

**DES Waste Management Division  
29 Hazen Drive; PO Box 95  
Concord, NH 03302-0095**

**REMEDIAL ACTION PLAN  
AND  
GROUNDWATER MANAGEMENT PERMIT  
APPLICATION**

**Stratham Fire Department  
4 Winnicutt Road  
Stratham, New Hampshire**

**NHDES Site #199507007  
HAZWASTE Project #39137**

**DRAFT**

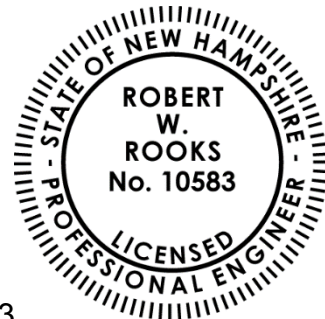
01/14/2021

**Prepared For:**

The Town of Stratham  
10 Bunker Hill Road  
Stratham, New Hampshire 03885  
RP Contact: Mr. David Moore  
RP Phone: (603) 772-9750  
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January 14, 2021

**Wilcox & Barton, Inc. Project #STRT0001**



CIVIL • ENVIRONMENTAL • GEOTECHNICAL

**DRAFT**

**REMEDIAL ACTION PLAN  
AND  
GROUNDWATER MANAGEMENT PERMIT APPLICATION**

**STRATHAM FIRE DEPARTMENT  
4 WINNICUTT ROAD  
STRATHAM, NEW HAMPSHIRE**

**NHDES SITE #199507007  
HAZWASTE PROJECT #39137**

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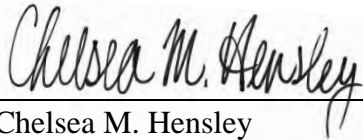
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1 (888) 777-5805

## CERTIFICATION

The following personnel have prepared and/or reviewed this report for accuracy, content, and quality of presentation.

Document Title: Remedial Action Plan and Groundwater Management Permit Application  
Stratham Fire Department  
4 Winnicutt Road, Stratham, New Hampshire  
NHDES Site #199507007, HAZWASTE Project #39137

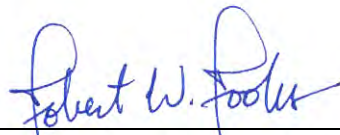
Date/Version: January 14, 2021



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## 1.0 INTRODUCTION

On behalf of the Town of Stratham (the Town), Wilcox & Barton, Inc. has prepared this Remedial Action Plan (RAP) for the Stratham Fire Department (SFD) site at 4 Winnicutt Road in Stratham, New Hampshire. The RAP was completed in accordance with correspondence from the New Hampshire Department of Environmental Services (NHDES) dated July 21, 2020, and a Work Plan submitted to NHDES on August 17, 2020. A copy of the NHDES correspondence is provided in Appendix A.

The RAP was prepared in accordance with New Hampshire Code of Administrative Rules Chapter Env-Or 600, Part 606.12 *Remedial Action Plan Report*. This report also includes a Groundwater Monitoring Permit (GMP) Application that was prepared in accordance with New Hampshire Code of Administrative Rules Chapter Env-Or 600, Part 607.03 *Groundwater Management Permit Application*. The GMP Application addresses the following:

- Quarterly performance monitoring of all private water supply Point-of-Entry (POE) systems installed in accordance with this Remedial Action Plan; and
- Monitoring of contaminant trends and compliance status of overburden groundwater monitoring wells biannually.

### 1.1 Purpose

The purpose of the work proposed herein is to address elevated concentrations of per- and polyfluoroalkyl substances (PFAS) in groundwater and drinking water in the SFD area.

### 1.2 Plan Contents

The RAP contains the following:

1. A summary of the *Focused Site Investigation (FSI) Report* dated February 24, 2020;
2. The results of all analytical testing performed during the investigation;
3. A description of the extent and distribution of PFAS-impacted groundwater and drinking water; and
4. A work plan for implementation of the presumptive remedy (installation of POE systems) at each property.

## 2.0 SITE DESCRIPTION AND BACKGROUND

The subject property is a 2.47-acre parcel of land identified by the Town of Stratham Assessor's Office as Map 17, Lot 114, and is located at the corner of Winnicutt Road and Portsmouth Avenue. The SFD is improved upon by an approximately 20,000-square-foot facility that was completed in 2008. The current facility replaced a smaller fire station that was demolished. The former fire station was built in 1957 and was located largely within the current building footprint.

The SFD is served by a bedrock water supply well located near the southeastern corner of the Stratham Historical Society (SHS) building, which shares the 2.47-acre property with the SFD. The water supply well also serves the adjacent property to the south at 156 Portsmouth Avenue (Colleen Lake).

The location of the site is depicted on Figure 1 – *Site Location Map*, and general site features and boring locations are depicted on Figure 2 – *Site Plan*. A detailed site plan showing features such as catch basins, storm water infrastructure, floor drains, leach fields, and holding tanks associated with potential release areas are shown on Figure 3 – *Subsurface Infrastructure Plan*.

## **2.1 Focused Site Investigation**

### **2.1.1 Background and History**

In March 2019, NHDES was notified that PFAS concentrations exceeded applicable standards in a sample from the water supply well at 149/151 Portsmouth Avenue. On April 26, 2019, NHDES submitted a letter via email to the Stratham Select Board Chair requesting that the Town conduct an FSI to evaluate the possible source (or sources) of groundwater contamination. The FSI included historical research to identify potential sources of PFAS contamination, advancement of five soil borings and installation of five monitoring wells, and laboratory analysis of groundwater and drinking water samples. The results of the FSI are summarized in a *Focused Site Investigation Report* dated February 24, 2020.

### **2.1.2 Fire Department Review**

Historical research, interviews, and a review of regulatory database reports indicated that the SFD had used and stored Class B firefighting foam as part of their operations and procedures prior to 2000, but the SFD currently uses a fluorine-free surfactant-based foam.

### **2.1.3 Soil Boring Advancement and Monitoring Well Installation**

On June 27 and June 28, 2019, Wilcox & Barton, Inc. oversaw the installation of monitoring wells MW-101 through MW-105 at the locations shown on Figures 2 and 3. During advancement of the soil borings, overburden soil was screened with a photoionization detector (PID) from the ground surface to the bottom of the borehole. Observations such as soil lithology, color, odor, PID readings, and the estimated depth to groundwater were recorded. Soil was described using a Modified Burmister soil classification system. No soil samples were collected for laboratory analysis.

