



Staff Report

Operations – Water & Wastewater Services

Report To: COW - Operations, Planning and Building Services
Meeting Date: July 7, 2025
Report Number: OPS.25.031
Title: Drinking Water Analysis for PFA's
Prepared by: Allison Kershaw, Manager of Water & Wastewater Services

A. Recommendations

THAT Council receive Staff Report OPS.25.031, entitled "Drinking Water Analysis for PFA's" for their information

B. Overview

The Town submitted a raw drinking water sample and a treated drinking water sample for Per and Polyfluoroalkyl (PFAs) analysis. This staff report provides Council with the results of this analysis.

C. Background

PFAs are a large group of human-made chemicals that have been in use since the 1940s. They are in a wide range of industrial and consumer products due to their resistance to heat, water and oil. They are composed of a carbon-fluorine bond, which is one of the strongest in organic chemistry. This makes them highly stable, resistant to degradation and therefore persistent in the environment and the human body.

D. Analysis

On March 5th, 2025, Staff sampled both raw water and treated water from the Thornbury Water Treatment Plant and submitted the samples for PFAs analysis. The samples were analyzed for thirty-five (35) different PFA compounds. Of the thirty-five (35) compounds that were tested for, thirty-two (32) of the results were less than the reported detection limit (RDL) of the analyte.

In the raw water sample, three analytes that included results above the RDL include n-Perfluorobutanoic acid (PFBA), 1.2ng/L, n-Perfluorooctanoic acid (PFOA), 0.88ng/L, and Perfluorooctane sulfonic acid (PFOS), 0.87ng/L.

In the treated water sample, three analytes that included results above the RDL include n-Perfluorobutanoic acid (PFBA), 1.4ng/L, n-Perfluorooctanoic acid (PFOA), 0.94ng/L, and Perfluorooctane sulfonic acid (PFOS), 0.86ng/L. Please see attachment #1, the Certificate of Analysis for the complete set of results.

As of June 2025, Ontario's drinking water standards for PFAs are not explicitly defined in provincial regulations. Ontario Regulation 169/03, which establishes drinking water quality standards under the Safe Drinking water Act, does not currently include specific limits for PFAs.

Health Canada has set an objective for the sum of 25 specific PFAS compounds in drinking water at 30ng/L. The Town's drinking water samples that were analyzed were significantly lower than Health Canada's objective.

E. Strategic Priorities

1. Communication and Engagement

We will enhance communications and engagement between Town Staff, Town residents and stakeholders

F. Environmental Impacts

This analysis provides a baseline for PFAs in the Town's drinking water system.

G. Financial Impacts

PFAs analysis in drinking water does not have a direct financial impact; however, if this becomes a regulated compound for a drinking water system, there will be a financial impact due to the high cost of analysis.

H. In Consultation With

Meg Boyd – Water & Wastewater Compliance Coordinator

Rob Gilchrist – Water Supervisor

I. Public Engagement

The topic of this Staff Report has not been the subject of a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. However, any comments regarding this report should be submitted to Allison Kershaw, Manager of Water & Wastewater Services managerwww@thebluemountains.ca.

J. Attached

1. Attachment 1 – Certificate of Analysis for PFAs Testing

Respectfully submitted,

Allison Kershaw,
Manager of Water & Wastewater Services

Alan Pacheco
Director of Operations

For more information, please contact:
Allison Kershaw, Manager of Water & Wastewater Services
managerwww@thebluemountains.ca
519-599-3131 extension 226

Report Approval Details

Document Title:	OPS.25.031 Drinking Water Analysis for PFA's.docx
Attachments:	- Attachment 1 Certificate of Analysis for PFAs testing.pdf
Final Approval Date:	Jun 4, 2025

This report and all of its attachments were approved and signed as outlined below:

