01/21/20 10:03	01/28/20 16:51	1
delta-BHC	0.050	U	0.050	0.0043	ug/L		01/21/20 10:03	01/28/20 16:51	1
gamma-BHC (Lindane)	0.050	U	0.050	0.0025	ug/L		01/21/20 10:03	01/28/20 16:51	1
Chlordane (technical)	0.50	U	0.50	0.047	ug/L		01/21/20 10:03	01/28/20 16:51	1
4,4'-DDD	0.050	U	0.050	0.0053	ug/L		01/21/20 10:03	01/28/20 16:51	1

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 240-419704/3-A

Matrix: Water

Analysis Batch: 420584

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 419704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	0.050	U	0.050	0.0043	ug/L		01/21/20 10:03	01/28/20 16:51	1
4,4'-DDT	0.050	U	0.050	0.0048	ug/L		01/21/20 10:03	01/28/20 16:51	1
Dieldrin	0.050	U	0.050	0.0023	ug/L		01/21/20 10:03	01/28/20 16:51	1
Endosulfan I	0.050	U	0.050	0.0037	ug/L		01/21/20 10:03	01/28/20 16:51	1
Endosulfan II	0.050	U	0.050	0.0023	ug/L		01/21/20 10:03	01/28/20 16:51	1
Endosulfan sulfate	0.050	U	0.050	0.0037	ug/L		01/21/20 10:03	01/28/20 16:51	1
Endrin	0.050	U	0.050	0.0025	ug/L		01/21/20 10:03	01/28/20 16:51	1
Endrin aldehyde	0.050	U	0.050	0.0046	ug/L		01/21/20 10:03	01/28/20 16:51	1
Heptachlor	0.050	U	0.050	0.0033	ug/L		01/21/20 10:03	01/28/20 16:51	1
Heptachlor epoxide	0.050	U	0.050	0.0026	ug/L		01/21/20 10:03	01/28/20 16:51	1
Toxaphene	2.0	U	2.0	0.058	ug/L		01/21/20 10:03	01/28/20 16:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	59		10 - 120	01/21/20 10:03	01/28/20 16:51	1
Tetrachloro-m-xylene	60		33 - 120	01/21/20 10:03	01/28/20 16:51	1

Lab Sample ID: LCS 240-419704/4-A

Matrix: Water

Analysis Batch: 420584

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 419704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.250	0.179		ug/L		72	42 - 140
alpha-BHC	0.250	0.183		ug/L		73	37 - 140
beta-BHC	0.250	0.178		ug/L		71	17 - 147
delta-BHC	0.250	0.185		ug/L		74	19 - 140
gamma-BHC (Lindane)	0.250	0.181		ug/L		72	32 - 140
4,4'-DDD	0.250	0.187		ug/L		75	31 - 141
4,4'-DDE	0.250	0.137		ug/L		55	30 - 145
4,4'-DDT	0.250	0.182		ug/L		73	25 - 160
Dieldrin	0.250	0.177		ug/L		71	36 - 146
Endosulfan I	0.250	0.131		ug/L		53	45 - 153
Endosulfan II	0.250	0.135		ug/L		54	0 - 202
Endosulfan sulfate	0.250	0.177		ug/L		71	26 - 144
Endrin	0.250	0.187		ug/L		75	30 - 147
Endrin aldehyde	0.250	0.134		ug/L		53	47 - 120
Heptachlor	0.250	0.170		ug/L		68	34 - 140
Heptachlor epoxide	0.250	0.185		ug/L		74	37 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	66		10 - 120
Tetrachloro-m-xylene	63		33 - 120

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: MB 240-419700/16-A

Matrix: Water

Analysis Batch: 419965

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 419700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		01/21/20 09:56	01/23/20 10:07	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		01/21/20 09:56	01/23/20 10:07	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		01/21/20 09:56	01/23/20 10:07	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		01/21/20 09:56	01/23/20 10:07	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		01/21/20 09:56	01/23/20 10:07	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		01/21/20 09:56	01/23/20 10:07	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		01/21/20 09:56	01/23/20 10:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		10 - 114	01/21/20 09:56	01/23/20 10:07	1
Tetrachloro-m-xylene	75		15 - 131	01/21/20 09:56	01/23/20 10:07	1

Lab Sample ID: LCS 240-419700/17-A

Matrix: Water

Analysis Batch: 419965

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 419700

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor-1016	2.50	1.98		ug/L		79	50 - 140
Aroclor-1260	2.50	1.94		ug/L		78	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	51		10 - 114
Tetrachloro-m-xylene	77		15 - 131

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-352695/1-A

Matrix: Water

Analysis Batch: 353101

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 352695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.618	J	2.0	0.35	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.29	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorohexanesulfonic acid (PFHxS)	0.302	J	2.0	0.17	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		01/24/20 06:45	01/26/20 15:37	1

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: MB 320-352695/1-A

Matrix: Water

Analysis Batch: 353101

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 352695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.16	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		01/24/20 06:45	01/26/20 15:37	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.35	ng/L		01/24/20 06:45	01/26/20 15:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20	U	20	3.1	ng/L		01/24/20 06:45	01/26/20 15:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20	U	20	1.9	ng/L		01/24/20 06:45	01/26/20 15:37	1
4:2 FTS	20	U	20	5.2	ng/L		01/24/20 06:45	01/26/20 15:37	1
6:2 FTS	20	U	20	2.0	ng/L		01/24/20 06:45	01/26/20 15:37	1
8:2 FTS	20	U	20	2.0	ng/L		01/24/20 06:45	01/26/20 15:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.18	ng/L		01/24/20 06:45	01/26/20 15:37	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		01/24/20 06:45	01/26/20 15:37	1
F-53B Major	2.0	U	2.0	0.24	ng/L		01/24/20 06:45	01/26/20 15:37	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		01/24/20 06:45	01/26/20 15:37	1

Isotope Dilution	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	100		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C5 PFPeA	98		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C2 PFHxA	105		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C4 PFHpA	103		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C4 PFOA	102		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C5 PFNA	102		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C2 PFDA	103		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C2 PFUnA	104		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C2 PFDoA	101		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C2 PFTeDA	110		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C3 PFBS	104		25 - 150	01/24/20 06:45	01/26/20 15:37	1
18O2 PFHxS	104		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C4 PFOS	97		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C8 FOSA	97		25 - 150	01/24/20 06:45	01/26/20 15:37	1
d3-NMeFOSAA	90		25 - 150	01/24/20 06:45	01/26/20 15:37	1
d5-NEtFOSAA	100		25 - 150	01/24/20 06:45	01/26/20 15:37	1
M2-6:2 FTS	98		25 - 150	01/24/20 06:45	01/26/20 15:37	1
M2-8:2 FTS	107		25 - 150	01/24/20 06:45	01/26/20 15:37	1
M2-4:2 FTS	100		25 - 150	01/24/20 06:45	01/26/20 15:37	1
13C3 HFPO-DA	90		25 - 150	01/24/20 06:45	01/26/20 15:37	1

Lab Sample ID: LCS 320-352695/2-A

Matrix: Water

Analysis Batch: 353101

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 352695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	42.6		ng/L		106	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	42.5		ng/L		106	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.7		ng/L		99	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	41.5		ng/L		104	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	40.5		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.7		ng/L		102	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	41.6		ng/L		104	76 - 136

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: LCS 320-352695/2-A

Matrix: Water

Analysis Batch: 353101

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 352695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid (PFUnA)	40.0	37.0		ng/L		93	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	38.7		ng/L		97	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	41.9		ng/L		105	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	41.1		ng/L		103	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.0		ng/L		99	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	36.9		ng/L		98	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.2		ng/L		94	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.5		ng/L		101	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	36.5		ng/L		98	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	35.7		ng/L		93	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	39.3		ng/L		102	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	40.2		ng/L		100	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.6		ng/L		101	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.9		ng/L		102	76 - 136
4:2 FTS	37.4	36.0		ng/L		96	79 - 139
6:2 FTS	37.9	38.5		ng/L		102	59 - 175
8:2 FTS	38.3	32.2		ng/L		84	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	39.8		ng/L		106	79 - 139
HFPO-DA (GenX)	40.0	42.0		ng/L		105	51 - 173
F-53B Major	37.3	37.0		ng/L		99	75 - 135
F-53B Minor	37.7	37.1		ng/L		99	54 - 114

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	100		25 - 150
13C5 PFPeA	94		25 - 150
13C2 PFHxA	108		25 - 150
13C4 PFHpA	102		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	100		25 - 150
13C2 PFUnA	108		25 - 150
13C2 PFDoA	106		25 - 150
13C2 PFTeDA	106		25 - 150
13C3 PFBS	105		25 - 150
18O2 PFHxS	101		25 - 150
13C4 PFOS	102		25 - 150
13C8 FOSA	98		25 - 150

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

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

Lab Sample ID: LCS 320-352695/2-A

Matrix: Water

Analysis Batch: 353101

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 352695

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
d3-NMeFOSAA	92		25 - 150
d5-NEtFOSAA	98		25 - 150
M2-6:2 FTS	93		25 - 150
M2-8:2 FTS	103		25 - 150
M2-4:2 FTS	92		25 - 150
13C3 HFPO-DA	91		25 - 150

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-419533/1-A

Matrix: Water

Analysis Batch: 419900

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 419533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	0.00063	mg/L		01/20/20 14:00	01/22/20 20:48	1
Nickel	0.010	U	0.010	0.0022	mg/L		01/20/20 14:00	01/22/20 20:48	1
Lead	0.050	U	0.050	0.0028	mg/L		01/20/20 14:00	01/22/20 20:48	1
Zinc	0.020	U	0.020	0.0097	mg/L		01/20/20 14:00	01/22/20 20:48	1

Lab Sample ID: LCS 240-419533/2-A

Matrix: Water

Analysis Batch: 419900

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 419533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.951		mg/L		95	85 - 115
Nickel	1.00	0.990		mg/L		99	85 - 115
Lead	1.00	0.938		mg/L		94	85 - 115
Zinc	1.00	1.02		mg/L		102	85 - 115

Lab Sample ID: 240-125110-1 MS

Matrix: Water

Analysis Batch: 419900

Client Sample ID: WT-012607-011620-CM-001

Prep Type: Total Recoverable

Prep Batch: 419533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.3		1.00	2.25		mg/L		95	75 - 125
Nickel	0.85		1.00	1.90		mg/L		105	75 - 125
Lead	0.050	U	1.00	0.959		mg/L		96	75 - 125
Zinc	0.020	U	1.00	1.09		mg/L		109	75 - 125