### **2.1.4 Groundwater and Surface Water**

On July 15, 2019, and again on July 29, 2019, Wilcox & Barton, Inc. collected groundwater samples with disposable polyethylene bailers from monitoring wells MW-101 through MW-105 and from pre-existing wells MW-1, MW-3, and MW-5, which are located across the street at the Stratham Village Market (O'Brien Energy) property. Depth-to-water measurements were taken

in each well prior to sampling and used to calculate the potentiometric surface elevations presented in Table 1 – *Well Gauging and Piezometric Head Elevation Data*.

On November 12, 2019, Wilcox & Barton, Inc. collected a surface water sample (SW-1) from the pond located within the Stratham Traffic Circle at the merge of Portsmouth Avenue and College Road.

The groundwater and surface water samples were submitted to Con-Test Analytical Laboratory (Con-Test) in East Longmeadow, Massachusetts, for analysis of PFAS by EPA Method 537.1 (modified).

The analytical results for groundwater samples collected in July 2019 indicated the presence of PFAS at concentrations exceeding Ambient Groundwater Quality Standards (AGQS) in monitoring wells MW-102, MW-103, MW-104, MW-105, MW-1, MW-3, and MW-5. In total, one or more PFAS compounds were detected at concentrations above AGQS in 14 of 16 samples collected. The only monitoring well where PFAS was not detected at concentrations above AGQS was monitoring well MW-101, which was installed on the upgradient portion of the SFD property. Four PFAS compounds were detected in surface water sample SW-1, but none at concentrations exceeding AGQS.

Analytical results are presented in Table 2 – *Groundwater Samples – Summary of Analytical Results*.

#### 2.1.5 Drinking Water

A total of 50 drinking water samples were collected from 48 water supply wells from March to November 2019. Of the 50 samples, 10 were collected by Wilcox & Barton, Inc. as part of this investigation, while the remaining 40 samples were collected by NHDES.

PFAS were detected in all 50 of the samples. Twenty-seven samples collected from water supply wells on 23 properties contained PFAS at concentrations exceeding Maximum Contaminant Levels (MCLs). The compound most often detected at a concentration above the MCL was Perfluorooctanoic Acid (PFOA, in 24 of 50 samples), followed by Perfluorooctane Sulfonic Acid (PFOS, in 20 of the 50 samples).

Analytical results for drinking water samples are presented in Table 3 – *Drinking Water Samples – Summary of Analytical Results*.

#### 2.1.6 Conceptual Site Model

A complete conceptual site model was previously defined in the FSI; therefore, one is not included in this RAP. Its essential conclusion is that a shallow source at the SFD property has impacted groundwater in both the shallow and bedrock aquifers, which has reached private water supply wells and poses an exposure risk to residential users of the water supplies.



### 3.0 GROUNDWATER AND DRINKING WATER SAMPLES – SEPTEMBER 2020

On September 29 and 30, 2020, Wilcox & Barton, Inc. completed confirmatory groundwater and drinking water sampling in the Stratham Town Center area. The activities were conducted in accordance with the *Wilcox & Barton Standard Operating Procedure (SOP)* documents included in Appendix B.

#### 3.1 Groundwater Sampling and Analytical Results

On September 30, 2020, Wilcox & Barton, Inc. gauged monitoring wells MW-101 through MW-105, MW-1, MW-3, MW-4, MW-5, MW-6, and MW-7 for depth to water using a water level indicator capable of measuring depth to water to the nearest 0.01 foot. Well MW-101 was found to be dry during gauging.

Well gauging data are presented in Table 1 – *Well Gauging and Piezometric Head Elevation Data*, and groundwater elevation data are depicted on Figure 4 – *Piezometric Head Elevation Plan*.

Groundwater samples were collected from monitoring wells MW-102, MW-103, MW-104, MW-105, MW-1, MW-3, and MW-5 using standard bailer sampling techniques. The groundwater samples were submitted to Con-Test for analysis of PFAS by EPA Method 537.1.

Perfluorohexane Sulfonic Acid (PFHxS), PFOA, and PFOS were detected at concentrations above MCLs in all seven monitoring wells. Groundwater analytical results are summarized in Table 2 and a copy of the laboratory report is included in Appendix C. The analytical results for the four regulated PFAS are represented on Figure 5 – *Analytical Results – Groundwater*.

#### 3.2 Drinking Water Sampling and Analytical Results

Between September 29 and October 1, 2020, Wilcox & Barton, Inc. collected drinking water samples from 26 properties in the Stratham Town Center area. The confirmatory samples were collected from drinking water supply wells where one or more PFAS compounds had been detected at concentrations exceeding MCLs or at concentrations below the MCL but within 90% of an established regulatory standard. The drinking water samples were submitted to Con-Test for analysis of PFAS by EPA Method 537.1.

One or more PFAS were detected at concentrations exceeding MCLs at the following properties:

- 2 College Road
- 4 College Road (Nursery Building)
- 4R College Road (Irrigation Well)
- 4R College Road (Primary Well)
- 6 College Road (Irrigation Well)
- 9 College Road
- 11 College Road
- 142 Portsmouth Avenue
- 145 Portsmouth Avenue
- 152 Portsmouth Avenue
- 157 Portsmouth Avenue
- 159 Portsmouth Avenue
- 161-2 Portsmouth Avenue
- 164 Portsmouth Avenue
- 166 Portsmouth Avenue
- 4 Winnicutt Road.

One or more PFAS compounds were detected at measurable concentrations at or below MCLs at the following properties:

- 1 College Road
- 3 College Road
- 5 College Road
- 23 College Road
- 132 Portsmouth Avenue
- 160 Portsmouth Avenue
- 7/7R Winnicutt Road

Drinking water analytical results are summarized in Table 3 and copies of the laboratory reports are included in Appendix C. Notification letters to the private well owners where drinking water samples were collected are included in Appendix D. A graphical representation of residential drinking water quality by water supply well is presented on Figure 6 – *Regional PFAS Overview*.

