

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida(Primary AB)*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon*	4156
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies



LABORATORY CASE NARRATIVE

Client: Town of Burlington DPW

Report #: 523883CN

All method QC was within acceptance limits.

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		07/27/2021
Authorized Signature	Title	Date

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110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: Town of Burlington DPW
 Attn: Russell Makiej
 29 Center Street
 Burlington, MA 01803

Report: 523883
 Priority: Standard Written
 Status: Final
 PWS ID: MA3048000

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4952974	10094 Vine Brook Effluent	537.1	07/12/21 12:10	Client	07/13/21 09:15
4952975	Vine Brook Field Blank	537.1	07/12/21 12:10	Client	07/13/21 09:15
4952976	10090 Mill Pond Effluent	537.1	07/12/21 12:45	Client	07/13/21 09:15
4952977	Mill Pond Field Blank	537.1	07/12/21 12:45	Client	07/13/21 09:15

Report Summary

J=This is an estimated value greater than the current MDL and less than the current MRL. MDLs listed on the MA state form are the same throughout this report. If a result is reported as <2.0, it has also been determined to be below the MDL.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

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Authorized Signature

Title

07/27/2021

Date

Client Name: Town of Burlington DPW
 Report #: 523883

Sampling Point: 10094 Vine Brook Effluent

PWS ID: MA3048000

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	16	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	9.5	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	5.1	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	4.5	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	12	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	1.0 J	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
335-76-2	Perfluorodecanoic acid (PFDA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
307-24-4	Perfluorohexanoic acid (PFHxA)	537.1	---	2.0	5.8	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
307-55-1	Perfluorododecanoic acid (PFDoA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
2991-50-6	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
2355-31-9	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
13252-13-6	HFPO-DA/GenX	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
919005-14-4	ADONA	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
756426-58-1	9CI-PF3ONS/F-53B Major	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
763051-92-9	11CI-PF3OUdS/F-53B Minor	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 22:50	4952974

Sampling Point: Vine Brook Field Blank

PWS ID: MA3048000

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
335-76-2	Perfluorodecanoic acid (PFDA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
307-24-4	Perfluorohexanoic acid (PFHxA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
307-55-1	Perfluorododecanoic acid (PFDoA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
2991-50-6	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
2355-31-9	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
13252-13-6	HFPO-DA/GenX	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
919005-14-4	ADONA	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
756426-58-1	9CI-PF3ONS/F-53B Major	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
763051-92-9	11CI-PF3OUdS/F-53B Minor	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:22	4952975

Sampling Point: 10090 Mill Pond Effluent

PWS ID: MA3048000

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	8.1	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	23	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	3.4	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	4.1	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	12	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	0.93 J	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
335-76-2	Perfluorodecanoic acid (PFDA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
307-24-4	Perfluorohexanoic acid (PFHxA)	537.1	---	2.0	7.6	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
307-55-1	Perfluorododecanoic acid (PFDoA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
2991-50-6	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
2355-31-9	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
13252-13-6	HFPO-DA/GenX	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
919005-14-4	ADONA	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
756426-58-1	9CI-PF3ONS/F-53B Major	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
763051-92-9	11CI-PF3OUdS/F-53B Minor	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	537.1	---	2.0	< 2.0	ng/L	07/19/21 08:18	07/19/21 23:01	4952976

Sampling Point: Mill Pond Field Blank

PWS ID: MA3048000

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
335-67-1	Perfluorooctanoic acid (PFOA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
375-85-9	Perfluoroheptanoic acid (PFHpA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
375-95-1	Perfluorononanoic acid (PFNA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
335-76-2	Perfluorodecanoic acid (PFDA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
307-24-4	Perfluorohexanoic acid (PFHxA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
307-55-1	Perfluorododecanoic acid (PFDoA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
2991-50-6	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
2355-31-9	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
13252-13-6	HFPO-DA/GenX	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
919005-14-4	ADONA	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
756426-58-1	9CI-PF3ONS/F-53B Major	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
763051-92-9	11CI-PF3OUdS/F-53B Minor	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	537.1	---	2.0	< 2.0	ng/L	07/26/21 07:00	07/26/21 22:32	4952977

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

If applicable, the calculation of the matrix spike (MS) or matrix spike duplicate (MSD) percent recovery is as follows: $(MS \text{ or } MSD \text{ value} - \text{Sample value}) * 100 / \text{spike target} / \text{dilution factor} = \text{Recovery } \%$

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Massachusetts Department of Environmental Protection - Drinking Water Program
Per- and Polyfluoroalkyl Substances (PFAS) Report

I. PWS INFORMATION: Please refer to your MassDEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: City / Town:
 PWS Name: PWS Class: COM NTNC TNC

MassDEP LOCATION (LOC) ID#	MassDEP Location Name	Sample Information	Date Collected	Collected By
10094	Vine Brook Effluent	<input type="checkbox"/> (M)ultiple <input type="checkbox"/> (R)aw <input checked="" type="checkbox"/> (S)ingle <input checked="" type="checkbox"/> (F)inished	07/12/21	Russell Makiej
Routine or Special Sample		If Resubmitted Report, list below:		
Original, Resubmitted or Confirmation Report		(1) Reason for Resubmission	(2) Collection Date of Original Sample	
<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction		
SAMPLE COMMENTS - Such as, if a Manifold/Multiple sample, list the source(s) that were on-line during sample collection or if this is a field reagent blank				

II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab Cert. #: Primary Lab Name: Subcontracted? (Y/N)
 Analysis Lab Cert. #: Analysis Lab Name:
 If Analysis Lab is not certified by MassDEP or U.S. EPA, list certification authority:

Lab Method	Date Extracted	Date Analyzed	Dilution Factor	Lab Sample IDs#	
537.1	07/19/2021	07/19/2021	0.86	Primary Lab:	4952974
				Subcontracted Lab:	