Lab Sample ID: 240-125110-1 MSD

Matrix: Water

Analysis Batch: 419900

Client Sample ID: WT-012607-011620-CM-001

Prep Type: Total Recoverable

Prep Batch: 419533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chromium	1.3		1.00	2.24		mg/L		95	75 - 125	0	20
Nickel	0.85		1.00	1.88		mg/L		102	75 - 125	1	20
Lead	0.050	U	1.00	0.947		mg/L		95	75 - 125	1	20
Zinc	0.020	U	1.00	1.09		mg/L		109	75 - 125	1	20

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-419534/1-A
Matrix: Water
Analysis Batch: 419820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00013	mg/L	-	01/20/20 12:00	01/21/20 11:09	1

Lab Sample ID: LCS 240-419534/2-A
Matrix: Water
Analysis Batch: 419820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00489		mg/L	-	98	85 - 115

Lab Sample ID: 240-125110-1 MS
Matrix: Water
Analysis Batch: 419820

Client Sample ID: WT-012607-011620-CM-001
Prep Type: Total/NA
Prep Batch: 419534

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00100	0.00105		mg/L	-	105	70 - 130

Lab Sample ID: 240-125110-1 MSD
Matrix: Water
Analysis Batch: 419820

Client Sample ID: WT-012607-011620-CM-001
Prep Type: Total/NA
Prep Batch: 419534

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.00020	U	0.00100	0.000962		mg/L	-	96	70 - 130	8	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-421569/1
Matrix: Water
Analysis Batch: 421569

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	-		02/05/20 09:02	1

Lab Sample ID: LCS 240-421569/2
Matrix: Water
Analysis Batch: 421569

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	40.90		mg/L	-	102	78 - 114

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

Lab Sample ID: MB 240-419451/3
Matrix: Water
Analysis Batch: 419451

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	U	0.010	0.0070	mg/L	-		01/17/20 16:07	1

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125110-1

Method: 3500-Cr B-2011 - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 240-419451/4

Matrix: Water

Analysis Batch: 419451

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

Lab Sample ID: 240-125110-1 MS

Matrix: Water

Analysis Batch: 419451

Client Sample ID: WT-012607-011620-CM-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.99		6.25	7.60		mg/L		106	31 - 151

Lab Sample ID: 240-125110-1 MSD

Matrix: Water

Analysis Batch: 419451

Client Sample ID: WT-012607-011620-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	0.99		6.25	7.26		mg/L		100	31 - 151	5	20

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

Lab Sample ID: MB 240-419727/1

Matrix: Water

Analysis Batch: 419727

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	2.2	mg/L			01/21/20 12:01	1

Lab Sample ID: LCS 240-419727/2

Matrix: Water

Analysis Batch: 419727

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	44.1	44.0		mg/L		100	64 - 120

Surrogate Summary

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

Job ID: 240-125110-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (47-134)	DCA (75-130)	TOL (69-122)
240-125110-1	WT-012607-011620-CM-001	81	108	89
240-125110-4	TB-012607-011620	78	107	90
LCS 240-419873/5	Lab Control Sample	86	104	93
MB 240-419873/8	Method Blank	82	107	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

TOL = Toluene-d8 (Surr)

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)
240-125110-1	WT-012607-011620-CM-001	31	70	54	18	65	64
LCS 240-419570/5-A	Lab Control Sample	47	84	78	29	89	76
MB 240-419570/4-A	Method Blank	43	79	72	25	92	80

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)
240-125110-1	WT-012607-011620-CM-001	58	53	59	57
LCS 240-419704/4-A	Lab Control Sample	66	65	63	61
MB 240-419704/3-A	Method Blank	59	59	60	59

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)	
		DCBP1 (10-114)	TCX1 (15-131)
240-125110-1	WT-012607-011620-CM-001	67	83
LCS 240-419700/17-A	Lab Control Sample	51	77
MB 240-419700/16-A	Method Blank	72	75

Surrogate Legend

Eurofins TestAmerica, Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12607, RACER Eckles Rd
DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Job ID: 240-125110-1

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

Lab Chronicle

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

Job ID: 240-125110-1

Client Sample ID: WT-012607-011620-CM-001

Lab Sample ID: 240-125110-1

Date Collected: 01/16/20 17:20

Matrix: Water

Date Received: 01/17/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	419873	01/22/20 20:54	HMB	TAL CAN
Total/NA	Prep	3510C			419572	01/20/20 13:38	MDH	TAL CAN
Total/NA	Analysis	625		1	420136	01/24/20 09:12	MRU	TAL CAN
Total/NA	Prep	625			419570	01/20/20 13:28	MDH	TAL CAN
Total/NA	Analysis	625.1		1	419994	01/23/20 13:24	MRU	TAL CAN
Total/NA	Prep	608			419700	01/21/20 09:56	MDH	TAL CAN
Total/NA	Analysis	608.3		1	419965	01/23/20 10:50	LSH	TAL CAN
Total/NA	Prep	608			419704	01/21/20 10:03	MDH	TAL CAN
Total/NA	Analysis	608.3		1	420584	01/28/20 17:15	BPM	TAL CAN
Total/NA	Prep	3535			352695	01/24/20 06:45	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	353101	01/26/20 15:57	RS1	TAL SAC
Total Recoverable	Prep	200.7			419533	01/20/20 14:00	MRL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	419900	01/22/20 21:26	WKD	TAL CAN
Total/NA	Prep	245.1			419534	01/20/20 12:00	MRL	TAL CAN
Total/NA	Analysis	245.1		1	419820	01/21/20 11:24	SLD	TAL CAN
Total/NA	Analysis	1664A		1	421569	02/05/20 09:02	JMR	TAL CAN
Total/NA	Analysis	3500-Cr B-2011		25	419451	01/17/20 16:07	JWW	TAL CAN
Total/NA	Analysis	SM 2540D		1	419727	01/21/20 12:01	JMR	TAL CAN

Client Sample ID: WT-012607-011620-CM-002

Lab Sample ID: 240-125110-2

Date Collected: 01/16/20 17:10

Matrix: Water

Date Received: 01/17/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			352695	01/24/20 06:45	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	353101	01/26/20 16:07	RS1	TAL SAC

Client Sample ID: EB-012607-011620-CM-003

Lab Sample ID: 240-125110-3

Date Collected: 01/16/20 17:05

Matrix: Water

Date Received: 01/17/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			352695	01/24/20 06:45	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	353101	01/26/20 16:17	RS1	TAL SAC

Client Sample ID: TB-012607-011620

Lab Sample ID: 240-125110-4

Date Collected: 01/16/20 00:00

Matrix: Water

Date Received: 01/17/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	419873	01/22/20 21:16	HMB	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

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

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

Job ID: 240-125110-1

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	02-23-20 *
Connecticut	State	PH-0590	12-31-19 *
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20 *
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20 *
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20 *
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19 *
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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	01-20-21
ANAB	Dept. of Defense ELAP	L2468	01-20-21
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-20
Arkansas DEQ	State	19-042-0	06-17-20
California	State	2897	01-31-20 *
Colorado	State	CA0004	08-31-20
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-20
Hawaii	State	<cert No.>	01-29-20 *
Illinois	NELAP	200060	03-17-20
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-20
Maine	State	2018009	04-14-20
Michigan	State	9947	01-29-20 *
Michigan	State Program	9947	01-31-20
Nevada	State	CA000442020-1	07-31-20
New Hampshire	NELAP	2997	04-18-20
New Jersey	NELAP	CA005	06-30-20
New York	NELAP	11666	04-01-20
Oregon	NELAP	4040	01-29-20
Pennsylvania	NELAP	68-01272	03-31-20
Texas	NELAP	T104704399-19-13	05-31-20
US Fish & Wildlife	US Federal Programs	58448	07-31-20

* 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: 240-125110-1

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	CA000442019-01	02-29-20
Vermont	State	VT-4040	04-16-20
Virginia	NELAP	460278	03-14-20
Washington	State	C581	05-05-20
West Virginia (DW)	State	9930C	12-31-19 *
West Virginia (DW)	State	9930C	12-31-20
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

Address:

Regulatory Program: ☐ DW ☐ RCRA ☐ Other:		Project Manager: <u>Meincke</u>		Client Contact	
Company Name: <u>GHD Services</u> Address: <u>26850 Haggerty Rd</u> City/State/Zip: <u>Warminster, PA 18951</u> Phone: <u>215-893-3400</u> Fax: _____		Tell/Email: _____ Analysis Turnaround Time ☐ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below _____ ☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Project Name: <u>RACER Eckles Rd</u> Site: _____ P.O.# <u>126074-137420-01</u>	
Project Manager: <u>Meincke</u> Tell/Email: _____		Site Contact: <u>D. Heckler</u> Lab Contact: _____		Date: <u>01/16/2020</u> Carrier: _____	
COC No: _____ of _____ COCs		Sampler: _____ For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____		Job / SDG No.: _____	
Sample Identification		Sample Specific Notes:		Sample Specific Notes:	
WT-012607-011620-CM-001 WT-012607-011620-CM-002 EB-012607-011620-CM-003 TB-012607-011620	Sample Date 1/16/20 1/16/20 1/16/20 1/16/20	Sample Time 17:20 17:10 17:05 17:05	Sample Type (C=Comp, G=Grab) G G G G	Matrix W W W W	# of Cont. 18 2 2 2
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____		Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.			
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant		☐ Poison B ☐ Unknown			
Special Instructions/QC Requirements & Comments:					
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.: _____		Cooler Temp. (°C): _____ Obs'd: _____	
Relinquished by: <u>[Signature]</u>		Company: <u>GHD</u>		Received by: <u>[Signature]</u>	
Relinquished by: _____		Company: _____		Received by: _____	
Relinquished by: _____		Company: _____		Received by: _____	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Canton Facility				Login # : <u>125110</u>
Client <u>GHD</u>	Site Name _____	Cooler unpacked by: <u>Ryan C</u>		
Cooler Received on <u>1-17-20</u>	Opened on <u>1-17-20</u>			
FedEx: 1 st Gnd Exp <u>UPS</u> FAS Clipper Client Drop Off TestAmerica Courier Other _____				
Receipt After-hours: Drop-off Date/Time _____		Storage Location _____		
TestAmerica Cooler # <u>714</u>	Foam Box _____	Client Cooler _____	Box _____ Other _____	
Packing material used: <u>Bubble Wrap</u> <u>Foam</u> 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-10 (CF +0.7 °C) Observed Cooler Temp. <u>3.9</u> °C		Corrected Cooler Temp. <u>4.1</u> °C		
IR GUN #IR-11 (CF +0.9 °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				
-Were tamper/custody seals intact and uncompromised? Yes No NA				
3. Shippers' packing slip attached to the cooler(s)? Yes No				
4. Did custody papers accompany the sample(s)? Yes No				
5. Were the custody papers relinquished & signed in the appropriate place? Yes No				
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No				
7. Did all bottles arrive in good condition (Unbroken)? Yes No				
8. Could all bottle labels be reconciled with the COC? Yes No				
9. Were correct bottle(s) used for the test(s) indicated? Yes No				
10. Sufficient quantity received to perform indicated analyses? Yes No				
11. Are these work share samples? Yes No				
If yes, Questions 12-16 have been checked at the originating laboratory.				
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# <u>HC995364</u>				
13. Were VOAs on the COC? Yes No				
14. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA				
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # <u>Covered</u> Yes No				
16. 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

