ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
5 SCOBIE DRIVE, NEWBURGH, NEW YORK

Client: C.T. Male Associates, Latham, New York
SDG: L1915270
Laboratory: Alpha Analytical, Westborough, Massachusetts
Site: 5 Scobie Drive, Newburgh, New York
Date: January 19, 2024

EDS ID	Client ID	Laboratory ID	Matrix
1	MW-5-20190412	L1915270-01	Water
1MS	MW-5-20190412MS	L1915270-01MS	Water
1MSD	MW-5-20190412MSD	L1915270-01MSD	Water
2	DUP-20190412	L1915270-02	Water
3	FIELD BLANK-20190412	L1915270-03	Water
4	CTM-MW-5-20190412	L1915270-04	Water
5	CTM-MW-2-20190412	L1915270-05	Water
6	EQUIPMENT BLANK-20190412	L1915270-06	Water

A Data Usability Summary Review was performed on the analytical data for four water samples, one aqueous field blank sample, and one aqueous equipment blank sample collected on April 12, 2019 by CT Male at the 5 Scobie Drive site in Newburgh, New York. The samples were analyzed under the Environmental Protection Agency (USEPA) Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions, and the USEPA Method Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS).

Specific method references are as follows:

Analysis	*Method References*
1,4-Dioxane	USEPA SW-846 Method 8270D-SIM
PFAS	USEPA Method 537

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the USEPA Region II Data Review Standard Operating Procedures (SOPs), and the NYSDEC Data Review and Validation Guidelines as follows:

- SOP Number HW-35A, Revision 1, September 2016: Semivolatile Data Validation;
- New York State Department of Environmental Conservation (NYSDEC) Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), April 2023;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

Organics/PFAS

- Holding times and sample preservation
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

Data Usability Assessment

There were no rejections of data.

The data are acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Semivolatile Organic Compounds by SIM (1,4-Dioxane)

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

Continuing Calibration

- The continuing calibrations exhibited acceptable %D and RRF values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- The following table lists field QC samples with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. Detected sample concentrations less than five times (5x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are negated and qualified with a (U).

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
FIELD BLANK-20190412	None - ND	-	-	-
EQUIPMENT BLANK-20190412	1,4-Dioxane	88.9	None	All Associated ND/>5X

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate percent recoveries (%R).

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples/Laboratory Control Sample Duplicates (LCS/LCSD)

- The LCS/LCSD samples exhibited acceptable %R values and RPD values.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	MW-5-20190412 ng/L	DUP-20190412 ng/L	RPD	Qualifier
1,4-Dioxane	9810	9820	0%	None

Perfluorinated Alkyl Substances (PFAS)

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD), %R and/or coefficient of determination criteria were met.

Continuing Calibration

- All percent recovery (%R) criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- The following table lists field QC samples with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. Detected sample concentrations less than ten times (10x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are negated and qualified with a (U).

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
FIELD BLANK-20190412	6:2FTS	1.21	None	See EB
EQUIPMENT BLANK-20190412	6:2FTS	1.66	U	1, 2, 4, 5

Surrogate Spike Recoveries

- The samples exhibited acceptable surrogate percent recoveries (%R).

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier
1	PFDS	163%/OK/OK	None - Sample ND

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	MW-5-20190412 ng/L	DUP-20190412 ng/L	RPD	Qualifier
PFBA	18.0	17.0	6%	None
PFPeA	19.7	17.4	12%	
PFBS	8.19	7.83	4%	
PFHxA	29.6	28.7	3%	
PFHpA	29.5	26.9	9%	
PFHxS	11.2	10.6	6%	
PFOA	89.6	83.1	8%	
PFHpS	1.15	0.857	29%	
PFNA	4.20	3.64	14%	
PFOS	20.7	18.3	12%	
NMeFOSAA	ND	0.346	NC	
NEtFOSAA	0.962	ND	NC	
PFOA/PFOS, total	110	101	9%	

Please contact the undersigned at (561) 475-2000 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 1/22/24

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-01	Date Collected	: 04/12/19 11:16
Client ID	: MW-5-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/17/19 16:34
Sample Matrix	: WATER	Date Extracted	: 04/16/19
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F2204171914	Analyst	: PS
Sample Amount	: 520 ml	Instrument ID	: PAH22
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	9810	144	32.6	

MT 5/9/24

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Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-02	Date Collected	: 04/12/19 00:00
Client ID	: DUP-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/17/19 17:57
Sample Matrix	: WATER	Date Extracted	: 04/16/19
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F2204171917	Analyst	: PS
Sample Amount	: 520 ml	Instrument ID	: PAH22
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	9820	144	32.6	

