### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E 625 Broadway, 12th Floor, Albany, NY 12233-7017 P: (518) 402-9813 I F: (518) 402-9819 www.dec.ny.gov

October 28, 2019

Mr. George Green, 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 Green,

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of the analytical results derived from the October 9, 2019 sampling of the granular activated carbon (GAC) water treatment system installed at the Town of New Windsor (Town) Kroll Well field at 354 Mount Airy Road (Tax Map ID #: 54-1-22.2) by DEC representatives.

## The results of the sampling indicate that the Town's treated water supply is in conformance with the health advisory level established by the United States Environmental Protection Agency (EPA) for drinking water.

Specifically, the samples are analyzed for a total of twenty-one per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). The EPA has established the health advisory level at 70 parts per trillion (ppt) or nanograms per liter (ng/L) for a lifetime exposure to PFOA and PFOS. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 ppt health advisory level (HAL).

During this event, sampling was conducted at nine 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 nine 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 . For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Steven Phelps of Precision Environmental Services at (518) 528-1427. 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.

Sincerely,

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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 D. McGoey/M. Weeks, MHE W. Gilday, NYSDOH Dr. Kim, NYSDOH S. Gagnon, OCDOH M. Andersen, OCDOH J. Hayward, EA Engineering S. Phelps, PES M. Cruden, NYSDEC D. Bendell, Region 3 RHWRE D. Harrington, NYSDEC

### Town of New Windsor Kroll Well GAC Operation and Maintenance Sampling Results

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	Result Effluent	Comparison Value (MCL <sup>3</sup> or Guidance Value)
September 2019	PFOA+PFOS	16.7	12.3	ND	ND	ND	ND	ND	ND	ND	704
October 2019	PFOA+PFOS	20.9	13.2	ND	ND	ND	ND	ND	ND	ND	704

### Notes:

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 Public Health Advisory for drinking water is currently 70 ppt.

### How to Read Your Laboratory Reports

### PFOA and PFOS Results:

- <u>Analyte</u> is the term used to describe what the laboratory was testing for, in this case PFOS and PFOA.
- <u>Conc. (ng/l)</u> 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)</li>
- <u>RL = reporting limit</u> or RDL = <u>reportable detection limit</u> is the lowest level at which this specific testing protocol and laboratory has confidence in measuring the given analyte.
- <u>Qualifiers</u> 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.

- <u>Labeled Standard or Surrogate</u> is the lab's specific name for an individual control sample.
- <u>%R</u> is the percent of the control sample that was detected by the equipment. A 100% reading represents perfect equipment alignment.
- <u>LCL-UCL</u> 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.
- <u>Qualifiers</u>: If a result quality control variance is noted or I 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).

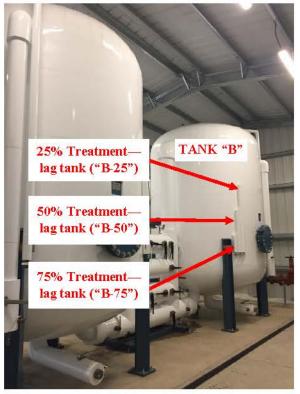
### Inorganic Results:

- <u>Parameter</u> is the same as "analyte" above it is the chemical being tested.
- <u>Result</u> is the concentration of that chemical detected.
- <u>RL/PQL</u> is the lowest level at which the specific laboratory test can reliably quantify the concentration. Below that number, the result is considered unreliable.
- <u>DIL</u> is the number of times the sample was diluted (necessary because the test has a certain range that it is accurate for).
- <u>Units</u>: mg/l is milligrams per liter or parts per million; ug/l is micrograms per liter or parts per billion.
- <u>DW MCL</u> 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.

- <u>Sec Goal</u> 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.
- <u>Date/Time</u> represents the date and time of the analysis at the lab.
- <u>By</u> refers to the technician who ran the test.
- <u>Reference</u> indicates the EPA method used in the test.







# 6 PFAS ANALYSIS DATA PACKAGE

Environment Testing TestAmerica

### **ANALYTICAL REPORT**

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

### Laboratory Job ID: 320-55151-1

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

JudyStone

Authorized for release by: 10/16/2019 9:08:58 AM

Judy Stone, Senior Project Manager (484)685-0868 judy.stone@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.

