

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation  
625 Broadway, 12th Floor, Albany, New York 12233-7011  
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[www.dec.ny.gov](http://www.dec.ny.gov)

April 17, 2020

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

Re: New Windsor Public Water Supply Well Sample Results  
Kroll Well, 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 April 14, 2020 sampling of the granular activated carbon (GAC) water treatment system by DEC representatives that was installed on the Town of New Windsor (Town) Kroll Well located at 354 Mount Airy Road.

**No PFOS or PFOA was detected in the Kroll Well 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.**

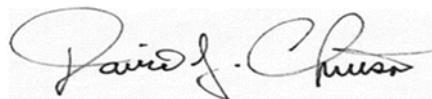
Specifically, the samples were analyzed for a total of twenty-one per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the 21 PFAS list analysis has been attached. Please note that, starting in April 2020, sampling and analysis for the 6 PFAS list has been discontinued due to redundancy in the data generated. During this event, sampling for the 21 PFAS list was conducted at 9 locations:

- pre-treatment (raw untreated water), which has a “RAW WATER” identifier in the Client Sample ID;
- 25 % treatment – lead tank (A-25 identifier);
- 50 % treatment – lead tank (A-50 identifier);
- 75 % treatment – lead tank (A-75 identifier);
- mid-treatment (after the first GAC canister and prior to the second GAC canister), which has a “MID POINT” identifier in the Client Sample ID;
- 25 % treatment – lag tank (B-25 identifier);
- 50 % treatment – lag tank (B-50 identifier);
- 75 % treatment – lag tank (B-75\_identifier); and
- post-treatment (after the entire treatment system), which has a “EFFLUENT” identifier in the Client Sample ID.

The 9 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 Jim Hayward, EA Science and Technology (DEC's Project Engineer) at (315) 431-4610 (ext.1857) or [jhayward@eaest.com](mailto:jhayward@eaest.com) . For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Brian Neumann of Precision Environmental Services at (518) 441-1520 (cell). For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Dr. Min-Sook Kim of the NYSDOH Bureau of Water Supply Protection at (518) 402-7650; email: [min-sook.kim@health.ny.gov](mailto:min-sook.kim@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  
J. Hayward, EA Engineering  
B. Neumann, PES  
M. Cruden, NYSDEC  
D. Bendell, Region 3 RHWRE  
D. Harrington, NYSDEC

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

Date	Analyte	Result <sup>1</sup> Raw Water	Result A25	Result <sup>2</sup> A50	Result A75	Result Mid-Point	Result B25	Result B50	Result B75	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value	Proposed NYS MCLs
<b>September 2019 (Based on 21 PFAS Analysis Data only)</b>	PFOA	8.4	ND	6.1	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	14	ND	7.8	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
<b>October 2019 (Based on 21 PFAS Analysis Data only)</b>	PFOA	7.9	6.5	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	13	8.7	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
<b>November 2019 (Based on 21 PFAS Analysis Data only)</b>	PFOA	12	10	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	10	8.4	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
<b>December 2019 (Based on 21 PFAS Analysis Data only)</b>	PFOA	12	10	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	10	8.7	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
<b>January 2020 (Based on 21 PFAS Analysis Data only)</b>	PFOA	11	10	2.2	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	10	8.7	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
<b>February 2020 (Based on 21 PFAS Analysis Data only)</b>	PFOA	11	9.9	3.3	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	9.7	8.4	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>

**Notes:**

\*\* 21 PFAS List Analysis.

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. MCL (Maximum Contaminant Level, mg/l) is the maximum permissible level of a contaminant in water delivered by a public water system.
4. Guidance: USEPA Drinking Water Health Advisory guidance value is currently 70 ppt.
5. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Town of New Windsor  
Kroll Well GAC Operation and Maintenance PFOA and PFOS Sampling Results \*\* (Parts Per Trillion (PPT)) Continued

## 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.

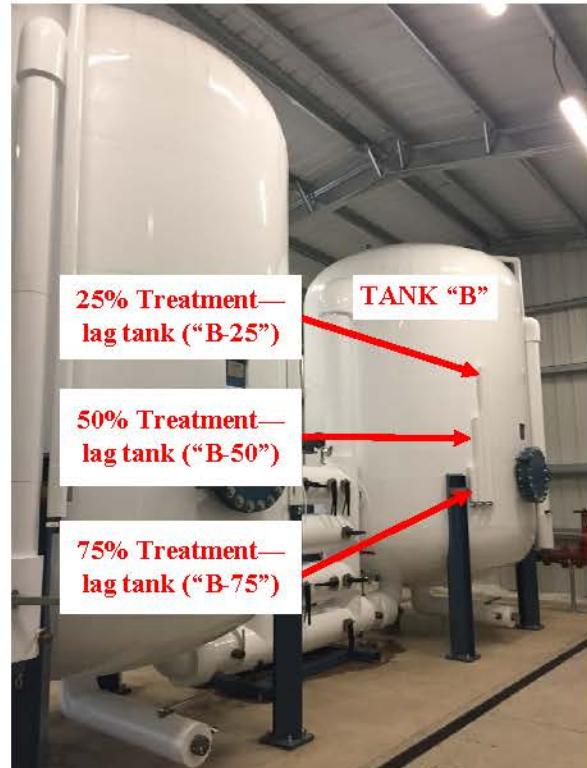
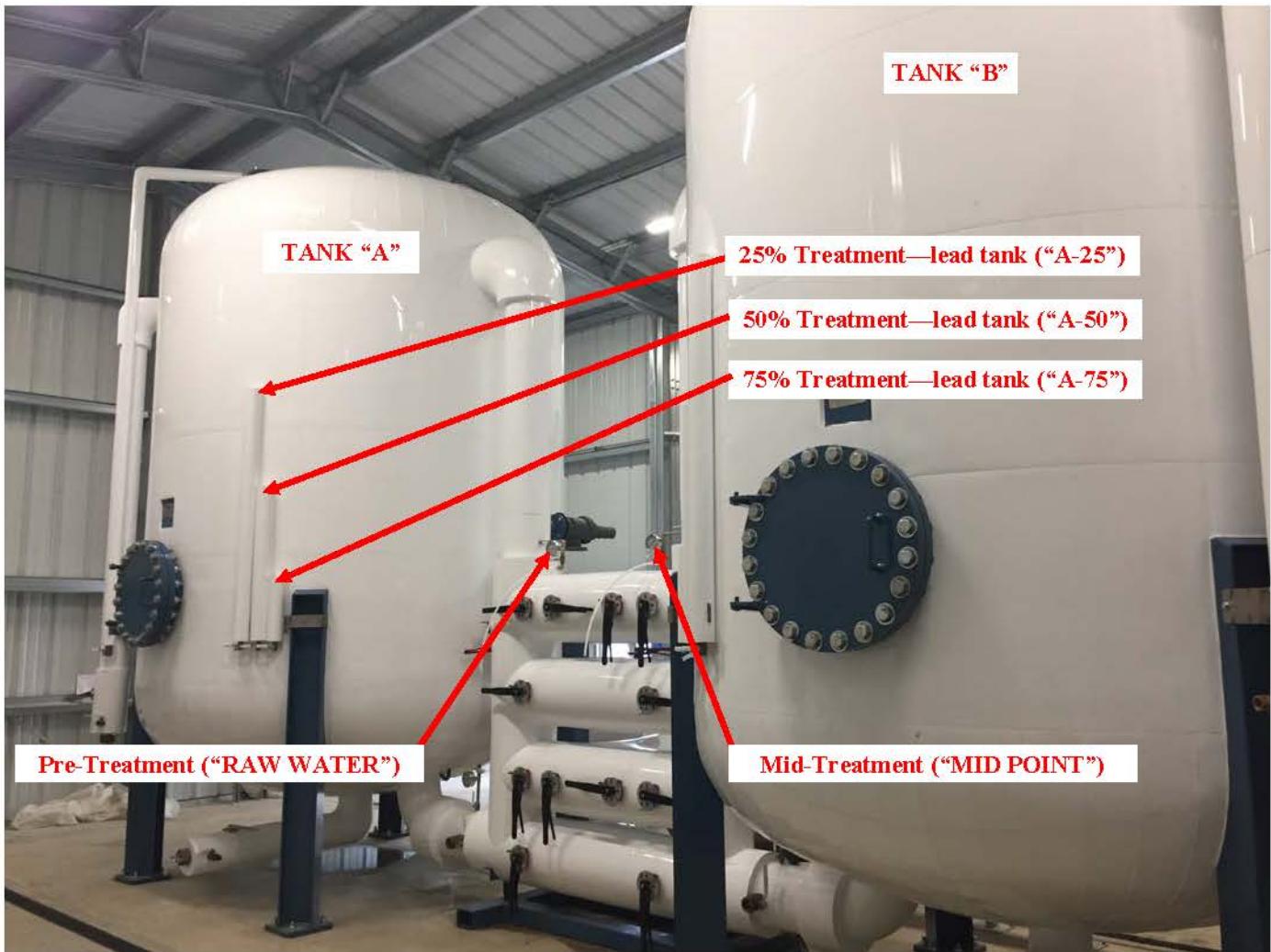