#### **4.0 DEVELOPMENT OF REMEDIAL OBJECTIVES**

##### **4.1 Corrective Action Objectives**

The objective of the proposed remedial action is to mitigate PFAS contaminants in residential water supplies Stratham Town Center area and to monitor PFAS contaminants in groundwater at the SFD and in the immediate vicinity. The selected approach will accomplish the following objectives:

1. Eliminate or minimize the risk of direct contact and ingestion of contaminated drinking water; and
2. Monitor the nature and extent of shallow groundwater contamination.

##### **4.2 Cleanup Goals**

###### **4.2.1 Drinking Water**

The site and surrounding properties are currently served by private water supply wells. An exposure pathway via drinking water ingestion is complete but is currently mitigated by bottled water deliveries and treatment systems, where in use.

The immediate goal is to install POE systems at each property where PFAS concentrations exceed MCLs to eliminate the risk of direct contact and ingestion exposures via the water supply. POE systems will be designed to remove PFAS from the water supplies at an efficiency suitable to reduce concentrations to below the health based MCLs. System performance will be monitored under the provisions of a Groundwater Management Permit.

###### **4.2.2 Groundwater**

A direct contact exposure pathway via shallow groundwater is potentially complete under certain construction or utility worker exposure scenarios. However, remediation of PFAS in shallow groundwater is not deemed practical at this time and is therefore not proposed herein.

Groundwater quality will be monitored under the provisions of a Groundwater Management Permit.

#### **4.3 Evaluation of the Need for Corrective Action Measures**

Analytical data collected in 2019 and 2020, and summarized in Tables 2 and 3, indicate PFAS contamination in the Stratham Center Area and a complete direct exposure pathway via drinking water ingestion. Discovery of PFAS contamination in drinking water has prompted completion of the proposed corrective actions.

#### **5.0 REMEDIAL ALTERNATIVE EVALUATION**

Due to the widespread contamination in the Stratham Center Area, and the absence of feasible remedial alternatives for PFAS, implementation of point-of-entry treatment at each affected property will be effective to minimize or eliminate the PFAS exposure risk. There are no known remedial alternatives that warrant evaluation.

Based on the foregoing, installation of a POE system at each property where PFAS compounds have been detected at concentrations exceeding MCLs is the presumptive remedial alternative. These include the following:

• 2 College Road	• 157 Portsmouth Avenue
• 4R College Road (Primary Well)	• 159 Portsmouth Avenue
• 9 College Road	• 161-2 Portsmouth Avenue
• 11 College Road	• 164 Portsmouth Avenue
• 142 Portsmouth Avenue	• 166 Portsmouth Avenue
• 145 Portsmouth Avenue	• 4 Winnicutt Road
• 152 Portsmouth Avenue	

Three non-potable, private irrigation wells with PFAS compounds at concentrations exceeding MCLs may be candidates for full POE systems or point-of-use systems after consultation with NHDES. These properties include:

- 4 College Road (Nursery Building)
- 4R College Road (Irrigation Well)
- 6 College Road (Irrigation Well)

It is understood that monitoring of groundwater conditions in the area is ongoing and that additional water supply wells with PFAS exceedances may be discovered. In this event, this Remedial Action Plan can be extended to cover these locations.

In addition, private wells with PFAS detections below applicable standards may be candidates for full POE systems or point-of-use systems after consultation with NHDES. These residences include:

- 1 College Road
- 132 Portsmouth Avenue

- 3 College Road
- 5 College Road
- 23 College Road

- 160 Portsmouth Avenue
- 7/7R Winnicutt Road

## 6.0 REMEDIAL DESIGN

Key elements of the plan are summarized in the following sections.

### 6.1 POE System Design

Selection of specific equipment for each home will be made on a case-by-case basis in concert with the equipment vendor. The primary selection factor will be influent concentrations in the well serving the home, with consideration for other filtration and/or disinfection needs, maintenance considerations, cost, plumbing configurations, and space availability.

For purposes of this RAP, the following equipment configurations are proposed:

Option 1: Dual Carbon Tank System: Pressure tank, Pre-filter, Granular Activated Carbon (GAC, two in series), Post-filter, UV Sterilization.  
Typical installed cost: \$4,500 to \$5,500 per home, plus plumbing permit.  
Factors: Traditional system, carbon disposal required.  
Recommended for: General use

Option 2: Dual Tank Carbon Bloc System: Pressure tank, Pre-filter, Carbon Bloc cartridge (two in series).  
Typical installed cost: \$4,800 to \$5,500 per home, plus plumbing permit.  
Factors: Low maintenance, reliability, landfill disposal  
Recommended for: Higher PFAS concentrations (>70 parts per trillion, ppt), homeowners interested in doing their own maintenance.

Option 3: Single Tank Pioneer System: Pressure tank, Pre-filter, Carbon Bloc cartridge  
Typical installed cost: \$2,400 to \$3,500 per home, plus plumbing permit.  
Factors: Low maintenance, landfill disposal, most economical alternative.  
Recommended for: Mid-range PFAS concentrations (10 to 70 ppt), homeowners interested in doing their own maintenance.

Schematic drawings showing these options are provide in Appendix E.

As a more cost-effective alternative to bottled water, a Point-of-Use system may be recommended when PFAS compounds are present but at concentrations below MCLs. Point-of-Use systems can be installed beneath, for example, a kitchen sink to protect the majority of water consumption in the household.

Option 4: Pentair 4 Stage Reverse Osmosis System  
Typical installed cost: \$900 to \$1,200 per home, plus plumbing permit.  
Factors: Low maintenance cost

Recommended for: PFAS concentrations below MCLs

Treatment system operation and maintenance, along with confirmatory sampling, will be conducted in conformance with the requirements of the vendor, NHDES, and the issued GMP.

## **6.2 System Inspections and Maintenance**

System monitoring will be performed quarterly when influent, midfluent (for two-tank systems), and effluent samples are collected. During these visits, the system components will be inspected by the equipment vendor.

Maintenance needs will vary based on the system selected for each home. The expected plan, based on past experience of the vendor, is as follows, but will be adjusted as necessary:

- Option 1: Replacement GAC filter tank (1), sediment filters (2), UV bulb (1)
- Option 2: Replacement cartridge (1), sediment filter (1)
- Option 3: Replacement cartridge (1), sediment filter (1)
- Option 4: Replacement RO cartridges (3), RO membrane (1)

## **7.0 COMPLIANCE SCHEDULE AND PROGRESS REPORTS**

### **7.1 Regulations, Statutes, and Permits Requires**

Aside from approval of this RAP and local code enforcement (plumbing) approval, there are no permits required to perform the proposed remedial program.