..... Links **Review your project** results through Total Access Have a Question? Ask-The Expert Visit us at: www.testamericainc.com

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

> 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.

udyStone

Judy Stone Senior Project Manager 10/16/2019 9:08:58 AM

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### **Definitions/Glossary**

### Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

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	Ę
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)	8
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	1 1
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

### Job ID: 320-55151-1

### Laboratory: Eurofins TestAmerica, Sacramento

#### Narrative

Job Narrative 320-55151-1

### Receipt

The samples were received on 10/10/2019 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.4° C and 0.5° C.

#### LCMS

Method(s) WS-LC-0025 Att1: Due to a shortage in the marketplace for 13C3-PFBS, the target analyte Perfluorobutanesulfonic acid (PFBS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS was quantitated versus 18O2-PFHxS instead. (ICV 320-329546/11)

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

#### **Organic Prep**

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

### **Detection Summary**

### Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

### Client Sample ID: Effluent

No Detections.

### Client Sample ID: Mid Point

No Detections.

### **Client Sample ID: Raw Water**

Analyte	Result (	Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	6.0		2.0		ng/L	1	WS-LC-0025 Att1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.1		2.0		ng/L	1	WS-LC-0025 Att1	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.6		2.0		ng/L	1	WS-LC-0025 Att1	Total/NA
Perfluorooctanoic acid (PFOA)	9.1		2.0		ng/L	1	WS-LC-0025 Att1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10		2.0		ng/L	1	WS-LC-0025 Att1	Total/NA

### **Client Sample ID: Duplicate**

No Detections.

#### **Client Sample ID: A-25** Lab Sample ID: 320-55151-5 Analyte **Result Qualifier** RL MDL Unit Dil Fac D Method Prep Type Perfluorobutanesulfonic acid (PFBS) 2.0 Total/NA 4.8 ng/L 1 WS-LC-0025 Att1 Total/NA Perfluoroheptanoic acid (PFHpA) 2.0 2.0 ng/L 1 WS-LC-0025 Att1 Perfluorooctanoic acid (PFOA) 7.2 2.0 WS-LC-0025 Total/NA ng/L 1 Att1 Perfluorooctanesulfonic acid (PFOS) 7.3 2.0 ng/L 1 WS-LC-0025 Total/NA Att1 Client Sample ID: A-50 Lab Sample ID: 320-55151-6 No Detections. Client Sample ID: A-75 Lab Sample ID: 320-55151-7 No Detections.

# Client Sample ID: B-25Lab Sample ID: 320-55151-8No Detections.Lab Sample ID: 320-55151-9No Detections.Lab Sample ID: 320-55151-9Client Sample ID: B-75Lab Sample ID: 320-55151-10

No Detections.

This Detection Summary does not include radiochemical test results.

Job ID: 320-55151-1

Lab Sample ID: 320-55151-1

Lab Sample ID: 320-55151-2

Lab Sample ID: 320-55151-3

Lab Sample ID: 320-55151-4

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well Job ID: 320-55151-1

Lab Sample ID: 320-55151-2

Lab Sample ID: 320-55151-3

**Matrix: Water** 

Matrix: Water

### Client Sample ID: Effluent Date Collected: 10/09/19 09:00 Date Received: 10/09/19 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 14:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 14:29	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 14:29	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 14:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 14:29	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 14:29	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	116		25 - 150				10/11/19 10:51	10/12/19 14:29	1
13C4 PFHpA	116		25 - 150				10/11/19 10:51	10/12/19 14:29	1
13C4 PFOA	110		70 - 130				10/11/19 10:51	10/12/19 14:29	1
13C4 PFOS	107		70 - 130				10/11/19 10:51	10/12/19 14:29	1
13C5 PFNA	105		25 - 150				10/11/19 10:51	10/12/19 14:29	1

### Client Sample ID: Mid Point Date Collected: 10/09/19 09:15

### Date Received: 10/09/19 15:21

Method: WS-LC-0025 Att1 - Flu	uorinated A	lkyl Subst	ances						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 15:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 15:25	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 15:25	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 15:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 15:25	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 15:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	113		25 - 150				10/11/19 10:51	10/12/19 15:25	1
13C4 PFHpA	111		25 - 150				10/11/19 10:51	10/12/19 15:25	1
13C4 PFOA	102		70 - 130				10/11/19 10:51	10/12/19 15:25	1
13C4 PFOS	105		70 - 130				10/11/19 10:51	10/12/19 15:25	1
13C5 PFNA	100		25 - 150				10/11/19 10:51	10/12/19 15:25	1

