

ANALYTICAL REPORT

Eurofins Eaton South Bend
110 S Hill Street
South Bend, IN 46617
Tel: (574)233-4777

Laboratory Job ID: 810-30468-1

Client Project/Site: Housatonic Basin-PFC18-1279000

For:

Housatonic Basin Sampling & Testing
80 Run Way
Lee, Massachusetts 01238

Attn: Nick Bruzzi



Authorized for release by:

7/28/2022 1:52:58 PM

Amanda Scott, Project Manager
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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Job ID: 810-30468-1

Laboratory: Eurofins Eaton South Bend

Narrative

Job Narrative 810-30468-1

Receipt

The samples were received on 7/14/2022 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.0°C

PFAS

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

Detection Summary

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Client Sample ID: POE Post GT Brook 02G

Lab Sample ID: 810-30468-1

PWSID Number: 1279000

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	1.1	J	1.9	0.38	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2	J	1.9	0.38	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	1.7	J	1.9	0.38	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.2	J	1.9	0.47	ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.69	J	1.9	0.38	ng/L	1		537.1	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.57	J	1.9	0.38	ng/L	1		537.1	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Client Sample ID: POE Post GT Brook 02G

Lab Sample ID: 810-30468-1

Date Collected: 07/12/22 09:45

Matrix: Drinking Water

Date Received: 07/14/22 09:00

PWSID Number: 1279000

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	1.1	J	1.9	0.38	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorohexanoic acid (PFHxA)	1.2	J	1.9	0.38	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.38	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorooctanoic acid (PFOA)	1.7	J	1.9	0.38	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorohexanesulfonic acid (PFHxS)	1.2	J	1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorobutanesulfonic acid (PFBS)	0.69	J	1.9	0.38	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluoroheptanoic acid (PFHpA)	0.57	J	1.9	0.38	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.9	0.56	ng/L		07/25/22 11:13	07/27/22 22:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.9	0.56	ng/L		07/25/22 11:13	07/27/22 22:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.9	0.47	ng/L		07/25/22 11:13	07/27/22 22:25	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND		1.9	0.57	ng/L		07/25/22 11:13	07/27/22 22:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	90		70 - 130				07/25/22 11:13	07/27/22 22:25	1
13C2 PFDA	91		70 - 130				07/25/22 11:13	07/27/22 22:25	1
13C3 HFPO-DA	90		70 - 130				07/25/22 11:13	07/27/22 22:25	1
d5-NEtFOSAA	79		70 - 130				07/25/22 11:13	07/27/22 22:25	1

Method: PFAS6 - PFAS6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PFAS Total	ND		2.00	0.500	ng/L			07/28/22 15:42	1

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Surrogate Summary

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		PFHxA (70-130)	PFDA (70-130)	HFPODA (70-130)	d5NEFOS (70-130)
810-30468-1	POE Post GT Brook 02G	90	91	90	79
LLCS 810-25780/2-A	Lab Control Sample	101	96	94	90
MBL 810-25780/1-A	Method Blank	95	89	93	76

Surrogate Legend

PFHxA = 13C2 PFHxA

PFDA = 13C2 PFDA

HFPODA = 13C3 HFPO-DA

d5NEFOS = d5-NEtFOSAA

QC Sample Results

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MBL 810-25780/1-A

Matrix: Drinking Water

Analysis Batch: 25969

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 25780

Analyte	MBL Result	MBL Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.40	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.40	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.40	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.40	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.40	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.40	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.60	ng/L		07/25/22 11:13	07/27/22 21:53	1
Perfluorotridecanoic acid (PFTriDA)	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.60	ng/L		07/25/22 11:13	07/27/22 21:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		2.0	0.50	ng/L		07/25/22 11:13	07/27/22 21:53	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.61	ng/L		07/25/22 11:13	07/27/22 21:53	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	95		70 - 130	07/25/22 11:13	07/27/22 21:53	1
13C2 PFDA	89		70 - 130	07/25/22 11:13	07/27/22 21:53	1
13C3 HFPO-DA	93		70 - 130	07/25/22 11:13	07/27/22 21:53	1
d5-NEtFOSAA	76		70 - 130	07/25/22 11:13	07/27/22 21:53	1