### **7.2 Progress Reporting**

System performance will be monitored and reported in accordance with the approved Groundwater Management Permit.

## **8.0 GROUNDWATER MANAGEMENT PERMIT APPLICATION**

### **8.1 Property and Facility Information**

<u>Property Name:</u>	Stratham Fire Department
<u>Site Address:</u>	4 Winnicutt Road Stratham, New Hampshire 03885
<u>Tax Map and Lot Reference:</u>	Map 17, Lot 114
<u>Site Deed Reference:</u>	Rockingham County Registry of Deeds Book 4722 Page 1104
<u>NHDES Site Number:</u>	199507007
<u>NHDES Project Number:</u>	39137
<u>NHDES Project Type:</u>	HAZWASTE



<u>Property/Site Owner:</u>	Town of Stratham
<u>Permit Applicant/</u>	Town of Stratham
<u>Contact Person:</u>	David Moore
<u>Mailing Address</u>	10 Bunker Hill Avenue
<u>and Phone Number:</u>	Stratham, New Hampshire 03885
	Phone: (603) 772-9750

## 8.2 Groundwater Quality Monitoring Proposal

Wilcox & Barton, Inc. recommends the following groundwater monitoring program based on a review of current and historical data and input from NHDES. The proposed monitoring program provides the spatial distribution and frequency to monitor potential contaminant migration.

Sample Frequency:	Monitoring wells – biannual (April and October)
	Water supply POE systems – quarterly (January, April, July, October)

Number of Wells:	11
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Wells to be Sampled:	MW-101, MW-102, MW-103, MW-104, MW-105, MW-1, MW-3, MW-5, 4 College Road (Nursery Building), 4R College (Irrigation Well), 6 College Road (Irrigation Well)
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Number of POE Systems:	14
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POE Systems to be  
Sampled:

2 College Road	152 Portsmouth Avenue
4R College Road (Primary Well)	157 Portsmouth Avenue
9 College Road	159 Portsmouth Avenue
11 College Road	161-2 Portsmouth Avenue
142 Portsmouth Avenue	164 Portsmouth Avenue
145 Portsmouth Avenue	166 Portsmouth Avenue
149/151R Portsmouth Avenue	4 Winnicutt Road

Laboratory Analysis:	PFAS by EPA Method 537.1
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Field Measurements:	Water table elevation in all monitoring wells
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Report Frequency:	Groundwater data transmittals will be provided within 45 days of each monitoring events. Periodic Summary Reports will be provided each year following the October sampling event. Notification letters to homeowners where drinking water samples are collected will be provided within 45 days of all monitoring events.
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Closure Criteria:	Not applicable. Concentrations are not expected to decrease appreciably during the permit period.
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QA/QC: Analytical data produced during the monitoring program will be evaluated to ensure scientific validity and defensibility, and attainment of sufficient precision, accuracy, and completeness to support the intended purpose. Wilcox & Barton, Inc. works with its laboratory service providers to ensure that the sensitivity of analysis is sufficient to achieve the desired reporting limits. In some instances, failure to attain those limits will be inevitable due to variables inherent in the analytical methods and adjustments for factors such as dilution. While Wilcox & Barton, Inc. and the laboratories will work to ensure that these instances are limited to the extent feasible, the attainment of the desired detection limits cannot be guaranteed.

### 8.3 Groundwater Management Zone

The proposed GMZ is defined as the area where PFAS compounds are present at concentrations exceeding MCLs and AGQS. The proposed GMZ is presented on Figure 6. A list of properties that fall within 500 feet of a drinking water well with a PFAS exceedance is presented on Table 4 – *Potential Human Receptors List*.

The proposed GMZ follows readily discernible surface features and property boundaries and includes the following properties:

MAP/LOT/ SUBLOT	PROPERTY ADDRESS	OWNER NAME AND ADDRESS	DEED REFERENCE
Map 17/ Lot 114	4 Winnicutt Road Stratham, NH	Town of Stratham c/o David Moore 10 Bunker Hill Avenue Stratham, NH 03885	Rockingham County Registry of Deeds Book 4722/ Page 1104
Map 14/ Lot 041	157 Portsmouth Avenue Stratham, NH	Forma Realty II, LLC 18 Congress Street, Suite 302 Portsmouth, NH 03801	Rockingham County Book 5293/ Page 1323
Map 17/ Lot 035	2 College Road Stratham, NH	Parsons M H Sons Lumber Co. P.O. Box 450 York, ME 03909	Book 3260/ Page 0192
Map 17/ Lot 032	4R College Road Stratham, NH	David and Jeanne Short P.O. Box 715 Stratham, NH 03885	Book 3127/ Page 1105
Map 17/ Lot 018	9 College Road Stratham, NH	Verne E. Rawson, Jr. 9 College Road Stratham, NH 03885	Book 6101/ Page 2914
Map 17/ Lot 019	11 College Road Stratham, NH	Andrea J. and Alan P. Shine-Canty 11 College Road Stratham, NH 03885	Book 3440/ Page 0722
Map 17/ Lot 119	142 Portsmouth Avenue Stratham, NH	Piper's Landing Partnership 142 Portsmouth Avenue Stratham, NH 03885	Book 3299/ Page 0754
Map 17/ Lot 040	149/151R Portsmouth Avenue Stratham, NH	Jedi Realty, Inc. 149 Portsmouth Avenue Stratham, NH 03885	Book 5970/ Page 0024
Map 17/	152 Portsmouth Avenue	Leshas LLC	Book 3370/