Figure 1—Kroll Well GAC Treatment System  
Sampling Locations



# Environment Testing TestAmerica



## ANALYTICAL REPORT

Eurofins TestAmerica, Burlington  
30 Community Drive  
Suite 11  
South Burlington, VT 05403  
Tel: (802)660-1990

Laboratory Job ID: 200-53403-1

Client Project/Site: Stewart ANG Base #336089 Kroll Well

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

Attn: Mr. Dave Chiusano

Authorized for release by:  
4/17/2020 4:34:46 PM

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

### LINKS

Review your project  
results through

**Total Access**

Have a Question?

Ask  
The  
Expert

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.

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# Definitions/Glossary

Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

Job ID: 200-53403-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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 ANG Base #336089 Kroll Well

Job ID: 200-53403-1

## Job ID: 200-53403-1

Laboratory: Eurofins TestAmerica, Burlington

### Narrative

#### Job Narrative 200-53403-1

### Receipt

The samples were received on 4/15/2020 10:26 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

### LCMS

Method 537 (modified): The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 200-154215 and analytical batch 200-154240 was outside control limits for Perfluorotridecanoic acid (PFTriA) and 8:2 FTS. Sample matrix interference and/or non-homogeneity are suspected. The recoveries of both affected targets are within acceptance limits.

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.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

## **Client Sample ID: EFFLUENT**

## **Lab Sample ID: 200-53403-1**

No Detections.

## **Client Sample ID: MID POINT**

## **Lab Sample ID: 200-53403-2**

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

## **Client Sample ID: RAW WATER**

## **Lab Sample ID: 200-53403-3**

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 (PPPeA)	3.8		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)	2.4		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.9		1.8		ng/L	1		537 (modified)	Total/NA

## **Client Sample ID: DUPLICATE**

## **Lab Sample ID: 200-53403-4**

No Detections.

## **Client Sample ID: A-25**

## **Lab Sample ID: 200-53403-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.8		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PPPeA)	3.2		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.5		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.4		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.5		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	7.7		1.7		ng/L	1		537 (modified)	Total/NA

## **Client Sample ID: A-50**

## **Lab Sample ID: 200-53403-6**

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 (PPPeA)	3.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.9		1.8		ng/L	1		537 (modified)	Total/NA

## **Client Sample ID: A-75**

## **Lab Sample ID: 200-53403-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PPPeA)	2.6		1.8		ng/L	1		537 (modified)	Total/NA

## **Client Sample ID: B-25**

## **Lab Sample ID: 200-53403-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.3		1.8		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

## Detection Summary

Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

Job ID: 200-53403-1

**Client Sample ID: B-50**

**Lab Sample ID: 200-53403-9**

No Detections.

**Client Sample ID: B-75**

**Lab Sample ID: 200-53403-10**

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

## Client Sample ID: EFFLUENT

Date Collected: 04/14/20 10:30

Lab Sample ID: 200-53403-1

Matrix: Water

Date Received: 04/15/20 10:26

### 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	04/16/20 09:01	04/16/20 16:21		1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorotridecanoic acid (PFTriA)	ND	F2	1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorohexamersulfonic acid (PFHxS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 16:21		1
Perfluorooctanesulfonamide (FOSA)	ND		8.5		ng/L	04/16/20 09:01	04/16/20 16:21		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 16:21		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 16:21		1
6:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 16:21		1
8:2 FTS	ND	F2	17		ng/L	04/16/20 09:01	04/16/20 16:21		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	91		25 - 150	04/16/20 09:01	04/16/20 16:21	1
13C4 PFBA	109		25 - 150	04/16/20 09:01	04/16/20 16:21	1
13C5-PFPeA DNU	120		25 - 150	04/16/20 09:01	04/16/20 16:21	1
13C2 PFHxA	113		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C4 PFHpA	112		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C4 PFOA	118		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C5 PFNA	112		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C2 PFDA	96		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C2 PFUnA	89		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C2 PFDoA	86		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C2 PFTeDA	82		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C3 PFBS	109		50 - 150	04/16/20 09:01	04/16/20 16:21	1
18O2 PFHxS	113		50 - 150	04/16/20 09:01	04/16/20 16:21	1
13C4 PFOS	99		50 - 150	04/16/20 09:01	04/16/20 16:21	1
d3-NMeFOSAA	86		50 - 150	04/16/20 09:01	04/16/20 16:21	1
d5-NEtFOSAA	104		50 - 150	04/16/20 09:01	04/16/20 16:21	1
M2-6:2 FTS	116		25 - 150	04/16/20 09:01	04/16/20 16:21	1
M2-8:2 FTS	109		25 - 150	04/16/20 09:01	04/16/20 16:21	1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

**Client Sample ID: MID POINT**

**Lab Sample ID: 200-53403-2**

**Matrix: Water**

Date Collected: 04/14/20 10:50

Date Received: 04/15/20 10:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.0		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorohexamersulfonic acid (PFHxS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:46		1
Perfluorooctanesulfonamide (FOSA)	ND		9.0		ng/L	04/16/20 09:01	04/16/20 16:46		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 16:46		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 16:46		1
6:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 16:46		1
8:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 16:46		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	92		25 - 150	04/16/20 09:01	04/16/20 16:46	1
13C4 PFBA	109		25 - 150	04/16/20 09:01	04/16/20 16:46	1
13C5-PFPeA DNU	119		25 - 150	04/16/20 09:01	04/16/20 16:46	1
13C2 PFHxA	121		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C4 PFHpA	110		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C4 PFOA	104		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C5 PFNA	113		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C2 PFDA	104		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C2 PFUnA	95		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C2 PFDoA	81		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C2 PFTeDA	77		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C3 PFBS	109		50 - 150	04/16/20 09:01	04/16/20 16:46	1
18O2 PFHxS	115		50 - 150	04/16/20 09:01	04/16/20 16:46	1
13C4 PFOS	106		50 - 150	04/16/20 09:01	04/16/20 16:46	1
d3-NMeFOSAA	107		50 - 150	04/16/20 09:01	04/16/20 16:46	1
d5-NEtFOSAA	99		50 - 150	04/16/20 09:01	04/16/20 16:46	1
M2-6:2 FTS	118		25 - 150	04/16/20 09:01	04/16/20 16:46	1
M2-8:2 FTS	117		25 - 150	04/16/20 09:01	04/16/20 16:46	1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