Allison Kershaw - Jun 3, 2025 - 11:32 AM

Alan Pacheco - Jun 4, 2025 - 11:54 AM

Ministry of the Environment, Conservation and
Parks

Ministère de l'Environnement, de la Protection
de la nature et des Parcs



Laboratory Services Branch

Direction des services de laboratoire

125 Resources Road
Toronto ON M9P 3V6
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Toronto ON M9P 3V6
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Certificate of Analysis

Workorder: Thornbury DWS (19556)

Chain: L19487

Workorder Description:

Client: Drinking Water
Profile: Drinking Water Research
Line Item: Drinking Water Special Study

Report To: Mr. Satish Deshpande
TASDB - Standards
40 St Clair Ave W.
Toronto, ON M4V 1M2
Canada

Date Reported: 3/24/2025 7:02:53 AM

Date Approved: 3/24/2025 7:02:41 AM

The results relate only to the items tested as received.

Customer service feedback for this test report and/or other services by LaSB may be provided by calling the HelpDesk at 416-235-6030, the Customer Service Manager at 416-235-5831, or through LabOnline.

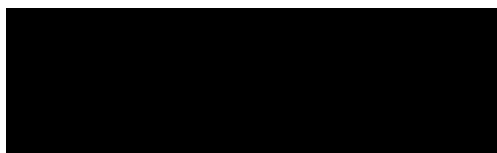
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Calculated results for IBC3196 (Ion Balance) and DTKN3424 (Total Kjeldahl Nitrogen) are provided in the test report only if all required parameters were requested/measured.

Bolded results indicate value(s) outside of method acceptance limits.

Approved for release by:



Cassandra Lofranco

Certificate of Analysis

Workorder: Thornbury DWS (19556)

Chain: L19487

Sample Summary

Lab ID	Field ID	Matrix	Method	Tests Ordered	Container Condition	Sampling Date & Time	Received Date & Time	Sampled By
19556001	Thornbury DWS RAW	WD	E3457	PFAS3457		03/10/2025 12:05	03/11/2025 09:27	Operator Drinking Water System
Collection Location								
Location		Longitude/Easting		Latitude/Northing	Units	Horizontal Datum	Vertical Datum	
Thornbury Drinking Water System 220001762								
19556002	Thornbury DWS TREATED	WD	E3457	PFAS3457		03/10/2025 12:01	03/11/2025 09:27	Operator Drinking Water System
Collection Location								
Location		Longitude/Easting		Latitude/Northing	Units	Horizontal Datum	Vertical Datum	
Thornbury Drinking Water System 220001762								

Certificate of Analysis



Workorder: Thornbury DWS (19556)

