



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

C. T. Male Associates  
50 Century Hill Drive  
Latham NY 12110

Report Date: March 17, 2020 17:07

### Project: Hoosick Falls WTP

Account #: 37191  
Group Number: 2091053  
SDG: HOO43  
PO Number: 14.4756  
State of Sample Origin: NY

Electronic Copy To	C. T. Male Associates	Attn: Kirk Moline
Electronic Copy To	C. T. Male Associates	Attn: Dan Reilly
Electronic Copy To	C. T. Male Associates	Attn: Jeff Marx
Electronic Copy To	Barr Engineering Company	Attn: Lauren Brady
Electronic Copy To	Environmental Standards	Attn: St. Gobain
Electronic Copy To	Barr Engineering Company	Attn: Data Mgt
Electronic Copy To	Barr Engineering Company	Attn: Terri Olson
Electronic Copy To	C. T. Male Associates	Attn: Nancy Garry

Respectfully Submitted,



(717)-556-7376

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
GAC Influent Grab Drinking Water	03/05/2020 09:40	1274074
GAC Midfluent Grab Drinking Water	03/05/2020 09:45	1274075
GAC Effluent Grab Drinking Water	03/05/2020 09:50	1274076
FTB01-200305 Grab Blank Water	03/05/2020 09:55	1274077
LTB01-200305 Blank Water	03/05/2020	1274078

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Project Name: Hoosick Falls WTP  
ELLE Group #: 2091053

**General Comments:**

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

**Analysis Specific Comments:**

**EPA 537 Version 1.1, LC/MS/MS Miscellaneous**

Batch #: 20071021 (Sample number(s): 1274074-1274078 UNSPK: 1274074)

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: Perfluorooctanoic acid, Perfluoroundecanoic acid, Perfluorohexanoic acid, Perfluoroheptanoic acid

**Sample Description:** GAC Influent Grab Drinking Water  
Hoosick Falls Water Treatment Plant

**C. T. Male Associates**  
**ELLE Sample #:** PW 1274074  
**ELLE Group #:** 2091053  
**Matrix:** Drinking Water

**Project Name:** Hoosick Falls WTP

**Submission Date/Time:** 03/06/2020 10:37  
**Collection Date/Time:** 03/05/2020 09:40  
**SDG#:** HOO43-01

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1</b>			<b>ng/l</b>	<b>ng/l</b>	
14070	NEtFOSAA <sup>1</sup> NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.8 U	1.8	1
14070	NMeFOSAA <sup>1</sup> NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.8 U	1.8	1
14070	Perfluorobutanesulfonic acid <sup>1</sup>	375-73-5	1.8 U	1.8	1
14070	Perfluorodecanoic acid <sup>1</sup>	335-76-2	1.8 U	1.8	1
14070	Perfluorododecanoic acid <sup>1</sup>	307-55-1	1.8 U	1.8	1
14070	<b>Perfluoroheptanoic acid<sup>1</sup></b>	375-85-9	<b>14</b>	1.8	1
14070	Perfluorohexanesulfonic acid <sup>1</sup>	355-46-4	1.8 U	1.8	1
14070	<b>Perfluorohexanoic acid<sup>1</sup></b>	307-24-4	<b>13</b>	1.8	1
14070	Perfluorononanoic acid <sup>1</sup>	375-95-1	1.8 U	1.8	1
14070	<b>Perfluorooctanesulfonic acid</b>	1763-23-1	<b>3.4</b>	1.8	1
14070	<b>Perfluorooctanoic acid</b>	335-67-1	<b>450</b>	18	10
14070	Perfluorotetradecanoic acid <sup>1</sup>	376-06-7	1.8 U	1.8	1
14070	Perfluorotridecanoic acid <sup>1</sup>	72629-94-8	1.8 U	1.8	1
14070	Perfluoroundecanoic acid <sup>1</sup>	2058-94-8	1.8 U	1.8	1