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES 	Samples processed by: _____
18. 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)	
19. 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>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-012607-011620-CM-001	240-125110-H-1	Plastic 500ml - with Nitric Acid	<2	_____	_____

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM: Heckler, Denise D		Carrier Tracking No(s):		COC No: 240-116460.1	
Client Contact: Shipping/Receiving		Phone:		E-Mail: denise heckler@testamericainc.com		State of Origin: Michigan		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.		Address: 880 Riverside Parkway, West Sacramento, CA, 95605		Phone: 916-373-5600(Tel) 916-372-1059(Fax)		Email:		Job #: 240-125110-1	
Project Name: 12607, RACER Eckles Rd		Project #: 24005880		PO #:		WO #:		Preservation Codes:	
Site:		SSOW#:		Due Date Requested: 2/4/2020		TAT Requested (days):		Analysis Requested	
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefluid, BT=tissue, Adv)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analyses (PFC, IDA/3535, PFC (MOD) PFA, Standard List (28))	Total Number of containers
WT-012607-011620-CM-001 (240-125110-1)	1/16/20	17:20 Eastern	Water	X	X	X	X	2	Special Instructions/Note:
WT-012607-011620-CM-002 (240-125110-2)	1/16/20	17:10 Eastern	Water	X	X	X	X	2	
EB-012607-011620-CM-003 (240-125110-3)	1/16/20	17:05 Eastern	Water	X	X	X	X	2	
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/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.									
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Empty Kit Relinquished by: Relinquished by: <i>[Signature]</i> Date: 1/17/2020 Relinquished by: <i>[Signature]</i> Date: 1/17/2020 Relinquished by: <i>[Signature]</i> Date: 1/17/2020 Custody Seals Intact: ☒ Yes ☐ No Custody Seal No.:									
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: <i>[Signature]</i> Date/Time: 1/13/20 9:50 Received by: <i>[Signature]</i> Date/Time: Received by: <i>[Signature]</i> Date/Time: Cooler Temperature(s) °C and Other Remarks: 0.6									

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-125110-1

Login Number: 125110

List Number: 2

Creator: Kintaudi, Pauline W

List Source: Eurofins TestAmerica, Sacramento

List Creation: 01/20/20 08:52 AM

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	0.6c
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, RACER Eckles Rd

Job ID: 240-125110-1

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)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-125110-1	WT-012607-011620-CM-001	83	76	105	106	100	109	118	126
240-125110-2	WT-012607-011620-CM-002	79	67	100	104	101	115	121	125
240-125110-3	EB-012607-011620-CM-003	102	93	111	107	104	106	108	110
LCS 320-352695/2-A	Lab Control Sample	100	94	108	102	100	101	100	108
MB 320-352695/1-A	Method Blank	100	98	105	103	102	102	103	104

Percent Isotope Dilution Recovery (Acceptance Limits)

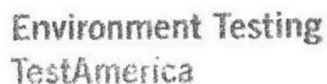
Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	3C3-PFB (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	-NMeFOS (25-150)	-NEtFOS (25-150)
240-125110-1	WT-012607-011620-CM-001	126	127	94	121	114	116	102	111
240-125110-2	WT-012607-011620-CM-002	125	127	84	113	115	110	96	108
240-125110-3	EB-012607-011620-CM-003	107	115	99	109	104	98	92	103
LCS 320-352695/2-A	Lab Control Sample	106	106	105	101	102	98	92	98
MB 320-352695/1-A	Method Blank	101	110	104	104	97	97	90	100

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-125110-1	WT-012607-011620-CM-001	192 *	211 *	185 *	85
240-125110-2	WT-012607-011620-CM-002	174 *	196 *	181 *	73
240-125110-3	EB-012607-011620-CM-003	103	105	96	89
LCS 320-352695/2-A	Lab Control Sample	93	103	92	91
MB 320-352695/1-A	Method Blank	98	107	100	90

Surrogate Legend

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



Sacramento Sample Receiving Notes



240-125110 Field Sheet

Job: _____

Tracking #: 1103 6126 5818

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.

Notes: _____

Therm. ID: IR15tem Corr. Factor: (+ / -) 0 °C

Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal: _____

Cooler ID: _____

Temp Observed: 0.6 °C Corrected: 0.6 °C

From: Temp Blank  Sample 

Opening/Processing The Shipment	<u>Yes</u>	<u>No</u>	<u>NA</u>
---------------------------------	------------	-----------	-----------

Cooler compromised/tampered with? ☐ ☒ ☐

Cooler Temperature is acceptable? ☒ ☐ ☐

Samples received within holding time? ☒ ☐ ☐

Initials: SO Date: 11/8/20

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 bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒

Samples w/o discrepancies? ☒ ☐ ☐

Samples w/o discrepancies: ☒ ☐ ☐

Zero headspace? ☐ ☐ ☒

Zero headspace?	☐	☐	☒
Alkalinity: has no headspace?	☐	☐	☒

Alkalinity has no headspace? ☐ ☐ ☒

Perchlorate has headspace? ☐ ☐ ☒

Multiphasic samples are not present? ☒ ☐ ☐

Non-conformance	Yes	No	NA
-----------------	-----	----	----

Non-Compliance	Yes	No	NA
NCM Filed?	☐	☐	☒

Now filled: 34

Initials: FR Date: 1/20/20

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

Attachment 2
January 23, 2020 Samples
WT-012607-012320-CM-001 (effluent)
WT-012607-012320-CM-002 (effluent)
EB-012607-012320-CM-003 (Equip. Blank)
Laboratory Analytical Reports

ANALYTICAL REPORT

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

Laboratory Job ID: 240-125331-1

Client Project/Site: 12607, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
2/3/2020 1:56:15 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Sample Summary	5
Detection Summary	6
Method Summary	7
Client Sample Results	8
QC Association Summary	14
QC Sample Results	15
Lab Chronicle	19
Certification Summary	20
Chain of Custody	22
Receipt Checklists	25
Isotope Dilution Summary	26
Field Data Sheets	27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Case Narrative

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

Job ID: 240-125331-1

Job ID: 240-125331-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-125331-1

Comments

No additional comments.

Receipt

The samples were received on 1/24/2020 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

LCMS

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

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-4:2 FTS, M2-6:2 FTS and M2-8:2 FTS for the following sample: WT-012607-012320-CM-002 (240-125331-2). 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 M2-6:2 FTS for the following sample: WT-012607-012320-CM-001 (240-125331-1). 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 320-353185.

Method 3535: The following samples contain a thin layer of sediments at the bottom of the bottle prior to extraction:

WT-012607-012320-CM-002 (240-125331-2).

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: 240-125331-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
B	Compound was found in the blank and sample.
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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

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

Job ID: 240-125331-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-125331-1	WT-012607-012320-CM-001	Water	01/23/20 17:05	01/24/20 09:15	
240-125331-2	WT-012607-012320-CM-002	Water	01/23/20 17:08	01/24/20 09:15	
240-125331-3	EB-012607-012320-CM-003	Water	01/23/20 17:00	01/24/20 09:15	

Detection Summary

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

Job ID: 240-125331-1

Client Sample ID: WT-012607-012320-CM-001

Lab Sample ID: 240-125331-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.7	B	1.9	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7	J	1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.0		1.9	0.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.47	J	1.9	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.5	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.1	J I	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.6	I B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	J I	1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	110	I	1.9	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: WT-012607-012320-CM-002

Lab Sample ID: 240-125331-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.1	B	1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.5	J	1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.9		1.8	0.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.43	J	1.8	0.25	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)	0.98	J I	1.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.7	I B	1.8	0.16	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)	110	I	1.8	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EB-012607-012320-CM-003

Lab Sample ID: 240-125331-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.73	J B	1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.28	J B	1.8	0.16	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, RACER Eckles Rd

Job ID: 240-125331-1

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

Client Sample Results

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

Job ID: 240-125331-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-012320-CM-001