Chain: L19487

Analytical Results

Lab ID: 19556001 Field ID: Thornbury DWS RAW						Lab ID: 19556002 Field ID: Thornbury DWS TREATED					
Date Collected: 3/10/2025 12:05:00 PM Matrix: Drinking Water						Date Collected: 3/10/2025 12:01:00 PM Matrix: Drinking Water					
Parameter	Result	Units	RDL	Rmk	Analyzed	Parameter	Result	Units	RDL	Rmk	Analyzed
ORGANIC CHEMISTRY						ORGANIC CHEMISTRY					
E3457						E3457					
n-Perfluorobutanoic acid (PFBA)	1.2	ng/L	0.98		03/18/2025	n-Perfluorobutanoic acid (PFBA)	1.4	ng/L	1.0		03/18/2025
n-Perfluoropentanoic acid (PFPeA)	<0.98	ng/L	0.98		03/18/2025	n-Perfluoropentanoic acid (PFPeA)	<1.0	ng/L	1.0		03/18/2025
n-Perfluorohexanoic acid (PFHxA)	<0.98	ng/L	0.98		03/18/2025	n-Perfluorohexanoic acid (PFHxA)	<1.0	ng/L	1.0		03/18/2025
n-Perfluoroheptanoic acid (PFHpA)	<0.98	ng/L	0.98		03/18/2025	n-Perfluoroheptanoic acid (PFHpA)	<1.0	ng/L	1.0		03/18/2025
n-Perfluorooctanoic acid (PFOA)	0.88	ng/L	0.49		03/18/2025	n-Perfluorooctanoic acid (PFOA)	0.94	ng/L	0.51		03/18/2025
n-Perfluorononanoic acid (PFNA)	<0.49	ng/L	0.49		03/18/2025	n-Perfluorononanoic acid (PFNA)	<0.51	ng/L	0.51		03/18/2025
n-Perfluorodecanoic acid (PFDA)	<0.49	ng/L	0.49		03/18/2025	n-Perfluorodecanoic acid (PFDA)	<0.51	ng/L	0.51		03/18/2025
n-Perfluoroundecanoic acid (PFUnA)	<0.98	ng/L	0.98		03/18/2025	n-Perfluoroundecanoic acid (PFUnA)	<1.0	ng/L	1.0		03/18/2025
n-Perfluorododecanoic acid (PFDoA)	<0.98	ng/L	0.98		03/18/2025	n-Perfluorododecanoic acid (PFDoA)	<1.0	ng/L	1.0		03/18/2025
n-Perfluorotridecanoic acid (PFTrA)	<0.98	ng/L	0.98		03/18/2025	n-Perfluorotridecanoic acid (PFTrA)	<1.0	ng/L	1.0		03/18/2025
n-Perfluorotetradecanoic acid (PFTeA)	<0.98	ng/L	0.98		03/18/2025	n-Perfluorotetradecanoic acid (PFTeA)	<1.0	ng/L	1.0		03/18/2025
n-Perfluorobutane sulfonic acid (PFBS)	<0.98	ng/L	0.98		03/18/2025	n-Perfluorobutane sulfonic acid (PFBS)	<1.0	ng/L	1.0		03/18/2025
n-Perfluoropentane sulfonic acid (PFPeS)	<0.98	ng/L	0.98		03/18/2025	n-Perfluoropentane sulfonic acid (PFPeS)	<1.0	ng/L	1.0		03/18/2025
Perfluorohexane sulfonic acid (PFHxS)	<0.98	ng/L	0.98		03/18/2025	Perfluorohexane sulfonic acid (PFHxS)	<1.0	ng/L	1.0		03/18/2025
n-Perfluoroheptane sulfonic acid (PFHpS)	<0.98	ng/L	0.98		03/18/2025	n-Perfluoroheptane sulfonic acid (PFHpS)	<1.0	ng/L	1.0		03/18/2025
Perfluorooctane sulfonic acid (PFOS)	0.87	ng/L	0.49		03/18/2025	Perfluorooctane sulfonic acid (PFOS)	0.86	ng/L	0.51		03/18/2025
n-Perfluorononanesulfonic acid (PFNS)	<0.98	ng/L	0.98		03/18/2025	n-Perfluorononanesulfonic acid (PFNS)	<1.0	ng/L	1.0		03/18/2025
n-Perfluorodecane sulfonic acid (PFDS)	<0.98	ng/L	0.98		03/18/2025	n-Perfluorodecane sulfonic acid (PFDS)	<1.0	ng/L	1.0		03/18/2025
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0	ng/L	2.0		03/18/2025	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0	ng/L	2.0		03/18/2025
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0	ng/L	2.0		03/18/2025	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0	ng/L	2.0		03/18/2025
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0	ng/L	2.0		03/18/2025	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0	ng/L	2.0		03/18/2025
n-Perfluorooctane sulfonamide (PFOSA)	<0.49	ng/L	0.49		03/18/2025	n-Perfluorooctane sulfonamide (PFOSA)	<0.51	ng/L	0.51		03/18/2025
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	<0.98	ng/L	0.98		03/18/2025	N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	<1.0	ng/L	1.0		03/18/2025
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	<0.98	ng/L	0.98		03/18/2025	N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	<1.0	ng/L	1.0		03/18/2025
Hexafluoropropylene oxide dimer acid (HFPO-DA)	<0.98	ng/L	0.98		03/18/2025	Hexafluoropropylene oxide dimer acid (HFPO-DA)	<1.0	ng/L	1.0		03/18/2025