MAP/LOT/ SUBLOT	PROPERTY ADDRESS	OWNER NAME AND ADDRESS	DEED REFERENCE
Lot 117	Stratham, NH	24 Pinewood Drive Stratham, NH 03885	Page 1662
Map 17/ Lot 041	157 Portsmouth Avenue Stratham, NH	Forma Realty II, LLC 18 Congress Street, Suite 302 Portsmouth, NH 03801	Book 5293/ Page 1323
Map 17/ Lot 042	159 Portsmouth Avenue Stratham, NH	John Forma Revokable Trust 18 Congress Street, Suite 302 Portsmouth, NH 03801	Book 5492/ Page 0909
Map 17/ Lot 043	161-2 Portsmouth Avenue Stratham, NH	Ronald and Sandra Deane 161 Portsmouth Avenue, Unit 2 Stratham, NH 03885	Book 5905/ Page 1574
Map 17/ Lot 088	164 Portsmouth Avenue Stratham, NH	Blunt Family Revocable Trust P.O. Box 268 Stratham, NH 03885	Book 5799/ Page 2128
Map 17/ Lot 087	166 Portsmouth Avenue Stratham, NH	Robert McLaughlin and Barbara Smith P.O. Box 793 Stratham NH 03885	Book 3030/ Page 0293

#### 8.4 Certification and Documentation

A copy of the completed GMP Renewal Application, certified by a New Hampshire-licensed professional engineer, is included in Appendix F. A copy of the certified GMP Application will be submitted to the clerk of the Town of Stratham in accordance with the requirements of Env-Or 607.02 (b)(2).



## TABLES

**TABLE 1**  
**Well Gauging and Piezometric Head Elevation Data**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Well Identification	Gauging Date	Top of Casing Elevation (ft)	Depth to Water* (ft)	LNAPL Thickness (ft)	Piezometric Head Elevation (ft)
MW-1	7/15/19	NS/NC	4.72	--	--
	7/29/19	NS/NC	4.91	--	--
	9/30/20	NS/NC	8.60	--	--
MW-3	7/15/19	NS/NC	4.77	--	--
	7/29/19	NS/NC	4.97	--	--
	9/30/20	NS/NC	8.63	--	--
MW-4	7/15/19	NS/NC	5.10	--	--
	7/29/19	NS/NC	5.31	--	--
	9/30/20	NS/NC	8.89	--	--
MW-5	7/15/19	NS/NC	3.97	--	--
	7/29/19	NS/NC	4.25	--	--
	9/30/20	NS/NC	7.75	--	--
MW-6	7/15/19	NS/NC	3.14	--	--
	7/29/19	NS/NC	4.07	--	--
	9/30/20	NS/NC	7.67	--	--
MW-7	7/15/19	NS/NC	4.58	--	--
	7/29/19	NS/NC	4.76	--	--
	9/30/20	NS/NC	8.34	--	--
MW-101	7/15/19	101.20	12.30	--	88.90
	7/29/19	101.20	12.77	--	88.43
	9/30/20	101.20	DRY	--	--
MW-102	7/15/19	94.78	7.38	--	87.40
	7/29/19	94.78	7.61	--	87.17
	9/30/20	94.78	9.34	--	85.44
MW-103	7/15/19	89.28	5.97	--	83.31
	7/29/19	89.28	6.06	--	83.22
	9/30/20	89.28	7.81	--	81.47
MW-104	7/15/19	87.54	5.57	--	81.97
	7/29/19	87.54	5.61	--	81.93
	9/30/20	87.54	5.99	--	81.55
MW-105	7/15/19	95.47	8.94	--	86.53
	7/29/19	95.47	9.21	--	86.26
	9/30/20	95.47	6.84	--	88.63

NOTE: Site surveyed on 6/28/19. Top of casing elevations are referenced to an arbitrary benchmark set at the southwest building corner of the fire department (assumed elevation 100.00 ft).

ft                      Feet.  
 \*                      Depth from top of casing or designated measuring point.  
 LNAPL                Light non-aqueous phase liquid.  
 NS/NC                Not surveyed/not calculated.  
 --                      No measurable LNAPL present.

**TABLE 2**  
**Groundwater Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Sample Identification  Sample Date  Well Depth (ft)	Ambient Groundwater Quality Standards (AGQS) †	MW-101			MW-102			MW-103		
		07/15/19	07/29/19	09/30/20	07/15/19	07/29/19	09/30/20	07/15/19	07/29/19	09/30/20
		15.30	15.30	15.41	15.71	15.67	15.48	11.2	11.19	11.44
Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537										
Perfluorobutanoic Acid (PFBA)	NS	2.0 U	2.0 U	--	6.7	2.9	3.2	14	11	4.1
Perfluorobutane Sulfonic Acid (PFBS)	NS	2.0 U	2.0 U	--	6.5	7.1	8.9	13	17	8.1
Perfluoropentanoic Acid (PFPeA)	NS	2.2	2.0 U	--	13	13	7.7	35	53	15
Perfluorohexanoic Acid (PFHxA)	NS	2.6	2.7	--	55	77	74	32	45	21
Perfluorohexane Sulfonic Acid (PFHxS)	18	4.0	2.0 U	--	520	940	410	250	220	140
Perfluoroheptanoic Acid (PFHpA)	NS	2.0 U	2.0 U	--	7.8	10	5.9	20	34	5.5
Perfluoroheptane Sulfonic Acid (PFHpS)	NS	2.0 U	2.0 U	--	35	68	36	14	19	15
Perfluorooctanoic Acid (PFOA)	12	5.7	6.1	--	33	38	53	39	41	33
Perfluorooctane Sulfonic Acid (PFOS)	15	2.0 U	2.0 U	--	870	1,300	3,900	80	150	170
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	25	2.0 U	2.0 U	19
Perfluorononanoic Acid (PFNA)	11	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	3.3	4.0	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorodecane Sulfonic Acid (PFDS)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluoroundecanoic Acid (PFUnA)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotridecanoic Acid (PFTRDA)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotetradecanoic Acid (PFTEDA)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

-- Sample not collected/analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds effective MCL or AGQS.