CAS#	REGULATED PFAS CONTAMINANTS	Result ¹ ng/L	Result ² Qualifier	MCL* ng/L	MDL ng/L	MRL ng/L
1763-23-1	Perfluorooctane Sulfonic Acid (PFOS)	9.5		-	0.40	2.0
335-67-1	Perfluorooctanoic Acid (PFOA)	16			0.40	2.0
355-46-4	Perfluorohexane Sulfonic Acid (PFHxS)	12			0.50	2.0
375-95-1	Perfluorononanoic Acid (PFNA)	1.0	J		0.50	2.0
375-85-9	Perfluoroheptanoic Acid (PFHpA)	4.5			0.40	2.0
335-76-2	Perfluorodecanoic Acid (PFDA)	ND			0.50	2.0
PFAS6 (sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and PFDA; only include Results at or above the MRL; do not include estimated Results as described by a Result Qualifier in the next column)		42.0	---	20	---	---
UNREGULATED PFAS CONTAMINANTS						
375-73-5	Perfluorobutane Sulfonic Acid (PFBS)	5.1		-	0.40	2.0
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND			0.40	2.0
307-24-4	Perfluorohexanoic Acid (PFHxA)	5.8			0.40	2.0
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND			0.60	2.0
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND			0.50	2.0
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND			0.50	2.0
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND			0.60	2.0
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND			0.50	2.0
763051-92-9	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid(11Cl-PF3OUdS)	ND			0.50	2.0
756426-58-1	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	ND			0.50	2.0
919005-14-4	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND			0.61	2.0
13252-13-6	Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND			0.50	2.0

¹ A field reagent blank (FRB) must be analyzed and reported on a separate PFAS form if any PFAS are detected above the MRL.
² All qualifiers must be described under Lab Analysis Comments on page 2.



Per- and Polyfluoroalkyl Substances (PFAS) Report

PWS ID #:

Lab Sample ID #:

Lab Report #:	523883
Primary Lab:	4952974
Subcontracted Lab:	

CAS#	UNREGULATED PFAS CONTAMINANTS	Result ¹ ng/L	Result ² Qualifier	MCL ¹ ng/L	MDL ng/L	MRL ng/L

Surrogate Name	% Recovery (70-130%)	Alternate Surrogate (must document reason for change)
SS-PFDA-13C2	97	
SS-PFHxA-13C2	84	
SS-NEtFOSAA-d5	94	
SS-HFPO-DA-13C3	91	

Note: SS-HFPO-DA-13C3 is not required for EPA Method 537 v1.1

In addition to the SUR above you must attach the results of the ongoing QC results as specified by the method for the sample 's extraction batch.

Laboratory analytical report with QC attached (check one item below).

All associated QC criteria reported within control limits including Lab Reagent/Method Blank (LRB), Field Reagent Blank (FRB), Surrogate Standards (SUR), Laboratory Fortified Blank (LFB), Matrix Spike/Duplicate (LFSM/LFSMD or FD) and RPD.

All associated sample and/or QC batch criteria not met. See Lab Analysis Comments below and narrative in attached report.

Lab Analysis Comments: (include sample/method parameters outside of or affecting QC controls/limits and result qualifiers)	
Result Qualifier	Qualifier Description
J	Estimated concentration
Other Analysis Comments:	

* MCL or proposed MCL

Note: This report may not be reproduced, except in full, without written approval from EEA.

Note: The results presented relate only to the samples provided for analysis.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Authorized Signature: *Pat Muff* *ASM*

Date: 07/27/2021

If not submitting these results electronically, mail TWO copies of this report to your MassDEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner. Note that during the Massachusetts COVID-19 state of emergency, in addition to submitting by mail reports may be emailed to program.director-dwp@mass.gov.

MassDEP REVIEW STATUS (Initial & Date)	Review Comments	<input type="checkbox"/> WQTS Data Entered
<input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____		



Massachusetts Department of Environmental Protection - Drinking Water Program
Per- and Polyfluoroalkyl Substances (PFAS) Report

I. PWS INFORMATION: Please refer to your MassDEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: City / Town:
PWS Name: PWS Class: COM NTNC TNC

MassDEP LOCATION (LOC) ID#	MassDEP Location Name	Sample Information	Date Collected	Collected By
10090	Mill Pond Effluent	<input type="checkbox"/> (M)ultiple <input type="checkbox"/> (R)aw <input checked="" type="checkbox"/> (S)ingle <input checked="" type="checkbox"/> (F)inished	07/12/21	Russell Makiej
Routine or Special Sample: <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS Original, Resubmitted or Confirmation Report: <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation		If Resubmitted Report, list below: (1) Reason for Resubmission: <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction (2) Collection Date of Original Sample:		
SAMPLE COMMENTS - Such as, if a Manifold/Multiple sample, list the source(s) that were on-line during sample collection or if this is a field reagent blank				

II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab Cert. #: Primary Lab Name: Subcontracted? (Y/N)
Analysis Lab Cert. #: Analysis Lab Name:
If Analysis Lab is not certified by MassDEP or U.S. EPA, list certification authority:

Lab Method	Date Extracted	Date Analyzed	Dilution Factor	Lab Sample IDs#	
537.1	07/19/2021	07/19/2021	0.9	Primary Lab:	4952976
				Subcontracted Lab:	

CAS#	REGULATED PFAS CONTAMINANTS	Result ¹ ng/L	Result ² Qualifier	MCL* ng/L	MDL ng/L	MRL ng/L
1763-23-1	Perfluorooctane Sulfonic Acid (PFOS)	23		-	0.40	2.0
335-67-1	Perfluorooctanoic Acid (PFOA)	8.1			0.40	2.0
355-46-4	Perfluorohexane Sulfonic Acid (PFHxS)	12			0.50	2.0
375-95-1	Perfluorononanoic Acid (PFNA)	0.93	J		0.50	2.0
375-85-9	Perfluoroheptanoic Acid (PFHpA)	4.1			0.40	2.0
335-76-2	Perfluorodecanoic Acid (PFDA)	ND			0.50	2.0
PFAS6 (sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and PFDA; only include Results at or above the MRL; do not include estimated Results as described by a Result Qualifier in the next column) =		47.2	---	20	---	---
UNREGULATED PFAS CONTAMINANTS						
375-73-5	Perfluorobutane Sulfonic Acid (PFBS)	3.4		-	0.40	2.0
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND			0.40	2.0
307-24-4	Perfluorohexanoic Acid (PFHxA)	7.6			0.40	2.0
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND			0.60	2.0
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND			0.50	2.0
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND			0.50	2.0
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND			0.60	2.0
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND			0.50	2.0
763051-92-9	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid(11Cl-PF3OUdS)	ND			0.50	2.0
756426-58-1	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	ND			0.50	2.0
919005-14-4	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND			0.61	2.0
13252-13-6	Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND			0.50	2.0

¹ A field reagent blank (FRB) must be analyzed and reported on a separate PFAS form if any PFAS are detected above the MRL.
² All qualifiers must be described under Lab Analysis Comments on page 2.