Certificate of Analysis



Workorder: Thornbury DWS (19556)

Chain: L19487

Analytical Results

Lab ID: 19556001		Date Collected: 3/10/2025 12:05:00 PM				Lab ID: 19556002		Date Collected: 3/10/2025 12:01:00 PM			
Field ID: Thornbury DWS RAW		Matrix: Drinking Water				Field ID: Thornbury DWS TREATED		Matrix: Drinking Water			
Parameter	Result	Units	RDL	Rmk	Analyzed	Parameter	Result	Units	RDL	Rmk	Analyzed
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.98	ng/L	0.98		03/18/2025	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.0	ng/L	1.0		03/18/2025
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.98	ng/L	0.98		03/18/2025	Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.0	ng/L	1.0		03/18/2025
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.98	ng/L	0.98		03/18/2025	Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.0	ng/L	1.0		03/18/2025
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.98	ng/L	0.98		03/18/2025	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.0	ng/L	1.0		03/18/2025
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<0.98	ng/L	0.98		03/18/2025	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.0	ng/L	1.0		03/18/2025
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0	ng/L	2.0		03/18/2025	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0	ng/L	2.0		03/18/2025
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	<0.98	ng/L	0.98		03/18/2025	Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	<1.0	ng/L	1.0		03/18/2025
3-Perfluoropropyl propanoic acid (3:3 FTCA)	<4.9	ng/L	4.9		03/18/2025	3-Perfluoropropyl propanoic acid (3:3 FTCA)	<5.1	ng/L	5.1		03/18/2025
3-Perfluoropentyl propanoic acid (5:3 FTCA)	<0.98	ng/L	0.98		03/18/2025	3-Perfluoropentyl propanoic acid (5:3 FTCA)	<1.0	ng/L	1.0		03/18/2025
3-Perfluoroheptyl propanoic acid (7:3 FTCA)	<0.98	ng/L	0.98		03/18/2025	3-Perfluoroheptyl propanoic acid (7:3 FTCA)	<1.0	ng/L	1.0		03/18/2025

Surrogates

Analyte	Units	Recovery	Control Limits
13C4-PFOA (S)	%	109.3	50 - 150
13C4 PFBA (S)	%	96.2	20 - 180
13C5 PFPeA (S)	%	92.9	20 - 180
13C5 PFHxA (S)	%	89.7	20 - 180
13C4 PFHpA (S)	%	88	20 - 180
13C8 PFOA (S)	%	87.1	20 - 180
13C9 PFNA (S)	%	87.8	20 - 180
13C6 PFDA (S)	%	87.2	20 - 180
13C7 PFUnA (S)	%	85.9	20 - 180
13C2 PFDoA (S)	%	85	20 - 180
13C2 PFTeA (S)	%	85.5	20 - 180
13C3 PFBS (S)	%	92.3	20 - 180
13C3 PFHxS (S)	%	86.4	20 - 180
13C8 PFOS (S)	%	84	20 - 180
13C2 4:2 FTS (S)	%	94.7	20
13C2 6:2 FTS (S)	%	80.2	20
13C2 8:2 FTS (S)	%	80.6	20