## Client Sample ID: RAW WATER

Date Collected: 04/14/20 11:05

Lab Sample ID: 200-53403-3

Date Received: 04/15/20 10:26

Matrix: Water

### 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	04/16/20 09:01	04/16/20 16:55		1
Perfluoropentanoic acid (PFPeA)	3.8		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorohexanoic acid (PFHxA)	3.0		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluoroheptanoic acid (PFHpA)	2.4		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorooctanoic acid (PFOA)	8.7		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>5.6</b>		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.1</b>		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>8.9</b>		1.8		ng/L	04/16/20 09:01	04/16/20 16:55		1
Perfluoroctanesulfonamide (FOSA)	ND		9.1		ng/L	04/16/20 09:01	04/16/20 16:55		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 16:55		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 16:55		1
6:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 16:55		1
8:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 16:55		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C8 FOSA	95		25 - 150			04/16/20 09:01	04/16/20 16:55		1
13C4 PFBA	108		25 - 150			04/16/20 09:01	04/16/20 16:55		1
13C5-PFPeA DNU	112		25 - 150			04/16/20 09:01	04/16/20 16:55		1
13C2 PFHxA	121		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C4 PFHpA	120		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C4 PFOA	110		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C5 PFNA	113		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C2 PFDA	99		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C2 PFUnA	88		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C2 PFDoA	87		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C2 PFTeDA	87		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C3 PFBS	117		50 - 150			04/16/20 09:01	04/16/20 16:55		1
18O2 PFHxS	116		50 - 150			04/16/20 09:01	04/16/20 16:55		1
13C4 PFOS	100		50 - 150			04/16/20 09:01	04/16/20 16:55		1
d3-NMeFOSAA	98		50 - 150			04/16/20 09:01	04/16/20 16:55		1
d5-NEtFOSAA	105		50 - 150			04/16/20 09:01	04/16/20 16:55		1
M2-6:2 FTS	132		25 - 150			04/16/20 09:01	04/16/20 16:55		1
M2-8:2 FTS	106		25 - 150			04/16/20 09:01	04/16/20 16:55		1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

## Client Sample ID: DUPLICATE

Date Collected: 04/14/20 00:00

Lab Sample ID: 200-53403-4

Matrix: Water

Date Received: 04/15/20 10:26

### 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	04/16/20 09:01	04/16/20 17:03		1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorohexamersulfonic acid (PFHxS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:03		1
Perfluorooctanesulfonamide (FOSA)	ND		8.4		ng/L	04/16/20 09:01	04/16/20 17:03		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 17:03		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 17:03		1
6:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 17:03		1
8:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 17:03		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	107		25 - 150	04/16/20 09:01	04/16/20 17:03	1
13C4 PFBA	110		25 - 150	04/16/20 09:01	04/16/20 17:03	1
13C5-PFPeA DNU	118		25 - 150	04/16/20 09:01	04/16/20 17:03	1
13C2 PFHxA	118		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C4 PFHpA	108		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C4 PFOA	110		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C5 PFNA	111		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C2 PFDA	101		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C2 PFUnA	96		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C2 PFDoA	98		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C2 PFTeDA	88		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C3 PFBS	111		50 - 150	04/16/20 09:01	04/16/20 17:03	1
18O2 PFHxS	110		50 - 150	04/16/20 09:01	04/16/20 17:03	1
13C4 PFOS	97		50 - 150	04/16/20 09:01	04/16/20 17:03	1
d3-NMeFOSAA	112		50 - 150	04/16/20 09:01	04/16/20 17:03	1
d5-NEtFOSAA	106		50 - 150	04/16/20 09:01	04/16/20 17:03	1
M2-6:2 FTS	123		25 - 150	04/16/20 09:01	04/16/20 17:03	1
M2-8:2 FTS	114		25 - 150	04/16/20 09:01	04/16/20 17:03	1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

**Client Sample ID: A-25**

Date Collected: 04/14/20 10:58

**Lab Sample ID: 200-53403-5**

Matrix: Water

Date Received: 04/15/20 10:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.8		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluoropentanoic acid (PFPeA)	3.2		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorohexanoic acid (PFHxA)	3.1		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluoroheptanoic acid (PFHpA)	2.5		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorooctanoic acid (PFOA)	8.4		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>5.5</b>		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>1.9</b>		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>7.7</b>		1.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
Perfluoroctanesulfonamide (FOSA)	ND		8.7		ng/L	04/16/20 09:01	04/16/20 17:11		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 17:11		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 17:11		1
6:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 17:11		1
8:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 17:11		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C8 FOSA	90		25 - 150			04/16/20 09:01	04/16/20 17:11		1
13C4 PFBA	102		25 - 150			04/16/20 09:01	04/16/20 17:11		1
13C5-PFPeA DNU	107		25 - 150			04/16/20 09:01	04/16/20 17:11		1
13C2 PFHxA	109		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C4 PFHpA	101		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C4 PFOA	102		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C5 PFNA	108		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C2 PFDA	96		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C2 PFUnA	83		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C2 PFDoA	91		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C2 PFTeDA	80		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C3 PFBS	110		50 - 150			04/16/20 09:01	04/16/20 17:11		1
18O2 PFHxS	113		50 - 150			04/16/20 09:01	04/16/20 17:11		1
13C4 PFOS	104		50 - 150			04/16/20 09:01	04/16/20 17:11		1
d3-NMeFOSAA	105		50 - 150			04/16/20 09:01	04/16/20 17:11		1
d5-NEtFOSAA	90		50 - 150			04/16/20 09:01	04/16/20 17:11		1
M2-6:2 FTS	120		25 - 150			04/16/20 09:01	04/16/20 17:11		1
M2-8:2 FTS	119		25 - 150			04/16/20 09:01	04/16/20 17:11		1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

**Client Sample ID: A-50**

Date Collected: 04/14/20 10:55

**Lab Sample ID: 200-53403-6**

Matrix: Water

Date Received: 04/15/20 10:26

## 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	04/16/20 09:01	04/16/20 17:28		1
Perfluoropentanoic acid (PFPeA)	3.6		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorohexanoic acid (PFHxA)	2.9		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluoroheptanoic acid (PFHpA)	1.9		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorooctanoic acid (PFOA)	4.3		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>4.3</b>		<b>1.8</b>		<b>ng/L</b>	<b>04/16/20 09:01</b>	<b>04/16/20 17:28</b>		<b>1</b>
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>1.9</b>		<b>1.8</b>		<b>ng/L</b>	<b>04/16/20 09:01</b>	<b>04/16/20 17:28</b>		<b>1</b>
Perfluorooctanesulfonamide (FOSA)	ND		8.8		ng/L	04/16/20 09:01	04/16/20 17:28		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 17:28		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 17:28		1
6:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 17:28		1
8:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 17:28		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 FOSA	94		25 - 150				04/16/20 09:01	04/16/20 17:28	1
13C4 PFBA	106		25 - 150				04/16/20 09:01	04/16/20 17:28	1
13C5-PFPeA DNU	110		25 - 150				04/16/20 09:01	04/16/20 17:28	1
13C2 PFHxA	111		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C4 PFHpA	107		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C4 PFOA	107		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C5 PFNA	108		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C2 PFDA	99		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C2 PFUnA	100		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C2 PFDoA	88		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C2 PFTeDA	86		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C3 PFBS	106		50 - 150				04/16/20 09:01	04/16/20 17:28	1
18O2 PFHxS	103		50 - 150				04/16/20 09:01	04/16/20 17:28	1
13C4 PFOS	102		50 - 150				04/16/20 09:01	04/16/20 17:28	1
d3-NMeFOSAA	115		50 - 150				04/16/20 09:01	04/16/20 17:28	1
d5-NEtFOSAA	106		50 - 150				04/16/20 09:01	04/16/20 17:28	1
M2-6:2 FTS	123		25 - 150				04/16/20 09:01	04/16/20 17:28	1
M2-8:2 FTS	102		25 - 150				04/16/20 09:01	04/16/20 17:28	1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