Per- and Polyfluoroalkyl Substances (PFAS) Report

PWS ID #:

Lab Sample ID #:

Lab Report #:	523883
Primary Lab:	4952976
Subcontracted Lab:	

CAS#	UNREGULATED PFAS CONTAMINANTS	Result ¹ ng/L	Result ² Qualifier	MCL [*] ng/L	MDL ng/L	MRL ng/L

Surrogate Name	% Recovery (70-130%)	Alternate Surrogate (must document reason for change)
SS-PFDA-13C2	101	
SS-PFHxA-13C2	91	
SS-NEtFOSAA-d5	95	
SS-HFPO-DA-13C3	96	

Note: SS-HFPO-DA-13C3 is not required for EPA Method 537 v1.1

In addition to the SUR above you must attach the results of the ongoing QC results as specified by the method for the sample 's extraction batch.

Laboratory analytical report with QC attached (check one item below).

All associated QC criteria reported within control limits including Lab Reagent/Method Blank (LRB), Field Reagent Blank (FRB), Surrogate Standards (SUR), Laboratory Fortified Blank (LFB), Matrix Spike/Duplicate (LFSM/LFSMD or FD) and RPD.

All associated sample and/or QC batch criteria not met. See Lab Analysis Comments below and narrative in attached report.

Lab Analysis Comments: (include sample/method parameters outside of or affecting QC controls/limits and result qualifiers)

Result Qualifier	Qualifier Description
J	Estimated concentration
Other Analysis Comments:	

* MCL or proposed MCL

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Note: The results presented relate only to the samples provided for analysis.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Authorized Signature: *Pat Muff* ASM

Date: 07/27/2021

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MassDEP REVIEW STATUS (Initial & Date)	Review Comments	<input type="checkbox"/> WQTS Data Entered
<input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____		



Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 430061
Batch # 523883

www.EurofinsUS.com/Eaton

CHAIN OF CUSTODY RECORD

Shaded area for EEA use only

Page 1 of 1

REPORT TO:		SAMPLER (Signature)		PWS ID #		STATE (sample origin)		PROJECT NAME		PO#		# OF CONTAINERS		MATRIX CODE		TURNAROUND TIME			
Cmakiej@burlington.org		<i>[Signature]</i>		3048000		MA		July 2021											
BILL TO: Town of Burlington DPW Attn: R Makiej 201 Center St. Burlington MA 01803		COMPLIANCE MONITORING		POPULATION SERVED		SOURCE WATER		Preservative Checks		pH acceptable? ✓		Residual Chlorine (P/A)		CHLORINATED					
		Yes		21,444								YES		NO					
		No						TEST NAME											
		SAMPLING SITE																	
LAB Number	DATE	TIME	AM	PM	COLLECTION	DATE	TIME	AM	PM	TEST NAME	POPULATION SERVED	SOURCE WATER	Preservative Checks	pH acceptable? ✓	Residual Chlorine (P/A)	CHLORINATED	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1 4952974	7/12/21	12:10		X	10094 Vine Brook Effluent	07/13/2021	0915			EPA	PFAS	537.1			537.1	X	2	DW	
2 975	7/12/21	12:10		X	Vine Brook Field Blank	07/13/2021	0915			EPA	PFAS	537.1			537.1	X	1	RW	
3 976	7/12/21	12:45			10090 Mill Pond Effluent	07/13/2021	0915			EPA	PFAS	537.1			537.1	X	2	DW	
4 977	7/12/21	12:45			Mill Pond Field Blank	07/13/2021	0915			KPA	PFAS	537.1			537.1	X	1	RW	
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			

RELINQUISHED BY: (Signature) *[Signature]* DATE: 7/12/21 TIME: 2:35 AM/PM

RECEIVED BY: (Signature) RECEIVED BY: (Signature) DATE: 07/13/2021 TIME: 0915 AM/PM

RELINQUISHED BY: (Signature)

RECEIVED FOR LABORATORY BY: *[Signature]* DATE: 07/13/2021 TIME: 0915 AM/PM

LAB COMMENTS: LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

CONDITIONS UPON RECEIPT (check only): Ambient IR 17 °C Upon Receipt -0.2

MATRIX CODES:
 DW-DRINKING WATER RW-REAGENT WATER GW-GROUND WATER EW-EXPOSURE WATER SW-SURFACE WATER PW-POOL WATER WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES
 SW = Standard Written: (15 working days) 0% RW = Rush Verbal: (5 working days) 50% RW* = Rush Written: (5 working days) 75%
 * Please call, expedited service not available for all testing

STAT* = Less than 48 hours
 100% = Immediate Verbal (3 working days) RW*
 125% = Immediate Written (3 working days) SP = CALL
 CALL

EA: Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges. 06-LO-F0435 Issue 8.0 Effective Date: 2020-05-15

Sample analysis will be provided according to the standard EEA Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agreed to in writing by EEA.