Surrogates

Analyte	Units	Recovery	Control Limits
13C4-PFOA (S)	%	104.4	50 - 150
13C4 PFBA (S)	%	89.6	20 - 180
13C5 PFPeA (S)	%	88.5	20 - 180
13C5 PFHxA (S)	%	88.7	20 - 180
13C4 PFHpA (S)	%	84.6	20 - 180
13C8 PFOA (S)	%	84.5	20 - 180
13C9 PFNA (S)	%	85.3	20 - 180
13C6 PFDA (S)	%	85.4	20 - 180
13C7 PFUnA (S)	%	84.6	20 - 180
13C2 PFDoA (S)	%	80.9	20 - 180
13C2 PFTeA (S)	%	88.3	20 - 180
13C3 PFBS (S)	%	92.3	20 - 180
13C3 PFHxS (S)	%	89.3	20 - 180
13C8 PFOS (S)	%	87.3	20 - 180
13C2 4:2 FTS (S)	%	87.6	20
13C2 6:2 FTS (S)	%	74.6	20
13C2 8:2 FTS (S)	%	73.7	20

Certificate of Analysis



Workorder: Thornbury DWS (19556)

Chain: L19487

Analytical Results

Lab ID: 19556001 Date Collected: 3/10/2025 12:05:00 PM						Lab ID: 19556002 Date Collected: 3/10/2025 12:01:00 PM					
Field ID: Thornbury DWS RAW Matrix: Drinking Water						Field ID: Thornbury DWS TREATED Matrix: Drinking Water					
Parameter	Result	Units	RDL	Rmk	Analyzed	Parameter	Result	Units	RDL	Rmk	Analyzed
Surrogates						Surrogates					
Analyte		Units	Recovery	Control Limits		Analyte		Units	Recovery	Control Limits	
13C8 PFOSA (S)		%	79.2	20 - 180		13C8 PFOSA (S)		%	78.4	20 - 180	
D3 NMeFOSAA (S)		%	88.8	20 - 180		D3 NMeFOSAA (S)		%	81.1	20 - 180	
D5 NEtFOSAA (S)		%	88.3	20 - 180		D5 NEtFOSAA (S)		%	82.3	20 - 180	
13C3 HFPO-DA (S)		%	91.1	20 - 180		13C3 HFPO-DA (S)		%	83.9	20 - 180	

Certificate of Analysis



Workorder: Thornbury DWS (19556)

Chain: L19487

Legend

Code	Definition
RDL	RDL refers to the Reported Detection Limit for each analyte being measured. The RDL listed on the Certificate of Analysis has been adjusted where required based on variations in the final volume and/or initial sample weight/volume analysed.

Certificate of Analysis

Workorder: Thornbury DWS (19556)**Chain:** L19487

Workorder Summary

Sample Comments

19556001 (Thornbury DWS RAW) - Production sample

Fill only 80% to allow for expansion during freezing.

19556002 (Thornbury DWS TREATED) - Production sample

Fill only 80% to allow for expansion during freezing.

Method Summary

E3457

THE DETERMINATION OF PERFLUOROALKYL ACIDS (PFAAs) AND FLUOROTELOMER SULFONATES (FTS) IN WATERS BY LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY (LC-MS/MS)

Batch Comments

ORGI/3854 - E3457 PFAS in Water by LCMS/MS

Control charts reviewed.

Additional Information

Sample 19556001 - Drinking Water Sample Info

Drinking Water Type	RAW
Water for human consumption?	N

Sample 19556002 - Drinking Water Sample Info

Drinking Water Type	TREATED
Water for human consumption?	Y

Workorder 19556 - Drinking Water Sub. Workorder

Contact Telephone No	705-441-2029
DWS or Well Address	230 Peel Street, Thornbury, Ontario, N0H 2P0, Canada
Drinking Water System Name	Thornbury Drinking Water System
Drinking Water System No.	220001762
Public Health Unit	Owen Sound
Regulation	Reg170
Water System Operator	Rob Gilchrist
Water System Owner	The Blue Mountains, Corporation Of The Town Of

Certificate of Analysis

Workorder: Thornbury DWS (19556)

Chain: L19487

QC Results

QC Batch: ORGI/3854
Preparation Method: E3457
Associated Lab IDs: 19556001, 19556002

Analysis Method: E3457

Method Blank(235786)