**bold italics** Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective May 28, 2020.

**TABLE 2**  
**Groundwater Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Sample Identification  Sample Date  Well Depth (ft)	Ambient Groundwater Quality Standards (AGQS) †	MW-104			MW-105			MW-1		
		07/15/19 9.65	07/29/19 9.67	09/30/20 9.91	07/15/19 17.48	07/29/19 17.48	09/30/20 17.67	07/15/19 13.06	07/29/19 13.10	09/30/20 13.52
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537</b>										
Perfluorobutanoic Acid (PFBA)	NS	7.9	5.8	7.9	5.0	2.1	5.0	25	14	17
Perfluorobutane Sulfonic Acid (PFBS)	NS	11	12	10	3.7	2.4	11	22	19	18
Perfluoropentanoic Acid (PFPeA)	NS	17	21	20	9.9	5.1	12	81	54	59
Perfluorohexanoic Acid (PFHxA)	NS	39	46	43	19	12	34	65	57	50
Perfluorohexane Sulfonic Acid (PFHxS)	18	<b>310</b>	<b>260</b>	<b>240</b>	<b>64</b>	<b>69</b>	<b>150</b>	<b>180</b>	<b>170</b>	<b>230</b>
Perfluoroheptanoic Acid (PFHpA)	NS	13	13	11	2.9	2.8	4.6	23	20	29
Perfluoroheptane Sulfonic Acid (PFHpS)	NS	10	10	5.3 J	7.1	6.8	6.5	4.3	2.0 U	2.7
Perfluorooctanoic Acid (PFOA)	12	<b>140</b>	<b>150</b>	<b>110</b>	<b>15</b>	12	<b>100</b>	<b>78</b>	<b>70</b>	<b>110</b>
Perfluorooctane Sulfonic Acid (PFOS)	15	<b>420</b>	<b>310</b>	<b>190</b>	<b>2,400</b>	<b>1,900</b>	<b>230</b>	<b>25</b>	<b>20</b>	<b>68</b>
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	7.2	2.0 U	2.0 U	2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0 U	2.0 U	7.4	2.0 U	2.0 U	64	2.0 U	2.0 U	2.0 U
Perfluorononanoic Acid (PFNA)	11	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorodecane Sulfonic Acid (PFDS)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluoroundecanoic Acid (PFUnA)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotridecanoic Acid (PFTRDA)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotetradecanoic Acid (PFTEDA)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

-- Sample not collected/analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds effective MCL or AGQS.

**bold italics** Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective May 28, 2020.

**TABLE 2**  
**Groundwater Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Sample Identification  Sample Date  Well Depth (ft)	Ambient Groundwater Quality Standards (AGQS) †	MW-3			MW-5			Pond SW-1	
		07/15/19 12.95	07/29/19 12.96	09/30/20 13.27	07/15/19 13.80	07/29/19 13.82	09/30/20 13.84	11/12/19	
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537</b>									
Perfluorobutanoic Acid (PFBA)	NS	45	23	20	19	9.7	8.7	2.0	U
Perfluorobutane Sulfonic Acid (PFBS)	NS	23	25	19	29	30	17	2.0	U
Perfluoropentanoic Acid (PFPeA)	NS	130	110	65	45	40	26	7.8	
Perfluorohexanoic Acid (PFHxA)	NS	100	100	57	38	43	29	2.3	
Perfluorohexane Sulfonic Acid (PFHxS)	18	<b>800</b>	<b>580</b>	<b>380</b>	<b>300</b>	<b>240</b>	<b>170</b>	3.4	
Perfluoroheptanoic Acid (PFHpA)	NS	93	85	40	19	19	14	2.0	U
Perfluoroheptane Sulfonic Acid (PFHpS)	NS	12	2.0 U	3.6	4.7	8.5	4.0	2.0	U
Perfluorooctanoic Acid (PFOA)	12	<b>320</b>	<b>240</b>	<b>170</b>	<b>83</b>	<b>84</b>	<b>71</b>	2.5	
Perfluorooctane Sulfonic Acid (PFOS)	15	<b>170</b>	<b>170</b>	<b>140</b>	<b>99</b>	<b>98</b>	<b>73</b>	2.0	U
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
6:2 Fluorotelomer Sulfonate	NS	2.0 U	2.0 U	2.1	2.0 U	2.0 U	2.0 U	2.0	U
Perfluorononanoic Acid (PFNA)	11	4.0	4.1	2.7	2.0 U	2.0 U	2.0 U	2.0	U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
Perfluorodecane Sulfonic Acid (PFDS)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
N-ethyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
8:2 Fluorotelomer sulfonate	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
Perfluoroundecanoic Acid (PFUnA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
N-methyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
Perfluorotridecanoic Acid (PFTDA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U
Perfluorotetradecanoic Acid (PFTEDA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0	U

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

- U Not detected at or above the listed laboratory reporting limit.  
 J Estimated concentration.  
 -- Sample not collected/analyzed for this constituent.  
 NS No standard established.  
**bold** Detected concentration exceeds effective MCL or AGQS.  
*bold italics* Not detected; laboratory reporting limit exceeds effective MCL or AGQS.  
 † Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective May 28, 2020.



**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		1 College Road		2 College Road		3 College Road		4 College Road		4R College Road	
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †							Nursery Building		Irrigation Well	
Sample Date		7/3/2019	9/29/2020	7/15/2019	9/29/2020	7/3/2019	9/29/2020	4/24/2019	9/29/2020	4/24/2019	9/29/2020
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>											
Perfluorobutane Sulfonate (PFBS)	NS	2.8	2.3	5.7	6.2	2.7	2.5	4.9	4.2	7.6	4.3
Perfluorohexanoic Acid (PFHxA)	NS	8.2	3.1	9.2	8.7	4.1	2.5	10	7.8	11	6.6
Perfluorohexane sulfonate (PFHxS)	18	7.7	5.9	<b>36</b>	<b>34</b>	5.6	5.0	14	13	17	14
Perfluoroheptanoic Acid (PFHpA)	NS	4.0	2.0 U	2.6	2.3	2.0	2.0 U	5.9	5.4	8.3	4.9
Perfluorooctanoic Acid (PFOA)	12	<b>13</b>	6.8	<b>19</b>	<b>19</b>	9.2	7.1	<b>24</b>	<b>21</b>	<b>43</b>	<b>27</b>
Perfluorooctane Sulfonate (PFOS)	15	8.4	5.7	<b>26</b>	<b>30</b>	11	10	<b>61</b>	<b>56</b>	<b>64</b>	<b>49</b>
Perfluorononanoic Acid (PFNA)	11	0.52	2.0 U	2.0 U	2.0 U	0.45	2.0 U	3.0	2.3	4.3	2.2
Perfluorodecanoic Acid (PFDA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	2.2	2.0 U	0.77	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	--	2.0 U	2.0 U	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	1.0 U	2.0 U	0.98 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	1.7 U	2.0 U	1.1 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	0.48 U	2.0 U	0.49 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTTrDA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	1.1 U	2.0 U	1.2 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	0.25 U	2.0 U	0.26 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
11Cl-PF3OUdS (F53B Major)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
9Cl-PF3ONS (F53B Minor)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
6:2 Fluorotelomer Sulfonate	NS	8.7 U	--	2.0 U	--	8.0 U	--	1.7 U	--	1.8 U	--
8:2 Fluorotelomer sulfonate	NS	1.7 U	--	2.0 U	--	1.6 U	--	0.33 U	--	1.8 U	--
Perfluorobutanoic Acid (PFBA)	NS	4.5	--	6.2	--	3.9	--	12	--	7.3	--
Perfluoropentanoic Acid (PFPeA)	NS	7.5	--	6.2	--	3.2	--	0.43 U	--	6.3	--
Perfluoroheptane Sulfonate (PFHpS)	NS	0.33	--	2.0 U	--	0.27	--	0.94	--	2.2 U	--
Perfluorooctane Sulfonamide (PFOSA)	NS	-- --	--	2.0 U	--	--	--	--	--	--	--
Perfluorodecane Sulfonate (PFDS)	NS	1.7 U	--	2.0 U	--	1.6 U	--	0.28 U	--	0.29 U	--