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Eurofins Eaton Analytical

Run Log

Run ID: 292005 Method: 537.1

<u>Type</u>	<u>Sample Id</u>	<u>Sample Site</u>	<u>Matrix</u>	<u>Instrument ID</u>	<u>Analysis Date</u>	<u>Calibration File</u>
CCL	4958413		OS	GA	07/19/2021 21:15	071921M537.1a.wiff
LRB	4958294		RW	GA	07/19/2021 21:36	071921M537.1a.wiff
FBL	4958295		RW	GA	07/19/2021 21:46	071921M537.1a.wiff
FBH	4958296		RW	GA	07/19/2021 21:57	071921M537.1a.wiff
FS	4952974	10094 Vine Brook Effluent	DW	GA	07/19/2021 22:50	071921M537.1a.wiff
FS	4952976	10090 Mill Pond Effluent	DW	GA	07/19/2021 23:01	071921M537.1a.wiff
CCM	4958416		OS	GA	07/20/2021 00:15	071921M537.1a.wiff

QC Summary Report

Sample Type	Analyte	Method	MDA95	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCL	Perfluorooctanoic acid (PFOA)	537.1	2.0	--		1.7676	2.0	ng/L	88	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	--		1.7593	2.0	ng/L	88	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	IS-NMeFOSAA-d3	537.1	N/A	--		1588520	1588520.13	ng/L	100	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	IS-PFOA-13C2	537.1	N/A	--		1460809	1460808.92	ng/L	100	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	IS-PFOS-13C4	537.1	N/A	--		5184620	5184619.92	ng/L	100	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	SS-NEFOSAA-d5	537.1	N/A	--		165.4634	160	ng/L	103	70 - 130	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	SS-PFDA-13C2	537.1	N/A	--		38.0255	40.0	ng/L	95	70 - 130	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	SS-PFHXA-13C2	537.1	N/A	--		38.0933	40.0	ng/L	95	70 - 130	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	--		1.6910	2.0	ng/L	85	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorheptanoic acid (PFHpA)	537.1	2.0	--		1.8109	2.0	ng/L	91	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	--		1.8083	2.0	ng/L	90	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorononanoic acid (PFNA)	537.1	2.0	--		1.7644	2.0	ng/L	88	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorodecanoic acid (PFDA)	537.1	2.0	--		1.7155	2.0	ng/L	86	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorohexanoic acid (PFHxA)	537.1	2.0	--		1.6749	2.0	ng/L	84	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorododecanoic acid (PFDDoA)	537.1	2.0	--		1.7893	2.0	ng/L	89	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorotridecanoic acid (PFTDA)	537.1	2.0	--		1.6782	2.0	ng/L	84	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	--		1.9037	2.0	ng/L	95	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	--		1.9771	2.0	ng/L	99	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	--		1.8626	2.0	ng/L	93	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	HFPO-DA/GenX	537.1	2.0	--		1.7384	2.0	ng/L	87	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	ADONA	537.1	2.0	--		1.6686	2.0	ng/L	83	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	9CI-PF3ONS/F-53B Major	537.1	2.0	--		1.6760	2.0	ng/L	84	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	11CI-PF3OUdS/F-53B Minor	537.1	2.0	--		1.7810	2.0	ng/L	89	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	--		1.6187	2.0	ng/L	81	50 - 150	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
CCL	SS-HFO-DA-13C3	537.1	N/A	--		36.6664	40.0	ng/L	92	70 - 130	---	---	1.0	07/16/2021 11:01	07/19/2021 21:15	4958413
LRB	Perfluorooctanoic acid (PFOA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	IS-NMeFOSAA-d3	537.1	N/A	--		1691362	1588520.13	ng/L	106	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	IS-PFOA-13C2	537.1	N/A	--		1394625	1460808.92	ng/L	95	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	IS-PFOS-13C4	537.1	N/A	--		5470563	5184619.92	ng/L	106	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	SS-NEFOSAA-d5	537.1	N/A	--		124.3073	160	ng/L	78	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	SS-PFDA-13C2	537.1	N/A	--		35.1187	40.0	ng/L	88	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	SS-PFHXA-13C2	537.1	N/A	--		36.9720	40.0	ng/L	92	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorheptanoic acid (PFHpA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorononanoic acid (PFNA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorodecanoic acid (PFDA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorohexanoic acid (PFHxA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorododecanoic acid (PFDDoA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
LRB	Perfluorotridecanoic acid (PFTrDA)	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	HFPO-DA/GenX	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	ADONA	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	9CI-PF3ONS/F-53B Major	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	11CI-PF3OUdS/F-53B Minor	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
LRB	SS-HFPO-DA-13C3	537.1	N/A	---		34.8130	40.0	ng/L	87	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:36	4958294
FBL	Perfluorooctanoic acid (PFOA)	537.1	2.0	---		1.7219	2.0	ng/L	86	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	---		1.8523	2.0	ng/L	93	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	IS-NMeFOSAA-d3	537.1	N/A	---		1578837	1588520.13	ng/L	99	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	IS-PFOA-13C2	537.1	N/A	---		1434860	1460808.92	ng/L	98	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	IS-PFOS-13C4	537.1	N/A	---		5146245	5184619.92	ng/L	99	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	SS-NEFOSAA-d5	537.1	N/A	---		168.2331	160	ng/L	105	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	SS-PFDA-13C2	537.1	N/A	---		39.4983	40.0	ng/L	99	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	SS-PFHxA-13C2	537.1	N/A	---		40.2927	40.0	ng/L	101	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	---		1.6502	2.0	ng/L	83	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorohexanoic acid (PFHxA)	537.1	2.0	---		1.7645	2.0	ng/L	88	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorooctanesulfonic acid (PFHxS)	537.1	2.0	---		1.6138	2.0	ng/L	81	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorononanoic acid (PFNA)	537.1	2.0	---		1.6832	2.0	ng/L	84	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorodecanoic acid (PFDA)	537.1	2.0	---		1.5725	2.0	ng/L	79	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorohexanoic acid (PFHxA)	537.1	2.0	---		1.6485	2.0	ng/L	82	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorododecanoic acid (PFDoA)	537.1	2.0	---		1.5360	2.0	ng/L	77	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorotridecanoic acid (PFTrDA)	537.1	2.0	---		1.5387	2.0	ng/L	77	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---		1.6528	2.0	ng/L	83	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		1.5253	2.0	ng/L	76	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		1.4926	2.0	ng/L	75	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	HFPO-DA/GenX	537.1	2.0	---		1.5948	2.0	ng/L	80	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	ADONA	537.1	2.0	---		1.6004	2.0	ng/L	80	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	9CI-PF3ONS/F-53B Major	537.1	2.0	---		1.6947	2.0	ng/L	85	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	11CI-PF3OUdS/F-53B Minor	537.1	2.0	---		1.5708	2.0	ng/L	79	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	---		1.4872	2.0	ng/L	74	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	SS-HFPO-DA-13C3	537.1	N/A	---		37.8630	40.0	ng/L	95	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:46	4958295
FBL	Perfluorooctanoic acid (PFOA)	537.1	2.0	---		174.0806	200	ng/L	87	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBL	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	---		182.0133	200	ng/L	91	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBL	IS-NMeFOSAA-d3	537.1	N/A	---		1600326	1588520.13	ng/L	101	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBL	IS-PFOA-13C2	537.1	N/A	---		1473991	1460808.92	ng/L	101	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBL	IS-PFOS-13C4	537.1	N/A	---		5103838	5184619.92	ng/L	98	50 - 150	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBL	SS-NEFOSAA-d5	537.1	N/A	---		142.8691	160	ng/L	89	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FBH	SS-PFDA-13C2	537.1	N/A	---		37.7212	40.0	ng/L	94	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	SS-PFHXA-13C2	537.1	N/A	---		36.5445	40.0	ng/L	91	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	---		191.9490	200	ng/L	96	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluoroheptanoic acid (PFHpA)	537.1	2.0	---		167.0970	200	ng/L	84	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	---		185.5893	200	ng/L	93	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorononanoic acid (PFNA)	537.1	2.0	---		177.8812	200	ng/L	89	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorodecanoic acid (PFDA)	537.1	2.0	---		167.0249	200	ng/L	84	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorohexanoic acid (PFHxA)	537.1	2.0	---		175.4686	200	ng/L	88	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorododecanoic acid (PFDoA)	537.1	2.0	---		157.7023	200	ng/L	79	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorotridecanoic acid (PFTtDA)	537.1	2.0	---		154.6154	200	ng/L	77	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---		173.3570	200	ng/L	87	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		168.7087	200	ng/L	84	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		167.1800	200	ng/L	84	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	HFPO-DA/GenX	537.1	2.0	---		164.9533	200	ng/L	82	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	ADONA	537.1	2.0	---		169.7414	200	ng/L	85	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	9C+PF3ONS/F-53B Major	537.1	2.0	---		181.0042	200	ng/L	91	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	11C+PF3OudS/F-53B Minor	537.1	2.0	---		173.3929	200	ng/L	87	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	Perfluorotetradecanoic acid (PFTtDA)	537.1	2.0	---		153.7964	200	ng/L	77	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FBH	SS-HFPO-DA-13C3	537.1	N/A	---		37.6056	40.0	ng/L	94	70 - 130	---	---	1.0	07/19/2021 08:18	07/19/2021 21:57	4958296
FS	Perfluoroacetic acid (PFOA)	537.1	2.0	10094 Vine Brook Effluent		16		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	10094 Vine Brook Effluent		9.5		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	IS-NMeFOSAA-d3	537.1	N/A	10094 Vine Brook Effluent		1582002	1588520.13	ng/L	100	50 - 150	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	IS-PFOA-13C2	537.1	N/A	10094 Vine Brook Effluent		1377188	1460808.92	ng/L	94	50 - 150	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	IS-PFOA-13C4	537.1	N/A	10094 Vine Brook Effluent		5152275	5184619.92	ng/L	99	50 - 150	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	SS-NEFOSAA-d5	537.1	N/A	10094 Vine Brook Effluent		129.4983	160	ng/L	94	70 - 130	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	SS-PFDA-13C2	537.1	N/A	10094 Vine Brook Effluent		33.2204	40.0	ng/L	97	70 - 130	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	SS-PFHXA-13C2	537.1	N/A	10094 Vine Brook Effluent		28.9255	40.0	ng/L	84	70 - 130	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	10094 Vine Brook Effluent		5.1		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluoroheptanoic acid (PFHpA)	537.1	2.0	10094 Vine Brook Effluent		4.5		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	10094 Vine Brook Effluent		12		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorononanoic acid (PFNA)	537.1	2.0	10094 Vine Brook Effluent	J	1.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorodecanoic acid (PFDA)	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorohexanoic acid (PFHxA)	537.1	2.0	10094 Vine Brook Effluent		5.8		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorododecanoic acid (PFDoA)	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorotridecanoic acid (PFTtDA)	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	HFPO-DA/GenX	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	ADONA	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	9C+PF3ONS/F-53B Major	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	11C1-PF3OUdSf-53B Minor	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	10094 Vine Brook Effluent	<	2.0		ng/L	---	---	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	SS-HFPO-DA-13C3	537.1	N/A	10094 Vine Brook Effluent		31.3804	40.0	ng/L	91	70 - 130	---	---	0.86	07/19/2021 08:18	07/19/2021 22:50	4952974