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified</b>					<b>ng/l</b>	<b>ng/l</b>	
14473	6:2-Fluorotelomersulfonic acid <sup>1</sup>	27619-97-2	4.4 U	4.4	1		
14473	8:2-Fluorotelomersulfonic acid <sup>1</sup>	39108-34-4	2.6 U	2.6	1		
14473	Perfluorobutanoic acid <sup>1</sup>	375-22-4	6.1 U	6.1	1		
14473	Perfluorodecanesulfonic acid <sup>1</sup>	335-77-3	1.8 U	1.8	1		
14473	Perfluoroheptanesulfonic acid <sup>1</sup>	375-92-8	1.8 U	1.8	1		
14473	Perfluorooctanesulfonamide <sup>1</sup>	754-91-6	1.8 U	1.8	1		
14473	<b>Perfluoropentanoic acid<sup>1</sup></b>	2706-90-3	<b>4.3</b>	1.8	1		

### Sample Comments

<sup>1</sup> = This analyte was not on the laboratory's NYSDOH Scope of Accreditation at the time of analysis.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	20071021	03/13/2020 19:54	Devon M Whooley	1
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	20071021	03/16/2020 21:54	Marissa C Drexinger	10
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	20069005	03/10/2020 20:07	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	20071021	03/11/2020 16:30	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	20069005	03/09/2020 10:20	Broch Clinton	1

**Sample Description:** GAC Midfluent Grab Drinking Water  
Hoosick Falls Water Treatment Plant

**C. T. Male Associates**  
**ELLE Sample #:** PW 1274075  
**ELLE Group #:** 2091053  
**Matrix:** Drinking Water

**Project Name:** Hoosick Falls WTP

**Submission Date/Time:** 03/06/2020 10:37  
**Collection Date/Time:** 03/05/2020 09:45  
**SDG#:** HOO43-02

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1</b>			<b>ng/l</b>	<b>ng/l</b>	
14070	NEtFOSAA <sup>1</sup> NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.7 U	1.7	1
14070	NMeFOSAA <sup>1</sup> NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.7 U	1.7	1
14070	Perfluorobutanesulfonic acid <sup>1</sup>	375-73-5	1.7 U	1.7	1
14070	Perfluorodecanoic acid <sup>1</sup>	335-76-2	1.7 U	1.7	1
14070	Perfluorododecanoic acid <sup>1</sup>	307-55-1	1.7 U	1.7	1
14070	Perfluoroheptanoic acid <sup>1</sup>	375-85-9	1.7 U	1.7	1
14070	Perfluorohexanesulfonic acid <sup>1</sup>	355-46-4	1.7 U	1.7	1
14070	Perfluorohexanoic acid <sup>1</sup>	307-24-4	1.7 U	1.7	1
14070	Perfluorononanoic acid <sup>1</sup>	375-95-1	1.7 U	1.7	1
14070	Perfluorooctanesulfonic acid	1763-23-1	1.7 U	1.7	1
14070	Perfluorooctanoic acid	335-67-1	1.7 U	1.7	1
14070	Perfluorotetradecanoic acid <sup>1</sup>	376-06-7	1.7 U	1.7	1
14070	Perfluorotridecanoic acid <sup>1</sup>	72629-94-8	1.7 U	1.7	1
14070	Perfluoroundecanoic acid <sup>1</sup>	2058-94-8	1.7 U	1.7	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified</b>			<b>ng/l</b>	<b>ng/l</b>	
14473	6:2-Fluorotelomersulfonic acid <sup>1</sup>	27619-97-2	4.3 U	4.3	1
14473	8:2-Fluorotelomersulfonic acid <sup>1</sup>	39108-34-4	2.6 U	2.6	1
14473	Perfluorobutanoic acid <sup>1</sup>	375-22-4	6.1 U	6.1	1
14473	Perfluorodecanesulfonic acid <sup>1</sup>	335-77-3	1.7 U	1.7	1
14473	Perfluoroheptanesulfonic acid <sup>1</sup>	375-92-8	1.7 U	1.7	1
14473	Perfluorooctanesulfonamide <sup>1</sup>	754-91-6	1.7 U	1.7	1
14473	Perfluoropentanoic acid <sup>1</sup>	2706-90-3	1.7 U	1.7	1