Parameter	Result	Units	RDL
n-Perfluorobutanoic acid (PFBA)	<1.0	ng/L	1.0
n-Perfluoropentanoic acid (PFPeA)	<1.0	ng/L	1.0
n-Perfluorohexanoic acid (PFHxA)	<1.0	ng/L	1.0
n-Perfluoroheptanoic acid (PFHpA)	<1.0	ng/L	1.0
n-Perfluorooctanoic acid (PFOA)	<0.50	ng/L	0.50
n-Perfluorononanoic acid (PFNA)	<0.50	ng/L	0.50
n-Perfluorodecanoic acid (PFDA)	<0.50	ng/L	0.50
n-Perfluoroundecanoic acid (PFUnA)	<1.0	ng/L	1.0
n-Perfluorododecanoic acid (PFDoA)	<1.0	ng/L	1.0
n-Perfluorotridecanoic acid (PFTrA)	<1.0	ng/L	1.0
n-Perfluorotetradecanoic acid (PFTeA)	<1.0	ng/L	1.0
n-Perfluorobutane sulfonic acid (PFBS)	<1.0	ng/L	1.0
n-Perfluoropentane sulfonic acid (PFPeS)	<1.0	ng/L	1.0
Perfluorohexane sulfonic acid (PFHxS)	<1.0	ng/L	1.0
n-Perfluoroheptane sulfonic acid (PFHpS)	<1.0	ng/L	1.0
Perfluorooctane sulfonic acid (PFOS)	<0.50	ng/L	0.50
n-Perfluorononanesulfonic acid (PFNS)	<1.0	ng/L	1.0
n-Perfluorodecane sulfonic acid (PFDS)	<1.0	ng/L	1.0
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0	ng/L	2.0
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0	ng/L	2.0
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0	ng/L	2.0
n-Perfluorooctane sulfonamide (PFOSA)	<0.50	ng/L	0.50
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	<1.0	ng/L	1.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	<1.0	ng/L	1.0
Hexafluoropropylene oxide dimer acid (HFPO-DA)	<1.0	ng/L	1.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.0	ng/L	1.0
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.0	ng/L	1.0
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.0	ng/L	1.0
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.0	ng/L	1.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.0	ng/L	1.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0	ng/L	2.0
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	<1.0	ng/L	1.0
3-Perfluoropropyl propanoic acid (3:3 FTCA)	<5.0	ng/L	5.0
3-Perfluoropentyl propanoic acid (5:3 FTCA)	<1.0	ng/L	1.0

Certificate of Analysis

Workorder: Thornbury DWS (19556)

Chain: L19487

QC Results

QC Batch: ORGI/3854
Preparation Method: E3457
Associated Lab IDs: 19556001, 19556002

Analysis Method: E3457

Parameter	Result	Units	RDL
3-Perfluoroheptyl propanoic acid (7:3 FTCA)	<1.0	ng/L	1.0

Method Blank(235787)