### **Client Sample ID: Raw Water**

### Date Collected: 10/09/19 09:35 Date Received: 10/09/19 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	6.0		2.0		ng/L		10/11/19 10:51	10/12/19 15:43	1
Perfluorohexanesulfonic acid (PFHxS)	2.1		2.0		ng/L		10/11/19 10:51	10/12/19 15:43	1
Perfluoroheptanoic acid (PFHpA)	2.6		2.0		ng/L		10/11/19 10:51	10/12/19 15:43	1
Perfluorooctanoic acid (PFOA)	9.1		2.0		ng/L		10/11/19 10:51	10/12/19 15:43	1
Perfluorooctanesulfonic acid (PFOS)	10		2.0		ng/L		10/11/19 10:51	10/12/19 15:43	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 15:43	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1802 PFHxS	109		25 - 150				10/11/19 10:51	10/12/19 15:43	1
13C4 PFHpA	106		25 - 150				10/11/19 10:51	10/12/19 15:43	1

Eurofins TestAmerica, Sacramento

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

### Client Sample ID: Raw Water Date Collected: 10/09/19 09:35 Date Received: 10/09/19 15:21

Method: WS-LC-0025 Att1 - Flu	uorinated Alkyl Subst	ances (Continued)			
Isotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	100	70 - 130	10/11/19 10:51	10/12/19 15:43	1
13C4 PFOS	100	70 - 130	10/11/19 10:51	10/12/19 15:43	1
13C5 PFNA	90	25 - 150	10/11/19 10:51	10/12/19 15:43	1

### Client Sample ID: Duplicate Date Collected: 10/09/19 00:00 Date Received: 10/09/19 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 12:16	10/12/19 18:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 12:16	10/12/19 18:11	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 12:16	10/12/19 18:11	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 12:16	10/12/19 18:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 12:16	10/12/19 18:11	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 12:16	10/12/19 18:11	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	122		25 - 150				10/11/19 12:16	10/12/19 18:11	1
13C4 PFHpA	117		25 - 150				10/11/19 12:16	10/12/19 18:11	1
13C4 PFOA	111		70 - 130				10/11/19 12:16	10/12/19 18:11	1
13C4 PFOS	109		70 - 130				10/11/19 12:16	10/12/19 18:11	1
13C5 PFNA	104		25 - 150				10/11/19 12:16	10/12/19 18:11	1

### Client Sample ID: A-25

### Date Collected: 10/09/19 09:30

Date Received: 10/09/19 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	4.8		2.0		ng/L		10/11/19 10:51	10/12/19 16:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:02	1
Perfluoroheptanoic acid (PFHpA)	2.0		2.0		ng/L		10/11/19 10:51	10/12/19 16:02	1
Perfluorooctanoic acid (PFOA)	7.2		2.0		ng/L		10/11/19 10:51	10/12/19 16:02	1
Perfluorooctanesulfonic acid (PFOS)	7.3		2.0		ng/L		10/11/19 10:51	10/12/19 16:02	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	113		25 - 150				10/11/19 10:51	10/12/19 16:02	1
13C4 PFHpA	109		25 - 150				10/11/19 10:51	10/12/19 16:02	1
13C4 PFOA	99		70 - 130				10/11/19 10:51	10/12/19 16:02	1
13C4 PFOS	97		70 - 130				10/11/19 10:51	10/12/19 16:02	1
13C5 PFNA	96		25 - 150				10/11/19 10:51	10/12/19 16:02	1

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

Date Collected: 10/09/19 09:28 Date Received: 10/09/19 15:21

Method: WS-LC-0025 Att1 - Fl	uorinated All	kyl Subst	ances						
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:20	1

Eurofins TestAmerica, Sacramento

Lab Sample ID: 320-55151-6

Matrix: Water

Matrix: Water

Matrix: Water

Lab Sample ID: 320-55151-3

Lab Sample ID: 320-55151-4

Lab Sample ID: 320-55151-5

**Matrix: Water** 

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

### Lab Sample ID: 320-55151-6

Client Sample ID: A-50 Date Collected: 10/09/19 09:28 Date Received: 10/09/19 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:20	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:20	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1802 PFHxS	116		25 - 150				10/11/19 10:51	10/12/19 16:20	1
13C4 PFHpA	109		25 - 150				10/11/19 10:51	10/12/19 16:20	1
13C4 PFOA	102		70 - 130				10/11/19 10:51	10/12/19 16:20	1
13C4 PFOS	97		70 - 130				10/11/19 10:51	10/12/19 16:20	1