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

U	Not detected at or above the listed laboratory reporting limit.
J	Estimated concentration.
B	Constituent detected in blank; sample result >5x blank (>10x for common laboratory contaminants); result valid.
UB	Constituent detected in blank; sample result <5x blank (<10x for common laboratory contaminants); sample result changed to non-detection.
--	Sample not analyzed for this constituent.
NS	No standard established.
<b>bold</b>	Detected concentration exceeds AGQS or MCL in effect at the time of sample collection.
<b>bold italics</b>	Not detected; laboratory reporting limit exceeds effective MCL or AGQS.
†	MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.

PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April 2018. The naming convention has been changed for this table for consistency.



**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		4R College Road		5 College Road		6 College Road		9 College Road		11 College Road	
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †	Primary Well									
Sample Date		4/24/2019	9/29/2020	11/12/2019	9/29/2020	4/24/2019	9/29/2020	11/12/2019	9/29/2020	6/13/2019	9/29/2020
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>											
Perflourobutane Sulfonate (PFBS)	NS	5.3	3.9	29	3.2	4.2	3.9	5.5	3.9	4.1	4.1
Perfluorohexanoic Acid (PFHxA)	NS	7.7	5.8	18	3.6	6.6	3.0	5.4	3.0	7.8	7.0
Perfluorohexane sulfonate (PFHxS)	18	18	14	15	8.9	<b>28</b>	<b>21</b>	5.8	9.7	14	16
Perfluoroheptanoic Acid (PFHpA)	NS	5.9	4.5	3.7	2.2	2.7	2.0 U	2.0 U	2.0 U	3.4	3.8
Perfluorooctanoic Acid (PFOA)	12	<b>28</b>	<b>21</b>	<b>22</b>	12	<b>18</b>	12	12	11	<b>16</b>	<b>22</b>
Perfluorooctane Sulfonate (PFOS)	15	<b>46</b>	<b>26</b>	<b>41</b>	15	<b>27</b>	<b>20</b>	<b>16</b>	<b>21</b>	<b>38</b>	<b>50</b>
Perfluorononanoic Acid (PFNA)	11	2.1	2.0 U	3.0	2.0 U	0.54	2.0 U	2.0 U	2.0 U	1.3	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	0.42	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	-- U	2.0 U	2.1 U	2.0 U	--	2.0 U	2.0 U	2.0 U	--	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.0 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.1 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	0.51 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTTrDA)	NS	1.2 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	0.27 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
11Cl-PF3OUdS (F53B Major)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
9Cl-PF3ONS (F53B Minor)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U
6:2 Fluorotelomer Sulfonate	NS	1.8 U	--	2.1 U	--	--	--	2.0 U	--	9.1 U	--
8:2 Fluorotelomer sulfonate	NS	0.35 U	--	2.1 U	--	1.8 U	--	2.0	--	1.8 U	--
Perfluorobutanoic Acid (PFBA)	NS	7.0	--	2.1 U	--	3.3	--	2.0 U	--	3.4	--
Perfluoropentanoic Acid (PFPeA)	NS	4.8	--	9.2	--	3.0	--	2.0 U	--	3.2	--
Perfluoroheptane Sulfonate (PFHpS)	NS	1.6 U	--	2.1 U	--	0.80 U	--	2.0 U	--	0.70	--
Perfluorooctane Sulfonamide (PFOSA)	NS	--	--	2.1 U	--	--	--	2.0 U	--	--	--
Perfluorodecane Sulfonate (PFDS)	NS	0.3 U	--	2.1 U	--	1.8 U	--	2.0 U	--	1.8 U	--

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

- U Not detected at or above the listed laboratory reporting limit.
- J Estimated concentration.
- B Constituent detected in blank; sample result >5x blank (>10x for common laboratory contaminants); result valid.
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- Sample not analyzed for this constituent.
- NS No standard established.
- bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection
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- † MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.

PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April 2018. The naming convention has been changed for this table for consistency.