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Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-03	Date Collected	: 04/12/19 12:37
Client ID	: FIELD BLANK-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/17/19 18:23
Sample Matrix	: WATER	Date Extracted	: 04/16/19
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F2204171918	Analyst	: PS
Sample Amount	: 520 ml	Instrument ID	: PAH22
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	ND	144	32.6	U

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Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-04	Date Collected	: 04/12/19 15:08
Client ID	: CTM-MW-5-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/17/19 18:47
Sample Matrix	: WATER	Date Extracted	: 04/16/19
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F2204171919	Analyst	: PS
Sample Amount	: 520 ml	Instrument ID	: PAH22
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	10200	144	32.6	

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Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-05	Date Collected	: 04/12/19 16:43
Client ID	: CTM-MW-2-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/17/19 19:10
Sample Matrix	: WATER	Date Extracted	: 04/16/19
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F2204171920	Analyst	: PS
Sample Amount	: 520 ml	Instrument ID	: PAH22
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	1870	144	32.6	

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Results Summary
Form 1
1,4 Dioxane by 8270D-SIM

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-06	Date Collected	: 04/12/19 13:06
Client ID	: EQUIPMENT BLANK-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/17/19 19:33
Sample Matrix	: WATER	Date Extracted	: 04/16/19
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F2204171921	Analyst	: PS
Sample Amount	: 510 ml	Instrument ID	: PAH22
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	88.9	147	33.2	J

MT 4/19/19

Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-01	Date Collected	: 04/12/19 11:16
Client ID	: MW-5-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 18:51
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14078	Analyst	: AJ
Sample Amount	: 235 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier
375-22-4	Perfluorobutanoic Acid (PFBA)	18.0	2.13	0.397	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	19.7	2.13	0.494	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	8.19	2.13	0.404	
307-24-4	Perfluorohexanoic Acid (PFHxA)	29.6	2.13	0.523	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	29.5	2.13	0.396	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	11.2	2.13	0.464	
335-67-1	Perfluorooctanoic Acid (PFOA)	89.6	2.13	0.489	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.46	2.13	0.206	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.15	2.13	0.553	J
375-95-1	Perfluorononanoic Acid (PFNA)	4.20	2.13	0.464	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	20.7	2.13	0.596	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	2.13	0.660	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	2.13	0.309	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	2.13	0.266	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.13	0.451	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	2.13	0.411	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	2.13	0.591	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.962	2.13	0.396	J

MT 5/9/19

Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-01	Date Collected	: 04/12/19 11:16
Client ID	: MW-5-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 18:51
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14078	Analyst	: AJ
Sample Amount	: 235 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.13	0.630	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.13	0.334	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.13	1.05	U
NONE	PFOA/PFOS, Total	110	2.13	0.489	

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-02	Date Collected	: 04/12/19 00:00
Client ID	: DUP-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 19:40
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14081	Analyst	: AJ
Sample Amount	: 231 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier
375-22-4	Perfluorobutanoic Acid (PFBA)	17.0	2.16	0.404	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	17.4	2.16	0.502	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	7.83	2.16	0.411	
307-24-4	Perfluorohexanoic Acid (PFHxA)	28.7	2.16	0.532	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	26.9	2.16	0.402	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	10.6	2.16	0.472	
335-67-1	Perfluorooctanoic Acid (PFOA)	83.1	2.16	0.498	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.900	2.16	0.210	J U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.857	2.16	0.563	J
375-95-1	Perfluorononanoic Acid (PFNA)	3.64	2.16	0.472	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	18.3	2.16	0.606	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	2.16	0.671	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	2.16	0.315	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	0.346	2.16	0.271	J
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.16	0.459	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	2.16	0.418	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	2.16	0.602	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	2.16	0.403	U

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-02	Date Collected	: 04/12/19 00:00
Client ID	: DUP-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 19:40
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14081	Analyst	: AJ
Sample Amount	: 231 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.16	0.641	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.16	0.340	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.16	1.07	U
NONE	PFOA/PFOS, Total	101	2.16	0.498	

MJ 5/9/24

Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-03	Date Collected	: 04/12/19 12:37
Client ID	: FIELD BLANK-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 17:11
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14072	Analyst	: AJ
Sample Amount	: 276 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	1.81	0.338	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	1.81	0.420	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.81	0.344	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.81	0.446	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.81	0.337	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.81	0.395	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.81	0.417	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.21	1.81	0.176	J
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.81	0.471	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.81	0.395	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.81	0.507	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.81	0.562	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.81	0.263	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.81	0.227	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.81	0.384	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.81	0.350	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.81	0.504	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.81	0.338	U