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

### Date Collected: 10/09/19 09:25

Date	<b>Received:</b>	10/09/19	15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:39	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:39	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:39	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:39	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:39	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 16:39	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	115		25 - 150				10/11/19 10:51	10/12/19 16:39	1
13C4 PFHpA	113		25 - 150				10/11/19 10:51	10/12/19 16:39	1
13C4 PFOA	100		70 - 130				10/11/19 10:51	10/12/19 16:39	1
13C4 PFOS	99		70 - 130				10/11/19 10:51	10/12/19 16:39	1
13C5 PFNA	98		25 - 150				10/11/19 10:51	10/12/19 16:39	1

### Client Sample ID: B-25

Date Collected: 10/09/19 09:22

Date Received: 10/09/19 15:21

Method: WS-LC-0025 Att1 - Flu Analyte	Result Q	-	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:16	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:16	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:16	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:16	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:16	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:16	1
Isotope Dilution	%Recovery Q	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	110		25 - 150				10/11/19 10:51	10/12/19 17:16	1
13C4 PFHpA	109		25 - 150				10/11/19 10:51	10/12/19 17:16	1
13C4 PFOA	98		70 - 130				10/11/19 10:51	10/12/19 17:16	1
13C4 PFOS	98		70 - 130				10/11/19 10:51	10/12/19 17:16	1
13C5 PFNA	90		25 - 150				10/11/19 10:51	10/12/19 17:16	1

Eurofins TestAmerica, Sacramento

Job ID: 320-55151-1

Matrix: Water

Lab Sample ID: 320-55151-7

Lab Sample ID: 320-55151-8

Matrix: Water

Matrix: Water

13 14

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

### Job ID: 320-55151-1

Lab Sample ID: 320-55151-10

Matrix: Water

**Matrix: Water** 

### Lab Sample ID: 320-55151-9

Date Collected: 10/09/19 09:20 Date Received: 10/09/19 15:21

**Client Sample ID: B-50** 

Method: WS-LC-0025 Att1 - Flu Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:34	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:34	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:34	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:34	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:34	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1802 PFHxS	118		25 - 150				10/11/19 10:51	10/12/19 17:34	1
13C4 PFHpA	112		25 - 150				10/11/19 10:51	10/12/19 17:34	1
13C4 PFOA	105		70 - 130				10/11/19 10:51	10/12/19 17:34	1
13C4 PFOS	107		70 - 130				10/11/19 10:51	10/12/19 17:34	1
13C5 PFNA	98		25 - 150				10/11/19 10:51	10/12/19 17:34	1

### Client Sample ID: B-75 Date Collected: 10/09/19 09:17 Date Received: 10/09/19 15:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:52	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:52	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:52	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 17:52	1
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	114		25 - 150				10/11/19 10:51	10/12/19 17:52	1
13C4 PFHpA	109		25 - 150				10/11/19 10:51	10/12/19 17:52	1
13C4 PFOA	103		70 - 130				10/11/19 10:51	10/12/19 17:52	1
13C4 PFOS	102		70 - 130				10/11/19 10:51	10/12/19 17:52	1
13C5 PFNA	95		25 - 150				10/11/19 10:51	10/12/19 17:52	1

### **Isotope Dilution Summary**

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

### Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances Matrix: Water

			Perce	ent Isotope	Dilution Re	covery (A
		PFHxS	PFHpA	PFOA	PFOS	PFNA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(70-130)	(70-130)	(25-150)
320-55151-1	Effluent	116	116	110	107	105
320-55151-1 MS	Effluent	115	110	102	106	95
320-55151-1 MSD	Effluent	129	116	107	109	103
320-55151-2	Mid Point	113	111	102	105	100
320-55151-3	Raw Water	109	106	100	100	90
320-55151-4	Duplicate	122	117	111	109	104
320-55151-5	A-25	113	109	99	97	96
320-55151-6	A-50	116	109	102	97	95
320-55151-7	A-75	115	113	100	99	98
320-55151-8	B-25	110	109	98	98	90
320-55151-9	B-50	118	112	105	107	98
320-55151-10	B-75	114	109	103	102	95
LCS 320-330243/2-A	Lab Control Sample	120	110	104	106	94
MB 320-330243/1-A	Method Blank	116	112	100	102	98