**Client Sample ID: A-75**

**Lab Sample ID: 200-53403-7**

**Matrix: Water**

Date Collected: 04/14/20 10:53

Date Received: 04/15/20 10:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.7		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluoropentanoic acid (PFPeA)	2.6		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluoroctanoic acid (PFOA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorohexamersulfonic acid (PFHxS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluoroctanesulfonic acid (PFOS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:36		1
Perfluorooctanesulfonamide (FOSA)	ND		9.0		ng/L	04/16/20 09:01	04/16/20 17:36		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 17:36		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 17:36		1
6:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 17:36		1
8:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 17:36		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 FOSA	94		25 - 150				04/16/20 09:01	04/16/20 17:36	1
13C4 PFBA	99		25 - 150				04/16/20 09:01	04/16/20 17:36	1
13C5-PFPeA DNU	106		25 - 150				04/16/20 09:01	04/16/20 17:36	1
13C2 PFHxA	103		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C4 PFHpA	105		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C4 PFOA	95		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C5 PFNA	101		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C2 PFDA	94		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C2 PFUnA	95		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C2 PFDoA	92		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C2 PFTeDA	79		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C3 PFBS	99		50 - 150				04/16/20 09:01	04/16/20 17:36	1
18O2 PFHxS	98		50 - 150				04/16/20 09:01	04/16/20 17:36	1
13C4 PFOS	96		50 - 150				04/16/20 09:01	04/16/20 17:36	1
d3-NMeFOSAA	97		50 - 150				04/16/20 09:01	04/16/20 17:36	1
d5-NEtFOSAA	102		50 - 150				04/16/20 09:01	04/16/20 17:36	1
M2-6:2 FTS	105		25 - 150				04/16/20 09:01	04/16/20 17:36	1
M2-8:2 FTS	104		25 - 150				04/16/20 09:01	04/16/20 17:36	1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

**Client Sample ID: B-25**

Date Collected: 04/14/20 10:45

**Lab Sample ID: 200-53403-8**

Matrix: Water

Date Received: 04/15/20 10:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.3		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorohexamersulfonic acid (PFHxS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
Perfluorooctanesulfonamide (FOSA)	ND		8.8		ng/L	04/16/20 09:01	04/16/20 17:44		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 17:44		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		18		ng/L	04/16/20 09:01	04/16/20 17:44		1
6:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 17:44		1
8:2 FTS	ND		18		ng/L	04/16/20 09:01	04/16/20 17:44		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	103		25 - 150	04/16/20 09:01	04/16/20 17:44	1
13C4 PFBA	106		25 - 150	04/16/20 09:01	04/16/20 17:44	1
13C5-PFPeA DNU	122		25 - 150	04/16/20 09:01	04/16/20 17:44	1
13C2 PFHxA	119		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C4 PFHpA	114		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C4 PFOA	113		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C5 PFNA	109		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C2 PFDA	104		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C2 PFUnA	103		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C2 PFDoA	101		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C2 PFTeDA	94		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C3 PFBS	113		50 - 150	04/16/20 09:01	04/16/20 17:44	1
18O2 PFHxS	108		50 - 150	04/16/20 09:01	04/16/20 17:44	1
13C4 PFOS	108		50 - 150	04/16/20 09:01	04/16/20 17:44	1
d3-NMeFOSAA	111		50 - 150	04/16/20 09:01	04/16/20 17:44	1
d5-NEtFOSAA	105		50 - 150	04/16/20 09:01	04/16/20 17:44	1
M2-6:2 FTS	111		25 - 150	04/16/20 09:01	04/16/20 17:44	1
M2-8:2 FTS	115		25 - 150	04/16/20 09:01	04/16/20 17:44	1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

**Client Sample ID: B-50**

Date Collected: 04/14/20 10:43

Date Received: 04/15/20 10:26

**Lab Sample ID: 200-53403-9**

Matrix: Water

## 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	04/16/20 09:01	04/16/20 17:53		1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorohexamersulfonic acid (PFHxS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
Perfluorooctanesulfonamide (FOSA)	ND		8.7		ng/L	04/16/20 09:01	04/16/20 17:53		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 17:53		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 17:53		1
6:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 17:53		1
8:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 17:53		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	88		25 - 150	04/16/20 09:01	04/16/20 17:53	1
13C4 PFBA	103		25 - 150	04/16/20 09:01	04/16/20 17:53	1
13C5-PFPeA DNU	106		25 - 150	04/16/20 09:01	04/16/20 17:53	1
13C2 PFHxA	109		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C4 PFHpA	103		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C4 PFOA	102		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C5 PFNA	97		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C2 PFDA	95		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C2 PFUnA	87		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C2 PFDoA	88		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C2 PFTeDA	83		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C3 PFBS	107		50 - 150	04/16/20 09:01	04/16/20 17:53	1
18O2 PFHxS	103		50 - 150	04/16/20 09:01	04/16/20 17:53	1
13C4 PFOS	95		50 - 150	04/16/20 09:01	04/16/20 17:53	1
d3-NMeFOSAA	96		50 - 150	04/16/20 09:01	04/16/20 17:53	1
d5-NEtFOSAA	105		50 - 150	04/16/20 09:01	04/16/20 17:53	1
M2-6:2 FTS	122		25 - 150	04/16/20 09:01	04/16/20 17:53	1
M2-8:2 FTS	109		25 - 150	04/16/20 09:01	04/16/20 17:53	1

Eurofins TestAmerica, Burlington

# Client Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

**Client Sample ID: B-75**

**Lab Sample ID: 200-53403-10**

Date Collected: 04/14/20 10:40

Matrix: Water

Date Received: 04/15/20 10:26

## 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	04/16/20 09:01	04/16/20 18:01		1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorohexamersulfonic acid (PFHxS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L	04/16/20 09:01	04/16/20 18:01		1
Perfluorooctanesulfonamide (FOSA)	ND		8.3		ng/L	04/16/20 09:01	04/16/20 18:01		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 18:01		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17		ng/L	04/16/20 09:01	04/16/20 18:01		1
6:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 18:01		1
8:2 FTS	ND		17		ng/L	04/16/20 09:01	04/16/20 18:01		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	88		25 - 150	04/16/20 09:01	04/16/20 18:01	1
13C4 PFBA	101		25 - 150	04/16/20 09:01	04/16/20 18:01	1
13C5-PFPeA DNU	112		25 - 150	04/16/20 09:01	04/16/20 18:01	1
13C2 PFHxA	108		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C4 PFHpA	102		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C4 PFOA	102		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C5 PFNA	105		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C2 PFDA	87		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C2 PFUnA	83		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C2 PFDoA	83		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C2 PFTeDA	77		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C3 PFBS	106		50 - 150	04/16/20 09:01	04/16/20 18:01	1
18O2 PFHxS	106		50 - 150	04/16/20 09:01	04/16/20 18:01	1
13C4 PFOS	100		50 - 150	04/16/20 09:01	04/16/20 18:01	1
d3-NMeFOSAA	89		50 - 150	04/16/20 09:01	04/16/20 18:01	1
d5-NEtFOSAA	97		50 - 150	04/16/20 09:01	04/16/20 18:01	1
M2-6:2 FTS	107		25 - 150	04/16/20 09:01	04/16/20 18:01	1
M2-8:2 FTS	96		25 - 150	04/16/20 09:01	04/16/20 18:01	1