Date Collected: 01/23/20 17:05

Date Received: 01/24/20 09:15

Lab Sample ID: 240-125331-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.7	B	1.9	0.32	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluoropentanoic acid (PFPeA)	1.9	U	1.9	0.45	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorohexanoic acid (PFHxA)	2.3		1.9	0.54	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluoroheptanoic acid (PFHpA)	1.7	J	1.9	0.23	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorooctanoic acid (PFOA)	5.0		1.9	0.79	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorononanoic acid (PFNA)	0.47	J	1.9	0.25	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.29	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	1.0	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.51	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	1.2	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.27	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorobutanesulfonic acid (PFBS)	1.5	J	1.9	0.19	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluoropentanesulfonic acid (PFPeS)	1.1	J I	1.9	0.28	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorohexanesulfonic acid (PFHxS)	5.6	I B	1.9	0.16	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	J I	1.9	0.18	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorooctanesulfonic acid (PFOS)	110	I	1.9	0.50	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorononanesulfonic acid (PFNS)	1.9	U	1.9	0.15	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.30	ng/L		01/27/20 04:56	02/01/20 01:49	1
Perfluorooctanesulfonamide (FOSA)	1.9	U	1.9	0.32	ng/L		01/27/20 04:56	02/01/20 01:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	19	U	19	2.9	ng/L		01/27/20 04:56	02/01/20 01:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	19	U	19	1.8	ng/L		01/27/20 04:56	02/01/20 01:49	1
4:2 FTS	19	U	19	4.8	ng/L		01/27/20 04:56	02/01/20 01:49	1
6:2 FTS	19	U	19	1.9	ng/L		01/27/20 04:56	02/01/20 01:49	1
8:2 FTS	19	U	19	1.9	ng/L		01/27/20 04:56	02/01/20 01:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.9	U	1.9	0.17	ng/L		01/27/20 04:56	02/01/20 01:49	1
HFPO-DA (GenX)	3.7	U	3.7	1.4	ng/L		01/27/20 04:56	02/01/20 01:49	1
F-53B Major	1.9	U	1.9	0.22	ng/L		01/27/20 04:56	02/01/20 01:49	1
F-53B Minor	1.9	U	1.9	0.30	ng/L		01/27/20 04:56	02/01/20 01:49	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	55		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C5 PFPeA	59		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C2 PFHxA	80		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C4 PFHpA	90		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C4 PFOA	92		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C5 PFNA	99		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C2 PFDA	106		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C2 PFUnA	102		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C2 PFDoA	96		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C2 PFTeDA	106		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C3 PFBS	74		25 - 150	01/27/20 04:56	02/01/20 01:49	1
18O2 PFHxS	93		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C4 PFOS	99		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C8 FOSA	93		25 - 150	01/27/20 04:56	02/01/20 01:49	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125331-1

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

Client Sample ID: WT-012607-012320-CM-001

Date Collected: 01/23/20 17:05

Date Received: 01/24/20 09:15

Lab Sample ID: 240-125331-1

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	103		25 - 150	01/27/20 04:56	02/01/20 01:49	1
d5-NEtFOSAA	107		25 - 150	01/27/20 04:56	02/01/20 01:49	1
M2-6:2 FTS	156	*	25 - 150	01/27/20 04:56	02/01/20 01:49	1
M2-8:2 FTS	147		25 - 150	01/27/20 04:56	02/01/20 01:49	1
M2-4:2 FTS	140		25 - 150	01/27/20 04:56	02/01/20 01:49	1
13C3 HFPO-DA	63		25 - 150	01/27/20 04:56	02/01/20 01:49	1

Client Sample Results

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

Job ID: 240-125331-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-012320-CM-002

Date Collected: 01/23/20 17:08

Date Received: 01/24/20 09:15

Lab Sample ID: 240-125331-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	9.1	B	1.8	0.32	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.45	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorohexanoic acid (PFHxA)	2.2		1.8	0.54	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluoroheptanoic acid (PFHpA)	1.5	J	1.8	0.23	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorooctanoic acid (PFOA)	4.9		1.8	0.78	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorononanoic acid (PFNA)	0.43	J	1.8	0.25	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.29	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	1.0	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.51	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	1.2	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.27	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorobutanesulfonic acid (PFBS)	1.7	J	1.8	0.18	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluoropentanesulfonic acid (PFPeS)	0.98	J I	1.8	0.28	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorohexanesulfonic acid (PFHxS)	5.7	I B	1.8	0.16	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	I	1.8	0.18	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorooctanesulfonic acid (PFOS)	110	I	1.8	0.50	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorononanesulfonic acid (PFNS)	1.8	U	1.8	0.15	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.30	ng/L		01/27/20 04:56	02/01/20 01:57	1
Perfluorooctanesulfonamide (FOSA)	1.8	U	1.8	0.32	ng/L		01/27/20 04:56	02/01/20 01:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	2.9	ng/L		01/27/20 04:56	02/01/20 01:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.8	ng/L		01/27/20 04:56	02/01/20 01:57	1
4:2 FTS	18	U	18	4.8	ng/L		01/27/20 04:56	02/01/20 01:57	1
6:2 FTS	18	U	18	1.8	ng/L		01/27/20 04:56	02/01/20 01:57	1
8:2 FTS	18	U	18	1.8	ng/L		01/27/20 04:56	02/01/20 01:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.8	U	1.8	0.17	ng/L		01/27/20 04:56	02/01/20 01:57	1
HFPO-DA (GenX)	3.7	U	3.7	1.4	ng/L		01/27/20 04:56	02/01/20 01:57	1
F-53B Major	1.8	U	1.8	0.22	ng/L		01/27/20 04:56	02/01/20 01:57	1
F-53B Minor	1.8	U	1.8	0.30	ng/L		01/27/20 04:56	02/01/20 01:57	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	56		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C5 PFPeA	59		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C2 PFHxA	83		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C4 PFHpA	91		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C4 PFOA	95		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C5 PFNA	103		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C2 PFDA	105		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C2 PFUnA	97		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C2 PFDoA	104		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C2 PFTeDA	93		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C3 PFBS	78		25 - 150	01/27/20 04:56	02/01/20 01:57	1
18O2 PFHxS	99		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C4 PFOS	99		25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C8 FOSA	101		25 - 150	01/27/20 04:56	02/01/20 01:57	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125331-1

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

Client Sample ID: WT-012607-012320-CM-002

Date Collected: 01/23/20 17:08

Date Received: 01/24/20 09:15

Lab Sample ID: 240-125331-2

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	110		25 - 150	01/27/20 04:56	02/01/20 01:57	1
d5-NEtFOSAA	114		25 - 150	01/27/20 04:56	02/01/20 01:57	1
M2-6:2 FTS	158	*	25 - 150	01/27/20 04:56	02/01/20 01:57	1
M2-8:2 FTS	152	*	25 - 150	01/27/20 04:56	02/01/20 01:57	1
M2-4:2 FTS	153	*	25 - 150	01/27/20 04:56	02/01/20 01:57	1
13C3 HFPO-DA	59		25 - 150	01/27/20 04:56	02/01/20 01:57	1

Client Sample Results

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

Job ID: 240-125331-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: EB-012607-012320-CM-003

Date Collected: 01/23/20 17:00

Date Received: 01/24/20 09:15

Lab Sample ID: 240-125331-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.73	J B	1.8	0.32	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.45	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorohexanoic acid (PFHxA)	1.8	U	1.8	0.53	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluoroheptanoic acid (PFHpA)	1.8	U	1.8	0.23	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorooctanoic acid (PFOA)	1.8	U	1.8	0.78	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorononanoic acid (PFNA)	1.8	U	1.8	0.25	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.28	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	1.0	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.50	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	1.2	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.27	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorobutanesulfonic acid (PFBS)	1.8	U	1.8	0.18	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluoropentanesulfonic acid (PFPeS)	1.8	U	1.8	0.27	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorohexanesulfonic acid (PFHxS)	0.28	J B	1.8	0.16	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	U	1.8	0.17	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorooctanesulfonic acid (PFOS)	1.8	U	1.8	0.49	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorononanesulfonic acid (PFNS)	1.8	U	1.8	0.15	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.29	ng/L		01/27/20 04:56	02/01/20 02:05	1
Perfluorooctanesulfonamide (FOSA)	1.8	U	1.8	0.32	ng/L		01/27/20 04:56	02/01/20 02:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	2.8	ng/L		01/27/20 04:56	02/01/20 02:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.7	ng/L		01/27/20 04:56	02/01/20 02:05	1
4:2 FTS	18	U	18	4.8	ng/L		01/27/20 04:56	02/01/20 02:05	1
6:2 FTS	18	U	18	1.8	ng/L		01/27/20 04:56	02/01/20 02:05	1
8:2 FTS	18	U	18	1.8	ng/L		01/27/20 04:56	02/01/20 02:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.8	U	1.8	0.16	ng/L		01/27/20 04:56	02/01/20 02:05	1
HFPO-DA (GenX)	3.7	U	3.7	1.4	ng/L		01/27/20 04:56	02/01/20 02:05	1
F-53B Major	1.8	U	1.8	0.22	ng/L		01/27/20 04:56	02/01/20 02:05	1
F-53B Minor	1.8	U	1.8	0.29	ng/L		01/27/20 04:56	02/01/20 02:05	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C5 PFPeA	84		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C2 PFHxA	96		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C4 PFHpA	100		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C4 PFOA	100		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C5 PFNA	96		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C2 PFDA	99		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C2 PFUnA	107		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C2 PFDoA	95		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C2 PFTeDA	98		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C3 PFBS	87		25 - 150				01/27/20 04:56	02/01/20 02:05	1
18O2 PFHxS	94		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C4 PFOS	91		25 - 150				01/27/20 04:56	02/01/20 02:05	1
13C8 FOSA	88		25 - 150				01/27/20 04:56	02/01/20 02:05	1
d3-NMeFOSAA	100		25 - 150				01/27/20 04:56	02/01/20 02:05	1
d5-NEtFOSAA	108		25 - 150				01/27/20 04:56	02/01/20 02:05	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125331-1

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

Client Sample ID: EB-012607-012320-CM-003

Date Collected: 01/23/20 17:00

Date Received: 01/24/20 09:15

Lab Sample ID: 240-125331-3

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	97		25 - 150	01/27/20 04:56	02/01/20 02:05	1
M2-8:2 FTS	93		25 - 150	01/27/20 04:56	02/01/20 02:05	1
M2-4:2 FTS	112		25 - 150	01/27/20 04:56	02/01/20 02:05	1
13C3 HFPO-DA	80		25 - 150	01/27/20 04:56	02/01/20 02:05	1

QC Association Summary

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

Job ID: 240-125331-1

LCMS

Prep Batch: 353185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125331-1	WT-012607-012320-CM-001	Total/NA	Water	3535	
240-125331-2	WT-012607-012320-CM-002	Total/NA	Water	3535	
240-125331-3	EB-012607-012320-CM-003	Total/NA	Water	3535	
MB 320-353185/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-353185/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-353185/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 354375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125331-1	WT-012607-012320-CM-001	Total/NA	Water	537 (modified)	353185
240-125331-2	WT-012607-012320-CM-002	Total/NA	Water	537 (modified)	353185
240-125331-3	EB-012607-012320-CM-003	Total/NA	Water	537 (modified)	353185
MB 320-353185/1-A	Method Blank	Total/NA	Water	537 (modified)	353185
LCS 320-353185/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	353185
LCSD 320-353185/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	353185

QC Sample Results

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

Job ID: 240-125331-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-353185/1-A

Matrix: Water

Analysis Batch: 354375

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 353185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.671	J	2.0	0.35	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.29	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorohexanesulfonic acid (PFHxS)	0.313	J	2.0	0.17	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.16	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		01/27/20 04:56	01/31/20 23:08	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.35	ng/L		01/27/20 04:56	01/31/20 23:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20	U	20	3.1	ng/L		01/27/20 04:56	01/31/20 23:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20	U	20	1.9	ng/L		01/27/20 04:56	01/31/20 23:08	1
4:2 FTS	20	U	20	5.2	ng/L		01/27/20 04:56	01/31/20 23:08	1
6:2 FTS	20	U	20	2.0	ng/L		01/27/20 04:56	01/31/20 23:08	1
8:2 FTS	20	U	20	2.0	ng/L		01/27/20 04:56	01/31/20 23:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.18	ng/L		01/27/20 04:56	01/31/20 23:08	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		01/27/20 04:56	01/31/20 23:08	1
F-53B Major	2.0	U	2.0	0.24	ng/L		01/27/20 04:56	01/31/20 23:08	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		01/27/20 04:56	01/31/20 23:08	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	97		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C5 PFPeA	98		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C2 PFHxA	99		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C4 PFHpA	105		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C4 PFOA	101		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C5 PFNA	97		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C2 PFDA	99		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C2 PFUnA	99		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C2 PFDoA	103		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C2 PFTeDA	98		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C3 PFBS	94		25 - 150	01/27/20 04:56	01/31/20 23:08	1
18O2 PFHxS	95		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C4 PFOS	95		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C8 FOSA	93		25 - 150	01/27/20 04:56	01/31/20 23:08	1
d3-NMeFOSAA	91		25 - 150	01/27/20 04:56	01/31/20 23:08	1

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125331-1

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

Lab Sample ID: MB 320-353185/1-A

Matrix: Water

Analysis Batch: 354375

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 353185

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	100		25 - 150	01/27/20 04:56	01/31/20 23:08	1
M2-6:2 FTS	91		25 - 150	01/27/20 04:56	01/31/20 23:08	1
M2-8:2 FTS	100		25 - 150	01/27/20 04:56	01/31/20 23:08	1
M2-4:2 FTS	96		25 - 150	01/27/20 04:56	01/31/20 23:08	1
13C3 HFPO-DA	109		25 - 150	01/27/20 04:56	01/31/20 23:08	1

Lab Sample ID: LCS 320-353185/2-A

Matrix: Water

Analysis Batch: 354375

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 353185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.3		ng/L		108	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	42.4		ng/L		106	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	40.5		ng/L		101	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	41.3		ng/L		103	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	37.1		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	40.0	45.2		ng/L		113	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	42.3		ng/L		106	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	38.0		ng/L		95	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	38.7		ng/L		97	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	37.4		ng/L		94	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	38.6		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	37.1		ng/L		105	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	40.3		ng/L		107	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.7		ng/L		98	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.2		ng/L		108	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	36.3		ng/L		98	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	39.7		ng/L		103	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	40.1		ng/L		104	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	39.5		ng/L		99	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	42.5		ng/L		106	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.9		ng/L		105	76 - 136
4:2 FTS	37.4	35.5		ng/L		95	79 - 139
6:2 FTS	37.9	35.3		ng/L		93	59 - 175
8:2 FTS	38.3	43.9		ng/L		114	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	41.6		ng/L		110	79 - 139
HFPO-DA (GenX)	40.0	51.1		ng/L		128	51 - 173
F-53B Major	37.3	36.9		ng/L		99	75 - 135

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125331-1

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

Lab Sample ID: LCS 320-353185/2-A

Matrix: Water

Analysis Batch: 354375

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 353185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	37.4		ng/L		99	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	94		25 - 150				
13C5 PFPeA	91		25 - 150				
13C2 PFHxA	94		25 - 150				
13C4 PFHpA	98		25 - 150				
13C4 PFOA	99		25 - 150				
13C5 PFNA	91		25 - 150				
13C2 PFDA	94		25 - 150				
13C2 PFUnA	96		25 - 150				
13C2 PFDoA	96		25 - 150				
13C2 PFTeDA	89		25 - 150				
13C3 PFBS	91		25 - 150				
18O2 PFHxS	95		25 - 150				
13C4 PFOS	93		25 - 150				
13C8 FOSA	88		25 - 150				
d3-NMeFOSAA	91		25 - 150				
d5-NEtFOSAA	96		25 - 150				
M2-6:2 FTS	92		25 - 150				
M2-8:2 FTS	79		25 - 150				
M2-4:2 FTS	90		25 - 150				
13C3 HFPO-DA	78		25 - 150				

Lab Sample ID: LCSD 320-353185/3-A

Matrix: Water

Analysis Batch: 354375

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 353185

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	42.0		ng/L		105	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)	40.0	41.3		ng/L		103	71 - 131	2	30
Perfluorohexanoic acid (PFHxA)	40.0	39.9		ng/L		100	73 - 133	2	30
Perfluoroheptanoic acid (PFHpA)	40.0	39.3		ng/L		98	72 - 132	5	30
Perfluorooctanoic acid (PFOA)	40.0	37.4		ng/L		93	70 - 130	1	30
Perfluorononanoic acid (PFNA)	40.0	42.3		ng/L		106	75 - 135	7	30
Perfluorodecanoic acid (PFDA)	40.0	39.4		ng/L		98	76 - 136	7	30
Perfluoroundecanoic acid (PFUnA)	40.0	35.7		ng/L		89	68 - 128	6	30
Perfluorododecanoic acid (PFDoA)	40.0	39.9		ng/L		100	71 - 131	3	30
Perfluorotridecanoic acid (PFTriA)	40.0	39.6		ng/L		99	71 - 131	6	30
Perfluorotetradecanoic acid (PFTeA)	40.0	35.7		ng/L		89	70 - 130	8	30
Perfluorobutanesulfonic acid (PFBS)	35.4	37.8		ng/L		107	67 - 127	2	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	40.1		ng/L		107	66 - 126	1	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.7		ng/L		98	59 - 119	0	30

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125331-1

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

Lab Sample ID: LCSD 320-353185/3-A

Matrix: Water

Analysis Batch: 354375

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 353185

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	37.4		ng/L		101	70 - 130	3	30
Perfluorononanesulfonic acid (PFNS)	38.4	38.3		ng/L		100	75 - 135	4	30
Perfluorodecanesulfonic acid (PFDS)	38.6	39.2		ng/L		102	71 - 131	2	30
Perfluorooctanesulfonamide (FOSA)	40.0	39.9		ng/L		100	73 - 133	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.4		ng/L		103	76 - 136	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.2		ng/L		100	76 - 136	4	30
4:2 FTS	37.4	33.5		ng/L		90	79 - 139	6	30
6:2 FTS	37.9	36.7		ng/L		97	59 - 175	4	30
8:2 FTS	38.3	36.1		ng/L		94	75 - 135	19	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	42.1		ng/L		112	79 - 139	1	30
HFPO-DA (GenX)	40.0	44.3		ng/L		111	51 - 173	14	30
F-53B Major	37.3	38.1		ng/L		102	75 - 135	3	30
F-53B Minor	37.7	35.6		ng/L		95	54 - 114	5	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	97		25 - 150
13C5 PFPeA	96		25 - 150
13C2 PFHxA	98		25 - 150
13C4 PFHpA	103		25 - 150
13C4 PFOA	101		25 - 150
13C5 PFNA	98		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	105		25 - 150
13C2 PFDoA	99		25 - 150
13C2 PFTeDA	98		25 - 150
13C3 PFBS	94		25 - 150
18O2 PFHxS	97		25 - 150
13C4 PFOS	95		25 - 150
13C8 FOSA	94		25 - 150
d3-NMeFOSAA	102		25 - 150
d5-NEtFOSAA	103		25 - 150
M2-6:2 FTS	99		25 - 150
M2-8:2 FTS	101		25 - 150
M2-4:2 FTS	102		25 - 150
13C3 HFPO-DA	85		25 - 150

Lab Chronicle

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

Job ID: 240-125331-1

Client Sample ID: WT-012607-012320-CM-001

Lab Sample ID: 240-125331-1

Date Collected: 01/23/20 17:05

Matrix: Water

Date Received: 01/24/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			353185	01/27/20 04:56	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	354375	02/01/20 01:49	RS1	TAL SAC

Client Sample ID: WT-012607-012320-CM-002

Lab Sample ID: 240-125331-2

Date Collected: 01/23/20 17:08

Matrix: Water

Date Received: 01/24/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			353185	01/27/20 04:56	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	354375	02/01/20 01:57	RS1	TAL SAC

Client Sample ID: EB-012607-012320-CM-003

Lab Sample ID: 240-125331-3

Date Collected: 01/23/20 17:00

Matrix: Water

Date Received: 01/24/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			353185	01/27/20 04:56	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	354375	02/01/20 02:05	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, RACER Eckles Rd

Job ID: 240-125331-1

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	02-23-20
Connecticut	State	PH-0590	12-31-19 *
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19 *
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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	01-20-21
ANAB	Dept. of Defense ELAP	L2468	01-20-21
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-20
Arkansas DEQ	State	19-042-0	06-17-20
California	State	2897	01-31-20 *
Colorado	State	CA0004	08-31-20
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-20
Georgia	State	4040	01-30-21
Hawaii	State	<cert No.>	01-29-20 *
Illinois	NELAP	200060	03-17-20
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-20
Maine	State	2018009	04-14-20
Michigan	State	9947	01-29-20 *
Nevada	State	CA000442020-1	07-31-20
New Hampshire	NELAP	2997	04-18-20
New Jersey	NELAP	CA005	06-30-20
New York	NELAP	11666	04-01-20
Oregon	NELAP	4040	01-29-21
Pennsylvania	NELAP	68-01272	03-31-20
Texas	NELAP	T104704399-19-13	05-31-20

* 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: 240-125331-1

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
US Fish & Wildlife	US Federal Programs	58448	07-31-20
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-29-20
Vermont	State	VT-4040	04-16-20
Virginia	NELAP	460278	03-14-20
Washington	State	C581	05-05-20
West Virginia (DW)	State	9930C	12-31-19 *
West Virginia (DW)	State	9930C	12-31-20
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 #: 125331

Client ETHD Site Name _____ Cooler unpacked by: _____
Cooler Received on 1-24-20 Opened on 1-24-20
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-10 (CF +0.7 °C) Observed Cooler Temp. 3.5 °C Corrected Cooler Temp. 4.2 °C
IR GUN #IR-11 (CF +0.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC995364
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not
checked for pH by
Receiving:

VOAs
Oil and Grease
TOC

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

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

Ag

18. 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)

19. 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: _____

Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-125331-1

Login Number: 125331

List Number: 2

Creator: Guzman, Juan

List Source: Eurofins TestAmerica, Sacramento

List Creation: 01/25/20 12:41 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	obs 0.3 corr 0.9
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, RACER Eckles Rd

Job ID: 240-125331-1

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)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-125331-1	WT-012607-012320-CM-001	55	59	80	90	92	99	106	102
240-125331-2	WT-012607-012320-CM-002	56	59	83	91	95	103	105	97
240-125331-3	EB-012607-012320-CM-003	91	84	96	100	100	96	99	107
LCS 320-353185/2-A	Lab Control Sample	94	91	94	98	99	91	94	96
LCSD 320-353185/3-A	Lab Control Sample Dup	97	96	98	103	101	98	102	105
MB 320-353185/1-A	Method Blank	97	98	99	105	101	97	99	99

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	3C3-PFBs (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	-NMeFOSAA (25-150)	-NEtFOSAA (25-150)
240-125331-1	WT-012607-012320-CM-001	96	106	74	93	99	93	103	107
240-125331-2	WT-012607-012320-CM-002	104	93	78	99	99	101	110	114
240-125331-3	EB-012607-012320-CM-003	95	98	87	94	91	88	100	108
LCS 320-353185/2-A	Lab Control Sample	96	89	91	95	93	88	91	96
LCSD 320-353185/3-A	Lab Control Sample Dup	99	98	94	97	95	94	102	103
MB 320-353185/1-A	Method Blank	103	98	94	95	95	93	91	100

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-125331-1	WT-012607-012320-CM-001	156 *	147	140	63
240-125331-2	WT-012607-012320-CM-002	158 *	152 *	153 *	59
240-125331-3	EB-012607-012320-CM-003	97	93	112	80
LCS 320-353185/2-A	Lab Control Sample	92	79	90	78
LCSD 320-353185/3-A	Lab Control Sample Dup	99	101	102	85
MB 320-353185/1-A	Method Blank	91	100	96	109

Surrogate Legend

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



240-125331 Field Sheet

Tracking #: 1103-6126-6297

Job:

SO / ~~RO~~ / 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.

Notes:

Therm. ID: AK-11 Corr. Factor: (~~0~~1-) 0.6 °C

Ice ☒ Wet ☒ Gel ☐ Other ☐

Cooler Custody Seal: 1

Cooler ID: _____

Temp Observed: 0.3 °C Corrected: 0.9 °C

From: Temp Blank ☒ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
---------------------------------	-----	----	----

Cooler compromised/tampered with?	☐	☒	☐
-----------------------------------	--------------------------	-------------------------------------	--------------------------

Cooler Temperature is acceptable? ☒ ☐ ☐

Samples received within holding time? ☒ ☐ ☐

Initials: TL Date: 1/25/20

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? ☒ ☐ ☐

Non-conformance	Yes	No	NA
-----------------	-----	----	----

NCM Filed?	☐	☐	☒
------------	--------------------------	--------------------------	-------------------------------------

Initials: JK Date: 1/25/20

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

W24-C

Attachment 3
January 28, 2020 Samples
WT-012607-012820-CM-001 (effluent)
WT-012607-012820-CM-002 (effluent)
EB-012607-012820-CM-003 (Equip. Blank)
Laboratory Analytical Reports

ANALYTICAL REPORT

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

Laboratory Job ID: 240-125491-1

Client Project/Site: 12607, RACER Eckles Rd

For:

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

Attn: Ms. Ruth Mickle



Authorized for release by:
2/16/2020 3:25:08 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Sample Summary	5
Detection Summary	6
Method Summary	7
Client Sample Results	8
QC Association Summary	14
QC Sample Results	15
Lab Chronicle	19
Certification Summary	20
Chain of Custody	22
Receipt Checklists	25
Isotope Dilution Summary	26
Field Data Sheets	27



Case Narrative

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

Job ID: 240-125491-1

Job ID: 240-125491-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

**Job Narrative
240-125491-1**

Comments

None.

Receipt

The samples were received on 1/29/2020 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

LCMS

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

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 320-355101.

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: 240-125491-1

Qualifiers

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

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

Job ID: 240-125491-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-125491-1	WT-012607-012820-CM-001	Water	01/28/20 16:30	01/29/20 09:20	
240-125491-2	WT-012607-012820-CM-002	Water	01/28/20 16:35	01/29/20 09:20	
240-125491-3	EB-012607-012820-CM-003	Water	01/28/20 16:25	01/29/20 09:20	

Detection Summary

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

Job ID: 240-125491-1

Client Sample ID: WT-012607-012820-CM-001

Lab Sample ID: 240-125491-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.4		1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8	0.52	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.5		1.8	0.77	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.48	J	1.8	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.39	J I	1.8	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.6	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.96	J I	1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.3	I B	1.8	0.15	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	J I	1.8	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	100	I	1.8	0.49	ng/L	1		537 (modified)	Total/NA

Client Sample ID: WT-012607-012820-CM-002

Lab Sample ID: 240-125491-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.5		1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.6		1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.5		1.8	0.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.25	J	1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.88	J I	1.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.3	I B	1.8	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	J I	1.8	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	110	I	1.8	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EB-012607-012820-CM-003

Lab Sample ID: 240-125491-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	0.29	J B	2.0	0.17	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, RACER Eckles Rd

Job ID: 240-125491-1

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

Client Sample Results

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

Job ID: 240-125491-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-012820-CM-001

Date Collected: 01/28/20 16:30

Date Received: 01/29/20 09:20

Lab Sample ID: 240-125491-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.4		1.8	0.32	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.44	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorohexanoic acid (PFHxA)	2.2		1.8	0.52	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.8	0.23	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorooctanoic acid (PFOA)	4.5		1.8	0.77	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorononanoic acid (PFNA)	0.48	J	1.8	0.24	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.28	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	0.99	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.50	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	1.2	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorotetradecanoic acid (PFTeA)	0.39	J I	1.8	0.26	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorobutanesulfonic acid (PFBS)	1.6	J	1.8	0.18	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluoropentanesulfonic acid (PFPeS)	0.96	J I	1.8	0.27	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorohexanesulfonic acid (PFHxS)	5.3	I B	1.8	0.15	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	J I	1.8	0.17	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorooctanesulfonic acid (PFOS)	100	I	1.8	0.49	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorononanesulfonic acid (PFNS)	1.8	U	1.8	0.14	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.29	ng/L		02/05/20 05:16	02/06/20 09:47	1
Perfluorooctanesulfonamide (FOSA)	1.8	U	1.8	0.32	ng/L		02/05/20 05:16	02/06/20 09:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	2.8	ng/L		02/05/20 05:16	02/06/20 09:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.7	ng/L		02/05/20 05:16	02/06/20 09:47	1
4:2 FTS	18	U	18	4.7	ng/L		02/05/20 05:16	02/06/20 09:47	1
6:2 FTS	18	U	18	1.8	ng/L		02/05/20 05:16	02/06/20 09:47	1
8:2 FTS	18	U	18	1.8	ng/L		02/05/20 05:16	02/06/20 09:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.8	U	1.8	0.16	ng/L		02/05/20 05:16	02/06/20 09:47	1
HFPO-DA (GenX)	3.6	U	3.6	1.4	ng/L		02/05/20 05:16	02/06/20 09:47	1
F-53B Major	1.8	U	1.8	0.22	ng/L		02/05/20 05:16	02/06/20 09:47	1
F-53B Minor	1.8	U	1.8	0.29	ng/L		02/05/20 05:16	02/06/20 09:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	55		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C5 PFPeA	67		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C2 PFHxA	82		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C4 PFHpA	86		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C4 PFOA	89		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C5 PFNA	97		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C2 PFDA	96		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C2 PFUnA	93		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C2 PFDoA	99		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C2 PFTeDA	92		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C3 PFBS	100		25 - 150	02/05/20 05:16	02/06/20 09:47	1
18O2 PFHxS	101		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C4 PFOS	110		25 - 150	02/05/20 05:16	02/06/20 09:47	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125491-1

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

Client Sample ID: WT-012607-012820-CM-001

Date Collected: 01/28/20 16:30

Date Received: 01/29/20 09:20

Lab Sample ID: 240-125491-1

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	106		25 - 150	02/05/20 05:16	02/06/20 09:47	1
d3-NMeFOSAA	70		25 - 150	02/05/20 05:16	02/06/20 09:47	1
d5-NEtFOSAA	79		25 - 150	02/05/20 05:16	02/06/20 09:47	1
M2-6:2 FTS	119		25 - 150	02/05/20 05:16	02/06/20 09:47	1
M2-8:2 FTS	125		25 - 150	02/05/20 05:16	02/06/20 09:47	1
M2-4:2 FTS	119		25 - 150	02/05/20 05:16	02/06/20 09:47	1
13C3 HFPO-DA	58		25 - 150	02/05/20 05:16	02/06/20 09:47	1

Client Sample Results

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

Job ID: 240-125491-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: WT-012607-012820-CM-002

Date Collected: 01/28/20 16:35

Date Received: 01/29/20 09:20

Lab Sample ID: 240-125491-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.5		1.8	0.32	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.45	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorohexanoic acid (PFHxA)	2.6		1.8	0.53	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.8	0.23	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorooctanoic acid (PFOA)	4.5		1.8	0.78	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorononanoic acid (PFNA)	0.25	J	1.8	0.25	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.28	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	1.0	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.50	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	1.2	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.27	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorobutanesulfonic acid (PFBS)	1.2	J	1.8	0.18	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluoropentanesulfonic acid (PFPeS)	0.88	J I	1.8	0.28	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorohexanesulfonic acid (PFHxS)	5.3	I B	1.8	0.16	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	J I	1.8	0.17	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorooctanesulfonic acid (PFOS)	110	I	1.8	0.50	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorononanesulfonic acid (PFNS)	1.8	U	1.8	0.15	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.29	ng/L		02/05/20 05:16	02/06/20 09:55	1
Perfluorooctanesulfonamide (FOSA)	1.8	U	1.8	0.32	ng/L		02/05/20 05:16	02/06/20 09:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	2.8	ng/L		02/05/20 05:16	02/06/20 09:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.7	ng/L		02/05/20 05:16	02/06/20 09:55	1
4:2 FTS	18	U	18	4.8	ng/L		02/05/20 05:16	02/06/20 09:55	1
6:2 FTS	18	U	18	1.8	ng/L		02/05/20 05:16	02/06/20 09:55	1
8:2 FTS	18	U	18	1.8	ng/L		02/05/20 05:16	02/06/20 09:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.8	U	1.8	0.17	ng/L		02/05/20 05:16	02/06/20 09:55	1
HFPO-DA (GenX)	3.7	U	3.7	1.4	ng/L		02/05/20 05:16	02/06/20 09:55	1
F-53B Major	1.8	U	1.8	0.22	ng/L		02/05/20 05:16	02/06/20 09:55	1
F-53B Minor	1.8	U	1.8	0.29	ng/L		02/05/20 05:16	02/06/20 09:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	60		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C5 PFPeA	69		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C2 PFHxA	91		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C4 PFHpA	93		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C4 PFOA	98		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C5 PFNA	102		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C2 PFDA	103		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C2 PFUnA	99		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C2 PFDoA	103		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C2 PFTeDA	95		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C3 PFBS	100		25 - 150	02/05/20 05:16	02/06/20 09:55	1
18O2 PFHxS	105		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C4 PFOS	110		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C8 FOSA	107		25 - 150	02/05/20 05:16	02/06/20 09:55	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125491-1

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

Client Sample ID: WT-012607-012820-CM-002

Date Collected: 01/28/20 16:35

Date Received: 01/29/20 09:20

Lab Sample ID: 240-125491-2

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	76		25 - 150	02/05/20 05:16	02/06/20 09:55	1
d5-NEtFOSAA	82		25 - 150	02/05/20 05:16	02/06/20 09:55	1
M2-6:2 FTS	136		25 - 150	02/05/20 05:16	02/06/20 09:55	1
M2-8:2 FTS	127		25 - 150	02/05/20 05:16	02/06/20 09:55	1
M2-4:2 FTS	124		25 - 150	02/05/20 05:16	02/06/20 09:55	1
13C3 HFPO-DA	59		25 - 150	02/05/20 05:16	02/06/20 09:55	1

Client Sample Results

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

Job ID: 240-125491-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: EB-012607-012820-CM-003

Date Collected: 01/28/20 16:25

Date Received: 01/29/20 09:20

Lab Sample ID: 240-125491-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.0	U	2.0	0.34	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.48	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.57	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.24	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.83	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.26	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.30	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.54	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.28	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.29	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorohexanesulfonic acid (PFHxS)	0.29	J B	2.0	0.17	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.53	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.16	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.31	ng/L		02/05/20 05:16	02/06/20 10:03	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.34	ng/L		02/05/20 05:16	02/06/20 10:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20	U	20	3.0	ng/L		02/05/20 05:16	02/06/20 10:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20	U	20	1.9	ng/L		02/05/20 05:16	02/06/20 10:03	1
4:2 FTS	20	U	20	5.1	ng/L		02/05/20 05:16	02/06/20 10:03	1
6:2 FTS	20	U	20	2.0	ng/L		02/05/20 05:16	02/06/20 10:03	1
8:2 FTS	20	U	20	2.0	ng/L		02/05/20 05:16	02/06/20 10:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.18	ng/L		02/05/20 05:16	02/06/20 10:03	1
HFPO-DA (GenX)	3.9	U	3.9	1.5	ng/L		02/05/20 05:16	02/06/20 10:03	1
F-53B Major	2.0	U	2.0	0.23	ng/L		02/05/20 05:16	02/06/20 10:03	1
F-53B Minor	2.0	U	2.0	0.31	ng/L		02/05/20 05:16	02/06/20 10:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	92		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C5 PFPeA	96		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C2 PFHxA	101		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C4 PFHpA	102		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C4 PFOA	101		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C5 PFNA	101		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C2 PFDA	95		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C2 PFUnA	99		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C2 PFDoA	93		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C2 PFTeDA	109		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C3 PFBS	104		25 - 150	02/05/20 05:16	02/06/20 10:03	1
18O2 PFHxS	108		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C4 PFOS	107		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C8 FOSA	101		25 - 150	02/05/20 05:16	02/06/20 10:03	1
d3-NMeFOSAA	73		25 - 150	02/05/20 05:16	02/06/20 10:03	1
d5-NEtFOSAA	76		25 - 150	02/05/20 05:16	02/06/20 10:03	1

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-125491-1

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

Client Sample ID: EB-012607-012820-CM-003

Date Collected: 01/28/20 16:25

Date Received: 01/29/20 09:20

Lab Sample ID: 240-125491-3

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	84		25 - 150	02/05/20 05:16	02/06/20 10:03	1
M2-8:2 FTS	84		25 - 150	02/05/20 05:16	02/06/20 10:03	1
M2-4:2 FTS	80		25 - 150	02/05/20 05:16	02/06/20 10:03	1
13C3 HFPO-DA	86		25 - 150	02/05/20 05:16	02/06/20 10:03	1

QC Association Summary

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

Job ID: 240-125491-1

LCMS

Prep Batch: 355101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125491-1	WT-012607-012820-CM-001	Total/NA	Water	3535	
240-125491-2	WT-012607-012820-CM-002	Total/NA	Water	3535	
240-125491-3	EB-012607-012820-CM-003	Total/NA	Water	3535	
MB 320-355101/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-355101/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-355101/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 355304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-125491-1	WT-012607-012820-CM-001	Total/NA	Water	537 (modified)	355101
240-125491-2	WT-012607-012820-CM-002	Total/NA	Water	537 (modified)	355101
240-125491-3	EB-012607-012820-CM-003	Total/NA	Water	537 (modified)	355101
MB 320-355101/1-A	Method Blank	Total/NA	Water	537 (modified)	355101
LCS 320-355101/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	355101
LCSD 320-355101/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	355101

QC Sample Results

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

Job ID: 240-125491-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-355101/1-A

Matrix: Water

Analysis Batch: 355304

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 355101

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.0	U	2.0	0.35	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.49	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.58	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.25	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.85	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.31	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	1.1	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.55	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	1.3	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.29	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.20	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluoropentanesulfonic acid (PFPeS)	2.0	U	2.0	0.30	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorohexanesulfonic acid (PFHxS)	0.322	J	2.0	0.17	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.19	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.54	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorononanesulfonic acid (PFNS)	2.0	U	2.0	0.16	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.32	ng/L		02/05/20 05:16	02/06/20 07:06	1
Perfluorooctanesulfonamide (FOSA)	2.0	U	2.0	0.35	ng/L		02/05/20 05:16	02/06/20 07:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20	U	20	3.1	ng/L		02/05/20 05:16	02/06/20 07:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20	U	20	1.9	ng/L		02/05/20 05:16	02/06/20 07:06	1
4:2 FTS	20	U	20	5.2	ng/L		02/05/20 05:16	02/06/20 07:06	1
6:2 FTS	20	U	20	2.0	ng/L		02/05/20 05:16	02/06/20 07:06	1
8:2 FTS	20	U	20	2.0	ng/L		02/05/20 05:16	02/06/20 07:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.0	U	2.0	0.18	ng/L		02/05/20 05:16	02/06/20 07:06	1
HFPO-DA (GenX)	4.0	U	4.0	1.5	ng/L		02/05/20 05:16	02/06/20 07:06	1
F-53B Major	2.0	U	2.0	0.24	ng/L		02/05/20 05:16	02/06/20 07:06	1
F-53B Minor	2.0	U	2.0	0.32	ng/L		02/05/20 05:16	02/06/20 07:06	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C5 PFPeA	95		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C2 PFHxA	103		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C4 PFHpA	103		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C4 PFOA	101		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C5 PFNA	95		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C2 PFDA	97		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C2 PFUnA	98		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C2 PFDoA	107		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C2 PFTeDA	106		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C3 PFBS	100		25 - 150	02/05/20 05:16	02/06/20 07:06	1
18O2 PFHxS	101		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C4 PFOS	96		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C8 FOSA	94		25 - 150	02/05/20 05:16	02/06/20 07:06	1
d3-NMeFOSAA	75		25 - 150	02/05/20 05:16	02/06/20 07:06	1

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125491-1

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

Lab Sample ID: MB 320-355101/1-A

Matrix: Water

Analysis Batch: 355304

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 355101

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	80		25 - 150	02/05/20 05:16	02/06/20 07:06	1
M2-6:2 FTS	80		25 - 150	02/05/20 05:16	02/06/20 07:06	1
M2-8:2 FTS	85		25 - 150	02/05/20 05:16	02/06/20 07:06	1
M2-4:2 FTS	80		25 - 150	02/05/20 05:16	02/06/20 07:06	1
13C3 HFPO-DA	106		25 - 150	02/05/20 05:16	02/06/20 07:06	1

Lab Sample ID: LCS 320-355101/2-A

Matrix: Water

Analysis Batch: 355304

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 355101

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	40.8		ng/L		102	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	39.5		ng/L		99	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	38.5		ng/L		96	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	37.8		ng/L		95	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	37.4		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.6		ng/L		101	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	35.6		ng/L		89	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	35.3		ng/L		88	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	36.8		ng/L		92	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	36.9		ng/L		92	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	34.2		ng/L		85	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.5		ng/L		100	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	38.4		ng/L		102	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.9		ng/L		93	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.8		ng/L		105	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	37.6		ng/L		101	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	39.7		ng/L		103	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	40.4		ng/L		105	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	40.1		ng/L		100	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.6		ng/L		94	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	34.4		ng/L		86	76 - 136
4:2 FTS	37.4	33.2		ng/L		89	79 - 139
6:2 FTS	37.9	34.3		ng/L		90	59 - 175
8:2 FTS	38.3	34.3		ng/L		90	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	41.8		ng/L		111	79 - 139
HFPO-DA (GenX)	40.0	29.8		ng/L		74	51 - 173
F-53B Major	37.3	37.9		ng/L		102	75 - 135

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125491-1

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

Lab Sample ID: LCS 320-355101/2-A

Matrix: Water

Analysis Batch: 355304

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 355101

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
F-53B Minor	37.7	38.7		ng/L		103	54 - 114
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	102		25 - 150				
13C5 PFPeA	98		25 - 150				
13C2 PFHxA	102		25 - 150				
13C4 PFHpA	102		25 - 150				
13C4 PFOA	99		25 - 150				
13C5 PFNA	97		25 - 150				
13C2 PFDA	101		25 - 150				
13C2 PFUnA	98		25 - 150				
13C2 PFDoA	108		25 - 150				
13C2 PFTeDA	104		25 - 150				
13C3 PFBS	101		25 - 150				
18O2 PFHxS	99		25 - 150				
13C4 PFOS	98		25 - 150				
13C8 FOSA	94		25 - 150				
d3-NMeFOSAA	78		25 - 150				
d5-NEtFOSAA	84		25 - 150				
M2-6:2 FTS	80		25 - 150				
M2-8:2 FTS	81		25 - 150				
M2-4:2 FTS	79		25 - 150				
13C3 HFPO-DA	127		25 - 150				

Lab Sample ID: LCSD 320-355101/3-A

Matrix: Water

Analysis Batch: 355304

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 355101

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	40.0		ng/L		100	76 - 136	2	30
Perfluoropentanoic acid (PFPeA)	40.0	41.5		ng/L		104	71 - 131	5	30
Perfluorohexanoic acid (PFHxA)	40.0	37.5		ng/L		94	73 - 133	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	38.3		ng/L		96	72 - 132	1	30
Perfluorooctanoic acid (PFOA)	40.0	37.4		ng/L		93	70 - 130	0	30
Perfluorononanoic acid (PFNA)	40.0	39.9		ng/L		100	75 - 135	2	30
Perfluorodecanoic acid (PFDA)	40.0	37.3		ng/L		93	76 - 136	5	30
Perfluoroundecanoic acid (PFUnA)	40.0	36.0		ng/L		90	68 - 128	2	30
Perfluorododecanoic acid (PFDoA)	40.0	42.1		ng/L		105	71 - 131	13	30
Perfluorotridecanoic acid (PFTriA)	40.0	39.7		ng/L		99	71 - 131	7	30
Perfluorotetradecanoic acid (PFTeA)	40.0	38.4		ng/L		96	70 - 130	12	30
Perfluorobutanesulfonic acid (PFBS)	35.4	34.6		ng/L		98	67 - 127	3	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	37.5		ng/L		100	66 - 126	2	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.9	B	ng/L		93	59 - 119	0	30

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-125491-1

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

Lab Sample ID: LCSD 320-355101/3-A

Matrix: Water

Analysis Batch: 355304

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 355101

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.3		ng/L		103	76 - 136	1	30
Perfluorooctanesulfonic acid (PFOS)	37.1	36.0		ng/L		97	70 - 130	4	30
Perfluorononanesulfonic acid (PFNS)	38.4	36.7		ng/L		96	75 - 135	8	30
Perfluorodecanesulfonic acid (PFDS)	38.6	38.8		ng/L		101	71 - 131	4	30
Perfluorooctanesulfonamide (FOSA)	40.0	38.3		ng/L		96	73 - 133	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.9		ng/L		102	76 - 136	8	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	35.1		ng/L		88	76 - 136	2	30
4:2 FTS	37.4	36.4		ng/L		97	79 - 139	9	30
6:2 FTS	37.9	32.8		ng/L		86	59 - 175	4	30
8:2 FTS	38.3	32.4		ng/L		85	75 - 135	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	38.7		ng/L		103	79 - 139	8	30
HFPO-DA (GenX)	40.0	38.3		ng/L		96	51 - 173	25	30
F-53B Major	37.3	36.9		ng/L		99	75 - 135	3	30
F-53B Minor	37.7	36.5		ng/L		97	54 - 114	6	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	101		25 - 150
13C5 PFPeA	96		25 - 150
13C2 PFHxA	101		25 - 150
13C4 PFHpA	100		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	98		25 - 150
13C2 PFDA	97		25 - 150
13C2 PFUnA	94		25 - 150
13C2 PFDoA	99		25 - 150
13C2 PFTeDA	97		25 - 150
13C3 PFBS	98		25 - 150
18O2 PFHxS	98		25 - 150
13C4 PFOS	100		25 - 150
13C8 FOSA	99		25 - 150
d3-NMeFOSAA	78		25 - 150
d5-NEtFOSAA	81		25 - 150
M2-6:2 FTS	84		25 - 150
M2-8:2 FTS	85		25 - 150
M2-4:2 FTS	76		25 - 150
13C3 HFPO-DA	113		25 - 150

Lab Chronicle

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

Job ID: 240-125491-1

Client Sample ID: WT-012607-012820-CM-001

Lab Sample ID: 240-125491-1

Date Collected: 01/28/20 16:30

Matrix: Water

Date Received: 01/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			355101	02/05/20 05:16	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	355304	02/06/20 09:47	RS1	TAL SAC

Client Sample ID: WT-012607-012820-CM-002

Lab Sample ID: 240-125491-2

Date Collected: 01/28/20 16:35

Matrix: Water

Date Received: 01/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			355101	02/05/20 05:16	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	355304	02/06/20 09:55	RS1	TAL SAC

Client Sample ID: EB-012607-012820-CM-003

Lab Sample ID: 240-125491-3

Date Collected: 01/28/20 16:25

Matrix: Water

Date Received: 01/29/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			355101	02/05/20 05:16	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1	355304	02/06/20 10:03	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, RACER Eckles Rd

Job ID: 240-125491-1

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	02-23-20 *
Connecticut	State	PH-0590	12-31-19 *
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20 *
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20 *
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19 *
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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	01-20-21
ANAB	Dept. of Defense ELAP	L2468	01-20-21
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-20
Arkansas DEQ	State	19-042-0	06-17-20
California	State	2897	01-31-20 *
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-20
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-20
Georgia	State	4040	01-30-21
Hawaii	State	<cert No.>	01-29-20 *
Hawaii	State	<cert No.>	01-29-21
Illinois	NELAP	200060	03-17-20
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-20
Maine	State	2018009	04-14-20
Michigan	State	9947	01-29-20 *
Nevada	State	CA000442020-1	07-31-20
New Hampshire	NELAP	2997	04-18-20
New Jersey	NELAP	CA005	06-30-20
New York	NELAP	11666	04-01-20
Oregon	NELAP	4040	01-29-21

* 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: 240-125491-1

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
Pennsylvania	NELAP	68-01272	03-31-20
Texas	NELAP	T104704399-19-13	05-31-20
US Fish & Wildlife	US Federal Programs	58448	07-31-20
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-29-20
Vermont	State	VT-4040	04-16-20
Virginia	NELAP	460278	03-14-20
Washington	State	C581	05-05-20
West Virginia (DW)	State	9930C	12-31-19 *
West Virginia (DW)	State	9930C	12-31-20
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Canton

Address:

[illegible]

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 175491

Client <u>QHD</u>	Site Name _____	Cooler unpacked by: <u>Adam C</u>
Cooler Received on <u>1-29-20</u>	Opened on <u>1-29-20</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>7K</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-10 (CF +0.7 °C) Observed Cooler Temp. <u>2.7</u> °C Corrected Cooler Temp. <u>3.4</u> °C IR GUN #IR-11 (CF +0.9 °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 be reconciled with the COC? ☒ Yes ☐ No		
9. Were correct bottle(s) used for the test(s) indicated? ☒ Yes ☐ No		
10. Sufficient quantity received to perform indicated analyses? ☒ Yes ☐ No		
11. Are these work share samples? ☒ Yes ☐ No		
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt? ☒ Yes ☐ No <u>NA</u> pH Strip Lot# <u>HC995364</u>		
13. Were VOAs on the COC? ☒ Yes ☐ No		
14. Were air bubbles >6 mm in any VOA vials? ☒ Yes ☐ No <u>NA</u>  Larger than this.		
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ ☒ Yes ☐ No		
16. Was a LL Hg or Me Hg trip blank present? ☒ Yes ☐ No		
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____		
Concerning _____		

Tests that are not
checked for pH by
Receiving:

VOAs
Oil and Grease
TOC

Samples processed by:

AB

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

18. 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)

19. 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: _____

[illegible]

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-125491-1

Login Number: 125491

List Number: 2

Creator: Kintaudi, Pauline W

List Source: Eurofins TestAmerica, Sacramento

List Creation: 01/30/20 12:28 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	obs. 1.5c, corr. 2.1c
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, RACER Eckles Rd

Job ID: 240-125491-1

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)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
240-125491-1	WT-012607-012820-CM-001	55	67	82	86	89	97	96	93
240-125491-2	WT-012607-012820-CM-002	60	69	91	93	98	102	103	99
240-125491-3	EB-012607-012820-CM-003	92	96	101	102	101	101	95	99
LCS 320-355101/2-A	Lab Control Sample	102	98	102	102	99	97	101	98
LCSD 320-355101/3-A	Lab Control Sample Dup	101	96	101	100	100	98	97	94
MB 320-355101/1-A	Method Blank	101	95	103	103	101	95	97	98

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	3C3-PFBs (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	-NMeFOS/ -NEtFOS/ (25-150)	-NEtFOS/ (25-150)
240-125491-1	WT-012607-012820-CM-001	99	92	100	101	110	106	70	79
240-125491-2	WT-012607-012820-CM-002	103	95	100	105	110	107	76	82
240-125491-3	EB-012607-012820-CM-003	93	109	104	108	107	101	73	76
LCS 320-355101/2-A	Lab Control Sample	108	104	101	99	98	94	78	84
LCSD 320-355101/3-A	Lab Control Sample Dup	99	97	98	98	100	99	78	81
MB 320-355101/1-A	Method Blank	107	106	100	101	96	94	75	80

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	HFPODA (25-150)
240-125491-1	WT-012607-012820-CM-001	119	125	119	58
240-125491-2	WT-012607-012820-CM-002	136	127	124	59
240-125491-3	EB-012607-012820-CM-003	84	84	80	86
LCS 320-355101/2-A	Lab Control Sample	80	81	79	127
LCSD 320-355101/3-A	Lab Control Sample Dup	84	85	76	113
MB 320-355101/1-A	Method Blank	80	85	80	106

Surrogate Legend

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