Surrogate Legend

PFHxS = 1802 PFHxS PFHpA = 13C4 PFHpA PFOA = 13C4 PFOA PFOS = 13C4 PFOS PFNA = 13C5 PFNA Job ID: 320-55151-1

### Prep Type: Total/NA

Eurofins TestAmerica, Sacramento

### **QC Sample Results**

### Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

### Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

### Lab Sample ID: MB 320-330243/1-A Matrix: Water Analysis Batch: 330527

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 13:53	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 13:53	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 13:53	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 13:53	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 13:53	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/11/19 10:51	10/12/19 13:53	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1802 PFHxS	116		25 - 150				10/11/19 10:51	10/12/19 13:53	1
13C4 PFHpA	112		25 - 150				10/11/19 10:51	10/12/19 13:53	1
13C4 PFOA	100		70 - 130				10/11/19 10:51	10/12/19 13:53	1
13C4 PFOS	102		70 - 130				10/11/19 10:51	10/12/19 13:53	1
13C5 PFNA	98		25 - 150				10/11/19 10:51	10/12/19 13:53	1

### Lab Sample ID: LCS 320-330243/2-A Matrix: Water

Analysis Batch: 330527									Prep Batch: 330243	
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Perfluorobutanesulfonic acid (PFBS)			17.7	17.5		ng/L		99	72 - 151	
Perfluorohexanesulfonic acid (PFHxS)			18.2	17.3		ng/L		95	73 - 157	
Perfluoroheptanoic acid (PFHpA)			20.0	20.2		ng/L		101	71 - 138	
Perfluorooctanoic acid (PFOA)			20.0	20.8		ng/L		104	70 - 130	
Perfluorooctanesulfonic acid (PFOS)			18.6	17.9		ng/L		97	70 - 130	
Perfluorononanoic acid (PFNA)			20.0	23.9		ng/L		119	73 - 147	
	LCS	LCS								
Isotope Dilution	%Recovery	Qualifier	Limits							

Isotope Dilution	%Recovery	Qualifier	Limits
18O2 PFHxS	120		25 - 150
13C4 PFHpA	110		25 - 150
13C4 PFOA	104		70 - 130
13C4 PFOS	106		70 - 130
13C5 PFNA	94		25 - 150

#### Lab Sample ID: 320-55151-1 MS Matrix: Water Analysis Batch: 330527

Analysis Batch: 330527									Prep Batc	h: 330243
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Perfluorobutanesulfonic acid	ND		17.1	17.4		ng/L		102	72 - 151	
(PFBS)										
Perfluorohexanesulfonic acid	ND		17.6	16.3		ng/L		93	73 - 157	
(PFHxS)										
Perfluoroheptanoic acid (PFHpA)	ND		19.3	19.3		ng/L		100	71 <sub>-</sub> 138	
Perfluorooctanoic acid (PFOA)	ND		19.3	18.1		ng/L		94	70 - 130	
Perfluorooctanesulfonic acid	ND		17.9	14.9		ng/L		83	70 - 130	
(PFOS)										
Perfluorononanoic acid (PFNA)	ND		19.3	18.3		ng/L		95	73 - 147	

Eurofins TestAmerica, Sacramento

**Client Sample ID: Effluent** 

**Prep Type: Total/NA** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

	le ID: Method	
I	Prep Type: To	
	Prep Batch:	330243
Prepared	Analyzed	Dil Fac
10/11/19 10:51	10/12/19 13:53	1
10/11/19 10:51	10/12/19 13:53	1
10/11/19 10:51	10/12/19 13:53	1
10/11/10 10-51	10/12/10 12:52	

### **QC Sample Results**

### Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

### Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)

	MS	MS	
Isotope Dilution	%Recovery	Qualifier	Limits
18O2 PFHxS	115		25 - 150
13C4 PFHpA	110		25 - 150
13C4 PFOA	102		70 - 130
13C4 PFOS	106		70 - 130
13C5 PFNA	95		25 - 150

### Lab Sample ID: 320-55151-1 MSD Matrix: Water

Analysis Batch: 330527									Prep Ba	atch: 33	30243
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanesulfonic acid (PFBS)	ND		16.8	14.9		ng/L		89	72 - 151	16	30
Perfluorohexanesulfonic acid (PFHxS)	ND		17.3	15.2		ng/L		88	73 - 157	7	30
Perfluoroheptanoic acid (PFHpA)	ND		19.0	18.8		ng/L		99	71 - 138	3	30
Perfluorooctanoic acid (PFOA)	ND		19.0	18.0		ng/L		94	70 - 130	1	20
Perfluorooctanesulfonic acid (PFOS)	ND		17.7	14.7		ng/L		83	70 - 130	2	20
Perfluorononanoic acid (PFNA)	ND		19.0	18.7		ng/L		98	73 - 147	2	30
	MSD	MSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
18O2 PFHxS	129		25 - 150								
13C4 PFHpA	116		25 - 150								
13C4 PFOA	107		70 - 130								
13C4 PFOS	109		70 - 130								
13C5 PFNA	103		25 - 150								

### Client Sample ID: Effluent Prep Type: Total/NA

5

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### **QC Association Summary**

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well Job ID: 320-55151-1

### LCMS

### Prep Batch: 330243

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
320-55151-1	Effluent	Total/NA	Water	PFAS Prep	
320-55151-2	Mid Point	Total/NA	Water	PFAS Prep	
320-55151-3	Raw Water	Total/NA	Water	PFAS Prep	
320-55151-4	Duplicate	Total/NA	Water	PFAS Prep	
320-55151-5	A-25	Total/NA	Water	PFAS Prep	
320-55151-6	A-50	Total/NA	Water	PFAS Prep	
320-55151-7	A-75	Total/NA	Water	PFAS Prep	
320-55151-8	B-25	Total/NA	Water	PFAS Prep	
320-55151-9	B-50	Total/NA	Water	PFAS Prep	
320-55151-10	B-75	Total/NA	Water	PFAS Prep	
MB 320-330243/1-A	Method Blank	Total/NA	Water	PFAS Prep	
LCS 320-330243/2-A	Lab Control Sample	Total/NA	Water	PFAS Prep	
320-55151-1 MS	Effluent	Total/NA	Water	PFAS Prep	
320-55151-1 MSD	Effluent	Total/NA	Water	PFAS Prep	

### Analysis Batch: 330527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-55151-1	Effluent	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-2	Mid Point	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-3	Raw Water	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-4	Duplicate	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-5	A-25	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-6	A-50	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-7	A-75	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-8	B-25	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-9	B-50	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-10	B-75	Total/NA	Water	WS-LC-0025 Att1	330243
MB 320-330243/1-A	Method Blank	Total/NA	Water	WS-LC-0025 Att1	330243
LCS 320-330243/2-A	Lab Control Sample	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-1 MS	Effluent	Total/NA	Water	WS-LC-0025 Att1	330243
320-55151-1 MSD	Effluent	Total/NA	Water	WS-LC-0025 Att1	330243

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

Batch

Method

PFAS Prep

WS-LC-0025 Att1

**Client Sample ID: Effluent** 

Date Collected: 10/09/19 09:00

Date Received: 10/09/19 15:21

Prep Type

Total/NA

Total/NA

Batch

Туре

Prep

**Client Sample ID: Mid Point** 

Date Collected: 10/09/19 09:15

Date Received: 10/09/19 15:21

Analysis

Matrix: Water

Lab

TAL SAC

TAL SAC

### 2 3 4 5 6 7 8 9 10

r or Analyzed Analyst Lab 10/11/19 10:51 SAD TAL SAC 10/12/19 15:25 P1N TAL SAC Lab Sample ID: 320-55151-3 Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

### Matrix: Water

Lab Sample ID: 320-55151-2

Lab Sample ID: 320-55151-4

Lab Sample ID: 320-55151-5

Lab Sample ID: 320-55151-6

Lab Sample ID: 320-55151-1

Prepared

or Analyzed Analyst

10/11/19 10:51 SAD

10/12/19 14:29 P1N

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared	
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 15:25	P1N
-									

Dil

1

Factor

Run

### Client Sample ID: Raw Water Date Collected: 10/09/19 09:35 Date Received: 10/09/19 15:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 15:43	P1N	TAL SAC

Lab Chronicle

Initial

Amount

1.00 mL

Final

Amount

1.66 mL

Batch

Number

330243

330527

### Client Sample ID: Duplicate Date Collected: 10/09/19 00:00 Date Received: 10/09/19 15:21

Ргер Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 12:16	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 18:11	P1N	TAL SAC

### Client Sample ID: A-25 Date Collected: 10/09/19 09:30 Date Received: 10/09/19 15:21

Prep Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 16:02	P1N	TAL SAC

### Client Sample ID: A-50 Date Collected: 10/09/19 09:28 Date Received: 10/09/19 15:21

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 16:20	P1N	TAL SAC

### Client: New York State D.E.C.

Project/Site: Stewart ANG Base #336089 Kroll Well

**Matrix: Water** 

Matrix: Water

**Matrix: Water** 

Matrix: Water

Lab Sample ID: 320-55151-7

Lab Sample ID: 320-55151-8

Lab Sample ID: 320-55151-9

Lab Sample ID: 320-55151-10

### Client Sample ID: A-75 Date Collected: 10/09/19 09:25 Date Received: 10/09/19 15:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 16:39	P1N	TAL SAC

### Client Sample ID: B-25 Date Collected: 10/09/19 09:22 Date Received: 10/09/19 15:21

Ргер Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 17:16	P1N	TAL SAC

### Client Sample ID: B-50 Date Collected: 10/09/19 09:20 Date Received: 10/09/19 15:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analvzed	Analvst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 17:34	P1N	TAL SAC

### Client Sample ID: B-75 Date Collected: 10/09/19 09:17 Date Received: 10/09/19 15:21

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	330243	10/11/19 10:51	SAD	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			330527	10/12/19 17:52	P1N	TAL SAC

Laboratory References:

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

### Accreditation/Certification Summary

Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well Job ID: 320-55151-1

### 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 the agency does not o		report, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which		
Analysis Method	Prep Method	Matrix	Analyte			
WS-LC-0025 Att1	WS-LC-0025 Att1 PFAS Prep		Perfluorobutanesulfonic acid	(PFBS)		
WS-LC-0025 Att1	PFAS Prep	Water	Perfluoroheptanoic acid (PFHpA)			
	PFAS Prep	Water	Perfluorohexanesulfonic acid	I (PFHxS)		
WS-LC-0025 Att1	117.001100					

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

### **Method Summary**

### Client: New York State D.E.C. Project/Site: Stewart ANG Base #336089 Kroll Well

Method	Method Description	Protocol	Laboratory
WS-LC-0025 Att1	Fluorinated Alkyl Substances	TAL-SAC	TAL SAC
PFAS Prep	Preparation, Direct Inject PFAS	TAL-SAC	TAL SAC

#### **Protocol References:**

TAL-SAC = TestAmerica Laboratories, West Sacramento, Facility Standard Operating Procedure.

#### 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 ANG Base #336089 Kroll Well Job ID: 320-55151-1

.ab Sample ID	Client Sample ID	Matrix	Collected	Received	Asse
320-55151-1	Effluent	Water	10/09/19 09:00	10/09/19 15:21	
320-55151-2	Mid Point	Water	10/09/19 09:15	10/09/19 15:21	
320-55151-3	Raw Water	Water	10/09/19 09:35	10/09/19 15:21	
320-55151-4	Duplicate	Water	10/09/19 00:00	10/09/19 15:21	
320-55151-5	A-25	Water	10/09/19 09:30	10/09/19 15:21	
20-55151-6	A-50	Water	10/09/19 09:28	10/09/19 15:21	
20-55151-7	A-75	Water	10/09/19 09:25	10/09/19 15:21	
20-55151-8	B-25	Water	10/09/19 09:22	10/09/19 15:21	
320-55151-9	B-50	Water	10/09/19 09:20	10/09/19 15:21	
20-55151-10	B-75	Water	10/09/19 09:17	10/09/19 15:21	

Eurofins	TestAmerica,	Buffalo	

15

10 Hazelwood Drive



### Chain of Custody Record

		r	
1.55	eur	rot	ins

S Environment Testing TestAmerica

	Client Information	Pat	rick	Sakola	nusk	i	Lab	ne, Ju	dy L			Carrier Trackin	cking No(s)		COC No: 480-136773-307	49.1
	Client Contact: Stephen Phelps	Phone: 5/8-885-4399 judy.s					it stone@testamericainc.com						Page: Page 1 of 2			
	Company: Precision Environmental Services Inc.							Analysis Requested							Job #:	1.1.1.1.1.1.1.1.1
	Address	Due Dat	e Request	ed:		-							1.11	Tit	Preservation Cod	les:
	831 State Route 67 Ste 38 City:	TAT Re	quested (d	ays):	tol	A	TAT	101	797	- I I I I					A - HCL B - NaOH	M - Hexane N - None
0 × F 5 H 0 F	Ballston Spa	TAT Requested (days): 3 Day TAT- JEAS / 10 DAY TAT- BOD PAY TAT- JEAS / PEAS 21 List					10120	1	-100					C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S	
	NY, 12020 Phone	PO#:	yin	UCMAY	PPA	5 12	I LIST		0		320-55151 Chai	in of Custodu	<b>L</b> ill (111)		E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O3
	518-402-9814(Tel)	Callout ID: 137132					No)	1		- 520-55151 Cild	in of Custody		-		S - H2SO4 T - TSP Dodecahydr	
	Email: sphelps@pesnyinc.com	WO #						s or l	t List	Standard List (21	IIII	111	1.1.1	2	J - DI Water	U - Acetone V - MCAA
	Project Name: Stewart ANG Base #336089 Kroll Well	Project #: 48020467					e (Ye	UCMR	dard L				ntainer	K - EDTA L - EDA	W - pH 4-5 Z - other (specify)	
	Site:	SSOW#	60585					Sampl	FAS,					of con	Other:	
			-		Compl	100	Matrix	S bar	W-P	PFAS,				ber o		
	Sample Identification	1		-	Sample Type		See a second		MD ID							
		Samp	le Date	Sample Time	(C=com G=gral	ip,	BT=Tissue, A=Air)	Field Filtered	PFAS	PFC_IDA	-			Total	Special In	structions/Note:
		> <		<		reservation Code:		$\bowtie$	N	N				X		
	Effluent	10-0	1-19	0900	Grab		Water	4	X	X				12		
	Mid Point			0915	1		Water			11				4		
	Raw Water		-	0935			Water							4		
	Duplicate			-			Water							4		
	A-25			0930			Water	Π						4		
	A-50			0928			Water		11					4		1
	A-75			0925			Water		11					4		
	B-25		1	0922	1		Water	T	T					4		
	B-50			0120	1		Water	T	tt	1				4		
	B-75	1		0917			Water	$\square$	1	1				4		
	Effluent				-	+	Water		-	-						
	Possible Hazard Identification	-						S	ampl	e Disp	osal ( A fee may b					
	Non-Hazard Flammable Skin Imitant Poison B Unknown Radiological							To Client	Disposal By L	ab	Arch	hive For	Months			
Į	Deliverable Requested: I, II, III, IV, Other (specify) Cat B deliverables							i instru	ictions/QC Require				_			
	Empty Kit Relinquished by:	Date/Tin		Date:	-	ICo	mpany	Time	Rec	wived hu		Method o	f Shipment:			Company
	1. the lak	10-	9-19,	11551			PES		1	fa	Jade			19	1551	Company
	Reinquighed by	Date/Tin		9 17	00		inging	~	Red	eived by	5/1		Date/Time: (0/10	>10	9 910	E7A Sa (
	Relinquished by	Date/Tin	ne: *				mpany		Rec	eived by			Date/Time:			Company
	Custody Seals Intact: Custody Seal No.: 1096764 1					_			Cod	ler Tem	perature(s) °C and Othe	r Remarks:	-	-		

	Environment Testing TestAmerica	Sample Re	Sacramento eceiving Notes			
		Tracking #: (034 8839 7	940			
ob:	Fish Shazilah Hor	SO / BO / FO / SAT / 2-Day / Groun GSO / OnTrac / Goldstreak / USPS / ly Seal, Temperature & corrected Temperature &	Other_			
in the job folder wit	th the COC.					
		Therm. ID: Alel Corr. Factor:	(A-)	6.	5°C	
Notes:		Ice Wet Gel				
		Cooler Custody Seal: 109 6764				
		Cooler ID:				
		Temp Observed: <u>6-0</u> °C Correct From: Temp Blank A Samp		1.5	_°C	
		Opening/Processing The Shipment	Yes	No	NA	
		Cooler compromised/tampered with?		Ð		
		Cooler Temperature is acceptable?	Ø		П	
		CoC is complete w/o discrepancies?	Ц			
		Samples received within holding time?	₽	D	D	
		Initials: <u> <u> </u> Date: <u> </u> (o)</u>	10/19			
		Unpacking/Labeling The Samples	Yes	No	NA	
	and the second	Samples compromised/tampered with?		Ø		
		Sample containers have legible labels?	ø		D	
		Sample custody seal?		а	R	
		Containers are not broken or leaking?	ø			
		Sample date/times are provided?	ø			
	and the second	Appropriate containers are used?	ø			
		Sample bottles are completely filled?	ø			
		Sample preservatives verified?	Þ.			
		Samples w/o discrepancies?	p D			
		Zero headspace?* Alkalinity has no headspace?			p p	
		Perchlorate has headspace?				
	the second s	(Methods 314, 331, 6850)	D		Þ	
		Multiphasic samples are not present?	ø	П		
		Non-conformance	Yes	No	NA Ø	
		NCM Filed?	D			

Client: New York State D.E.C.

### Login Number: 55151 List Number: 1 Creator: Onishi, Marc

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	1096764/1096765
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	

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Job Number: 320-55151-1
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List Source: Eurofins TestAmerica, Sacramento