### Sample Comments

<sup>1</sup> = This analyte was not on the laboratory's NYSDOH Scope of Accreditation at the time of analysis.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	20071021	03/13/2020 20:06	Devon M Whooley	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	20069005	03/10/2020 20:16	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	20071021	03/11/2020 16:30	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	20069005	03/09/2020 10:20	Broch Clinton	1

**Sample Description:** GAC Effluent Grab Drinking Water  
Hoosick Falls Water Treatment Plant

**C. T. Male Associates**  
ELLE Sample #: PW 1274076  
ELLE Group #: 2091053  
Matrix: Drinking Water

**Project Name:** Hoosick Falls WTP

Submittal Date/Time: 03/06/2020 10:37  
Collection Date/Time: 03/05/2020 09:50  
SDG#: HOO43-03

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1</b>			<b>ng/l</b>	<b>ng/l</b>	
14070	NEtFOSAA <sup>1</sup> NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.7 U	1.7	1
14070	NMeFOSAA <sup>1</sup> NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.7 U	1.7	1
14070	Perfluorobutanesulfonic acid <sup>1</sup>	375-73-5	1.7 U	1.7	1
14070	Perfluorodecanoic acid <sup>1</sup>	335-76-2	1.7 U	1.7	1
14070	Perfluorododecanoic acid <sup>1</sup>	307-55-1	1.7 U	1.7	1
14070	Perfluoroheptanoic acid <sup>1</sup>	375-85-9	1.7 U	1.7	1
14070	Perfluorohexanesulfonic acid <sup>1</sup>	355-46-4	1.7 U	1.7	1
14070	Perfluorohexanoic acid <sup>1</sup>	307-24-4	1.7 U	1.7	1
14070	Perfluorononanoic acid <sup>1</sup>	375-95-1	1.7 U	1.7	1
14070	Perfluorooctanesulfonic acid	1763-23-1	1.7 U	1.7	1
14070	Perfluorooctanoic acid	335-67-1	1.7 U	1.7	1
14070	Perfluorotetradecanoic acid <sup>1</sup>	376-06-7	1.7 U	1.7	1
14070	Perfluorotridecanoic acid <sup>1</sup>	72629-94-8	1.7 U	1.7	1
14070	Perfluoroundecanoic acid <sup>1</sup>	2058-94-8	1.7 U	1.7	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified</b>			<b>ng/l</b>	<b>ng/l</b>	
14473	6:2-Fluorotelomersulfonic acid <sup>1</sup>	27619-97-2	4.2 U	4.2	1
14473	8:2-Fluorotelomersulfonic acid <sup>1</sup>	39108-34-4	2.5 U	2.5	1
14473	Perfluorobutanoic acid <sup>1</sup>	375-22-4	5.9 U	5.9	1
14473	Perfluorodecanesulfonic acid <sup>1</sup>	335-77-3	1.7 U	1.7	1
14473	Perfluoroheptanesulfonic acid <sup>1</sup>	375-92-8	1.7 U	1.7	1
14473	Perfluorooctanesulfonamide <sup>1</sup>	754-91-6	1.7 U	1.7	1
14473	Perfluoropentanoic acid <sup>1</sup>	2706-90-3	1.7 U	1.7	1

### Sample Comments

<sup>1</sup> = This analyte was not on the laboratory's NYSDOH Scope of Accreditation at the time of analysis.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	20071021	03/13/2020 20:17	Devon M Whooley	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	20069005	03/10/2020 20:25	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	20071021	03/11/2020 16:30	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	20069005	03/09/2020 10:20	Broch Clinton	1

**Sample Description:** FTB01-200305 Grab Blank Water  
Hoosick Falls Water Treatment Plant

**C. T. Male Associates**  
**ELLE Sample #:** PW 1274077  
**ELLE Group #:** 2091053  
**Matrix:** Blank Water

**Project Name:** Hoosick Falls WTP

**Submission Date/Time:** 03/06/2020 10:37  
**Collection Date/Time:** 03/05/2020 09:55  
**SDG#:** HOO43-04FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1</b>			<b>ng/l</b>	<b>ng/l</b>	
14070	NEtFOSAA <sup>1</sup> NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.8 U	1.8	1
14070	NMeFOSAA <sup>1</sup> NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.8 U	1.8	1
14070	Perfluorobutanesulfonic acid <sup>1</sup>	375-73-5	1.8 U	1.8	1
14070	Perfluorodecanoic acid <sup>1</sup>	335-76-2	1.8 U	1.8	1
14070	Perfluorododecanoic acid <sup>1</sup>	307-55-1	1.8 U	1.8	1
14070	Perfluoroheptanoic acid <sup>1</sup>	375-85-9	1.8 U	1.8	1
14070	Perfluorohexanesulfonic acid <sup>1</sup>	355-46-4	1.8 U	1.8	1
14070	Perfluorohexanoic acid <sup>1</sup>	307-24-4	1.8 U	1.8	1
14070	Perfluorononanoic acid <sup>1</sup>	375-95-1	1.8 U	1.8	1
14070	Perfluorooctanesulfonic acid	1763-23-1	1.8 U	1.8	1
14070	Perfluorooctanoic acid	335-67-1	1.8 U	1.8	1
14070	Perfluorotetradecanoic acid <sup>1</sup>	376-06-7	1.8 U	1.8	1
14070	Perfluorotridecanoic acid <sup>1</sup>	72629-94-8	1.8 U	1.8	1
14070	Perfluoroundecanoic acid <sup>1</sup>	2058-94-8	1.8 U	1.8	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified</b>			<b>ng/l</b>	<b>ng/l</b>	
14473	6:2-Fluorotelomersulfonic acid <sup>1</sup>	27619-97-2	4.4 U	4.4	1
14473	8:2-Fluorotelomersulfonic acid <sup>1</sup>	39108-34-4	2.7 U	2.7	1
14473	Perfluorobutanoic acid <sup>1</sup>	375-22-4	6.2 U	6.2	1
14473	Perfluorodecanesulfonic acid <sup>1</sup>	335-77-3	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic acid <sup>1</sup>	375-92-8	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide <sup>1</sup>	754-91-6	1.8 U	1.8	1
14473	Perfluoropentanoic acid <sup>1</sup>	2706-90-3	1.8 U	1.8	1

### Sample Comments

<sup>1</sup> = This analyte was not on the laboratory's NYSDOH Scope of Accreditation at the time of analysis.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	20071021	03/13/2020 20:29	Devon M Whooley	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	20069005	03/10/2020 20:34	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	20071021	03/11/2020 16:30	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	20069005	03/09/2020 10:20	Broch Clinton	1

**Sample Description:** LTB01-200305 Blank Water  
Hoosick Falls Water Treatment Plant

**C. T. Male Associates**  
ELLE Sample #: PW 1274078  
ELLE Group #: 2091053  
Matrix: Blank Water

**Project Name:** Hoosick Falls WTP

Submittal Date/Time: 03/06/2020 10:37  
Collection Date/Time: 03/05/2020  
SDG#: HOO43-05TB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1</b>			<b>ng/l</b>	<b>ng/l</b>	
14070	NEtFOSAA <sup>1</sup> NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.8 U	1.8	1
14070	NMeFOSAA <sup>1</sup> NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.8 U	1.8	1
14070	Perfluorobutanesulfonic acid <sup>1</sup>	375-73-5	1.8 U	1.8	1
14070	Perfluorodecanoic acid <sup>1</sup>	335-76-2	1.8 U	1.8	1
14070	Perfluorododecanoic acid <sup>1</sup>	307-55-1	1.8 U	1.8	1
14070	Perfluoroheptanoic acid <sup>1</sup>	375-85-9	1.8 U	1.8	1
14070	Perfluorohexanesulfonic acid <sup>1</sup>	355-46-4	1.8 U	1.8	1
14070	Perfluorohexanoic acid <sup>1</sup>	307-24-4	1.8 U	1.8	1
14070	Perfluorononanoic acid <sup>1</sup>	375-95-1	1.8 U	1.8	1
14070	Perfluorooctanesulfonic acid	1763-23-1	1.8 U	1.8	1
14070	Perfluorooctanoic acid	335-67-1	1.8 U	1.8	1
14070	Perfluorotetradecanoic acid <sup>1</sup>	376-06-7	1.8 U	1.8	1
14070	Perfluorotridecanoic acid <sup>1</sup>	72629-94-8	1.8 U	1.8	1
14070	Perfluoroundecanoic acid <sup>1</sup>	2058-94-8	1.8 U	1.8	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified</b>			<b>ng/l</b>	<b>ng/l</b>	
14473	6:2-Fluorotelomersulfonic acid <sup>1</sup>	27619-97-2	4.6 U	4.6	1
14473	8:2-Fluorotelomersulfonic acid <sup>1</sup>	39108-34-4	2.8 U	2.8	1
14473	Perfluorobutanoic acid <sup>1</sup>	375-22-4	6.4 U	6.4	1
14473	Perfluorodecanesulfonic acid <sup>1</sup>	335-77-3	1.8 U	1.8	1
14473	Perfluoroheptanesulfonic acid <sup>1</sup>	375-92-8	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide <sup>1</sup>	754-91-6	1.8 U	1.8	1
14473	Perfluoropentanoic acid <sup>1</sup>	2706-90-3	1.8 U	1.8	1

### Sample Comments

<sup>1</sup> = This analyte was not on the laboratory's NYSDOH Scope of Accreditation at the time of analysis.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	20071021	03/13/2020 20:40	Devon M Whooley	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	20069005	03/10/2020 20:43	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	20071021	03/11/2020 16:30	Isaac Phillips-Cary	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	20069005	03/09/2020 10:20	Broch Clinton	1



## Quality Control Summary

Client Name: C. T. Male Associates  
Reported: 03/17/2020 17:07

Group Number: 2091053

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	LOQ
	ng/l	ng/l
Batch number: 20069005	Sample number(s): 1274074-1274078	
6:2-Fluorotelomersulfonic acid	5.0 U	5.0
8:2-Fluorotelomersulfonic acid	3.0 U	3.0
Perfluorobutanoic acid	5.0 U	5.0
Perfluorodecanesulfonic acid	2.0 U	2.0
Perfluoroheptanesulfonic acid	2.0 U	2.0
Perfluorooctanesulfonamide	2.0 U	2.0
Perfluoropentanoic acid	2.0 U	2.0
Batch number: 20071021	Sample number(s): 1274074-1274078	
NETFOSAA	2.0 U	2.0
NMeFOSAA	2.0 U	2.0
Perfluorobutanesulfonic acid	2.0 U	2.0
Perfluorodecanoic acid	2.0 U	2.0
Perfluorododecanoic acid	2.0 U	2.0
Perfluoroheptanoic acid	2.0 U	2.0
Perfluorohexanesulfonic acid	2.0 U	2.0
Perfluorohexanoic acid	2.0 U	2.0
Perfluorononanoic acid	2.0 U	2.0
Perfluorooctanesulfonic acid	2.0 U	2.0
Perfluorooctanoic acid	2.0 U	2.0
Perfluorotetradecanoic acid	2.0 U	2.0
Perfluorotridecanoic acid	2.0 U	2.0
Perfluoroundecanoic acid	2.0 U	2.0

### LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ng/l	ng/l	ng/l	ng/l					
Batch number: 20069005	Sample number(s): 1274074-1274078								
6:2-Fluorotelomersulfonic acid	24.28	33.34	24.28	30.59	137	126	56-140	9	30
8:2-Fluorotelomersulfonic acid	24.52	28.58	24.52	26.34	117	107	58-143	8	30
Perfluorobutanoic acid	25.6	28.58	25.6	27.32	112	107	63-160	5	30
Perfluorodecanesulfonic acid	24.64	25.95	24.64	28.58	105	116	62-135	10	30
Perfluoroheptanesulfonic acid	24.36	27.56	24.36	26.69	113	110	67-138	3	30
Perfluorooctanesulfonamide	25.6	31.83	25.6	28.56	124	112	67-126	11	30

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: C. T. Male Associates  
Reported: 03/17/2020 17:07

Group Number: 2091053

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluoropentanoic acid	25.6	30.41	25.6	29.22	119	114	73-135	4	30
Batch number: 20071021	Sample number(s): 1274074-1274078								
NEtFOSAA	20.48	24.11			118		70-130		
NMeFOSAA	20.48	23.67			116		70-130		
Perfluorobutanesulfonic acid	18.12	21.19			117		70-130		
Perfluorodecanoic acid	20.48	23.31			114		70-130		
Perfluorododecanoic acid	20.48	24.21			118		70-130		
Perfluoroheptanoic acid	20.48	21.04			103		70-130		
Perfluorohexanesulfonic acid	18.68	20.73			111		70-130		
Perfluorohexanoic acid	20.48	21.8			106		70-130		
Perfluorononanoic acid	20.48	23.1			113		70-130		
Perfluorooctanesulfonic acid	18.96	21.2			112		70-130		
Perfluorooctanoic acid	20.48	22.24			109		70-130		
Perfluorotetradecanoic acid	20.48	22.74			111		70-130		
Perfluorotridecanoic acid	20.48	23.42			114		70-130		
Perfluoroundecanoic acid	20.48	23.18			113		70-130		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/l	MS Spike Added ng/l	MS Conc ng/l	MSD Spike Added ng/l	MSD Conc ng/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 20071021	Sample number(s): 1274074-1274078 UNSPK: 1274074									
NEtFOSAA	1.8 U	17.86	20.66	20.08	23.21	116	116	70-130	12	30
NMeFOSAA	1.8 U	17.86	21.47	20.08	22.86	120	114	70-130	6	30
Perfluorobutanesulfonic acid	1.76	15.81	20.83	17.77	23.37	121	122	70-130	12	30
Perfluorodecanoic acid	1.8 U	17.86	22.28	20.08	25.29	125	126	70-130	13	30
Perfluorododecanoic acid	1.8 U	17.86	23.3	20.08	25.94	130	129	70-130	11	30
Perfluoroheptanoic acid	13.53	17.86	36.99	20.08	42.26	131*	143*	70-130	13	30
Perfluorohexanesulfonic acid	0.916	16.29	20.67	18.31	23.28	121	122	70-130	12	30
Perfluorohexanoic acid	13.48	17.86	36.56	20.08	41.02	129	137*	70-130	11	30
Perfluorononanoic acid	0.644	17.86	22.72	20.08	25.6	124	124	70-130	12	30
Perfluorooctanesulfonic acid	3.40	16.53	22.99	18.58	25.59	119	119	70-130	11	30
Perfluorooctanoic acid	446.57	17.86	575.84	20.08	644.04	724 (2)	984 (2)	70-130	11	30
Perfluorotetradecanoic acid	1.8 U	17.86	21.24	20.08	24.44	119	122	70-130	14	30
Perfluorotridecanoic acid	1.8 U	17.86	21.44	20.08	24.06	120	120	70-130	12	30
Perfluoroundecanoic acid	1.8 U	17.86	23.13	20.08	27.01	130	135*	70-130	15	30

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

## Quality Control Summary

Client Name: C. T. Male Associates  
Reported: 03/17/2020 17:07

Group Number: 2091053

### Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 7 PFAS Compounds  
Batch number: 20069005

	13C4-PFBA	13C5-PFPeA	13C3-PFHxS	13C2-6:2-FTS	13C8-PFOS	13C2-8:2-FTS
1274074	84	89	96	81	81	80
1274075	81	84	73	82	79	76
1274076	80	82	77	84	83	82
1274077	86	86	84	88	78	83
1274078	91	90	88	95	95	94
Blank	86	92	87	88	89	88
LCS	85	86	88	88	90	92
LCSD	89	89	93	95	91	96
Limits:	43-130	38-150	35-143	29-182	52-121	37-169

#### 13C8-PFOSA

1274074	74
1274075	69
1274076	81
1274077	72
1274078	83
Blank	74
LCS	78
LCSD	85
Limits:	10-134

Analysis Name: 14 PFAS Drinking Water List  
Batch number: 20071021

	13C2-PFHxA	13C2-PFDA	D5-NetFOSAA
1274074	95	97	88
1274075	89	94	91
1274076	90	93	92
1274077	91	96	95
1274078	88	92	91
Blank	87	96	93
LCS	89	97	100
MS	96	103	93
MSD	98	105	89
Limits:	70-130	70-130	70-130

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

# Environmental Services Analysis Request/Chain of Custody

Acct. #: 37191

Group #: 2091053

Sample #: 1274074-78

COC#: 255583

Client: <b>C.T. Male Associates</b>				<b>Matrix</b>				<b>Analyses Requested</b>										<b>For Lab Use Only</b>	
Project Name#: Hoosick Falls WTP		Site ID:		<input type="checkbox"/> Sediment <input type="checkbox"/> Potable Water <input type="checkbox"/> Ground NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Other: <i>Reagent water</i>	<input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Other: <i>Reagent water</i>	<input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface	Total # of Containers 7 PFAS (EPA 537 mod.) 14 PFAS (EPA 537 ver. 1.1)	<b>Preservation and Filtration Codes</b>										SF#: 303216	
Project Manager: Kirk Moline		P.O. #: 14.4756						Z										SCR#: 255583	
Sampler: <i>Christina Cummins</i>		Quote #: 219169																Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other      Z = Trizma	
Phone #: 518-786-7400		For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>																	
State where sample(s) were collected: NY																			
<b>Sample Identification</b>		<b>Collection</b>		<input type="checkbox"/> Grab	<input type="checkbox"/> Composite											<b>Remarks</b>			
Date	Time																		
<i>GAC Influent</i>	<i>3/5/20</i>	<i>0940</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>PFAS Batch Q.C. Collected</i>		
<i>GAC Midfluent</i>		<i>0945</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<i>GAC Effluent</i>		<i>0950</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<i>FTB 01-200305</i>		<i>0955</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<i>LTB 01-200305</i>		<i>-</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<b>Turnaround Time Requested (TAT)</b> (please check): Standard <input type="checkbox"/> RUSH <input checked="" type="checkbox"/>				Relinquished by: <i>S. Deane</i>		Date: <i>2/27/20</i>	Time: <i>11:40</i>	Received by: <i>Christina Cummins</i>		Date: <i>3/5/20</i>	Time: <i>0730</i>								
(RUSH TAT is subject to Eurofins Lancaster Laboratories approval and surcharges.)				Relinquished by: <i>Christina Cummins</i>		Date: <i>3/5/20</i>	Time: <i>1540</i>	Received by:		Date:	Time:								
Date results are needed:				Relinquished by:		Date:	Time:	Received by:		Date:	Time:								
E-mail address to send RUSH results: <i>K. Moline@CTMale.com</i>				Relinquished by:		Date:	Time:	Received by:		Date:	Time:								
<b>Data Package Options</b> (please check if required)				Relinquished by:		Date:	Time:	Received by:		Date:	Time:								
Type I (Validation/non-CLP) <input type="checkbox"/>	MA MCP <input type="checkbox"/>	TX TRRP - 13 <input type="checkbox"/>																	
Type III (Reduced non-CLP) <input type="checkbox"/>	CT RCP <input type="checkbox"/>																		
Type IV (CLP SOW) <input type="checkbox"/>	ASP Type A <input type="checkbox"/>																		
Type VI (Raw Data Only) <input type="checkbox"/>	ASP Type B <input checked="" type="checkbox"/>																		
EDD Format: EQUIS				Relinquished by:		Date:	Time:	Received by: <i>Chc Wells</i>		Date: <i>3/6/20</i>	Time: <i>10:37</i>								
If site-specific QC (MS/MSD/Dup) required, indicate QC samples and submit triplicate volume.				Airbill No.:		Relinquished by Commercial Carrier:		UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other <input type="checkbox"/>		Temperature upon receipt: <i>1.6</i> °C									



Client: C.T. MALE ASSOCIATES

**Delivery and Receipt Information**

Delivery Method: Fed Ex                      Arrival Date: 03/06/2020  
 Number of Packages: 1                      Number of Projects: 1  
 State/Province of Origin: New York

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	4
Samples Chilled:	Yes	Trip Blank Type:	UNP
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Julissa Rivera-Santa*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)*    All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	46730060WS	1.6	IR	Wet	Y	Bagged	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.