Parameter	Result	Units	RDL
n-Perfluorobutanoic acid (PFBA)	2.1	ng/L	1.0
n-Perfluoropentanoic acid (PFPeA)	1.8	ng/L	1.0
n-Perfluorohexanoic acid (PFHxA)	1.8	ng/L	1.0
n-Perfluoroheptanoic acid (PFHpA)	<1.0	ng/L	1.0
n-Perfluorooctanoic acid (PFOA)	1.96	ng/L	0.50
n-Perfluorononanoic acid (PFNA)	<0.50	ng/L	0.50
n-Perfluorodecanoic acid (PFDA)	<0.50	ng/L	0.50
n-Perfluoroundecanoic acid (PFUnA)	<1.0	ng/L	1.0
n-Perfluorododecanoic acid (PFDoA)	<1.0	ng/L	1.0
n-Perfluorotridecanoic acid (PFTrA)	<1.0	ng/L	1.0
n-Perfluorotetradecanoic acid (PFTeA)	<1.0	ng/L	1.0
n-Perfluorobutane sulfonic acid (PFBS)	<1.0	ng/L	1.0
n-Perfluoropentane sulfonic acid (PFPeS)	<1.0	ng/L	1.0
Perfluorohexane sulfonic acid (PFHxS)	<1.0	ng/L	1.0
n-Perfluoroheptane sulfonic acid (PFHpS)	<1.0	ng/L	1.0
Perfluorooctane sulfonic acid (PFOS)	2.37	ng/L	0.50
n-Perfluorononanesulfonic acid (PFNS)	<1.0	ng/L	1.0
n-Perfluorodecane sulfonic acid (PFDS)	<1.0	ng/L	1.0
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0	ng/L	2.0
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0	ng/L	2.0
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0	ng/L	2.0
n-Perfluorooctane sulfonamide (PFOSA)	<0.50	ng/L	0.50
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	<1.0	ng/L	1.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	<1.0	ng/L	1.0
Hexafluoropropylene oxide dimer acid (HFPO-DA)	<1.0	ng/L	1.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.0	ng/L	1.0
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.0	ng/L	1.0
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.0	ng/L	1.0
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.0	ng/L	1.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.0	ng/L	1.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0	ng/L	2.0
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	<1.0	ng/L	1.0

Certificate of Analysis

Workorder: Thornbury DWS (19556)

Chain: L19487

QC Results

QC Batch: ORGI/3854
Preparation Method: E3457
Associated Lab IDs: 19556001, 19556002

Analysis Method: E3457

Parameter	Result	Units	RDL
3-Perfluoropropyl propanoic acid (3:3 FTCA)	<5.0	ng/L	5.0
3-Perfluoropentyl propanoic acid (5:3 FTCA)	<1.0	ng/L	1.0
3-Perfluoroheptyl propanoic acid (7:3 FTCA)	<1.0	ng/L	1.0

Surrogates

Parameter	Units	Recovery	Control Limits
13C2 4:2 FTS (S)	%	98.6	20
13C2 6:2 FTS (S)	%	131.9	20
13C2 8:2 FTS (S)	%	84.9	20
13C2 PFDoA (S)	%	80.8	20 - 180
13C2 PFTeA (S)	%	89.6	20 - 180
13C3 HFPO-DA (S)	%	92.9	20 - 180
13C3 PFBS (S)	%	95.4	20 - 180
13C3 PFHxS (S)	%	94.4	20 - 180
13C4 PFBA (S)	%	93.6	20 - 180
13C4 PFHpA (S)	%	89.7	20 - 180
13C4-PFOA (S)	%	105	50 - 150
13C5 PFHxA (S)	%	94.3	20 - 180
13C5 PFPeA (S)	%	95.9	20 - 180
13C6 PFDA (S)	%	90	20 - 180
13C7 PFUnA (S)	%	84.2	20 - 180
13C8 PFOA (S)	%	95.3	20 - 180
13C8 PFOS (S)	%	91.4	20 - 180
13C8 PFOSA (S)	%	77.6	20 - 180
13C9 PFNA (S)	%	90.3	20 - 180
D3 NMeFOSAA (S)	%	82.8	20 - 180
D5 NEtFOSAA (S)	%	83.2	20 - 180

QC Sample Comments

Method Blank - 235787

Toronto tap water used as the Method Blank. Limits are not defined as values vary for batches. Values are acceptable.