FS	Perfluorooctanoic acid (PFOA)	537.1	2.0	10090 Mill Pond Effluent		8.1		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	10090 Mill Pond Effluent		23		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	IS-NMeFOSAA-d3	537.1	N/A	10090 Mill Pond Effluent		1624313	1588520.13	ng/L	102	50 - 150	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	IS-PFOA-13C2	537.1	N/A	10090 Mill Pond Effluent		1406845	1460808.92	ng/L	96	50 - 150	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	IS-PFOS-13C4	537.1	N/A	10090 Mill Pond Effluent		5377932	5184619.92	ng/L	104	50 - 150	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	SS-NEIFOSAA-d5	537.1	N/A	10090 Mill Pond Effluent		136.2100	160	ng/L	95	70 - 130	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	SS-PFDA-13C2	537.1	N/A	10090 Mill Pond Effluent		36.4075	40.0	ng/L	101	70 - 130	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	SS-PFHXA-13C2	537.1	N/A	10090 Mill Pond Effluent		32.6397	40.0	ng/L	91	70 - 130	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	10090 Mill Pond Effluent		3.4		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorooctanoic acid (PFHxA)	537.1	2.0	10090 Mill Pond Effluent		4.1		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	10090 Mill Pond Effluent		12		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorononanoic acid (PFNA)	537.1	2.0	10090 Mill Pond Effluent	J	0.93		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorodecanoic acid (PFDA)	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorohexanoic acid (PFHxA)	537.1	2.0	10090 Mill Pond Effluent	<	7.6		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorododecanoic acid (PFDDA)	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorotridecanoic acid (PFTDA)	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluoroundecanoic acid (PFUNA)	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	HFPO-DA/GenX	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	ADONA	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	9CI-PF3ONSf-53B Major	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	11C1-PF3OUdSf-53B Minor	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	10090 Mill Pond Effluent	<	2.0		ng/L	---	---	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
FS	SS-HFPO-DA-13C3	537.1	N/A	10090 Mill Pond Effluent		34.4420	40.0	ng/L	96	70 - 130	---	---	0.9	07/19/2021 08:18	07/19/2021 23:01	4952976
CCM	Perfluorooctanoic acid (PFOA)	537.1	2.0	---		103.2920	100	ng/L	103	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	---		99.8383	100	ng/L	100	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	IS-NMeFOSAA-d3	537.1	N/A	---		1696051	1696050.5€	ng/L	100	50 - 150	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	IS-PFOA-13C2	537.1	N/A	---		1415705	1415705.2	ng/L	100	50 - 150	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	IS-PFOS-13C4	537.1	N/A	---		5309323	5309322.81	ng/L	100	50 - 150	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	SS-NEIFOSAA-d5	537.1	N/A	---		159.4173	160	ng/L	100	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	SS-PFDA-13C2	537.1	N/A	---		40.7319	40.0	ng/L	102	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	SS-PFHXA-13C2	537.1	N/A	---		41.0743	40.0	ng/L	103	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	---		104.8260	100	ng/L	105	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorooctanoic acid (PFHxA)	537.1	2.0	---		104.1099	100	ng/L	104	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	---		103.1167	100	ng/L	103	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorononanoic acid (PFNA)	537.1	2.0	---		107.6478	100	ng/L	108	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorodecanoic acid (PFDA)	537.1	2.0	---		100.4892	100	ng/L	100	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCM	Perfluorhexanoic acid (PFHxA)	537.1	2.0	---		106.8239	100	ng/L	107	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorododecanoic acid (PFDoA)	537.1	2.0	---		104.6512	100	ng/L	105	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorotridecanoic acid (PFTriDA)	537.1	2.0	---		101.2315	100	ng/L	101	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---		107.8901	100	ng/L	108	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		104.1869	100	ng/L	104	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		99.7199	100	ng/L	100	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	HFPO-DA/GenX	537.1	2.0	---		107.7890	100	ng/L	108	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	ADONA	537.1	2.0	---		103.1278	100	ng/L	103	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	9Cl+PF3ONS/F-53B Major	537.1	2.0	---		103.0854	100	ng/L	103	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	11Cl+PF3OUs/F-53B Minor	537.1	2.0	---		102.5073	100	ng/L	103	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	---		101.6675	100	ng/L	102	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416
CCM	SS-HFPO-DA-13C3	537.1	N/A	---		39.3031	40.0	ng/L	98	70 - 130	---	---	1.0	07/16/2021 11:01	07/20/2021 00:15	4958416

Eurofins Eaton Analytical

Run Log

Run ID: 292061 Method: 537.1

<u>Type</u>	<u>Sample Id</u>	<u>Sample Site</u>	<u>Matrix</u>	<u>Instrument ID</u>	<u>Analysis Date</u>	<u>Calibration File</u>
CCL	4964111		OS	GA	07/26/2021 20:25	072621M537.1a.wiff
LRB	4964095		RW	GA	07/26/2021 20:46	072621M537.1a.wiff
FBL	4964096		RW	GA	07/26/2021 20:57	072621M537.1a.wiff
FBM	4964097		RW	GA	07/26/2021 21:08	072621M537.1a.wiff
FTB	4952975	Vine Brook Field Blank	RW	GA	07/26/2021 22:22	072621M537.1a.wiff
FTB	4952977	Mill Pond Field Blank	RW	GA	07/26/2021 22:32	072621M537.1a.wiff
CCM	4964112		OS	GA	07/27/2021 03:51	072621M537.1a.wiff

QC Summary Report

Sample Type	Analyte	Method	MDA95	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCL	Perfluorooctanoic acid (PFOA)	537.1	2.0	--		1.9065	2.0	ng/L	95	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	--		1.9141	2.0	ng/L	96	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	IS-NMeFOSAA-d3	537.1	N/A	--		2141359	2141359.1E	ng/L	100	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	IS-PFOA-13C2	537.1	N/A	--		1598007	1598007.24	ng/L	100	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	IS-PFOS-13C4	537.1	N/A	--		6892060	3592060.04	ng/L	100	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	SS-NEFOSAA-d5	537.1	N/A	--		167.5625	160	ng/L	105	70 - 130	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	SS-PFDA-13C2	537.1	N/A	--		43.1480	40.0	ng/L	108	70 - 130	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	SS-PFHXA-13C2	537.1	N/A	--		41.8322	40.0	ng/L	105	70 - 130	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	--		1.7444	2.0	ng/L	87	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorheptanoic acid (PFHpA)	537.1	2.0	--		2.1466	2.0	ng/L	107	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	--		1.6649	2.0	ng/L	83	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorononanoic acid (PFNA)	537.1	2.0	--		1.9154	2.0	ng/L	96	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorodecanoic acid (PFDA)	537.1	2.0	--		1.9072	2.0	ng/L	95	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorohexanoic acid (PFHxA)	537.1	2.0	--		1.9708	2.0	ng/L	99	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorododecanoic acid (PFDoA)	537.1	2.0	--		2.0444	2.0	ng/L	102	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorotridecanoic acid (PFTDA)	537.1	2.0	--		1.9339	2.0	ng/L	97	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	--		1.9473	2.0	ng/L	97	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	--		2.0284	2.0	ng/L	101	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	--		1.9585	2.0	ng/L	98	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	HFPO-DA/GenX	537.1	2.0	--		1.7885	2.0	ng/L	89	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	ADONA	537.1	2.0	--		1.8968	2.0	ng/L	95	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	9CI-PF3ONS/F-53B Major	537.1	2.0	--		1.6847	2.0	ng/L	84	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	11CI-PF3OUdS/F-53B Minor	537.1	2.0	--		1.6357	2.0	ng/L	82	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	--		1.8838	2.0	ng/L	94	50 - 150	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
CCL	SS-HFO-DA-13C3	537.1	N/A	--		42.8020	40.0	ng/L	107	70 - 130	---	---	1.0	07/21/2021 11:53	07/26/2021 20:25	4964111
LRB	Perfluorooctanoic acid (PFOA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	IS-NMeFOSAA-d3	537.1	N/A	--		2092928	2141359.1E	ng/L	98	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	IS-PFOA-13C2	537.1	N/A	--		1598860	1598007.24	ng/L	100	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	IS-PFOS-13C4	537.1	N/A	--		6285583	3592060.04	ng/L	95	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	SS-NEFOSAA-d5	537.1	N/A	--		149.0731	160	ng/L	93	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	SS-PFDA-13C2	537.1	N/A	--		39.9014	40.0	ng/L	100	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	SS-PFHXA-13C2	537.1	N/A	--		34.2799	40.0	ng/L	86	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorheptanoic acid (PFHpA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorononanoic acid (PFNA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorodecanoic acid (PFDA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorohexanoic acid (PFHxA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorododecanoic acid (PFDoA)	537.1	2.0	--	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
LRB	Perfluorotridecanoic acid (PFTrDA)	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	HFPO-DA/GenX	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	ADONA	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	9CI-PF3ONS/F-53B Major	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	11CI-PF3OUdS/F-53B Minor	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	---	<	2.0		ng/L	---	---	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
LRB	SS-HFPO-DA-13C3	537.1	N/A	---		35.4394	40.0	ng/L	89	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:46	4964095
FBL	Perfluorooctanoic acid (PFOA)	537.1	2.0	---		1.8935	2.0	ng/L	95	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	---		1.7886	2.0	ng/L	89	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	IS-NMeFOSAA-d3	537.1	N/A	---		2090928	2141359.1E	ng/L	98	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	IS-PFOA-13C2	537.1	N/A	---		1522729	1598007.24	ng/L	95	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	IS-PFOS-13C4	537.1	N/A	---		6309601	3592060.04	ng/L	96	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	SS-NEFOSAA-d5	537.1	N/A	---		142.0246	160	ng/L	89	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	SS-PFDA-13C2	537.1	N/A	---		39.5279	40.0	ng/L	99	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	SS-PFHxA-13C2	537.1	N/A	---		39.4462	40.0	ng/L	99	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	---		1.6291	2.0	ng/L	81	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	---		1.9534	2.0	ng/L	98	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorononanoic acid (PFNA)	537.1	2.0	---		1.6320	2.0	ng/L	82	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorodecanoic acid (PFDA)	537.1	2.0	---		1.9693	2.0	ng/L	98	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorohexanoic acid (PFHxA)	537.1	2.0	---		1.8410	2.0	ng/L	92	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorohexanoic acid (PFHxA)	537.1	2.0	---		1.8771	2.0	ng/L	94	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorododecanoic acid (PFDDA)	537.1	2.0	---		1.6374	2.0	ng/L	82	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorotridecanoic acid (PFTrDA)	537.1	2.0	---		1.5098	2.0	ng/L	75	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---		1.6561	2.0	ng/L	83	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		1.5551	2.0	ng/L	78	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		1.5114	2.0	ng/L	76	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	HFPO-DA/GenX	537.1	2.0	---		1.6018	2.0	ng/L	80	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	ADONA	537.1	2.0	---		1.7670	2.0	ng/L	88	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	9CI-PF3ONS/F-53B Major	537.1	2.0	---		1.4924	2.0	ng/L	75	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	11CI-PF3OUdS/F-53B Minor	537.1	2.0	---		1.4408	2.0	ng/L	72	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	---		1.4013	2.0	ng/L	70	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	SS-HFPO-DA-13C3	537.1	N/A	---		38.5557	40.0	ng/L	96	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 20:57	4964096