Lab Sample ID: LLCS 810-25780/2-A

Matrix: Drinking Water

Analysis Batch: 25969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25780

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	1.92	2.00		ng/L		104	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.92	1.80	J	ng/L		94	50 - 150
Perfluorohexanoic acid (PFHxA)	1.92	1.86	J	ng/L		97	50 - 150
Perfluorododecanoic acid (PFDoA)	1.92	1.74	J	ng/L		91	50 - 150
Perfluorooctanoic acid (PFOA)	1.92	1.91		ng/L		100	50 - 150
Perfluorodecanoic acid (PFDA)	1.92	1.76	J	ng/L		92	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.92	1.80	J	ng/L		94	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.92	1.84	J	ng/L		96	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.92	1.87	J	ng/L		98	50 - 150
Perfluorononanoic acid (PFNA)	1.92	1.96		ng/L		102	50 - 150

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QC Sample Results

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LLCS 810-25780/2-A

Matrix: Drinking Water

Analysis Batch: 25969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25780

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTeDA)	1.92	1.55	J	ng/L		81	50 - 150
Perfluorotridecanoic acid (PFTTrDA)	1.92	1.81	J	ng/L		95	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.92	1.54	J	ng/L		80	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.92	1.66	J	ng/L		86	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.92	1.79	J	ng/L		94	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	1.92	1.70	J	ng/L		89	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	1.92	1.71	J	ng/L		89	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.92	1.81	J	ng/L		94	50 - 150
Surrogate	LLCS %Recovery	LLCS Qualifier	Limits				
13C2 PFHxA	101		70 - 130				
13C2 PFDA	96		70 - 130				
13C3 HFPO-DA	94		70 - 130				
d5-NEtFOSAA	90		70 - 130				

QC Association Summary

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

LCMS

Prep Batch: 25780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-30468-1	POE Post GT Brook 02G	Total/NA	Drinking Water	537.1 DW	
MBL 810-25780/1-A	Method Blank	Total/NA	Drinking Water	537.1 DW	
LLCS 810-25780/2-A	Lab Control Sample	Total/NA	Drinking Water	537.1 DW	

Analysis Batch: 25969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-30468-1	POE Post GT Brook 02G	Total/NA	Drinking Water	537.1	25780
MBL 810-25780/1-A	Method Blank	Total/NA	Drinking Water	537.1	25780
LLCS 810-25780/2-A	Lab Control Sample	Total/NA	Drinking Water	537.1	25780

Analysis Batch: 26288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-30468-1	POE Post GT Brook 02G	Total/NA	Drinking Water	PFAS6	

Lab Chronicle

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Client Sample ID: POE Post GT Brook 02G
Date Collected: 07/12/22 09:45
Date Received: 07/14/22 09:00

Lab Sample ID: 810-30468-1
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537.1 DW			25780	07/25/22 11:13	SS	EA SB
Total/NA	Analysis	537.1		1	25969	07/27/22 22:25	MH	EA SB
Total/NA	Analysis	PFAS6		1	26288	07/28/22 15:42	RD	EA SB

Laboratory References:
EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Laboratory: Eurofins Eaton South Bend

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-IN035	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
PFAS6		Drinking Water	PFAS Total

Method Summary

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Method	Method Description	Protocol	Laboratory
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA SB
PFAS6	PFAS6	EPA	EA SB
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Sample Summary

Client: Housatonic Basin Sampling & Testing
Project/Site: Housatonic Basin-PFC18-1279000

Job ID: 810-30468-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
810-30468-1	POE Post GT Brook 02G	Drinking Water	07/12/22 09:45	07/14/22 09:00	1279000

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Login Sample Receipt Checklist

Client: Housatonic Basin Sampling & Testing

Job Number: 810-30468-1

Login Number: 30468

List Source: Eurofins Eaton South Bend

List Number: 1

Creator: Blackburn, Kelly

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	