Eurofins TestAmerica, Burlington

# Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	PFOSA (25-150)	PFBA (25-150)	PFPeA (25-150)	PFHxA (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFNA (50-150)	PFDA (50-150)
200-53403-1	EFFLUENT	91	109	120	113	112	118	112	96
200-53403-1 MS	EFFLUENT	94	106	112	101	111	108	105	99
200-53403-1 MSD	EFFLUENT	97	121	128	126	111	115	120	102
200-53403-2	MID POINT	92	109	119	121	110	104	113	104
200-53403-3	RAW WATER	95	108	112	121	120	110	113	99
200-53403-4	DUPLICATE	107	110	118	118	108	110	111	101
200-53403-5	A-25	90	102	107	109	101	102	108	96
200-53403-6	A-50	94	106	110	111	107	107	108	99
200-53403-7	A-75	94	99	106	103	105	95	101	94
200-53403-8	B-25	103	106	122	119	114	113	109	104
200-53403-9	B-50	88	103	106	109	103	102	97	95
200-53403-10	B-75	88	101	112	108	102	102	105	87
LCS 200-154215/2-A	Lab Control Sample	83	109	112	113	114	113	114	108
MB 200-154215/1-A	Method Blank	84	111	125	114	109	117	116	113
Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFTDA (50-150)	C3PFBS (50-150)	PFHxS (50-150)	PFOS (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)
200-53403-1	EFFLUENT	89	86	82	109	113	99	86	104
200-53403-1 MS	EFFLUENT	88	85	80	108	105	97	99	109
200-53403-1 MSD	EFFLUENT	116	99	92	119	110	110	106	108
200-53403-2	MID POINT	95	81	77	109	115	106	107	99
200-53403-3	RAW WATER	88	87	87	117	116	100	98	105
200-53403-4	DUPLICATE	96	98	88	111	110	97	112	106
200-53403-5	A-25	83	91	80	110	113	104	105	90
200-53403-6	A-50	100	88	86	106	103	102	115	106
200-53403-7	A-75	95	92	79	99	98	96	97	102
200-53403-8	B-25	103	101	94	113	108	108	111	105
200-53403-9	B-50	87	88	83	107	103	95	96	105
200-53403-10	B-75	83	83	77	106	106	100	89	97
LCS 200-154215/2-A	Lab Control Sample	104	102	86	107	118	113	112	129
MB 200-154215/1-A	Method Blank	111	99	90	115	108	112	111	120
Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)						
200-53403-1	EFFLUENT	116	109						
200-53403-1 MS	EFFLUENT	119	111						
200-53403-1 MSD	EFFLUENT	137	117						
200-53403-2	MID POINT	118	117						
200-53403-3	RAW WATER	132	106						
200-53403-4	DUPLICATE	123	114						
200-53403-5	A-25	120	119						
200-53403-6	A-50	123	102						
200-53403-7	A-75	105	104						
200-53403-8	B-25	111	115						
200-53403-9	B-50	122	109						
200-53403-10	B-75	107	96						
LCS 200-154215/2-A	Lab Control Sample	116	112						
MB 200-154215/1-A	Method Blank	114	130						

Eurofins TestAmerica, Burlington

# Isotope Dilution Summary

Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

Job ID: 200-53403-1

## Surrogate Legend

PFOSA = 13C8 FOSA	1
PFBA = 13C4 PFBA	2
PFPeA = 13C5-PFPeA DNU	3
PFHxA = 13C2 PFHxA	4
C4PFHA = 13C4 PFHpA	5
PFOA = 13C4 PFOA	6
PFNA = 13C5 PFNA	7
PFDA = 13C2 PFDA	8
PFUnA = 13C2 PFUnA	9
PFDoA = 13C2 PFDoA	10
PFTDA = 13C2 PFTeDA	11
C3PFBS = 13C3 PFBS	12
PFHxS = 18O2 PFHxS	13
PFOS = 13C4 PFOS	14
d3NMFOs = d3-NMeFOSAA	15
d5NEFOS = d5-NEtFOSAA	
M262FTS = M2-6:2 FTS	
M282FTS = M2-8:2 FTS	

# QC Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

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

**Lab Sample ID:** MB 200-154215/1-A

**Matrix:** Water

**Analysis Batch:** 154240

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 154215

Analyte	MB	MB	Dil Fac						
	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed
Perfluorobutanoic acid (PFBA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluoropentanoic acid (PFPeA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorohexanoic acid (PFHxA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluoroheptanoic acid (PFHpA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluoroctanoic acid (PFOA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorononanoic acid (PFNA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorodecanoic acid (PFDA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluoroundecanoic acid (PFUnA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorododecanoic acid (PFDaO)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorotridecanoic acid (PFTriA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorotetradecanoic acid (PFTeA)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorobutanesulfonic acid (PFBS)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorohexanesulfonic acid (PFHxS)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorodecanesulfonic acid (PFDS)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorooctanesulfonic acid (PFOS)	ND		1	2.0		ng/L	04/16/20 09:01	04/16/20 15:32	
Perfluorooctanesulfonamide (FOSA)	ND		1	10		ng/L	04/16/20 09:01	04/16/20 15:32	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1	20		ng/L	04/16/20 09:01	04/16/20 15:32	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1	20		ng/L	04/16/20 09:01	04/16/20 15:32	
6:2 FTS	ND		1	20		ng/L	04/16/20 09:01	04/16/20 15:32	
8:2 FTS	ND		1	20		ng/L	04/16/20 09:01	04/16/20 15:32	

Isotope Dilution	MB	MB	Dil Fac				
	%Recovery	Qualifier		Limits	Prepared	Analyzed	
13C8 FOSA	84		1	25 - 150	04/16/20 09:01	04/16/20 15:32	
13C4 PFBA	111		1	25 - 150	04/16/20 09:01	04/16/20 15:32	
13C5-PFPeA DNU	125		1	25 - 150	04/16/20 09:01	04/16/20 15:32	
13C2 PFHxA	114		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C4 PFHpA	109		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C4 PFOA	117		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C5 PFNA	116		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C2 PFDA	113		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C2 PFUnA	111		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C2 PFDaO	99		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C2 PFTeDA	90		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C3 PFBS	115		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
18O2 PFHxS	108		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
13C4 PFOS	112		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
d3-NMeFOSAA	111		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
d5-NEtFOSAA	120		1	50 - 150	04/16/20 09:01	04/16/20 15:32	
M2-6:2 FTS	114		1	25 - 150	04/16/20 09:01	04/16/20 15:32	
M2-8:2 FTS	130		1	25 - 150	04/16/20 09:01	04/16/20 15:32	

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# QC Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

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

**Lab Sample ID: LCS 200-154215/2-A**

**Matrix: Water**

**Analysis Batch: 154240**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 154215**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Perfluorobutanoic acid (PFBA)	40.0	40.1		ng/L		100	50 - 150	
Perfluoropentanoic acid (PFPeA)	40.0	37.4		ng/L		94	50 - 150	
Perfluorohexanoic acid (PFHxA)	40.0	35.1		ng/L		88	70 - 130	
Perfluoroheptanoic acid (PFHpA)	40.0	37.2		ng/L		93	70 - 130	
Perfluorooctanoic acid (PFOA)	40.0	36.9		ng/L		92	70 - 130	
Perfluorononanoic acid (PFNA)	40.0	37.9		ng/L		95	70 - 130	
Perfluorodecanoic acid (PFDA)	40.0	43.4		ng/L		108	70 - 130	
Perfluoroundecanoic acid (PFUnA)	40.0	39.1		ng/L		98	70 - 130	
Perfluorododecanoic acid (PFDoA)	40.0	39.6		ng/L		99	70 - 130	
Perfluorotridecanoic acid (PFTriA)	40.0	32.7		ng/L		82	70 - 130	
Perfluorotetradecanoic acid (PFTeA)	40.0	38.9		ng/L		97	70 - 130	
Perfluorobutanesulfonic acid (PFBS)	35.4	36.1		ng/L		102	70 - 130	
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.6		ng/L		95	70 - 130	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	36.1		ng/L		95	50 - 150	
Perfluorodecanesulfonic acid (PFDS)	38.6	37.4		ng/L		97	50 - 150	
Perfluorooctanesulfonic acid (PFOS)	37.1	36.0		ng/L		97	70 - 130	
Perfluorooctanesulfonamide (FOSA)	40.0	35.1		ng/L		88	50 - 150	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	43.0		ng/L		108	70 - 130	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	34.7		ng/L		87	70 - 130	
6:2 FTS		37.9	40.8	ng/L		108	50 - 150	
8:2 FTS		38.3	33.1	ng/L		86	50 - 150	

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	83		25 - 150
13C4 PFBA	109		25 - 150
13C5-PFPeA DNU	112		25 - 150
13C2 PFHxA	113		50 - 150
13C4 PFHpA	114		50 - 150
13C4 PFOA	113		50 - 150
13C5 PFNA	114		50 - 150
13C2 PFDA	108		50 - 150
13C2 PFUnA	104		50 - 150
13C2 PFDoA	102		50 - 150
13C2 PFTeDA	86		50 - 150
13C3 PFBS	107		50 - 150
18O2 PFHxS	118		50 - 150
13C4 PFOS	113		50 - 150
d3-NMeFOSAA	112		50 - 150
d5-NEtFOSAA	129		50 - 150

Eurofins TestAmerica, Burlington

# QC Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

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

**Lab Sample ID: LCS 200-154215/2-A**

**Matrix: Water**

**Analysis Batch: 154240**

<b>Isotope Dilution</b>	<b>LCS</b>	<b>LCS</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>
M2-6:2 FTS	116				25 - 150
M2-8:2 FTS	112				25 - 150

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 154215**

**Lab Sample ID: 200-53403-1 MS**

**Matrix: Water**

**Analysis Batch: 154240**

<b>Analyte</b>	<b>Sample</b>	<b>Sample</b>	<b>Spike</b>	<b>MS</b>	<b>MS</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>
	<b>Result</b>	<b>Qualifier</b>	<b>Added</b>	<b>Result</b>	<b>Qualifier</b>				
Perfluorobutanoic acid (PFBA)	ND		33.0	32.9		ng/L		100	40 - 160
Perfluoropentanoic acid (PFPeA)	ND		33.0	29.5		ng/L		88	40 - 160
Perfluorohexanoic acid (PFHxA)	ND		33.0	33.5		ng/L		102	40 - 160
Perfluoroheptanoic acid (PFHpA)	ND		33.0	31.4		ng/L		95	40 - 160
Perfluorooctanoic acid (PFOA)	ND		33.0	32.6		ng/L		95	40 - 160
Perfluorononanoic acid (PFNA)	ND		33.0	30.5		ng/L		92	40 - 160
Perfluorodecanoic acid (PFDA)	ND		33.0	35.1		ng/L		106	40 - 160
Perfluoroundecanoic acid (PFUnA)	ND		33.0	30.9		ng/L		94	40 - 160
Perfluorododecanoic acid (PFDoA)	ND		33.0	32.5		ng/L		99	40 - 160
Perfluorotridecanoic acid (PFTriA)	ND	F2	33.0	26.2		ng/L		79	40 - 160
Perfluorotetradecanoic acid (PFTeA)	ND		33.0	32.4		ng/L		98	40 - 160
Perfluorobutanesulfonic acid (PFBS)	ND		29.2	30.6		ng/L		103	40 - 160
Perfluorohexanesulfonic acid (PFHxS)	ND		30.0	30.2		ng/L		101	40 - 160
Perfluoroheptanesulfonic Acid (PFHpS)	ND		31.4	36.0		ng/L		115	40 - 160
Perfluorodecanesulfonic acid (PFDS)	ND		31.8	29.6		ng/L		93	40 - 160
Perfluoroctanesulfonic acid (PFOS)	ND		30.6	33.2		ng/L		108	40 - 160
Perfluorooctanesulfonamide (FOSA)	ND		33.0	28.9		ng/L		87	40 - 160
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	ND		33.0	31.3		ng/L		95	40 - 160
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	ND		33.0	28.4		ng/L		86	40 - 160
6:2 FTS	ND		31.3	29.7		ng/L		95	40 - 160
8:2 FTS	ND	F2	31.6	25.9		ng/L		82	40 - 160
<b>Isotope Dilution</b>	<b>MS</b>	<b>MS</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
	13C8 FOSA	94			25 - 150				
13C4 PFBA	106				25 - 150				
13C5-PFPeA DNU	112				25 - 150				
13C2 PFHxA	101				50 - 150				
13C4 PFHpA	111				50 - 150				
13C4 PFOA	108				50 - 150				
13C5 PFNA	105				50 - 150				
13C2 PFDA	99				50 - 150				
13C2 PFUnA	88				50 - 150				

Eurofins TestAmerica, Burlington

# QC Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

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

**Lab Sample ID: 200-53403-1 MS**

**Matrix: Water**

**Analysis Batch: 154240**

**Client Sample ID: EFFLUENT**

**Prep Type: Total/NA**

**Prep Batch: 154215**

<i>Isotope Dilution</i>	<i>MS</i>	<i>MS</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
13C2 PFDoA		85			50 - 150
13C2 PFTeDA		80			50 - 150
13C3 PFBS		108			50 - 150
18O2 PFHxS		105			50 - 150
13C4 PFOS		97			50 - 150
d3-NMeFOSAA		99			50 - 150
d5-NEtFOSAA		109			50 - 150
M2-6:2 FTS		119			25 - 150
M2-8:2 FTS		111			25 - 150