FBL	Perfluorooctanoic acid (PFOA)	537.1	2.0	---		89.0673	100	ng/L	89	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBL	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	---		86.1587	100	ng/L	86	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBL	IS-NMeFOSAA-d3	537.1	N/A	---		2154861	2141359.1E	ng/L	101	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBL	IS-PFOA-13C2	537.1	N/A	---		1577098	1598007.24	ng/L	99	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBL	IS-PFOS-13C4	537.1	N/A	---		6185572	3592060.04	ng/L	94	50 - 150	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBL	SS-NEFOSAA-d5	537.1	N/A	---		127.0318	160	ng/L	79	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FBM	SS-PFDA-13C2	537.1	N/A	---		37.9295	40.0	ng/L	95	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	SS-PFHXA-13C2	537.1	N/A	---		37.8288	40.0	ng/L	95	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	---		90.0042	100	ng/L	90	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluoroheptanoic acid (PFHpA)	537.1	2.0	---		91.4096	100	ng/L	91	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	---		89.1112	100	ng/L	89	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorononanoic acid (PFNA)	537.1	2.0	---		95.1502	100	ng/L	95	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorodecanoic acid (PFDA)	537.1	2.0	---		87.1047	100	ng/L	87	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorohexanoic acid (PFHxA)	537.1	2.0	---		92.3949	100	ng/L	92	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorododecanoic acid (PFDoA)	537.1	2.0	---		87.6247	100	ng/L	88	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorotridecanoic acid (PFTtDA)	537.1	2.0	---		83.7643	100	ng/L	84	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---		82.9630	100	ng/L	83	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		78.9650	100	ng/L	79	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		78.1507	100	ng/L	78	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	HFPO-DA/GenX	537.1	2.0	---		83.5312	100	ng/L	84	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	ADONA	537.1	2.0	---		88.5230	100	ng/L	89	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	9C+PF3ONS/F-53B Major	537.1	2.0	---		82.9708	100	ng/L	83	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	11C+PF3OudS/F-53B Minor	537.1	2.0	---		77.0622	100	ng/L	77	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	Perfluorotetradecanoic acid (PFTtDA)	537.1	2.0	---		77.3490	100	ng/L	77	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FBM	SS-HFPO-DA-13C3	537.1	N/A	---		37.2220	40.0	ng/L	93	70 - 130	---	---	1.0	07/26/2021 07:00	07/26/2021 21:08	4964097
FTB	Perfluoroctanoic acid (PFOA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	IS-NMeFOSAA-d3	537.1	N/A	Vine Brook Field Blank		2105051	2141359.1E	ng/L	98	50 - 150	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	IS-PFOA-13C2	537.1	N/A	Vine Brook Field Blank		1528726	1598007.24	ng/L	96	50 - 150	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	IS-PFOA-13C4	537.1	N/A	Vine Brook Field Blank		5980783	3592060.04	ng/L	91	50 - 150	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	SS-NEFOSAA-d5	537.1	N/A	Vine Brook Field Blank		119.4079	160	ng/L	88	70 - 130	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	SS-PFDA-13C2	537.1	N/A	Vine Brook Field Blank		33.3729	40.0	ng/L	98	70 - 130	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	SS-PFHXA-13C2	537.1	N/A	Vine Brook Field Blank		32.5468	40.0	ng/L	96	70 - 130	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluoroheptanoic acid (PFHpA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorononanoic acid (PFNA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorodecanoic acid (PFDA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorohexanoic acid (PFHxA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorododecanoic acid (PFDoA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorotridecanoic acid (PFTtDA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	HFPO-DA/GenX	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	ADONA	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	9C+PF3ONS/F-53B Major	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FTB	11C1-PF3OUdSf-53B Minor	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	Vine Brook Field Blank	<	2.0		ng/L	---	---	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	SS-HFPO-DA-13C3	537.1	N/A	Vine Brook Field Blank		30.7092	40.0	ng/L	90	70 - 130	---	---	0.85	07/26/2021 07:00	07/26/2021 22:22	4952975
FTB	Perfluorooctanoic acid (PFOA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	IS-NMeFOSAA-d3	537.1	N/A	Mill Pond Field Blank		2104390	2141359.1E	ng/L	98	50 - 150	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	IS-PFOA-13C2	537.1	N/A	Mill Pond Field Blank		1556746	1598007.24	ng/L	97	50 - 150	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	IS-PFOS-13C4	537.1	N/A	Mill Pond Field Blank		6078692	3592060.04	ng/L	92	50 - 150	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	SS-NEFOSAA-d5	537.1	N/A	Mill Pond Field Blank		127.7913	160	ng/L	93	70 - 130	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	SS-PFDA-13C2	537.1	N/A	Mill Pond Field Blank		33.8074	40.0	ng/L	98	70 - 130	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	SS-PFHXA-13C2	537.1	N/A	Mill Pond Field Blank		32.1210	40.0	ng/L	93	70 - 130	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluoroheptanoic acid (PFHpA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorononanoic acid (PFNA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorodecanoic acid (PFDA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorohexanoic acid (PFHxA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorododecanoic acid (PFDDA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorotridecanoic acid (PFTDA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluoroundecanoic acid (PFUNA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	HFPO-DA/GenX	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	ADONA	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	9CI-PF3ONSf-53B Major	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	11C1-PF3OUdSf-53B Minor	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	Mill Pond Field Blank	<	2.0		ng/L	---	---	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
FTB	SS-HFPO-DA-13C3	537.1	N/A	Mill Pond Field Blank		32.2562	40.0	ng/L	94	70 - 130	---	---	0.86	07/26/2021 07:00	07/26/2021 22:32	4952977
CCM	Perfluorooctanoic acid (PFOA)	537.1	2.0	---		99.9000	100	ng/L	100	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorooctanesulfonic acid (PFOS)	537.1	2.0	---		94.6131	100	ng/L	95	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	IS-NMeFOSAA-d3	537.1	N/A	---		2291344	2291344.0E	ng/L	100	50 - 150	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	IS-PFOA-13C2	537.1	N/A	---		1647025	1647024.8E	ng/L	100	50 - 150	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	IS-PFOS-13C4	537.1	N/A	---		6446726	3446725.77	ng/L	100	50 - 150	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	SS-NEFOSAA-d5	537.1	N/A	---		153.8178	160	ng/L	96	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	SS-PFDA-13C2	537.1	N/A	---		38.5341	40.0	ng/L	96	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	SS-PFHXA-13C2	537.1	N/A	---		40.7894	40.0	ng/L	102	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorobutanesulfonic acid (PFBS)	537.1	2.0	---		96.3660	100	ng/L	96	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluoroheptanoic acid (PFHpA)	537.1	2.0	---		102.9575	100	ng/L	103	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorohexanesulfonic acid (PFHxS)	537.1	2.0	---		95.3071	100	ng/L	95	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorononanoic acid (PFNA)	537.1	2.0	---		107.7280	100	ng/L	108	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorodecanoic acid (PFDA)	537.1	2.0	---		103.5701	100	ng/L	104	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCM	Perfluorhexanoic acid (PFHxA)	537.1	2.0	---		101.6438	100	ng/L	102	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorododecanoic acid (PFDoA)	537.1	2.0	---		101.8725	100	ng/L	102	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorotridecanoic acid (PFTriDA)	537.1	2.0	---		105.4372	100	ng/L	105	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluoroundecanoic acid (PFUnA)	537.1	2.0	---		99.0026	100	ng/L	99	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	N-ethyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		99.7846	100	ng/L	100	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	N-methyl Perfluorooctanesulfonamidoacetic acid	537.1	2.0	---		100.7903	100	ng/L	101	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	HFPO-DA/GenX	537.1	2.0	---		99.3059	100	ng/L	99	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	ADONA	537.1	2.0	---		100.2711	100	ng/L	100	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	9CI-PF3ONS/F-53B Major	537.1	2.0	---		93.3076	100	ng/L	93	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	11CI-PF3OUs/F-53B Minor	537.1	2.0	---		93.9010	100	ng/L	94	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	Perfluorotetradecanoic acid (PFTeDA)	537.1	2.0	---		102.3599	100	ng/L	102	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112
CCM	SS-HFPO-DA-13C3	537.1	N/A	---		42.1879	40.0	ng/L	105	70 - 130	---	---	1.0	07/21/2021 11:53	07/27/2021 03:51	4964112

Sample Type Key

<u>Type (Abbr.)</u>	<u>Sample Type</u>	<u>Type (Abbr.)</u>	<u>Sample Type</u>
CCL	Continuing Calibration Low		
CCM	Continuing Calibration Mid		
FS	Field Sample		
FTB	Field Trip Blank		
FBH	Fortified Blank High		
FBL	Fortified Blank Low		
FBM	Fortified Blank Mid		
LRB	Laboratory Reagent Blank		

END OF REPORT