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-03	Date Collected	: 04/12/19 12:37
Client ID	: FIELD BLANK-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 17:11
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14072	Analyst	: AJ
Sample Amount	: 276 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.81	0.536	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.81	0.284	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.81	0.895	U
NONE	PFOA/PFOS, Total	ND	1.81	0.417	U

MT 5/14/19

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-04	Date Collected	: 04/12/19 15:08
Client ID	: CTM-MW-5-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 19:57
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14082	Analyst	: AJ
Sample Amount	: 249 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
375-22-4	Perfluorobutanoic Acid (PFBA)	10.9	2.01	0.375	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	12.6	2.01	0.466	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	4.71	2.01	0.382	
307-24-4	Perfluorohexanoic Acid (PFHxA)	15.0	2.01	0.494	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	10.4	2.01	0.373	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	15.7	2.01	0.438	
335-67-1	Perfluorooctanoic Acid (PFOA)	43.8	2.01	0.462	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.37	2.01	0.195	J U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.30	2.01	0.522	J
375-95-1	Perfluorononanoic Acid (PFNA)	1.94	2.01	0.438	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	33.9	2.01	0.562	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	2.01	0.622	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	2.01	0.292	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	2.01	0.251	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.01	0.426	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	2.01	0.388	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	2.01	0.558	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	2.01	0.374	U

MM 1/19/21

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-04	Date Collected	: 04/12/19 15:08
Client ID	: CTM-MW-5-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 19:57
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14082	Analyst	: AJ
Sample Amount	: 249 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.01	0.594	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.01	0.315	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.01	0.992	U
NONE	PFOA/PFOS, Total	77.7	2.01	0.462	

MT 5/9/19

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-05	Date Collected	: 04/12/19 16:43
Client ID	: CTM-MW-2-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 20:13
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14083	Analyst	: AJ
Sample Amount	: 228 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier
375-22-4	Perfluorobutanoic Acid (PFBA)	85.4	2.19	0.409	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	195	2.19	0.509	
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	82.4	2.19	0.417	
307-24-4	Perfluorohexanoic Acid (PFHxA)	253	2.19	0.539	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	150	2.19	0.408	
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	30.0	2.19	0.478	
335-67-1	Perfluorooctanoic Acid (PFOA)	374	2.19	0.504	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	6.17	2.19	0.213	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	5.46	2.19	0.570	
375-95-1	Perfluorononanoic Acid (PFNA)	73.8	2.19	0.478	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	207	2.19	0.614	
335-76-2	Perfluorodecanoic Acid (PFDA)	42.6	2.19	0.680	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	2.19	0.319	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	1.05	2.19	0.274	J
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.917	2.19	0.465	J
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	2.19	0.423	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	2.19	0.610	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	3.63	2.19	0.409	

MT 5/19/19

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-05	Date Collected	: 04/12/19 16:43
Client ID	: CTM-MW-2-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 20:13
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14083	Analyst	: AJ
Sample Amount	: 228 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.19	0.649	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	2.19	0.344	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.19	1.08	U
NONE	PFOA/PFOS, Total	581	2.19	0.504	

MT Vinyl

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-06	Date Collected	: 04/12/19 13:06
Client ID	: EQUIPMENT BLANK-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 17:28
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14073	Analyst	: AJ
Sample Amount	: 281 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	1.78	0.332	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	1.78	0.413	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.78	0.338	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.78	0.438	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.78	0.331	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.78	0.388	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.78	0.409	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.66	1.78	0.172	J
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.78	0.463	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.78	0.388	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.78	0.498	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.78	0.552	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.78	0.259	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.78	0.223	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.78	0.377	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.78	0.343	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.78	0.495	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.78	0.332	U

MT 5/19/19

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Results Summary
Form 1
Perfluorinated Alkyl Acids by Isotope Dilution

Client	: C.T. Male Associates	Lab Number	: L1915270
Project Name	: 5 SCOBIE DRIVE SITE	Project Number	: 11.1038
Lab ID	: L1915270-06	Date Collected	: 04/12/19 13:06
Client ID	: EQUIPMENT BLANK-20190412	Date Received	: 04/15/19
Sample Location	: NEWBURGH, NY	Date Analyzed	: 04/21/19 17:28
Sample Matrix	: WATER	Date Extracted	: 04/19/19
Analytical Method	: 122,537(M)	Dilution Factor	: 1
Lab File ID	: I14073	Analyst	: AJ
Sample Amount	: 281 g	Instrument ID	: LCMS01
Extraction Method	: EPA 537	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.78	0.527	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.78	0.279	U
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	1.78	0.879	U
NONE	PFOA/PFOS, Total	ND	1.78	0.409	U

MT 5/19/19