**Lab Sample ID: 200-53403-1 MSD**

**Matrix: Water**

**Analysis Batch: 154240**

**Client Sample ID: EFFLUENT**

**Prep Type: Total/NA**

**Prep Batch: 154215**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD</i>	<i>MSD</i>	<i>Unit</i>	<i>D</i>	<i>%Rec.</i>	<i>RPD</i>	<i>RPD Limit</i>	
				<i>Result</i>	<i>Qualifier</i>						
Perfluorobutanoic acid (PFBA)	ND		33.7	33.2		ng/L		99	40 - 160	1	30
Perfluoropentanoic acid (PFPeA)	ND		33.7	31.3		ng/L		91	40 - 160	6	30
Perfluorohexanoic acid (PFHxA)	ND		33.7	32.6		ng/L		97	40 - 160	3	20
Perfluoroheptanoic acid (PFHpA)	ND		33.7	32.8		ng/L		97	40 - 160	5	20
Perfluorooctanoic acid (PFOA)	ND		33.7	34.2		ng/L		98	40 - 160	5	20
Perfluorononanoic acid (PFNA)	ND		33.7	34.4		ng/L		102	40 - 160	12	20
Perfluorodecanoic acid (PFDA)	ND		33.7	37.0		ng/L		110	40 - 160	5	20
Perfluoroundecanoic acid (PFUnA)	ND		33.7	31.6		ng/L		94	40 - 160	2	20
Perfluorododecanoic acid (PFDoA)	ND		33.7	32.5		ng/L		97	40 - 160	0	20
Perfluorotridecanoic acid (PFTriA)	ND	F2	33.7	32.8	F2	ng/L		97	40 - 160	22	20
Perfluorotetradecanoic acid (PFTeA)	ND		33.7	33.8		ng/L		100	40 - 160	4	20
Perfluorobutanesulfonic acid (PFBS)	ND		29.8	30.0		ng/L		99	40 - 160	2	20
Perfluorohexanesulfonic acid (PFHxS)	ND		30.6	30.2		ng/L		99	40 - 160	0	20
Perfluoroheptanesulfonic Acid (PFHpS)	ND		32.0	34.6		ng/L		108	40 - 160	4	30
Perfluorodecanesulfonic acid (PFDS)	ND		32.4	28.7		ng/L		88	40 - 160	3	30
Perfluorooctanesulfonic acid (PFOS)	ND		31.2	31.5		ng/L		101	40 - 160	5	20
Perfluorooctanesulfonamide (FOSA)	ND		33.7	35.0		ng/L		104	40 - 160	19	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		33.7	36.1		ng/L		107	40 - 160	14	20
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		33.7	31.7		ng/L		94	40 - 160	11	20
6:2 FTS	ND		31.9	31.4		ng/L		98	40 - 160	6	30
8:2 FTS	ND	F2	32.2	35.5	F2	ng/L		110	40 - 160	31	30
<i>Isotope Dilution</i>	<i>MSD</i>	<i>MSD</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>						
13C8 FOSA	97				25 - 150						
13C4 PFBA	121				25 - 150						

Eurofins TestAmerica, Burlington

# QC Sample Results

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

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

Lab Sample ID: 200-53403-1 MSD

Matrix: Water

Analysis Batch: 154240

Client Sample ID: EFFLUENT

Prep Type: Total/NA

Prep Batch: 154215

Isotope Dilution	MSD	MSD	Limits
	%Recovery	Qualifier	
13C5-PFPeA DNU	128		25 - 150
13C2 PFHxA	126		50 - 150
13C4 PFHpA	111		50 - 150
13C4 PFOA	115		50 - 150
13C5 PFNA	120		50 - 150
13C2 PFDA	102		50 - 150
13C2 PFUnA	116		50 - 150
13C2 PFDoA	99		50 - 150
13C2 PFTeDA	92		50 - 150
13C3 PFBS	119		50 - 150
18O2 PFHxS	110		50 - 150
13C4 PFOS	110		50 - 150
d3-NMeFOSAA	106		50 - 150
d5-NEtFOSAA	108		50 - 150
M2-6:2 FTS	137		25 - 150
M2-8:2 FTS	117		25 - 150

# QC Association Summary

Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

Job ID: 200-53403-1

## LCMS

### Prep Batch: 154215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-53403-1	EFFLUENT	Total/NA	Water	3535	1
200-53403-2	MID POINT	Total/NA	Water	3535	2
200-53403-3	RAW WATER	Total/NA	Water	3535	3
200-53403-4	DUPLICATE	Total/NA	Water	3535	4
200-53403-5	A-25	Total/NA	Water	3535	5
200-53403-6	A-50	Total/NA	Water	3535	6
200-53403-7	A-75	Total/NA	Water	3535	7
200-53403-8	B-25	Total/NA	Water	3535	8
200-53403-9	B-50	Total/NA	Water	3535	9
200-53403-10	B-75	Total/NA	Water	3535	10
MB 200-154215/1-A	Method Blank	Total/NA	Water	3535	11
LCS 200-154215/2-A	Lab Control Sample	Total/NA	Water	3535	12
200-53403-1 MS	EFFLUENT	Total/NA	Water	3535	13
200-53403-1 MSD	EFFLUENT	Total/NA	Water	3535	14

### Analysis Batch: 154240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-53403-1	EFFLUENT	Total/NA	Water	537 (modified)	154215
200-53403-2	MID POINT	Total/NA	Water	537 (modified)	154215
200-53403-3	RAW WATER	Total/NA	Water	537 (modified)	154215
200-53403-4	DUPLICATE	Total/NA	Water	537 (modified)	154215
200-53403-5	A-25	Total/NA	Water	537 (modified)	154215
200-53403-6	A-50	Total/NA	Water	537 (modified)	154215
200-53403-7	A-75	Total/NA	Water	537 (modified)	154215
200-53403-8	B-25	Total/NA	Water	537 (modified)	154215
200-53403-9	B-50	Total/NA	Water	537 (modified)	154215
200-53403-10	B-75	Total/NA	Water	537 (modified)	154215
MB 200-154215/1-A	Method Blank	Total/NA	Water	537 (modified)	154215
LCS 200-154215/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	154215
200-53403-1 MS	EFFLUENT	Total/NA	Water	537 (modified)	154215
200-53403-1 MSD	EFFLUENT	Total/NA	Water	537 (modified)	154215

# Lab Chronicle

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

## **Client Sample ID: EFFLUENT**

Date Collected: 04/14/20 10:30

Date Received: 04/15/20 10:26

## **Lab Sample ID: 200-53403-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 16:21	BWC	TAL BUR

## **Client Sample ID: MID POINT**

Date Collected: 04/14/20 10:50

Date Received: 04/15/20 10:26

## **Lab Sample ID: 200-53403-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 16:46	BWC	TAL BUR

## **Client Sample ID: RAW WATER**

Date Collected: 04/14/20 11:05

Date Received: 04/15/20 10:26

## **Lab Sample ID: 200-53403-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 16:55	BWC	TAL BUR

## **Client Sample ID: DUPLICATE**

Date Collected: 04/14/20 00:00

Date Received: 04/15/20 10:26

## **Lab Sample ID: 200-53403-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 17:03	BWC	TAL BUR

## **Client Sample ID: A-25**

Date Collected: 04/14/20 10:58

Date Received: 04/15/20 10:26

## **Lab Sample ID: 200-53403-5**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 17:11	BWC	TAL BUR

## **Client Sample ID: A-50**

Date Collected: 04/14/20 10:55

Date Received: 04/15/20 10:26

## **Lab Sample ID: 200-53403-6**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 17:28	BWC	TAL BUR

Eurofins TestAmerica, Burlington

# Lab Chronicle

Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

Job ID: 200-53403-1

## Client Sample ID: A-75

Date Collected: 04/14/20 10:53

Date Received: 04/15/20 10:26

## Lab Sample ID: 200-53403-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 17:36	BWC	TAL BUR

## Client Sample ID: B-25

Date Collected: 04/14/20 10:45

Date Received: 04/15/20 10:26

## Lab Sample ID: 200-53403-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 17:44	BWC	TAL BUR

## Client Sample ID: B-50

Date Collected: 04/14/20 10:43

Date Received: 04/15/20 10:26

## Lab Sample ID: 200-53403-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 17:53	BWC	TAL BUR

## Client Sample ID: B-75

Date Collected: 04/14/20 10:40

Date Received: 04/15/20 10:26

## Lab Sample ID: 200-53403-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			154215	04/16/20 09:01	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	154240	04/16/20 18:01	BWC	TAL BUR

### Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

Client: New York State D.E.C.

Job ID: 200-53403-1

Project/Site: Stewart ANG Base #336089 Kroll Well

## Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-21

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 (PPeA)
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	04-02-21

## Method Summary

Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

Job ID: 200-53403-1

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

**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 BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

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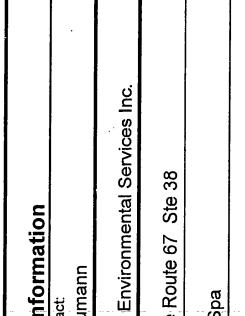
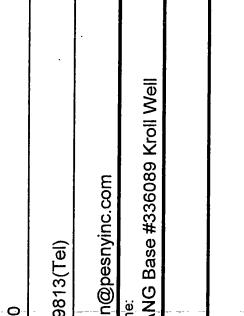
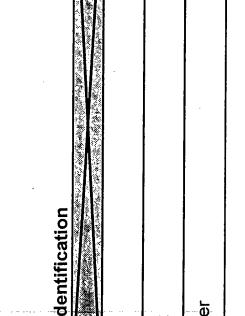
# Sample Summary

Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

Job ID: 200-53403-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-53403-1	EFFLUENT	Water	04/14/20 10:30	04/15/20 10:26	
200-53403-2	MID POINT	Water	04/14/20 10:50	04/15/20 10:26	
200-53403-3	RAW WATER	Water	04/14/20 11:05	04/15/20 10:26	
200-53403-4	DUPLICATE	Water	04/14/20 00:00	04/15/20 10:26	
200-53403-5	A-25	Water	04/14/20 10:58	04/15/20 10:26	
200-53403-6	A-50	Water	04/14/20 10:55	04/15/20 10:26	
200-53403-7	A-75	Water	04/14/20 10:53	04/15/20 10:26	
200-53403-8	B-25	Water	04/14/20 10:45	04/15/20 10:26	
200-53403-9	B-50	Water	04/14/20 10:43	04/15/20 10:26	
200-53403-10	B-75	Water	04/14/20 10:40	04/15/20 10:26	

<b>Client Information</b>		Carrier Tracking No(s):		COC No: 480-142945-31043.1	
Client Contact: Brian Neumann	Company: Precision Environmental Services Inc.	Sampler: Patrick Schlecht	Lab P.M.: Stone, Judy L	Page: 1 of 2	Job #:
Phone: (518) 885-4399	E-Mail: judy.stone@testamericanainc.com	<b>Analysis Requested</b>			
Address: 831 State Route 67 Site 38 City: Ballston Spa State Zip: NY, 12020 Phone: 518-402-9813(Tel) Email: bneumann@pesnyinc.com Project Name: Stewart ANG Base #336089 Kroll Veil Site: SSOW#:		Due Date Requested:  <b>Standard (10-Day)</b>   Callout ID: 137132 WO #: Project #: 48020487		Preservation Codes:  A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchors H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - H2SO4 S - TSP Dodecylhydrate U - Acetone V - MCA W - pH 4-5 Z - other (specify) Other:	
				Special Instructions/Note:  Total Number of Contaminants:  PFCD-A - PAHs, Standard List (21 Analyses) - Burn PFCD-B - PCBs, MMS/MSD, MMS/MSD PFCD-C - Sample Type (yes or no)	
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=comp., G=grab)	Matrix (W=water, S=solid, O=waste/oil, B=tissue, A=air)
Effluent	4-14-20	1030	G2b	Water	X X
Mid Point		1050		Water	✓
Raw Water		1055		Water	✓
Duplicate		1058		Water	✓
A-25		1055		Water	✓
A-50		1053		Water	✓
A-75		1045		Water	✓
B-25		1043		Water	✓
B-50		1040	↓	Water	✓
B-75				Water	✓
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison A <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify) <b>Cat B Deliverables</b>					
Empty Kit Relinquished by:  	Date/Time: 4-14-20 / 1445	Company: pes	Date/Time: 4/14/20 1700	Company: Eurofins	Method of Shipment:  
Relinquished by:  	Date/Time: 4/14/20 / 1445	Received by: Judy L Stone	Date/Time: 4/15/2020 10:16	Received by: T. Hall	Company: Eurofins
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: <b>1337038</b>		Cooler Temperature(s) °C and Other Remarks: <b>1.3</b>	
<input type="checkbox"/> Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					

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FROM: (518) 438-8140  
TIM KNOLLMAYER  
TESTAMERICA LAB INC  
25 KRAFT AVE

ALBANY NY 12205  
US

SHIP DATE: 14APR20  
ACTWGT: 34.75 LB  
CAD: 0439821/CAFE3211

BILL 3rd PARTY

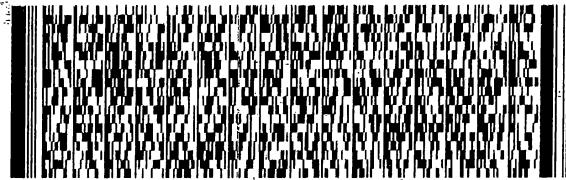
SS1C47730/104C

TO **SAMPLE RECEIVING  
TESTAMERICA – BURLINGTON  
30 COMMUNITY DRIVE, SUITE 11**

**BURLINGTON VT 05403**

(802) 660-1990

REF: PES KROLL WELL



**FedEx**  
Ground

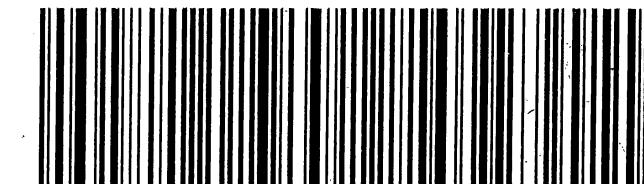


J181119060501uv

TRK# **1496 4445 6849**

**05403**

**9622 0417 3 (000 000 0000) 0 00 1496 4445 6849**



Part # 156148-434 R/T EXP 09/19 ::

## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 200-53403-1

**Login Number: 53403**

**List Source: Eurofins TestAmerica, Burlington**

**List Number: 1**

**Creator: McNabb, Robert W**

Question	Answer	Comment	
Radioactivity either was not measured or, if measured, is at or below background	N/A	NA: Lab does not accept radioactive samples	6
The cooler's custody seal, if present, is intact.	True	1322038	7
The cooler or samples do not appear to have been compromised or tampered with.	True		8
Samples were received on ice.	True		9
Cooler Temperature is acceptable.	True		10
Cooler Temperature is recorded.	True	2.3°C	11
COC is present.	True		12
COC is filled out in ink and legible.	True		13
COC is filled out with all pertinent information.	True		14
Is the Field Sampler's name present on COC?	True	PS	15
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.	N/A		
Sample Preservation Verified	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True		
If necessary, staff have been informed of any short hold time or quick TAT needs	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Sampling Company provided.	True		
Samples received within 48 hours of sampling.	True		
Samples requiring field filtration have been filtered in the field.	True		
Chlorine Residual checked.	N/A		