Certificate of Analysis



Workorder: Thornbury DWS (19556)

Chain: L19487

Chain of Custody



L19487



Workorder ID: Thornbury DWS
Submitter: Mr. Satish Deshpande
Phone: (416) 992-6183
Lab Site: LaSB

Client: Drinking Water
Contact: Mr. Satish Deshpande
Phone: (416) 992-6183
Email: Satish.Deshpande@ontario.ca

Laboratory Services Branch
Ministry of the Environment, Conservation
and Parks
125 Resources Road
Toronto ON M9P 3V6
Phone 416 235-5743
Fax 416 235-5744

Pos	Field ID	Collection Site	Matrix	Collector	Collected		Containers									
					Date	Time	Total Number of Containers	V-3457	V-3457NP							
1	Thornbury DWS RAW	Thornbury220001762	WD	Operator Drinking Water System	03/05/2025	00:00	1	0	1							
2	Thornbury DWS TREATED	Thornbury220001762	WD	Operator Drinking Water System	03/05/2025	00:00	1	1	0							

Transfers	Released By	Date/Time	Received By	Date/Time
1				
2				
3				
4				
5				

Delivery Method: _____

Airbill No: _____

Wednesday, March 5, 2025 11:51:10 AM
Dates and times are displayed using (-05:00) America/New_York.
Page 1 of 5

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Certificate of Analysis

Workorder: Thornbury DWS (19556)

Chain: L19487

Chain of Custody



L19487

Workorder ID: Thornbury DWS

Client: Drinking Water

Thornbury DWS RAW - Thornbury220001762

Special Instructions

Fill only 80% to allow for expansion during freezing.

Containers

Container ID: 1019691

Container Type: V-3457NP - VIAL: PFAS3457, 60mL pp VIAL, No preservative, Sterile with Label

Preservative: NONE - None

Tests Requested:

PFAS3457 - PFC in Water by LC-MS/MS

Additional Data

Regulation:	Reg170
Drinking Water System No.:	220001762
Drinking Water System Name:	Thornbury Drinking Water System
DWS or Well Address:	230 Peel Street, Thornbury, Ontario, N0H 2P0, Canada
Water System Owner:	The Blue Mountains, Corporation Of The Town Of
Contact Telephone No:	705-441-2029
Water System Operator:	Rob Gilchrist
Public Health Unit:	Owen Sound
Water for human consumption?:	N
Drinking Water Type:	RAW
Free Chlorine (mg/L):	
Total Chlorine (mg/L):	

Certificate of Analysis



Workorder: Thornbury DWS (19556)

Chain: L19487

Chain of Custody



L19487



Workorder ID: Thornbury DWS

Client: Drinking Water

Thornbury DWS RAW - Thornbury220001762

Additional Data

Name of School / Day Nursery:

Type of School:

Certificate of Analysis

Workorder: Thornbury DWS (19556)

Chain: L19487

Chain of Custody



L19487

Workorder ID: Thornbury DWS

Client: Drinking Water

Thornbury DWS TREATED - Thornbury220001762

Special Instructions

Fill only 80% to allow for expansion during freezing.

Containers

Container ID: 1019692

Container Type: V-3457 - VIAL: PFAS3457, 60mL pp VIAL PRESERVED WITH Sodium Thiosulfate, for Chlorinated samples.

Preservative: PRE-CHAR - Pre-Charged

Tests Requested:

PFAS3457 - PFC in Water by LC-MS/MS

Additional Data

Regulation: Reg170
Drinking Water System No.: 220001762
Drinking Water System Name: Thornbury Drinking Water System
DWS or Well Address: 230 Peel Street, Thornbury, Ontario, N0H 2P0, Canada
Water System Owner: The Blue Mountains, Corporation Of The Town Of
Contact Telephone No: 705-441-2029
Water System Operator: Rob Gilchrist
Public Health Unit: Owen Sound
Water for human consumption?: Y
Drinking Water Type: TREATED
Free Chlorine (mg/L):
Total Chlorine (mg/L):

Certificate of Analysis



Workorder: Thornbury DWS (19556)

Chain: L19487

Chain of Custody



L19487



Workorder ID: Thornbury DWS

Client: Drinking Water

Thornbury DWS TREATED - Thornbury220001762

Additional Data

Name of School / Day Nursery:

Type of School: