

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Environmental Remediation

625 Broadway, 12th Floor, Albany, New York 12233-7011

P: (518) 402-9706 | F: (518) 402-9020

www.dec.ny.gov

March 23, 2020

Mr. George Meyers, Supervisor  
Town of New Windsor  
555 Union Avenue  
New Windsor, New York 12553

Re: New Windsor Public Water Supply Well 21 PFAS Sample Results  
Butterhill Wellfield, New Windsor (T), Orange County

Dear Supervisor Meyers:

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the **March 6, 2020** sampling of the temporary granular activated carbon (GAC) water treatment system by DEC representatives that was installed at the Town of New Windsor (Town) Butterhill Wellfield located at 181 Forge Hill Road.

**No PFOS or PFOA was detected in the Butterhill temporary GAC-treated water. The U.S. Environmental Protection Agency (EPA) lifetime health advisory level (HAL) is 70 parts per trillion (ppt) for PFOA, PFOS, or the combination of PFOA and PFOS. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.**

Specifically, the samples were analyzed for a total of six and twenty-one per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the 21 PFAS list analysis has been attached. Please note that the sampling data associated with the 6 PFAS list was recently provided to the Town under separate letter after receipt and review by DEC and the New York State Department of Health (DOH).

During this event, sampling for the 21 PFAS list was conducted at 23 locations. Recall that ,starting in February 2020, the decision was made to begin including mid-bed sampling for 21 PFAS analysis on the GAC lag units (9 additional sampling locations).

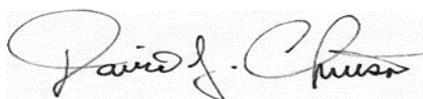
- pre-treatment (raw untreated water), which has a “BH20200306PRE-GAC” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 1), which has a “BH20200306-1North-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 1), which has a “BH20200306-1North-50” identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 1), which has a “BH20200306-1North-75” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20200306-2North-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20200306-2North-50” identifier in the Client Sample ID;

- 75 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20200306-2North-75” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20200306-3North-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20200306-3North-50” identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20200306-3North-75” identifier in the Client Sample ID;
- Butterhill Well No.1 raw untreated water; which has a “BH20200306-1RAW” identifier in the Client Sample ID;
- Butterhill Well No.2 raw untreated water; which has a “BH20200306-2RAW” identifier in the Client Sample ID;
- Butterhill Well No.3 raw untreated water; which has a “BH20200306-3RAW” identifier in the Client Sample ID;
- Post-treatment (treated water after all GAC trains), which has a “BH20200306POST-GAC” identifier in the Client Sample ID.
- 25 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20200306-1S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20200306-1S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20200306-1S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20200306-2S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20200306-2S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20200306-2S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20200306-3S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20200306-3S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20200306-3S-75” identifier in the Client Sample ID;

The 23 locations sampled (and their associated identifiers) are depicted in Figure 1.

If you have any technical questions regarding the analytical results or on the operation and performance of the GAC treatment system, please feel free to contact me or Dana Bryant, P.E., Arcadis (DEC's Project Engineer) at (518) 250-7347 or [dana.bryant@arcadis.com](mailto:dana.bryant@arcadis.com) . For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Carl Aldrich of Aztech Environmental Services at (518) 470-3052 or Todd Rollend at (518) 365-3333. For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Steve Gladding, P.E., Ph.D of the NYSDOH Bureau of Water Supply Protection at (518) 402-7650; email: [steven.gladding@health.ny.gov](mailto:steven.gladding@health.ny.gov) .

Sincerely,



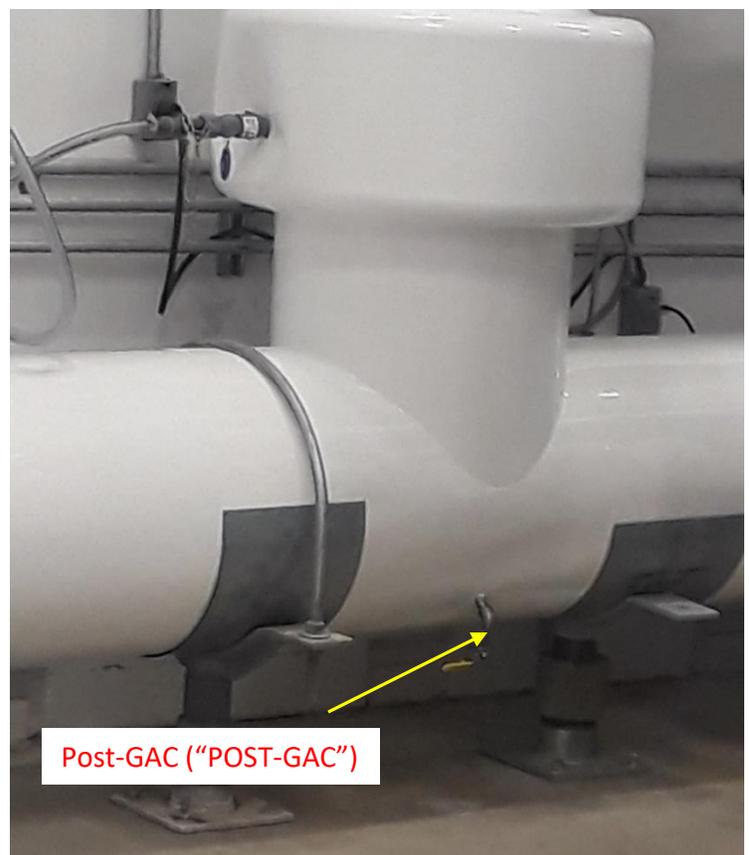
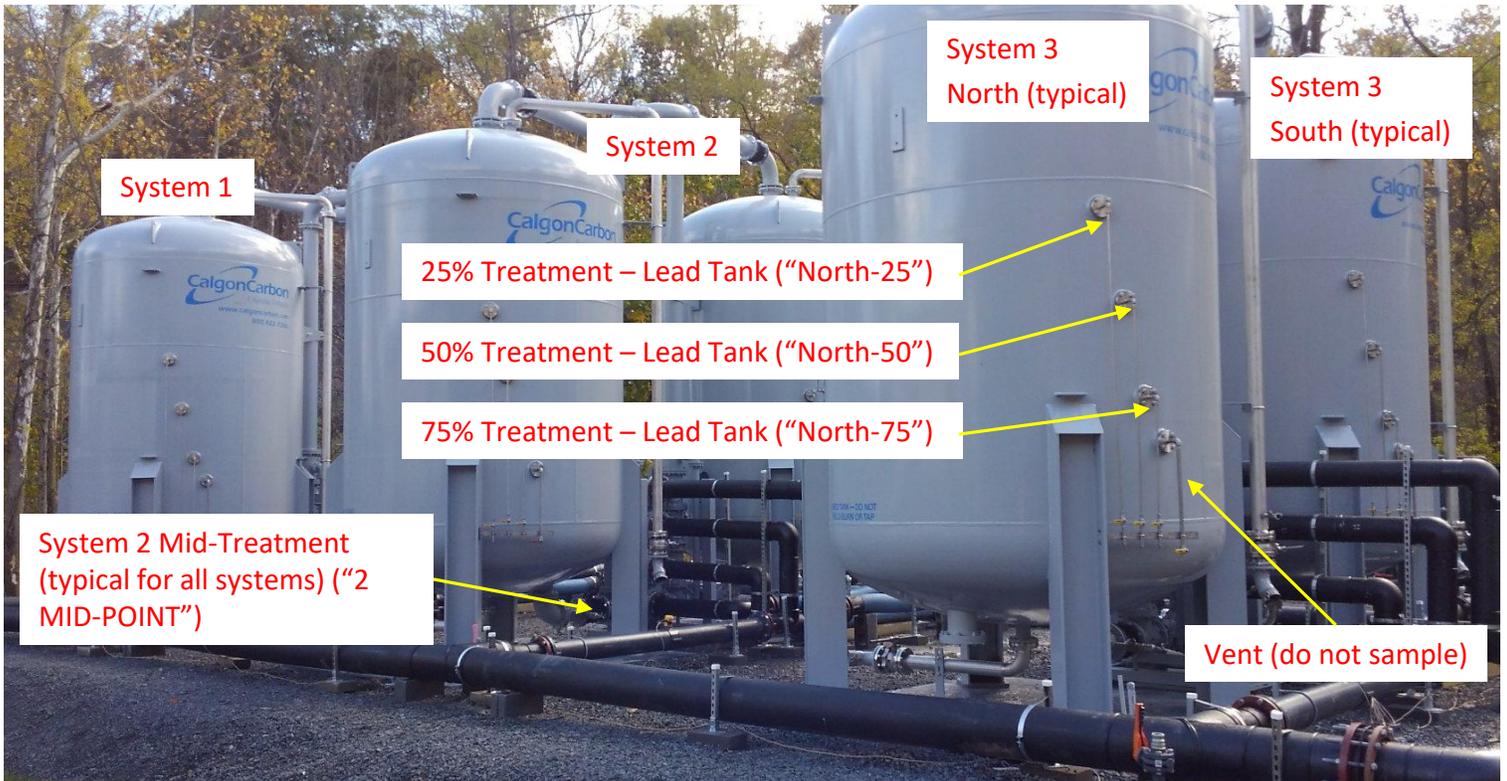
David J. Chiusano  
Environmental Engineer/Project Manager  
Remedial Section A, Remedial Bureau E  
Division of Environmental Remediation

#### Enclosures

ec: w/enclosures  
D. Zagon, Town of New Windsor  
J. Egitto, Town of New Windsor  
M. Weeks, MHE  
W. Gilday, NYSDOH  
Dr. Kim, NYSDOH  
S. Gladding, NYSDOH  
S. Gagnon, OCDOH  
M. Andersen, OCDOH  
D. Bryant, Arcadis  
F. Fina, Aztech  
M. Cruden, NYSDEC  
D. Bendell, Region 3 RHWRE  
D. Harrington, NYSDEC

**Figure 1**  
**Sampling Locations**

Butterhill Plant Temporary GAC Treatment System



- 25%, 50%, 75% Treatment sample locations repeated on the current Lag “South” Tanks.
- Post-treatment samples for each individual System can be collected after each Lag Tank, mirrored sample location to MID-POINT sample location on Lead Tanks.

**Town of New Windsor**  
**Butterhill Wellfield Temporary GAC Operation and Maintenance PFOA and PFOS Sampling Results \* (Parts Per Trillion (PPT))**

Date	Analyte	Well 1 <sup>1</sup> Raw Water	Well 2 Raw Water	Well 3 Raw Water	Pre GAC Raw Water	GAC Pair 1 Lead 25%(North)	GAC Pair 1 Lead 50%(North)	GAC Pair 1 Lead 75%(North)	GAC Pair 2 Lead 25% (North)	GAC Pair 2 Lead 50%(North)	GAC Pair 2 Lead 75%(North)	GAC Pair 3 Lead 25%(North)	GAC Pair 3 Lead 50%(North)	GAC Pair 3 Lead 75%(North)	Post GAC Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value <sup>3</sup>	Proposed NYS MCLs <sup>4</sup>
December 2019 (Well 3)	PFOA	2.6	3.5	5.0	2.5	ND <sup>2</sup>	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
	PFOS	3.7	2.4	8.9	3.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
January 2020 (Well 2)	PFOA	2.4	3.5	3.9	3.3	ND	ND	ND	2.2	ND	ND	1.8	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
	PFOS	3.3	2.4	7.7	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
February 2020 (Well 2)	PFOA	3.1	3.9	3.6	3.3	ND	ND	ND	2.7	ND	ND	2.3	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
	PFOS	3.6	2.7	6.0	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
March 2020 (Well 1 <sup>**</sup> )	PFOA	2.5	2.9	2.9	2.5	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
	PFOS	3.6	2.8	5.4	3.3	ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>

Date	Analyte	GAC Pair 1 Lag 25%(South)	GAC Pair 1 Lag 50% (South)	GAC Pair 1 Lag 75%(South)	GAC Pair 2 Lag 25% (South)	GAC Pair 2 Lag 50%(South)	GAC Pair 2 Lag 75%(South)	GAC Pair 3 Lag 25%(South)	GAC Pair 3 Lag 50%(South)	GAC Pair 3 Lag 75%(South)	USEPA Drinking Water Health Advisory Guidance Value <sup>3</sup>	Proposed NYS MCLs <sup>4</sup>
February 2020 (Well 2)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
March 2020 (Well 1 <sup>**</sup> )	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>3</sup>	10 <sup>4</sup>

**Notes:**

- \* 21 PFAS List Analysis.
  - \*\* At time of sampling Production Well No. 1 was in operation.
1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
  2. "ND" means non-detect. The analyte was not detected in the sample.
  3. Guidance: USEPA Drinking Water Health Advisory guidance value is currently 70 ppt.
  4. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

## How to Read Your Laboratory Reports

### PFOA and PFOS Results:

- Analyte is the term used to describe what the laboratory was testing for, in this case PFOS and PFOA.
- Conc. (ng/l) is your result for PFOS and PFOA. In your case, no PFOS and PFOA were detected, thus ND or “non-detect” or <2.0 ng/l was reported. (ng/l = ppt)
- RL = reporting limit or RDL = reportable detection limit is the lowest level at which this specific testing protocol and laboratory has confidence in measuring the given analyte.
- Qualifiers are added information to help understand the quality of the data. Often, if something about the results or the calibration of the testing equipment was irregular, it would be reported here.

All other columns represent laboratory quality control information. The laboratory calibrates its equipment against a precise quantity of the chemical in order to ensure that the equipment is functioning properly. Some laboratory reports may not have all this information.

- Labeled Standard or Surrogate is the lab’s specific name for an individual control sample.
- %R is the percent of the control sample that was detected by the equipment. A 100% reading represents perfect equipment alignment.
- LCL-UCL is the lower concentration limit (LCL) and upper concentration limit (UCL). The LCL represents the lowest acceptable %R value and the UCL represent the highest acceptable %R value required to ensure your result is accurate.
- Qualifiers: If a result quality control variance is noted or if the %R value of any of the control samples were outside the allowable range that would have been noted in this last column. This gives the analyst less confidence in the measured value.

The analysis for PFOS and PFOA is performed using modified EPA Method 537. The laboratory may report a detection of PFOS and PFOA down to approximately 2.0 nanograms per liter (ng/l) or parts per trillion (ppt).

### Inorganic Results:

- Parameter is the same as “analyte” above – it is the chemical being tested.
- Result is the concentration of that chemical detected.
- RL/PQL is the lowest level at which the specific laboratory test can reliably quantify the concentration. Below that number, the result is considered unreliable.
- DIL is the number of times the sample was diluted (necessary because the test has a certain range that it is accurate for).
- Units: mg/l is milligrams per liter or parts per million; ug/l is micrograms per liter or parts per billion.
- DW MCL stands for drinking water (DW) and “maximum contaminant level” (MCL). All chemicals that have a “maximum contaminant level” (MCL) established for drinking water (DW) have a level reported in this column.

- Sec Goal is the EPA nomenclature for all contaminants that have regulatory levels set based on aesthetics (for example, taste or color). DOH recognizes these EPA secondary goals as primary standards and enforces its drinking water quality program accordingly.
- Date/Time represents the date and time of the analysis at the lab.
- By refers to the technician who ran the test.
- Reference indicates the EPA method used in the test.

## ANALYTICAL REPORT

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

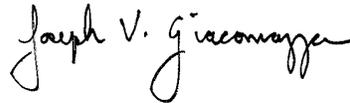
Laboratory Job ID: 320-59289-1

Client Project/Site: Stewart ANGB - Butterhill #336089

**For:**

New York State D.E.C.  
625 Broadway  
12th Floor  
Albany, New York 12233-7017

Attn: Mr. Dave Chiusano



Authorized for release by:  
3/17/2020 9:40:13 AM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Judy Stone, Senior Project Manager  
(484)685-0868  
[judy.stone@testamericainc.com](mailto:judy.stone@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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

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

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

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

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
3/17/2020 9:40:13 AM



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Definitions/Glossary . . . . .	4
Case Narrative . . . . .	5
Detection Summary . . . . .	6
Client Sample Results . . . . .	9
Isotope Dilution Summary . . . . .	33
QC Sample Results . . . . .	36
QC Association Summary . . . . .	44
Lab Chronicle . . . . .	46
Certification Summary . . . . .	50
Method Summary . . . . .	51
Sample Summary . . . . .	52
Chain of Custody . . . . .	53
Receipt Checklists . . . . .	56

# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
*5	Isotope dilution analyte is outside acceptance limits.

## 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)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## Job ID: 320-59289-1

### Laboratory: Eurofins TestAmerica, Sacramento

#### Narrative

#### Job Narrative 320-59289-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/7/2020 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.3° C and 0.4° C.

#### LCMS

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

(CCVL 320-363536/2)

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS the following sample: BH20200306-1South-50 (320-59289-17). 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: The following samples contain trizma: BH20200306PRE-GAC (320-59289-1), BH20200306POST-GACDUP (320-59289-2), BH20200306POST-GAC (320-59289-3), BH20200306POST-GAC (320-59289-3[MS]), BH20200306POST-GAC (320-59289-3[MSD]), BH20200306-1North-25 (320-59289-4), BH20200306-1North-50 (320-59289-5), BH20200306-1North-75 (320-59289-6), BH20200306-2North-25 (320-59289-7), BH20200306-2North-50 (320-59289-8), BH20200306-2North-75 (320-59289-9), BH20200306-3North-25 (320-59289-10), BH20200306-3North-50 (320-59289-11), BH20200306-3North-75 (320-59289-12), BH20200306-1Raw (320-59289-13), BH20200306-2Raw (320-59289-14), BH20200306-3Raw (320-59289-15), BH20200306-1South-25 (320-59289-16), BH20200306-1South-50 (320-59289-17), BH20200306-1South-75 (320-59289-18), BH20200306-2South-25 (320-59289-19) and BH20200306-2South-50 (320-59289-20). Thus, the MB, and LCS also contain trizma.

Method 3535: The following samples contain trizma: BH20200306-2South-75 (320-59289-21), BH20200306-3South-25 (320-59289-22), BH20200306-3South-50 (320-59289-23) and BH20200306-3South-75 (320-59289-24). Thus, the MB, and LCS also contain trizma.

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-363231.

Method 3535: The following samples contain a thin layer of sediments prior to extraction: BH20200306-3South-50 (320-59289-23) and BH20200306-3South-75 (320-59289-24).

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

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## Client Sample ID: BH20200306PRE-GAC

Lab Sample ID: 320-59289-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.3		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306POST-GACDUP

Lab Sample ID: 320-59289-2

No Detections.

## Client Sample ID: BH20200306POST-GAC

Lab Sample ID: 320-59289-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-1North-25

Lab Sample ID: 320-59289-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.1		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-1North-50

Lab Sample ID: 320-59289-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.4		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.0		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-1North-75

Lab Sample ID: 320-59289-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.2		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-2North-25

Lab Sample ID: 320-59289-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.7		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-2North-50

Lab Sample ID: 320-59289-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.7		1.7		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## Client Sample ID: BH20200306-2North-75

## Lab Sample ID: 320-59289-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.5		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.3		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-3North-25

## Lab Sample ID: 320-59289-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-3North-50

## Lab Sample ID: 320-59289-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.6		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-3North-75

## Lab Sample ID: 320-59289-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.5		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-1Raw

## Lab Sample ID: 320-59289-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.5		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.6		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-2Raw

## Lab Sample ID: 320-59289-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.2		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	6.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.5		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.2		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-3Raw

## Lab Sample ID: 320-59289-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.4		1.8		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## Client Sample ID: BH20200306-1South-25

Lab Sample ID: 320-59289-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.2		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-1South-50

Lab Sample ID: 320-59289-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.9		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-1South-75

Lab Sample ID: 320-59289-18

No Detections.

## Client Sample ID: BH20200306-2South-25

Lab Sample ID: 320-59289-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.5		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-2South-50

Lab Sample ID: 320-59289-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.8		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-2South-75

Lab Sample ID: 320-59289-21

No Detections.

## Client Sample ID: BH20200306-3South-25

Lab Sample ID: 320-59289-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.9		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-3South-50

Lab Sample ID: 320-59289-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.3		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20200306-3South-75

Lab Sample ID: 320-59289-24

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306PRE-GAC**

**Lab Sample ID: 320-59289-1**

Date Collected: 03/06/20 09:48

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.6		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluoropentanoic acid (PFPeA)	2.7		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorohexanoic acid (PFHxA)	2.2		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorooctanoic acid (PFOA)	2.5		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorobutanesulfonic acid (PFBS)	2.3		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorooctanesulfonic acid (PFOS)	3.3		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 19:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 19:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 19:29	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 19:29	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 19:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	62		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C5 PFPeA	77		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C2 PFHxA	85		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C4 PFHpA	87		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C4 PFOA	86		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C5 PFNA	83		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C2 PFDA	82		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C2 PFUnA	81		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C2 PFDoA	88		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C2 PFTeDA	94		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C3 PFBS	83		25 - 150	03/10/20 05:36	03/10/20 19:29	1
18O2 PFHxS	83		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C4 PFOS	85		25 - 150	03/10/20 05:36	03/10/20 19:29	1
13C8 FOSA	82		25 - 150	03/10/20 05:36	03/10/20 19:29	1
d3-NMeFOSAA	69		25 - 150	03/10/20 05:36	03/10/20 19:29	1
d5-NEtFOSAA	79		25 - 150	03/10/20 05:36	03/10/20 19:29	1
M2-6:2 FTS	107		25 - 150	03/10/20 05:36	03/10/20 19:29	1
M2-8:2 FTS	112		25 - 150	03/10/20 05:36	03/10/20 19:29	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306POST-GACDUP**

**Lab Sample ID: 320-59289-2**

Date Collected: 03/06/20 09:35

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 22:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 22:09	1
6:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 22:09	1
8:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 22:09	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	94		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C5 PFPeA	95		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C2 PFHxA	94		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C4 PFHpA	99		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C4 PFOA	97		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C5 PFNA	98		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C2 PFDA	101		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C2 PFUnA	100		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C2 PFDoA	102		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C2 PFTeDA	112		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C3 PFBS	99		25 - 150	03/10/20 05:36	03/12/20 22:09	1
18O2 PFHxS	90		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C4 PFOS	92		25 - 150	03/10/20 05:36	03/12/20 22:09	1
13C8 FOSA	91		25 - 150	03/10/20 05:36	03/12/20 22:09	1
d3-NMeFOSAA	81		25 - 150	03/10/20 05:36	03/12/20 22:09	1
d5-NEtFOSAA	87		25 - 150	03/10/20 05:36	03/12/20 22:09	1
M2-6:2 FTS	110		25 - 150	03/10/20 05:36	03/12/20 22:09	1
M2-8:2 FTS	123		25 - 150	03/10/20 05:36	03/12/20 22:09	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306POST-GAC**

**Lab Sample ID: 320-59289-3**

Date Collected: 03/06/20 09:41

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>1.9</b>		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 22:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 22:18	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 22:18	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 22:18	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C5 PFPeA	81		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C2 PFHxA	86		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C4 PFHpA	86		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C4 PFOA	88		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C5 PFNA	88		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C2 PFDA	79		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C2 PFUnA	91		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C2 PFDoA	89		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C2 PFTeDA	87		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C3 PFBS	87		25 - 150	03/10/20 05:36	03/12/20 22:18	1
18O2 PFHxS	79		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C4 PFOS	82		25 - 150	03/10/20 05:36	03/12/20 22:18	1
13C8 FOSA	78		25 - 150	03/10/20 05:36	03/12/20 22:18	1
d3-NMeFOSAA	72		25 - 150	03/10/20 05:36	03/12/20 22:18	1
d5-NEtFOSAA	76		25 - 150	03/10/20 05:36	03/12/20 22:18	1
M2-6:2 FTS	102		25 - 150	03/10/20 05:36	03/12/20 22:18	1
M2-8:2 FTS	108		25 - 150	03/10/20 05:36	03/12/20 22:18	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1North-25**

**Lab Sample ID: 320-59289-4**

Date Collected: 03/06/20 10:02

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.6		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluoropentanoic acid (PFPeA)	3.3		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorohexanoic acid (PFHxA)	2.1		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 22:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 22:28	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 22:28	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 22:28	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	68		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C5 PFPeA	77		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C2 PFHxA	84		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C4 PFHpA	86		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C4 PFOA	90		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C5 PFNA	89		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C2 PFDA	89		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C2 PFUnA	94		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C2 PFDoA	88		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C2 PFTeDA	90		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C3 PFBS	78		25 - 150	03/10/20 05:36	03/12/20 22:28	1
18O2 PFHxS	80		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C4 PFOS	81		25 - 150	03/10/20 05:36	03/12/20 22:28	1
13C8 FOSA	82		25 - 150	03/10/20 05:36	03/12/20 22:28	1
d3-NMeFOSAA	75		25 - 150	03/10/20 05:36	03/12/20 22:28	1
d5-NEtFOSAA	81		25 - 150	03/10/20 05:36	03/12/20 22:28	1
M2-6:2 FTS	131		25 - 150	03/10/20 05:36	03/12/20 22:28	1
M2-8:2 FTS	118		25 - 150	03/10/20 05:36	03/12/20 22:28	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1North-50**

**Lab Sample ID: 320-59289-5**

Date Collected: 03/06/20 10:04

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.4		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluoropentanoic acid (PFPeA)	3.0		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 22:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 22:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 22:37	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 22:37	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 22:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	79		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C5 PFPeA	83		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C2 PFHxA	90		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C4 PFHpA	86		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C4 PFOA	91		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C5 PFNA	96		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C2 PFDA	96		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C2 PFUnA	94		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C2 PFDoA	96		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C2 PFTeDA	83		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C3 PFBS	90		25 - 150	03/10/20 05:36	03/12/20 22:37	1
18O2 PFHxS	83		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C4 PFOS	85		25 - 150	03/10/20 05:36	03/12/20 22:37	1
13C8 FOSA	85		25 - 150	03/10/20 05:36	03/12/20 22:37	1
d3-NMeFOSAA	73		25 - 150	03/10/20 05:36	03/12/20 22:37	1
d5-NEtFOSAA	81		25 - 150	03/10/20 05:36	03/12/20 22:37	1
M2-6:2 FTS	109		25 - 150	03/10/20 05:36	03/12/20 22:37	1
M2-8:2 FTS	116		25 - 150	03/10/20 05:36	03/12/20 22:37	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1North-75**

**Lab Sample ID: 320-59289-6**

Date Collected: 03/06/20 10:06

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.1		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluoropentanoic acid (PFPeA)	2.2		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 20:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 20:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 20:32	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 20:32	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 20:32	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	79		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C5 PFPeA	79		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C2 PFHxA	85		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C4 PFHpA	84		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C4 PFOA	85		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C5 PFNA	89		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C2 PFDA	93		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C2 PFUnA	98		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C2 PFDoA	82		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C2 PFTeDA	82		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C3 PFBS	87		25 - 150				03/10/20 05:36	03/10/20 20:32	1
18O2 PFHxS	81		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C4 PFOS	83		25 - 150				03/10/20 05:36	03/10/20 20:32	1
13C8 FOSA	81		25 - 150				03/10/20 05:36	03/10/20 20:32	1
d3-NMeFOSAA	69		25 - 150				03/10/20 05:36	03/10/20 20:32	1
d5-NEtFOSAA	75		25 - 150				03/10/20 05:36	03/10/20 20:32	1
M2-6:2 FTS	99		25 - 150				03/10/20 05:36	03/10/20 20:32	1
M2-8:2 FTS	107		25 - 150				03/10/20 05:36	03/10/20 20:32	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2North-25**

**Lab Sample ID: 320-59289-7**

Date Collected: 03/06/20 10:32

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.1		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluoropentanoic acid (PFPeA)	3.0		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorohexanoic acid (PFHxA)	2.0		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorooctanoic acid (PFOA)	1.9		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorohexanesulfonic acid (PFHxS)	1.7		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorooctanesulfonic acid (PFOS)	1.7		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 22:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 22:46	1
6:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 22:46	1
8:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 22:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	64		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C5 PFPeA	76		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C2 PFHxA	87		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C4 PFHpA	82		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C4 PFOA	85		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C5 PFNA	85		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C2 PFDA	87		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C2 PFUnA	82		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C2 PFDoA	92		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C2 PFTeDA	93		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C3 PFBS	81		25 - 150	03/10/20 05:36	03/12/20 22:46	1
18O2 PFHxS	76		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C4 PFOS	79		25 - 150	03/10/20 05:36	03/12/20 22:46	1
13C8 FOSA	80		25 - 150	03/10/20 05:36	03/12/20 22:46	1
d3-NMeFOSAA	83		25 - 150	03/10/20 05:36	03/12/20 22:46	1
d5-NEtFOSAA	81		25 - 150	03/10/20 05:36	03/12/20 22:46	1
M2-6:2 FTS	110		25 - 150	03/10/20 05:36	03/12/20 22:46	1
M2-8:2 FTS	109		25 - 150	03/10/20 05:36	03/12/20 22:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2North-50**

**Lab Sample ID: 320-59289-8**

Date Collected: 03/06/20 10:33

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.0		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluoropentanoic acid (PFPeA)	2.9		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorohexanoic acid (PFHxA)	1.7		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 22:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 22:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 22:55	1
6:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 22:55	1
8:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 22:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	79		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C5 PFPeA	86		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C2 PFHxA	89		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C4 PFHpA	93		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C4 PFOA	89		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C5 PFNA	91		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C2 PFDA	97		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C2 PFUnA	89		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C2 PFDoA	91		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C2 PFTeDA	91		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C3 PFBS	85		25 - 150	03/10/20 05:36	03/12/20 22:55	1
18O2 PFHxS	85		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C4 PFOS	87		25 - 150	03/10/20 05:36	03/12/20 22:55	1
13C8 FOSA	89		25 - 150	03/10/20 05:36	03/12/20 22:55	1
d3-NMeFOSAA	78		25 - 150	03/10/20 05:36	03/12/20 22:55	1
d5-NEtFOSAA	84		25 - 150	03/10/20 05:36	03/12/20 22:55	1
M2-6:2 FTS	116		25 - 150	03/10/20 05:36	03/12/20 22:55	1
M2-8:2 FTS	119		25 - 150	03/10/20 05:36	03/12/20 22:55	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2North-75**

**Lab Sample ID: 320-59289-9**

Date Collected: 03/06/20 10:36

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.5		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluoropentanoic acid (PFPeA)	2.3		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/10/20 05:36	03/12/20 23:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 23:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L		03/10/20 05:36	03/12/20 23:04	1
6:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 23:04	1
8:2 FTS	ND		17		ng/L		03/10/20 05:36	03/12/20 23:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C5 PFPeA	80		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C2 PFHxA	88		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C4 PFHpA	90		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C4 PFOA	88		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C5 PFNA	83		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C2 PFDA	95		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C2 PFUnA	96		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C2 PFDoA	102		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C2 PFTeDA	96		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C3 PFBS	83		25 - 150	03/10/20 05:36	03/12/20 23:04	1
18O2 PFHxS	79		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C4 PFOS	84		25 - 150	03/10/20 05:36	03/12/20 23:04	1
13C8 FOSA	82		25 - 150	03/10/20 05:36	03/12/20 23:04	1
d3-NMeFOSAA	76		25 - 150	03/10/20 05:36	03/12/20 23:04	1
d5-NEtFOSAA	82		25 - 150	03/10/20 05:36	03/12/20 23:04	1
M2-6:2 FTS	116		25 - 150	03/10/20 05:36	03/12/20 23:04	1
M2-8:2 FTS	120		25 - 150	03/10/20 05:36	03/12/20 23:04	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-3North-25**

**Lab Sample ID: 320-59289-10**

Date Collected: 03/06/20 11:02

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.1		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluoropentanoic acid (PFPeA)	2.8		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorohexanoic acid (PFHxA)	1.9		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 21:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 21:27	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 21:27	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 21:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	66		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C5 PFPeA	77		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C2 PFHxA	83		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C4 PFHpA	84		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C4 PFOA	87		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C5 PFNA	87		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C2 PFDA	88		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C2 PFUnA	89		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C2 PFDoA	92		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C2 PFTeDA	84		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C3 PFBS	83		25 - 150	03/10/20 05:36	03/10/20 21:27	1
18O2 PFHxS	87		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C4 PFOS	86		25 - 150	03/10/20 05:36	03/10/20 21:27	1
13C8 FOSA	80		25 - 150	03/10/20 05:36	03/10/20 21:27	1
d3-NMeFOSAA	73		25 - 150	03/10/20 05:36	03/10/20 21:27	1
d5-NEtFOSAA	80		25 - 150	03/10/20 05:36	03/10/20 21:27	1
M2-6:2 FTS	111		25 - 150	03/10/20 05:36	03/10/20 21:27	1
M2-8:2 FTS	111		25 - 150	03/10/20 05:36	03/10/20 21:27	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-3North-50**

**Lab Sample ID: 320-59289-11**

Date Collected: 03/06/20 11:06

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.8		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluoropentanoic acid (PFPeA)	2.6		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/14/20 06:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/14/20 06:10	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/14/20 06:10	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/14/20 06:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C5 PFPeA	96		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C2 PFHxA	101		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C4 PFHpA	107		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C4 PFOA	107		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C5 PFNA	106		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C2 PFDA	102		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C2 PFUnA	117		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C2 PFDoA	106		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C2 PFTeDA	115		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C3 PFBS	105		25 - 150	03/10/20 05:36	03/14/20 06:10	1
18O2 PFHxS	108		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C4 PFOS	117		25 - 150	03/10/20 05:36	03/14/20 06:10	1
13C8 FOSA	114		25 - 150	03/10/20 05:36	03/14/20 06:10	1
d3-NMeFOSAA	97		25 - 150	03/10/20 05:36	03/14/20 06:10	1
d5-NEtFOSAA	101		25 - 150	03/10/20 05:36	03/14/20 06:10	1
M2-6:2 FTS	116		25 - 150	03/10/20 05:36	03/14/20 06:10	1
M2-8:2 FTS	128		25 - 150	03/10/20 05:36	03/14/20 06:10	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-3North-75**

**Lab Sample ID: 320-59289-12**

Date Collected: 03/06/20 11:08

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.5		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluoropentanoic acid (PFPeA)	1.8		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/14/20 06:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/14/20 06:20	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/14/20 06:20	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/14/20 06:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C5 PFPeA	92		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C2 PFHxA	102		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C4 PFHpA	103		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C4 PFOA	105		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C5 PFNA	92		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C2 PFDA	101		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C2 PFUnA	105		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C2 PFDoA	108		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C2 PFTeDA	101		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C3 PFBS	104		25 - 150	03/10/20 05:36	03/14/20 06:20	1
18O2 PFHxS	106		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C4 PFOS	109		25 - 150	03/10/20 05:36	03/14/20 06:20	1
13C8 FOSA	109		25 - 150	03/10/20 05:36	03/14/20 06:20	1
d3-NMeFOSAA	98		25 - 150	03/10/20 05:36	03/14/20 06:20	1
d5-NEtFOSAA	103		25 - 150	03/10/20 05:36	03/14/20 06:20	1
M2-6:2 FTS	109		25 - 150	03/10/20 05:36	03/14/20 06:20	1
M2-8:2 FTS	109		25 - 150	03/10/20 05:36	03/14/20 06:20	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1Raw**

**Lab Sample ID: 320-59289-13**

**Date Collected: 03/06/20 11:40**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.5		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluoropentanoic acid (PFPeA)	2.7		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorohexanoic acid (PFHxA)	2.3		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorooctanoic acid (PFOA)	2.5		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorobutanesulfonic acid (PFBS)	2.1		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorooctanesulfonic acid (PFOS)	3.6		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 21:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 21:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 21:55	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 21:55	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 21:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	68		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C5 PFPeA	84		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C2 PFHxA	90		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C4 PFHpA	95		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C4 PFOA	94		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C5 PFNA	93		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C2 PFDA	97		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C2 PFUnA	96		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C2 PFDoA	91		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C2 PFTeDA	86		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C3 PFBS	91		25 - 150	03/10/20 05:36	03/10/20 21:55	1
18O2 PFHxS	92		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C4 PFOS	94		25 - 150	03/10/20 05:36	03/10/20 21:55	1
13C8 FOSA	90		25 - 150	03/10/20 05:36	03/10/20 21:55	1
d3-NMeFOSAA	79		25 - 150	03/10/20 05:36	03/10/20 21:55	1
d5-NEtFOSAA	87		25 - 150	03/10/20 05:36	03/10/20 21:55	1
M2-6:2 FTS	128		25 - 150	03/10/20 05:36	03/10/20 21:55	1
M2-8:2 FTS	134		25 - 150	03/10/20 05:36	03/10/20 21:55	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2Raw**

**Lab Sample ID: 320-59289-14**

**Date Collected: 03/06/20 11:52**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.2		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluoropentanoic acid (PFPeA)	6.1		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorohexanoic acid (PFHxA)	3.5		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluoroheptanoic acid (PFHpA)	2.2		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorooctanoic acid (PFOA)	2.9		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorohexanesulfonic acid (PFHxS)	3.3		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorooctanesulfonic acid (PFOS)	2.8		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 22:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 22:04	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 22:04	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 22:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	61		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C5 PFPeA	80		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C2 PFHxA	88		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C4 PFHpA	90		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C4 PFOA	92		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C5 PFNA	88		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C2 PFDA	90		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C2 PFUnA	91		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C2 PFDoA	90		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C2 PFTeDA	99		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C3 PFBS	89		25 - 150	03/10/20 05:36	03/10/20 22:04	1
18O2 PFHxS	88		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C4 PFOS	86		25 - 150	03/10/20 05:36	03/10/20 22:04	1
13C8 FOSA	84		25 - 150	03/10/20 05:36	03/10/20 22:04	1
d3-NMeFOSAA	74		25 - 150	03/10/20 05:36	03/10/20 22:04	1
d5-NEtFOSAA	78		25 - 150	03/10/20 05:36	03/10/20 22:04	1
M2-6:2 FTS	119		25 - 150	03/10/20 05:36	03/10/20 22:04	1
M2-8:2 FTS	114		25 - 150	03/10/20 05:36	03/10/20 22:04	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-3Raw**

**Lab Sample ID: 320-59289-15**

Date Collected: 03/06/20 12:05

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.8		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluoropentanoic acid (PFPeA)	4.6		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorohexanoic acid (PFHxA)	3.0		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluoroheptanoic acid (PFHpA)	1.8		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorooctanoic acid (PFOA)	2.9		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorohexanesulfonic acid (PFHxS)	3.3		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorooctanesulfonic acid (PFOS)	5.4		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 22:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 22:13	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 22:13	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 22:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	67		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C5 PFPeA	86		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C2 PFHxA	96		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C4 PFHpA	102		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C4 PFOA	89		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C5 PFNA	100		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C2 PFDA	86		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C2 PFUnA	102		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C2 PFDoA	102		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C2 PFTeDA	85		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C3 PFBS	93		25 - 150	03/10/20 05:36	03/10/20 22:13	1
18O2 PFHxS	95		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C4 PFOS	97		25 - 150	03/10/20 05:36	03/10/20 22:13	1
13C8 FOSA	90		25 - 150	03/10/20 05:36	03/10/20 22:13	1
d3-NMeFOSAA	76		25 - 150	03/10/20 05:36	03/10/20 22:13	1
d5-NEtFOSAA	83		25 - 150	03/10/20 05:36	03/10/20 22:13	1
M2-6:2 FTS	130		25 - 150	03/10/20 05:36	03/10/20 22:13	1
M2-8:2 FTS	129		25 - 150	03/10/20 05:36	03/10/20 22:13	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1South-25**

**Lab Sample ID: 320-59289-16**

**Date Collected: 03/06/20 10:10**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>3.2</b>		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/10/20 22:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 22:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/10/20 22:40	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 22:40	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/10/20 22:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	77		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C5 PFPeA	76		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C2 PFHxA	82		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C4 PFHpA	78		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C4 PFOA	84		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C5 PFNA	76		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C2 PFDA	81		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C2 PFUnA	84		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C2 PFDoA	78		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C2 PFTeDA	71		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C3 PFBS	81		25 - 150	03/10/20 05:36	03/10/20 22:40	1
18O2 PFHxS	79		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C4 PFOS	80		25 - 150	03/10/20 05:36	03/10/20 22:40	1
13C8 FOSA	76		25 - 150	03/10/20 05:36	03/10/20 22:40	1
d3-NMeFOSAA	71		25 - 150	03/10/20 05:36	03/10/20 22:40	1
d5-NEtFOSAA	75		25 - 150	03/10/20 05:36	03/10/20 22:40	1
M2-6:2 FTS	107		25 - 150	03/10/20 05:36	03/10/20 22:40	1
M2-8:2 FTS	107		25 - 150	03/10/20 05:36	03/10/20 22:40	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1South-50**

**Lab Sample ID: 320-59289-17**

**Date Collected: 03/06/20 10:12**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>2.9</b>		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/12/20 23:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 23:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/12/20 23:13	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 23:13	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/12/20 23:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	79		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C5 PFPeA	81		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C2 PFHxA	87		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C4 PFHpA	91		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C4 PFOA	94		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C5 PFNA	92		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C2 PFDA	94		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C2 PFUnA	94		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C2 PFDoA	93		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C2 PFTeDA	92		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C3 PFBS	82		25 - 150	03/10/20 05:36	03/12/20 23:13	1
18O2 PFHxS	81		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C4 PFOS	82		25 - 150	03/10/20 05:36	03/12/20 23:13	1
13C8 FOSA	84		25 - 150	03/10/20 05:36	03/12/20 23:13	1
d3-NMeFOSAA	78		25 - 150	03/10/20 05:36	03/12/20 23:13	1
d5-NEtFOSAA	85		25 - 150	03/10/20 05:36	03/12/20 23:13	1
M2-6:2 FTS	188	*5	25 - 150	03/10/20 05:36	03/12/20 23:13	1
M2-8:2 FTS	134		25 - 150	03/10/20 05:36	03/12/20 23:13	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1South-75**

**Lab Sample ID: 320-59289-18**

**Date Collected: 03/06/20 10:14**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 22:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L		03/10/20 05:36	03/10/20 22:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L		03/10/20 05:36	03/10/20 22:58	1
6:2 FTS	ND		17		ng/L		03/10/20 05:36	03/10/20 22:58	1
8:2 FTS	ND		17		ng/L		03/10/20 05:36	03/10/20 22:58	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	90		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C5 PFPeA	87		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C2 PFHxA	93		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C4 PFHpA	98		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C4 PFOA	97		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C5 PFNA	97		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C2 PFDA	109		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C2 PFUnA	102		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C2 PFDoA	106		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C2 PFTeDA	101		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C3 PFBS	96		25 - 150	03/10/20 05:36	03/10/20 22:58	1
18O2 PFHxS	95		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C4 PFOS	97		25 - 150	03/10/20 05:36	03/10/20 22:58	1
13C8 FOSA	94		25 - 150	03/10/20 05:36	03/10/20 22:58	1
d3-NMeFOSAA	85		25 - 150	03/10/20 05:36	03/10/20 22:58	1
d5-NEtFOSAA	93		25 - 150	03/10/20 05:36	03/10/20 22:58	1
M2-6:2 FTS	125		25 - 150	03/10/20 05:36	03/10/20 22:58	1
M2-8:2 FTS	144		25 - 150	03/10/20 05:36	03/10/20 22:58	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2South-25**

**Lab Sample ID: 320-59289-19**

**Date Collected: 03/06/20 10:46**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>3.5</b>		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:36	03/14/20 06:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:36	03/14/20 06:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:36	03/14/20 06:29	1
6:2 FTS	ND		18		ng/L		03/10/20 05:36	03/14/20 06:29	1
8:2 FTS	ND		18		ng/L		03/10/20 05:36	03/14/20 06:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	90		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C5 PFPeA	93		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C2 PFHxA	98		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C4 PFHpA	104		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C4 PFOA	98		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C5 PFNA	100		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C2 PFDA	97		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C2 PFUnA	96		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C2 PFDoA	96		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C2 PFTeDA	113		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C3 PFBS	104		25 - 150	03/10/20 05:36	03/14/20 06:29	1
18O2 PFHxS	109		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C4 PFOS	106		25 - 150	03/10/20 05:36	03/14/20 06:29	1
13C8 FOSA	103		25 - 150	03/10/20 05:36	03/14/20 06:29	1
d3-NMeFOSAA	88		25 - 150	03/10/20 05:36	03/14/20 06:29	1
d5-NEtFOSAA	97		25 - 150	03/10/20 05:36	03/14/20 06:29	1
M2-6:2 FTS	115		25 - 150	03/10/20 05:36	03/14/20 06:29	1
M2-8:2 FTS	106		25 - 150	03/10/20 05:36	03/14/20 06:29	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2South-50**

**Lab Sample ID: 320-59289-20**

**Date Collected: 03/06/20 10:48**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>2.8</b>		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/10/20 05:36	03/10/20 23:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L		03/10/20 05:36	03/10/20 23:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L		03/10/20 05:36	03/10/20 23:17	1
6:2 FTS	ND		17		ng/L		03/10/20 05:36	03/10/20 23:17	1
8:2 FTS	ND		17		ng/L		03/10/20 05:36	03/10/20 23:17	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	65		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C5 PFPeA	66		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C2 PFHxA	69		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C4 PFHpA	70		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C4 PFOA	66		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C5 PFNA	74		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C2 PFDA	70		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C2 PFUnA	66		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C2 PFDoA	77		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C2 PFTeDA	74		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C3 PFBS	71		25 - 150	03/10/20 05:36	03/10/20 23:17	1
18O2 PFHxS	71		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C4 PFOS	74		25 - 150	03/10/20 05:36	03/10/20 23:17	1
13C8 FOSA	75		25 - 150	03/10/20 05:36	03/10/20 23:17	1
d3-NMeFOSAA	68		25 - 150	03/10/20 05:36	03/10/20 23:17	1
d5-NEtFOSAA	65		25 - 150	03/10/20 05:36	03/10/20 23:17	1
M2-6:2 FTS	88		25 - 150	03/10/20 05:36	03/10/20 23:17	1
M2-8:2 FTS	112		25 - 150	03/10/20 05:36	03/10/20 23:17	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2South-75**

**Lab Sample ID: 320-59289-21**

**Date Collected: 03/06/20 10:50**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 09:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:45	03/11/20 09:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:45	03/11/20 09:54	1
6:2 FTS	ND		18		ng/L		03/10/20 05:45	03/11/20 09:54	1
8:2 FTS	ND		18		ng/L		03/10/20 05:45	03/11/20 09:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	95		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C5 PFPeA	90		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C2 PFHxA	94		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C4 PFHpA	88		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C4 PFOA	91		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C5 PFNA	83		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C2 PFDA	85		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C2 PFUnA	90		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C2 PFDoA	77		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C2 PFTeDA	77		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C3 PFBS	98		25 - 150	03/10/20 05:45	03/11/20 09:54	1
18O2 PFHxS	101		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C4 PFOS	102		25 - 150	03/10/20 05:45	03/11/20 09:54	1
13C8 FOSA	95		25 - 150	03/10/20 05:45	03/11/20 09:54	1
d3-NMeFOSAA	72		25 - 150	03/10/20 05:45	03/11/20 09:54	1
d5-NEtFOSAA	81		25 - 150	03/10/20 05:45	03/11/20 09:54	1
M2-6:2 FTS	92		25 - 150	03/10/20 05:45	03/11/20 09:54	1
M2-8:2 FTS	100		25 - 150	03/10/20 05:45	03/11/20 09:54	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-3South-25**

**Lab Sample ID: 320-59289-22**

**Date Collected: 03/06/20 11:16**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>3.9</b>		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:45	03/11/20 10:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:45	03/11/20 10:04	1
6:2 FTS	ND		18		ng/L		03/10/20 05:45	03/11/20 10:04	1
8:2 FTS	ND		18		ng/L		03/10/20 05:45	03/11/20 10:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	92		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C5 PFPeA	86		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C2 PFHxA	89		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C4 PFHpA	87		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C4 PFOA	83		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C5 PFNA	82		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C2 PFDA	79		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C2 PFUnA	81		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C2 PFDoA	70		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C2 PFTeDA	69		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C3 PFBS	96		25 - 150	03/10/20 05:45	03/11/20 10:04	1
18O2 PFHxS	93		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C4 PFOS	96		25 - 150	03/10/20 05:45	03/11/20 10:04	1
13C8 FOSA	88		25 - 150	03/10/20 05:45	03/11/20 10:04	1
d3-NMeFOSAA	77		25 - 150	03/10/20 05:45	03/11/20 10:04	1
d5-NEtFOSAA	75		25 - 150	03/10/20 05:45	03/11/20 10:04	1
M2-6:2 FTS	91		25 - 150	03/10/20 05:45	03/11/20 10:04	1
M2-8:2 FTS	95		25 - 150	03/10/20 05:45	03/11/20 10:04	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-3South-50**

**Lab Sample ID: 320-59289-23**

Date Collected: 03/06/20 11:18

Matrix: Water

Date Received: 03/07/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>2.3</b>		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/10/20 05:45	03/11/20 10:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L		03/10/20 05:45	03/11/20 10:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L		03/10/20 05:45	03/11/20 10:13	1
6:2 FTS	ND		17		ng/L		03/10/20 05:45	03/11/20 10:13	1
8:2 FTS	ND		17		ng/L		03/10/20 05:45	03/11/20 10:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C5 PFPeA	97		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C2 PFHxA	100		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C4 PFHpA	93		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C4 PFOA	90		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C5 PFNA	94		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C2 PFDA	88		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C2 PFUnA	90		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C2 PFDoA	73		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C2 PFTeDA	81		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C3 PFBS	97		25 - 150	03/10/20 05:45	03/11/20 10:13	1
18O2 PFHxS	100		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C4 PFOS	101		25 - 150	03/10/20 05:45	03/11/20 10:13	1
13C8 FOSA	101		25 - 150	03/10/20 05:45	03/11/20 10:13	1
d3-NMeFOSAA	75		25 - 150	03/10/20 05:45	03/11/20 10:13	1
d5-NEtFOSAA	84		25 - 150	03/10/20 05:45	03/11/20 10:13	1
M2-6:2 FTS	98		25 - 150	03/10/20 05:45	03/11/20 10:13	1
M2-8:2 FTS	109		25 - 150	03/10/20 05:45	03/11/20 10:13	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-3South-75**

**Lab Sample ID: 320-59289-24**

**Date Collected: 03/06/20 11:20**

**Matrix: Water**

**Date Received: 03/07/20 09:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/10/20 05:45	03/11/20 10:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L		03/10/20 05:45	03/11/20 10:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L		03/10/20 05:45	03/11/20 10:22	1
6:2 FTS	ND		18		ng/L		03/10/20 05:45	03/11/20 10:22	1
8:2 FTS	ND		18		ng/L		03/10/20 05:45	03/11/20 10:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	108		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C5 PFPeA	98		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C2 PFHxA	102		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C4 PFHpA	98		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C4 PFOA	98		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C5 PFNA	98		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C2 PFDA	93		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C2 PFUnA	99		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C2 PFDoA	72		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C2 PFTeDA	90		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C3 PFBS	103		25 - 150	03/10/20 05:45	03/11/20 10:22	1
18O2 PFHxS	106		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C4 PFOS	106		25 - 150	03/10/20 05:45	03/11/20 10:22	1
13C8 FOSA	106		25 - 150	03/10/20 05:45	03/11/20 10:22	1
d3-NMeFOSAA	86		25 - 150	03/10/20 05:45	03/11/20 10:22	1
d5-NEtFOSAA	90		25 - 150	03/10/20 05:45	03/11/20 10:22	1
M2-6:2 FTS	106		25 - 150	03/10/20 05:45	03/11/20 10:22	1
M2-8:2 FTS	117		25 - 150	03/10/20 05:45	03/11/20 10:22	1

# Isotope Dilution Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-59289-1	BH20200306PRE-GAC	62	77	85	87	86	83	82	81
320-59289-2	BH20200306POST-GACDUP	94	95	94	99	97	98	101	100
320-59289-3	BH20200306POST-GAC	81	81	86	86	88	88	79	91
320-59289-3 MS	BH20200306POST-GAC	78	79	87	84	87	87	93	88
320-59289-3 MSD	BH20200306POST-GAC	85	88	93	95	92	94	87	104
320-59289-4	BH20200306-1North-25	68	77	84	86	90	89	89	94
320-59289-5	BH20200306-1North-50	79	83	90	86	91	96	96	94
320-59289-6	BH20200306-1North-75	79	79	85	84	85	89	93	98
320-59289-7	BH20200306-2North-25	64	76	87	82	85	85	87	82
320-59289-8	BH20200306-2North-50	79	86	89	93	89	91	97	89
320-59289-9	BH20200306-2North-75	81	80	88	90	88	83	95	96
320-59289-10	BH20200306-3North-25	66	77	83	84	87	87	88	89
320-59289-11	BH20200306-3North-50	89	96	101	107	107	106	102	117
320-59289-12	BH20200306-3North-75	93	92	102	103	105	92	101	105
320-59289-13	BH20200306-1Raw	68	84	90	95	94	93	97	96
320-59289-14	BH20200306-2Raw	61	80	88	90	92	88	90	91
320-59289-15	BH20200306-3Raw	67	86	96	102	89	100	86	102
320-59289-16	BH20200306-1South-25	77	76	82	78	84	76	81	84
320-59289-17	BH20200306-1South-50	79	81	87	91	94	92	94	94
320-59289-18	BH20200306-1South-75	90	87	93	98	97	97	109	102
320-59289-19	BH20200306-2South-25	90	93	98	104	98	100	97	96
320-59289-20	BH20200306-2South-50	65	66	69	70	66	74	70	66
320-59289-21	BH20200306-2South-75	95	90	94	88	91	83	85	90
320-59289-22	BH20200306-3South-25	92	86	89	87	83	82	79	81
320-59289-23	BH20200306-3South-50	101	97	100	93	90	94	88	90
320-59289-24	BH20200306-3South-75	108	98	102	98	98	98	93	99
LCS 320-363230/2-A	Lab Control Sample	82	85	87	87	87	90	91	89
LCS 320-363231/2-A	Lab Control Sample	96	86	93	88	89	84	82	91
LCSD 320-363231/3-A	Lab Control Sample Dup	85	80	80	80	79	77	73	74
MB 320-363230/1-A	Method Blank	87	88	95	96	95	94	91	102
MB 320-363231/1-A	Method Blank	94	95	94	91	89	88	85	91

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		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)
320-59289-1	BH20200306PRE-GAC	88	94	83	83	85	82	69	79
320-59289-2	BH20200306POST-GACDUP	102	112	99	90	92	91	81	87
320-59289-3	BH20200306POST-GAC	89	87	87	79	82	78	72	76
320-59289-3 MS	BH20200306POST-GAC	78	87	82	79	81	80	74	76
320-59289-3 MSD	BH20200306POST-GAC	94	81	92	89	86	88	80	81
320-59289-4	BH20200306-1North-25	88	90	78	80	81	82	75	81
320-59289-5	BH20200306-1North-50	96	83	90	83	85	85	73	81
320-59289-6	BH20200306-1North-75	82	82	87	81	83	81	69	75
320-59289-7	BH20200306-2North-25	92	93	81	76	79	80	83	81
320-59289-8	BH20200306-2North-50	91	91	85	85	87	89	78	84
320-59289-9	BH20200306-2North-75	102	96	83	79	84	82	76	82
320-59289-10	BH20200306-3North-25	92	84	83	87	86	80	73	80
320-59289-11	BH20200306-3North-50	106	115	105	108	117	114	97	101
320-59289-12	BH20200306-3North-75	108	101	104	106	109	109	98	103
320-59289-13	BH20200306-1Raw	91	86	91	92	94	90	79	87

Eurofins TestAmerica, Sacramento

# Isotope Dilution Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	3C3-PFB: (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	-NMeFOS/ (25-150)	-NEtFOS/ (25-150)
320-59289-14	BH20200306-2Raw	90	99	89	88	86	84	74	78
320-59289-15	BH20200306-3Raw	102	85	93	95	97	90	76	83
320-59289-16	BH20200306-1South-25	78	71	81	79	80	76	71	75
320-59289-17	BH20200306-1South-50	93	92	82	81	82	84	78	85
320-59289-18	BH20200306-1South-75	106	101	96	95	97	94	85	93
320-59289-19	BH20200306-2South-25	96	113	104	109	106	103	88	97
320-59289-20	BH20200306-2South-50	77	74	71	71	74	75	68	65
320-59289-21	BH20200306-2South-75	77	77	98	101	102	95	72	81
320-59289-22	BH20200306-3South-25	70	69	96	93	96	88	77	75
320-59289-23	BH20200306-3South-50	73	81	97	100	101	101	75	84
320-59289-24	BH20200306-3South-75	72	90	103	106	106	106	86	90
LCS 320-363230/2-A	Lab Control Sample	103	98	88	87	87	88	78	83
LCS 320-363231/2-A	Lab Control Sample	81	80	97	96	94	90	75	83
LCSD 320-363231/3-A	Lab Control Sample Dup	64	63	89	87	87	84	67	72
MB 320-363230/1-A	Method Blank	100	99	93	90	93	93	80	87
MB 320-363231/1-A	Method Blank	80	76	95	96	99	96	82	79

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)
320-59289-1	BH20200306PRE-GAC	107	112
320-59289-2	BH20200306POST-GACDUP	110	123
320-59289-3	BH20200306POST-GAC	102	108
320-59289-3 MS	BH20200306POST-GAC	97	104
320-59289-3 MSD	BH20200306POST-GAC	109	115
320-59289-4	BH20200306-1North-25	131	118
320-59289-5	BH20200306-1North-50	109	116
320-59289-6	BH20200306-1North-75	99	107
320-59289-7	BH20200306-2North-25	110	109
320-59289-8	BH20200306-2North-50	116	119
320-59289-9	BH20200306-2North-75	116	120
320-59289-10	BH20200306-3North-25	111	111
320-59289-11	BH20200306-3North-50	116	128
320-59289-12	BH20200306-3North-75	109	109
320-59289-13	BH20200306-1Raw	128	134
320-59289-14	BH20200306-2Raw	119	114
320-59289-15	BH20200306-3Raw	130	129
320-59289-16	BH20200306-1South-25	107	107
320-59289-17	BH20200306-1South-50	188 *5	134
320-59289-18	BH20200306-1South-75	125	144
320-59289-19	BH20200306-2South-25	115	106
320-59289-20	BH20200306-2South-50	88	112
320-59289-21	BH20200306-2South-75	92	100
320-59289-22	BH20200306-3South-25	91	95
320-59289-23	BH20200306-3South-50	98	109
320-59289-24	BH20200306-3South-75	106	117
LCS 320-363230/2-A	Lab Control Sample	103	114
LCS 320-363231/2-A	Lab Control Sample	86	90
LCSD 320-363231/3-A	Lab Control Sample Dup	79	87
MB 320-363230/1-A	Method Blank	115	128
MB 320-363231/1-A	Method Blank	84	98

Eurofins TestAmerica, Sacramento

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## 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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: MB 320-363230/1-A**  
**Matrix: Water**  
**Analysis Batch: 364181**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 363230**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		03/10/20 05:36	03/12/20 22:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20		ng/L		03/10/20 05:36	03/12/20 22:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20		ng/L		03/10/20 05:36	03/12/20 22:00	1
6:2 FTS	ND		20		ng/L		03/10/20 05:36	03/12/20 22:00	1
8:2 FTS	ND		20		ng/L		03/10/20 05:36	03/12/20 22:00	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	87		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C5 PFPeA	88		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C2 PFHxA	95		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C4 PFHpA	96		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C4 PFOA	95		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C5 PFNA	94		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C2 PFDA	91		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C2 PFUnA	102		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C2 PFDoA	100		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C2 PFTeDA	99		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C3 PFBS	93		25 - 150	03/10/20 05:36	03/12/20 22:00	1
18O2 PFHxS	90		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C4 PFOS	93		25 - 150	03/10/20 05:36	03/12/20 22:00	1
13C8 FOSA	93		25 - 150	03/10/20 05:36	03/12/20 22:00	1
d3-NMeFOSAA	80		25 - 150	03/10/20 05:36	03/12/20 22:00	1
d5-NEtFOSAA	87		25 - 150	03/10/20 05:36	03/12/20 22:00	1
M2-6:2 FTS	115		25 - 150	03/10/20 05:36	03/12/20 22:00	1
M2-8:2 FTS	128		25 - 150	03/10/20 05:36	03/12/20 22:00	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: LCS 320-363230/2-A**  
**Matrix: Water**  
**Analysis Batch: 363812**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 363230**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	39.8		ng/L		99	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	38.8		ng/L		97	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.3		ng/L		98	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	40.8		ng/L		102	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	37.2		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	40.0	38.0		ng/L		95	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	38.6		ng/L		96	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	32.0		ng/L		80	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	36.8		ng/L		92	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	33.9		ng/L		85	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	33.8		ng/L		96	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.8		ng/L		90	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.4		ng/L		101	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	35.1		ng/L		95	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	35.5		ng/L		92	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	38.2		ng/L		96	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.4		ng/L		99	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.6		ng/L		92	76 - 136
6:2 FTS	37.9	35.5		ng/L		94	59 - 175
8:2 FTS	38.3	35.2		ng/L		92	75 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	82		25 - 150
13C5 PFPeA	85		25 - 150
13C2 PFHxA	87		25 - 150
13C4 PFHpA	87		25 - 150
13C4 PFOA	87		25 - 150
13C5 PFNA	90		25 - 150
13C2 PFDA	91		25 - 150
13C2 PFUnA	89		25 - 150
13C2 PFDoA	103		25 - 150
13C2 PFTeA	98		25 - 150
13C3 PFBS	88		25 - 150
18O2 PFHxS	87		25 - 150
13C4 PFOS	87		25 - 150
13C8 FOSA	88		25 - 150
d3-NMeFOSAA	78		25 - 150
d5-NEtFOSAA	83		25 - 150

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: LCS 320-363230/2-A**  
**Matrix: Water**  
**Analysis Batch: 363812**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 363230**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
M2-6:2 FTS	103		25 - 150
M2-8:2 FTS	114		25 - 150

**Lab Sample ID: 320-59289-3 MS**  
**Matrix: Water**  
**Analysis Batch: 363812**

**Client Sample ID: BH20200306POST-GAC**  
**Prep Type: Total/NA**  
**Prep Batch: 363230**

<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>Spike Added</b>	<b>MS Result</b>	<b>MS Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>
Perfluorobutanoic acid (PFBA)	1.9		35.5	36.3		ng/L		97	76 - 136
Perfluoropentanoic acid (PFPeA)	ND		35.5	34.5		ng/L		97	71 - 131
Perfluorohexanoic acid (PFHxA)	ND		35.5	32.2		ng/L		91	73 - 133
Perfluoroheptanoic acid (PFHpA)	ND		35.5	32.3		ng/L		91	72 - 132
Perfluorooctanoic acid (PFOA)	ND		35.5	30.9		ng/L		87	70 - 130
Perfluorononanoic acid (PFNA)	ND		35.5	33.8		ng/L		95	75 - 135
Perfluorodecanoic acid (PFDA)	ND		35.5	29.0		ng/L		82	76 - 136
Perfluoroundecanoic acid (PFUnA)	ND		35.5	29.4		ng/L		83	68 - 128
Perfluorododecanoic acid (PFDoA)	ND		35.5	41.4		ng/L		117	71 - 131
Perfluorotridecanoic acid (PFTriA)	ND		35.5	43.1		ng/L		121	71 - 131
Perfluorotetradecanoic acid (PFTeA)	ND		35.5	37.5		ng/L		106	70 - 130
Perfluorobutanesulfonic acid (PFBS)	ND		31.4	29.5		ng/L		94	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	ND		32.3	29.0		ng/L		89	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	ND		33.8	34.1		ng/L		101	76 - 136
Perfluorooctanesulfonic acid (PFOS)	ND		33.0	30.1		ng/L		88	70 - 130
Perfluorodecanesulfonic acid (PFDS)	ND		34.2	30.8		ng/L		90	71 - 131
Perfluorooctanesulfonamide (FOSA)	ND		35.5	32.8		ng/L		92	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		35.5	33.6		ng/L		95	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		35.5	33.7		ng/L		95	76 - 136
6:2 FTS	ND		33.7	31.6		ng/L		94	59 - 175
8:2 FTS	ND		34.0	30.9		ng/L		91	75 - 135

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS Qualifier</i>	<i>Limits</i>
13C4 PFBA	78		25 - 150
13C5 PFPeA	79		25 - 150
13C2 PFHxA	87		25 - 150
13C4 PFHpA	84		25 - 150
13C4 PFOA	87		25 - 150
13C5 PFNA	87		25 - 150
13C2 PFDA	93		25 - 150
13C2 PFUnA	88		25 - 150
13C2 PFDoA	78		25 - 150

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: 320-59289-3 MS**  
**Matrix: Water**  
**Analysis Batch: 363812**

**Client Sample ID: BH20200306POST-GAC**  
**Prep Type: Total/NA**  
**Prep Batch: 363230**

<i>Isotope Dilution</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
13C2 PFTeDA	87		25 - 150
13C3 PFBS	82		25 - 150
18O2 PFHxS	79		25 - 150
13C4 PFOS	81		25 - 150
13C8 FOSA	80		25 - 150
d3-NMeFOSAA	74		25 - 150
d5-NEtFOSAA	76		25 - 150
M2-6:2 FTS	97		25 - 150
M2-8:2 FTS	104		25 - 150

**Lab Sample ID: 320-59289-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 363812**

**Client Sample ID: BH20200306POST-GAC**  
**Prep Type: Total/NA**  
**Prep Batch: 363230**

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
Perfluorobutanoic acid (PFBA)	1.9		36.6	37.8		ng/L		98	76 - 136	4	30
Perfluoropentanoic acid (PFPeA)	ND		36.6	35.7		ng/L		98	71 - 131	3	30
Perfluorohexanoic acid (PFHxA)	ND		36.6	35.4		ng/L		97	73 - 133	9	30
Perfluoroheptanoic acid (PFHpA)	ND		36.6	35.8		ng/L		98	72 - 132	10	30
Perfluorooctanoic acid (PFOA)	ND		36.6	32.2		ng/L		88	70 - 130	4	30
Perfluorononanoic acid (PFNA)	ND		36.6	35.9		ng/L		98	75 - 135	6	30
Perfluorodecanoic acid (PFDA)	ND		36.6	34.6		ng/L		94	76 - 136	17	30
Perfluoroundecanoic acid (PFUnA)	ND		36.6	29.1		ng/L		79	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)	ND		36.6	31.9		ng/L		87	71 - 131	26	30
Perfluorotridecanoic acid (PFTriA)	ND		36.6	35.7		ng/L		97	71 - 131	19	30
Perfluorotetradecanoic acid (PFTeA)	ND		36.6	36.5		ng/L		100	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	ND		32.4	30.7		ng/L		95	67 - 127	4	30
Perfluorohexanesulfonic acid (PFHxS)	ND		33.3	30.0		ng/L		89	59 - 119	3	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		34.9	37.3		ng/L		107	76 - 136	9	30
Perfluorooctanesulfonic acid (PFOS)	ND		34.0	33.0		ng/L		93	70 - 130	9	30
Perfluorodecanesulfonic acid (PFDS)	ND		35.3	32.6		ng/L		92	71 - 131	6	30
Perfluorooctanesulfonamide (FOSA)	ND		36.6	34.2		ng/L		93	73 - 133	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		36.6	35.7		ng/L		97	76 - 136	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		36.6	33.9		ng/L		93	76 - 136	1	30
6:2 FTS	ND		34.7	33.0		ng/L		95	59 - 175	4	30
8:2 FTS	ND		35.1	33.4		ng/L		95	75 - 135	8	30

<i>Isotope Dilution</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
13C4 PFBA	85		25 - 150
13C5 PFPeA	88		25 - 150

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: 320-59289-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 363812**

**Client Sample ID: BH20200306POST-GAC**  
**Prep Type: Total/NA**  
**Prep Batch: 363230**

<i>Isotope Dilution</i>	<i>MSD %Recovery</i>	<i>MSD Qualifier</i>	<i>Limits</i>
13C2 PFHxA	93		25 - 150
13C4 PFHpA	95		25 - 150
13C4 PFOA	92		25 - 150
13C5 PFNA	94		25 - 150
13C2 PFDA	87		25 - 150
13C2 PFUnA	104		25 - 150
13C2 PFDoA	94		25 - 150
13C2 PFTeDA	81		25 - 150
13C3 PFBS	92		25 - 150
18O2 PFHxS	89		25 - 150
13C4 PFOS	86		25 - 150
13C8 FOSA	88		25 - 150
d3-NMeFOSAA	80		25 - 150
d5-NEtFOSAA	81		25 - 150
M2-6:2 FTS	109		25 - 150
M2-8:2 FTS	115		25 - 150

**Lab Sample ID: MB 320-363231/1-A**  
**Matrix: Water**  
**Analysis Batch: 363536**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 363231**

<b>Analyte</b>	<b>MB Result</b>	<b>MB Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Perfluorobutanoic acid (PFBA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		03/10/20 05:45	03/11/20 09:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20		ng/L		03/10/20 05:45	03/11/20 09:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20		ng/L		03/10/20 05:45	03/11/20 09:27	1
6:2 FTS	ND		20		ng/L		03/10/20 05:45	03/11/20 09:27	1
8:2 FTS	ND		20		ng/L		03/10/20 05:45	03/11/20 09:27	1

<i>Isotope Dilution</i>	<i>MB %Recovery</i>	<i>MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	94		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C5 PFPeA	95		25 - 150	03/10/20 05:45	03/11/20 09:27	1

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: MB 320-363231/1-A**  
**Matrix: Water**  
**Analysis Batch: 363536**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 363231**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFHxA	94		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C4 PFHpA	91		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C4 PFOA	89		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C5 PFNA	88		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C2 PFDA	85		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C2 PFUnA	91		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C2 PFDoA	80		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C2 PFTeDA	76		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C3 PFBS	95		25 - 150	03/10/20 05:45	03/11/20 09:27	1
18O2 PFHxS	96		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C4 PFOS	99		25 - 150	03/10/20 05:45	03/11/20 09:27	1
13C8 FOSA	96		25 - 150	03/10/20 05:45	03/11/20 09:27	1
d3-NMeFOSAA	82		25 - 150	03/10/20 05:45	03/11/20 09:27	1
d5-NEtFOSAA	79		25 - 150	03/10/20 05:45	03/11/20 09:27	1
M2-6:2 FTS	84		25 - 150	03/10/20 05:45	03/11/20 09:27	1
M2-8:2 FTS	98		25 - 150	03/10/20 05:45	03/11/20 09:27	1

**Lab Sample ID: LCS 320-363231/2-A**  
**Matrix: Water**  
**Analysis Batch: 363536**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 363231**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	38.7		ng/L		97	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	39.2		ng/L		98	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	36.5		ng/L		91	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	38.1		ng/L		95	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	36.3		ng/L		91	70 - 130
Perfluorononanoic acid (PFNA)	40.0	38.8		ng/L		97	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	41.0		ng/L		103	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	32.6		ng/L		81	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	34.8		ng/L		87	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	44.7		ng/L		112	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	35.4		ng/L		88	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	32.4		ng/L		92	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.6		ng/L		90	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.4		ng/L		103	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	35.7		ng/L		96	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	39.1		ng/L		101	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	38.8		ng/L		97	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	48.7		ng/L		122	76 - 136

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: LCS 320-363231/2-A**  
**Matrix: Water**  
**Analysis Batch: 363536**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 363231**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-ethylperfluorooctanesulfonami doacetic acid (NETFOSAA)	40.0	38.6		ng/L		97	76 - 136
6:2 FTS	37.9	34.1		ng/L		90	59 - 175
8:2 FTS	38.3	34.8		ng/L		91	75 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	96		25 - 150
13C5 PFPeA	86		25 - 150
13C2 PFHxA	93		25 - 150
13C4 PFHpA	88		25 - 150
13C4 PFOA	89		25 - 150
13C5 PFNA	84		25 - 150
13C2 PFDA	82		25 - 150
13C2 PFUnA	91		25 - 150
13C2 PFDoA	81		25 - 150
13C2 PFTeDA	80		25 - 150
13C3 PFBS	97		25 - 150
18O2 PFHxS	96		25 - 150
13C4 PFOS	94		25 - 150
13C8 FOSA	90		25 - 150
d3-NMeFOSAA	75		25 - 150
d5-NEtFOSAA	83		25 - 150
M2-6:2 FTS	86		25 - 150
M2-8:2 FTS	90		25 - 150

**Lab Sample ID: LCSD 320-363231/3-A**  
**Matrix: Water**  
**Analysis Batch: 363536**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 363231**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	41.0		ng/L		102	76 - 136	6	30
Perfluoropentanoic acid (PFPeA)	40.0	40.6		ng/L		102	71 - 131	4	30
Perfluorohexanoic acid (PFHxA)	40.0	39.4		ng/L		98	73 - 133	8	30
Perfluoroheptanoic acid (PFHpA)	40.0	37.8		ng/L		95	72 - 132	1	30
Perfluorooctanoic acid (PFOA)	40.0	35.7		ng/L		89	70 - 130	2	30
Perfluorononanoic acid (PFNA)	40.0	42.5		ng/L		106	75 - 135	9	30
Perfluorodecanoic acid (PFDA)	40.0	43.0		ng/L		108	76 - 136	5	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.9		ng/L		95	68 - 128	15	30
Perfluorododecanoic acid (PFDoA)	40.0	39.3		ng/L		98	71 - 131	12	30
Perfluorotridecanoic acid (PFTriA)	40.0	39.5		ng/L		99	71 - 131	12	30
Perfluorotetradecanoic acid (PFTeA)	40.0	39.2		ng/L		98	70 - 130	10	30
Perfluorobutanesulfonic acid (PFBS)	35.4	32.2		ng/L		91	67 - 127	1	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.6		ng/L		90	59 - 119	0	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	36.8		ng/L		97	76 - 136	7	30

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Lab Sample ID: LCSD 320-363231/3-A**  
**Matrix: Water**  
**Analysis Batch: 363536**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 363231**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	37.1	35.8		ng/L		97	70 - 130	1	30
Perfluorodecanesulfonic acid (PFDS)	38.6	34.4		ng/L		89	71 - 131	13	30
Perfluorooctanesulfonamide (FOSA)	40.0	35.8		ng/L		90	73 - 133	8	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	52.7		ng/L		132	76 - 136	8	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.1		ng/L		103	76 - 136	6	30
6:2 FTS	37.9	36.2		ng/L		96	59 - 175	6	30
8:2 FTS	38.3	34.2		ng/L		89	75 - 135	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	85		25 - 150
13C5 PFPeA	80		25 - 150
13C2 PFHxA	80		25 - 150
13C4 PFHpA	80		25 - 150
13C4 PFOA	79		25 - 150
13C5 PFNA	77		25 - 150
13C2 PFDA	73		25 - 150
13C2 PFUnA	74		25 - 150
13C2 PFDoA	64		25 - 150
13C2 PFTeDA	63		25 - 150
13C3 PFBS	89		25 - 150
18O2 PFHxS	87		25 - 150
13C4 PFOS	87		25 - 150
13C8 FOSA	84		25 - 150
d3-NMeFOSAA	67		25 - 150
d5-NEtFOSAA	72		25 - 150
M2-6:2 FTS	79		25 - 150
M2-8:2 FTS	87		25 - 150

# QC Association Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## LCMS

### Prep Batch: 363230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59289-1	BH20200306PRE-GAC	Total/NA	Water	3535	
320-59289-2	BH20200306POST-GACDUP	Total/NA	Water	3535	
320-59289-3	BH20200306POST-GAC	Total/NA	Water	3535	
320-59289-4	BH20200306-1North-25	Total/NA	Water	3535	
320-59289-5	BH20200306-1North-50	Total/NA	Water	3535	
320-59289-6	BH20200306-1North-75	Total/NA	Water	3535	
320-59289-7	BH20200306-2North-25	Total/NA	Water	3535	
320-59289-8	BH20200306-2North-50	Total/NA	Water	3535	
320-59289-9	BH20200306-2North-75	Total/NA	Water	3535	
320-59289-10	BH20200306-3North-25	Total/NA	Water	3535	
320-59289-11	BH20200306-3North-50	Total/NA	Water	3535	
320-59289-12	BH20200306-3North-75	Total/NA	Water	3535	
320-59289-13	BH20200306-1Raw	Total/NA	Water	3535	
320-59289-14	BH20200306-2Raw	Total/NA	Water	3535	
320-59289-15	BH20200306-3Raw	Total/NA	Water	3535	
320-59289-16	BH20200306-1South-25	Total/NA	Water	3535	
320-59289-17	BH20200306-1South-50	Total/NA	Water	3535	
320-59289-18	BH20200306-1South-75	Total/NA	Water	3535	
320-59289-19	BH20200306-2South-25	Total/NA	Water	3535	
320-59289-20	BH20200306-2South-50	Total/NA	Water	3535	
MB 320-363230/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-363230/2-A	Lab Control Sample	Total/NA	Water	3535	
320-59289-3 MS	BH20200306POST-GAC	Total/NA	Water	3535	
320-59289-3 MSD	BH20200306POST-GAC	Total/NA	Water	3535	

### Prep Batch: 363231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59289-21	BH20200306-2South-75	Total/NA	Water	3535	
320-59289-22	BH20200306-3South-25	Total/NA	Water	3535	
320-59289-23	BH20200306-3South-50	Total/NA	Water	3535	
320-59289-24	BH20200306-3South-75	Total/NA	Water	3535	
MB 320-363231/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-363231/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-363231/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 363536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59289-21	BH20200306-2South-75	Total/NA	Water	537 (modified)	363231
320-59289-22	BH20200306-3South-25	Total/NA	Water	537 (modified)	363231
320-59289-23	BH20200306-3South-50	Total/NA	Water	537 (modified)	363231
320-59289-24	BH20200306-3South-75	Total/NA	Water	537 (modified)	363231
MB 320-363231/1-A	Method Blank	Total/NA	Water	537 (modified)	363231
LCS 320-363231/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	363231
LCSD 320-363231/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	363231

### Analysis Batch: 363812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59289-1	BH20200306PRE-GAC	Total/NA	Water	537 (modified)	363230
320-59289-6	BH20200306-1North-75	Total/NA	Water	537 (modified)	363230
320-59289-10	BH20200306-3North-25	Total/NA	Water	537 (modified)	363230
320-59289-13	BH20200306-1Raw	Total/NA	Water	537 (modified)	363230

Eurofins TestAmerica, Sacramento

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## LCMS (Continued)

### Analysis Batch: 363812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59289-14	BH20200306-2Raw	Total/NA	Water	537 (modified)	363230
320-59289-15	BH20200306-3Raw	Total/NA	Water	537 (modified)	363230
320-59289-16	BH20200306-1South-25	Total/NA	Water	537 (modified)	363230
320-59289-18	BH20200306-1South-75	Total/NA	Water	537 (modified)	363230
320-59289-20	BH20200306-2South-50	Total/NA	Water	537 (modified)	363230
LCS 320-363230/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	363230
320-59289-3 MS	BH20200306POST-GAC	Total/NA	Water	537 (modified)	363230
320-59289-3 MSD	BH20200306POST-GAC	Total/NA	Water	537 (modified)	363230

### Analysis Batch: 364181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59289-2	BH20200306POST-GACDUP	Total/NA	Water	537 (modified)	363230
320-59289-3	BH20200306POST-GAC	Total/NA	Water	537 (modified)	363230
320-59289-4	BH20200306-1North-25	Total/NA	Water	537 (modified)	363230
320-59289-5	BH20200306-1North-50	Total/NA	Water	537 (modified)	363230
320-59289-7	BH20200306-2North-25	Total/NA	Water	537 (modified)	363230
320-59289-8	BH20200306-2North-50	Total/NA	Water	537 (modified)	363230
320-59289-9	BH20200306-2North-75	Total/NA	Water	537 (modified)	363230
320-59289-17	BH20200306-1South-50	Total/NA	Water	537 (modified)	363230
MB 320-363230/1-A	Method Blank	Total/NA	Water	537 (modified)	363230

### Analysis Batch: 364683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59289-11	BH20200306-3North-50	Total/NA	Water	537 (modified)	363230
320-59289-12	BH20200306-3North-75	Total/NA	Water	537 (modified)	363230
320-59289-19	BH20200306-2South-25	Total/NA	Water	537 (modified)	363230

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306PRE-GAC**

**Lab Sample ID: 320-59289-1**

Date Collected: 03/06/20 09:48

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			273.1 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 19:29	AP1	TAL SAC

**Client Sample ID: BH20200306POST-GACDUP**

**Lab Sample ID: 320-59289-2**

Date Collected: 03/06/20 09:35

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			293.7 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 22:09	AP1	TAL SAC

**Client Sample ID: BH20200306POST-GAC**

**Lab Sample ID: 320-59289-3**

Date Collected: 03/06/20 09:41

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			282.5 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 22:18	AP1	TAL SAC

**Client Sample ID: BH20200306-1North-25**

**Lab Sample ID: 320-59289-4**

Date Collected: 03/06/20 10:02

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			278.8 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 22:28	AP1	TAL SAC

**Client Sample ID: BH20200306-1North-50**

**Lab Sample ID: 320-59289-5**

Date Collected: 03/06/20 10:04

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			281.4 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 22:37	AP1	TAL SAC

**Client Sample ID: BH20200306-1North-75**

**Lab Sample ID: 320-59289-6**

Date Collected: 03/06/20 10:06

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			282.8 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 20:32	AP1	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2North-25**

**Lab Sample ID: 320-59289-7**

Date Collected: 03/06/20 10:32

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			293.4 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 22:46	AP1	TAL SAC

**Client Sample ID: BH20200306-2North-50**

**Lab Sample ID: 320-59289-8**

Date Collected: 03/06/20 10:33

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			286.2 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 22:55	AP1	TAL SAC

**Client Sample ID: BH20200306-2North-75**

**Lab Sample ID: 320-59289-9**

Date Collected: 03/06/20 10:36

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			289.2 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 23:04	AP1	TAL SAC

**Client Sample ID: BH20200306-3North-25**

**Lab Sample ID: 320-59289-10**

Date Collected: 03/06/20 11:02

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			285.6 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 21:27	AP1	TAL SAC

**Client Sample ID: BH20200306-3North-50**

**Lab Sample ID: 320-59289-11**

Date Collected: 03/06/20 11:06

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			282.6 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364683	03/14/20 06:10	S1M	TAL SAC

**Client Sample ID: BH20200306-3North-75**

**Lab Sample ID: 320-59289-12**

Date Collected: 03/06/20 11:08

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			277.8 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364683	03/14/20 06:20	S1M	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-1Raw**

**Lab Sample ID: 320-59289-13**

Date Collected: 03/06/20 11:40

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			282 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 21:55	AP1	TAL SAC

**Client Sample ID: BH20200306-2Raw**

**Lab Sample ID: 320-59289-14**

Date Collected: 03/06/20 11:52

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			281.5 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 22:04	AP1	TAL SAC

**Client Sample ID: BH20200306-3Raw**

**Lab Sample ID: 320-59289-15**

Date Collected: 03/06/20 12:05

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			275.9 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 22:13	AP1	TAL SAC

**Client Sample ID: BH20200306-1South-25**

**Lab Sample ID: 320-59289-16**

Date Collected: 03/06/20 10:10

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			284.8 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 22:40	AP1	TAL SAC

**Client Sample ID: BH20200306-1South-50**

**Lab Sample ID: 320-59289-17**

Date Collected: 03/06/20 10:12

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			283.7 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364181	03/12/20 23:13	AP1	TAL SAC

**Client Sample ID: BH20200306-1South-75**

**Lab Sample ID: 320-59289-18**

Date Collected: 03/06/20 10:14

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			288.2 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 22:58	AP1	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

**Client Sample ID: BH20200306-2South-25**

**Lab Sample ID: 320-59289-19**

Date Collected: 03/06/20 10:46

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			276.1 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			364683	03/14/20 06:29	S1M	TAL SAC

**Client Sample ID: BH20200306-2South-50**

**Lab Sample ID: 320-59289-20**

Date Collected: 03/06/20 10:48

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			288.1 mL	10.0 mL	363230	03/10/20 05:36	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363812	03/10/20 23:17	AP1	TAL SAC

**Client Sample ID: BH20200306-2South-75**

**Lab Sample ID: 320-59289-21**

Date Collected: 03/06/20 10:50

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			277 mL	10.0 mL	363231	03/10/20 05:45	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363536	03/11/20 09:54	D1R	TAL SAC

**Client Sample ID: BH20200306-3South-25**

**Lab Sample ID: 320-59289-22**

Date Collected: 03/06/20 11:16

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			277.3 mL	10.0 mL	363231	03/10/20 05:45	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363536	03/11/20 10:04	D1R	TAL SAC

**Client Sample ID: BH20200306-3South-50**

**Lab Sample ID: 320-59289-23**

Date Collected: 03/06/20 11:18

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			287.9 mL	10.0 mL	363231	03/10/20 05:45	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363536	03/11/20 10:13	D1R	TAL SAC

**Client Sample ID: BH20200306-3South-75**

**Lab Sample ID: 320-59289-24**

Date Collected: 03/06/20 11:20

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			277.4 mL	10.0 mL	363231	03/10/20 05:45	PV	TAL SAC
Total/NA	Analysis	537 (modified)		1			363536	03/11/20 10:22	D1R	TAL SAC

**Laboratory References:**

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

Eurofins TestAmerica, Sacramento

# Accreditation/Certification Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

## Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

## Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-20

# Method Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

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

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

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



# Sample Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59289-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-59289-1	BH20200306PRE-GAC	Water	03/06/20 09:48	03/07/20 09:25	
320-59289-2	BH20200306POST-GACDUP	Water	03/06/20 09:35	03/07/20 09:25	
320-59289-3	BH20200306POST-GAC	Water	03/06/20 09:41	03/07/20 09:25	
320-59289-4	BH20200306-1North-25	Water	03/06/20 10:02	03/07/20 09:25	
320-59289-5	BH20200306-1North-50	Water	03/06/20 10:04	03/07/20 09:25	
320-59289-6	BH20200306-1North-75	Water	03/06/20 10:06	03/07/20 09:25	
320-59289-7	BH20200306-2North-25	Water	03/06/20 10:32	03/07/20 09:25	
320-59289-8	BH20200306-2North-50	Water	03/06/20 10:33	03/07/20 09:25	
320-59289-9	BH20200306-2North-75	Water	03/06/20 10:36	03/07/20 09:25	
320-59289-10	BH20200306-3North-25	Water	03/06/20 11:02	03/07/20 09:25	
320-59289-11	BH20200306-3North-50	Water	03/06/20 11:06	03/07/20 09:25	
320-59289-12	BH20200306-3North-75	Water	03/06/20 11:08	03/07/20 09:25	
320-59289-13	BH20200306-1Raw	Water	03/06/20 11:40	03/07/20 09:25	
320-59289-14	BH20200306-2Raw	Water	03/06/20 11:52	03/07/20 09:25	
320-59289-15	BH20200306-3Raw	Water	03/06/20 12:05	03/07/20 09:25	
320-59289-16	BH20200306-1South-25	Water	03/06/20 10:10	03/07/20 09:25	
320-59289-17	BH20200306-1South-50	Water	03/06/20 10:12	03/07/20 09:25	
320-59289-18	BH20200306-1South-75	Water	03/06/20 10:14	03/07/20 09:25	
320-59289-19	BH20200306-2South-25	Water	03/06/20 10:46	03/07/20 09:25	
320-59289-20	BH20200306-2South-50	Water	03/06/20 10:48	03/07/20 09:25	
320-59289-21	BH20200306-2South-75	Water	03/06/20 10:50	03/07/20 09:25	
320-59289-22	BH20200306-3South-25	Water	03/06/20 11:16	03/07/20 09:25	
320-59289-23	BH20200306-3South-50	Water	03/06/20 11:18	03/07/20 09:25	
320-59289-24	BH20200306-3South-75	Water	03/06/20 11:20	03/07/20 09:25	



**Client Information**  
 Company: ARCADIS U.S. Inc  
 Address: 855 Route 146 Suite 210  
 City: Clifton Park  
 State, Zip: NY, 12065  
 Phone: 518-402-9813(Tel)  
 Email: jeffrey.redfield@arcadis.com  
 Project Name: Stewart ANGB - Butterhill #336089  
 Site:

**Lab PM:** Stone, Judy L  
**E-Mail:** judy.stone@testamericainc.com

**Phone:** (315) 412-3479

**Due Date Requested:** TAT Requested (days): Standard TAT  
 PO #: 320-59289 Chain of Custody  
 Callout ID: 137349  
 WO #:  
 Project #: 48020960  
 SSOW #:

**Analysis Requested**

**Sample Identification**

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wast/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFAS_IDA - PFAS Standard List (21 analytes)	PFAS_DL_DW - (MOD) PFAS, UCMR List	Total Number of Containers	Special Instructions/Note:
BH20200306 PRE-GAC	3/6/20	09:48	G	Water	XX	XX			2	
BH20200306 POST-GAC DUP	3/6/20	09:35	G	Water	XX	XX			2	
BH20200306 POST-GAC	3/6/20	09:41	G	Water	XX	XX			2	
BH20200306-1 North-25	3/6/20	10:02	G	Water	XX	XX			2	
BH20200306-1 North-50	3/6/20	10:04	G	Water	XX	XX			2	
BH20200306-1 North-75	3/6/20	10:06	G	Water	XX	XX			2	
BH20200306-2 North-25	3/6/20	10:32	G	Water	XX	XX			2	
BH20200306-2 North-50	3/6/20	10:33	G	Water	XX	XX			2	
BH20200306-2 North-75	3/6/20	10:40	G	Water	XX	XX			2	
BH20200306-3 North-25	3/6/20	11:02	G	Water	XX	XX			2	
BH20200306-3 North-50	3/6/20	11:06	G	Water	XX	XX			2	

**Preservation Codes:**  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - NaHSO4  
 F - MeOH  
 G - Amchlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 Other:

**Preservation Codes:**  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2OAS  
 Q - Na2SO3  
 R - Na2SO3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4.5  
 Z - other (specify)

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

**Deliverable Requested:**  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: Ryan Burch  
 Relinquished by: Paul Jordan  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

**Received by:** \_\_\_\_\_ Date/Time: 3/6/20 14:50  
 Received by: \_\_\_\_\_ Date/Time: 3/17/20 9:28  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

**Company:** Arcadis Company  
 Company: Eurofins Company  
 Company: Eurofins Company

**Cooler Temperature(s) °C and Other Remarks:** 0.4°C, 0.3°C



**Client Information**  
 Client Contact: Jeffrey Redfield  
 Company: ARCADIS U.S. Inc.  
 Address: 855 Route 146 Suite 210  
 City: Clifton Park  
 State, Zip: NY, 12065  
 Phone: 518-402-9813(Tel)  
 Email: jeffrey.redfield@arcadis.com  
 Project Name: Stewart ANGB - Butterhill #336089  
 Site:

**Sample Information**  
 Sample # **#224B**  
 Client Name: **B. Powers**  
 Phone: **(315) 412-3479**  
 Lab PM: Stone, Judy L  
 E-Mail: judy.stone@testamericainc.com  
 Carrier Tracking No(s):  
 Lab No: 480-143043-31696.3  
 Page: Page 3 of 4  
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, ST=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFAS_IDA - PFAS, Standard List (21 analytes)	PFAS_DL, DW - (MOD) PFAS, UCMR List	Total Number of Containers	Special Instructions/Note:
BH20200306-3North-75	3/6/20	11:08	G	Water	N	N	Z		Z	
BH20200306-1Raw	3/6/20	11:40	G	Water	N	N	Z		Z	
BH20200306-2Raw	3/6/20	11:52	G	Water	N	N	Z		Z	
BH20200306-3Raw	3/6/20	17:05	G	Water	N	N	Z		Z	
BH20200306-PostGACMS	3/6/20	09:33	G	Water	N	N	Z		Z	MS
BH20200306-PostGACMSD	3/6/20	09:34	G	Water	N	N	Z		Z	MSD
BH20200306-1South-25	3/6/20	10:10	G	Water	N	N	Z		Z	
BH20200306-1South-50	3/6/20	10:17	G	Water	N	N	Z		Z	
BH20200306-1South-75	3/6/20	10:14	G	Water	N	N	Z		Z	
BH20200306-2South-25	3/6/20	10:46	G	Water	N	N	Z		Z	
BH20200306-2South-50	3/6/20	10:48	G	Water	N	N	Z		Z	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested:  I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:** Date: \_\_\_\_\_  
**Relinquished by:** *Jeffrey Redfield* Date: *3/6/20* Time: *1450*  
**Relinquished by:** *Karl Jordan* Date: *3/17/20* Time: *925*  
**Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Custody Seal No.:**  Yes  No  
 Custody Seal Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: *0.5°C @ 4°C*

**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:



**Chain of Custody Record**

**Client Information**  
 Client Contact: **Jeffrey Redfield**  
 Phone: **(315) 412-3479**  
 E-Mail: **Judy.stone@testamericainc.com**

Company: **ARCADIS U.S. Inc**  
 Address: **855 Route 146 Suite 210**  
 City: **Clifton Park**  
 State, Zip: **NY, 12065**  
 Phone: **518-402-9813(Tel)**  
 Email: **Jeffrey.redfield@arcadis.com**  
 Project Name: **Stewart ANGB - Butterhill #336089**  
 Site:

**Sample Information**  
 Sample: **B. Powers**  
 Lab PM: **Stone, Judy L**  
 Carrier Tracking No(s):  
 Lab PM: **Stone, Judy L**  
 E-Mail: **Judy.stone@testamericainc.com**

**Due Date Requested:**  
 TAT Requested (days):  
**Standard TAT**

PO #: **Callout ID: 137349**  
 WO #:  
 Project #: **48020960**  
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, B=soil, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFCs, Standard List (21 analytes)	PFAS_DL_DW - (MOD) PFAS, UCMR List	Total Number of Containers	Special Instructions/Note:
BH20200306-2 South-75	3/6/20	10:50	G	Water	XX	NN	Z		2	
BH20200306-3 South-25	3/6/20	11:16	G	Water	XX	NN	Z		2	
BH20200306-3 South-50	3/6/20	11:18	G	Water	XX	NN	Z		2	
BH20200306-3 South-75	3/6/20	11:20	G	Water	XX	NN	Z		2	

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

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

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: **Adam Powell** Company: **Arcadis** Date/Time: **3/6/20 14:50**  
 Relinquished by: **Pat Jacob** Company: **Company** Date/Time: **3/6/20 14:50**  
 Relinquished by: **Pat Jacob** Company: **Company** Date/Time: **3/6/20 17:00**

Custody Seals Intact:  Yes  No  
 Custody Seal No.: **0-30, 0-12**

Special 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:



## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 320-59289-1

**Login Number: 59289**

**List Source: Eurofins TestAmerica, Sacramento**

**List Number: 1**

**Creator: Oropeza, Salvador**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	1138389, 1138388
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	