**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		13 College Road		15 College Road		23 College Road		25 College Road	131 Portsmouth Avenue	132 Portsmouth Avenue	
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †										
Sample Date		10/2/2019	9/29/2020	6/21/2019	9/30/2020	6/28/2019	9/29/2020	6/28/2019	11/12/2019	11/12/2019	9/30/2020
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>											
Perflourobutane Sulfonate (PFBS)	NS	7.1	--	12	2.0 U	5.3	4.4	1.2	3.1	3.7	2.0 U
Perfluorohexanoic Acid (PFHxA)	NS	10	--	8.8	2.0 U	2.6	2.0 U	0.85	2.3	2.0 U	2.0 U
Perfluorohexane sulfonate (PFHxS)	18	<b>73 B</b>	--	<b>29</b>	2.0 U	14	13	4.2	6.1	16	3.4
Perfluoroheptanoic Acid (PFHpA)	NS	3.1	--	4.3	2.0 U	1.7	2.0 U	0.6	2.0 U	2.0 U	2.0 U
Perfluorooctanoic Acid (PFOA)	12	<b>33</b>	--	<b>19</b>	2.0 U	<b>13</b>	11	3.8	4.0	2.0 U	2.0 U
Perfluorooctane Sulfonate (PFOS)	15	<b>17</b>	--	9.6	2.0 U	8.7	7.9	1.6	5.4	2.0 U	2.0 U
Perfluorononanoic Acid (PFNA)	11	0.65 J	--	0.31	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	1.9 U	--	1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	--	--	--	2.0 U	--	2.0 U	--	2.0 U	2.0 U	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.9 U	--	1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.9 U	--	1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	1.9 U	--	1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTTrDA)	NS	1.9 U	--	1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	1.9 UB	--	1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	--	--	--	--	2.0 U	--	--	--	2.0 U
11Cl-PF3OUdS (F53B Major)	NS	--	--	--	--	--	2.0 U	--	--	--	2.0 U
9Cl-PF3ONS (F53B Minor)	NS	--	--	--	--	--	2.0 U	--	--	--	2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	--	--	--	--	--	2.0 U	--	--	--	2.0 U
6:2 Fluorotelomer Sulfonate	NS	9.6 U	--	9.4 U	2.0 U	8.8 U	--	9.0 U	2.0 U	2.0 U	--
8:2 Fluorotelomer sulfonate	NS	1.9 U	--	1.9 U	2.0 U	1.8 U	--	1.8 U	2.0 U	2.0 U	--
Perfluorobutanoic Acid (PFBA)	NS	5.4	--	5.7	2.0 U	4.1	--	1.1	2.0 U	2.0 U	--
Perfluoropentanoic Acid (PFPeA)	NS	3.0	--	5.6	2.0 U	1.4	--	1.8 U	2.0	2.0 U	--
Perfluoroheptane Sulfonate (PFHpS)	NS	0.64 J	--	0.40	2.0 U	0.5	--	1.8 U	2.0 U	2.0 U	--
Perfluorooctane Sulfonamide (PFOSA)	NS	--	--	--	2.0 U	--	--	--	2.0 U	2.0 U	--
Perfluorodecane Sulfonate (PFDS)	NS	1.9 U	--	1.9 U	2.0 U	1.8 U	--	1.8 U	2.0 U	2.0 U	--

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

- U Not detected at or above the listed laboratory reporting limit.
- J Estimated concentration.
- B Constituent detected in blank; sample result >5x blank (>10x for common laboratory contaminants); result valid.
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- Sample not analyzed for this constituent.
- NS No standard established.
- bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection
- bold italics** Not detected; laboratory reporting limit exceeds effective MCL or AGQS.
- † MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.

PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April 2018. The naming convention has been changed for this table for consistency.





**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		137 Portsmouth Avenue	138 Portsmouth Avenue	140 Portsmouth Avenue	140 Portsmouth Avenue	142 Portsmouth Avenue			142R Portsmouth Avenue	145 Portsmouth Avenue	
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †			House Well	Shop Well	Pipers Landing					
Sample Date		7/15/2019	4/29/2019	4/29/2019	4/29/2019	3/22/2019	7/15/2019	9/29/2020	4/23/2019	4/23/2019	9/29/2020
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>											
Perflourobutane Sulfonate (PFBS)	NS	2.0 U	1.4	0.41	0.52	5.8	10	4.5	7.4	18	11
Perfluorohexanoic Acid (PFHxA)	NS	2.0 U	1.5	1.1	0.85	14	18	9.0	2.1	52	23
Perfluorohexane sulfonate (PFHxS)	18	4.5	1.5	0.51	0.90	<b>63</b>	<b>110</b>	<b>54</b>	4.4	<b>230</b>	<b>140</b>
Perfluoroheptanoic Acid (PFHpA)	NS	2.0 U	0.81	0.49	0.49	2.9	4.0	2.1	1.4	12	6.5
Perfluorooctanoic Acid (PFOA)	12	3.6	2.8	2.2	1.6	<b>37</b>	<b>45</b>	<b>31</b>	4.4	<b>140</b>	<b>70</b>
Perfluorooctane Sulfonate (PFOS)	15	2.3	1.0	0.77	1.9 U	<b>32</b>	<b>41</b>	<b>29</b>	4.5	<b>200</b>	<b>140</b>
Perfluorononanoic Acid (PFNA)	11	2.0 U	1.9 U	0.31	1.9 U	2.0 U	2.0 U	2.0 U	0.28	0.62	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.26 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	2.0 U	--	--	--	2.0 U	2.0 U	2.0 U	--	--	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.93 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	2.0 U	1.2 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	1.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.46 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTTrDA)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	1.1 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	2.0 U	1.9 U	0.31	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.24 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	--	--	--	--	--	2.0 U	--	--	2.0 U
11Cl-PF3OUdS (F53B Major)	NS	--	--	--	--	--	--	2.0 U	--	--	2.0 U
9Cl-PF3ONS (F53B Minor)	NS	--	--	--	--	--	--	2.0 U	--	--	2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	--	--	--	--	--	--	2.0 U	--	--	2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	--	1.8 U	1.7 U	--
8:2 Fluorotelomer sulfonate	NS	U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	--	1.8 U	0.32 U	--
Perfluorobutanoic Acid (PFBA)	NS	2.0 U	2.0	2.0	2.1	2.0 U	3.0	--	4.5	8.7	--
Perfluoropentanoic Acid (PFPeA)	NS	2.0 U	1.2	1.0	0.78	3.0	3.9	--	1.9	17	--
Perfluoroheptane Sulfonate (PFHpS)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	--	1.8 U	4.7	--
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	--	--	--	2.0 U	2.0 U	--	--	--	--
Perfluorodecane Sulfonate (PFDS)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	--	1.8 U	0.27 U	--

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

U	Not detected at or above the listed laboratory reporting limit.
J	Estimated concentration.
B	Constituent detected in blank; sample result >5x blank (>10x for common laboratory contaminants); result valid.
UB	Constituent detected in blank; sample result <5x blank (<10x for common laboratory contaminants); sample result changed to non-detection.
--	Sample not analyzed for this constituent.
NS	No standard established.
<b>bold</b>	Detected concentration exceeds AGQS or MCL in effect at the time of sample collection
<b>bold italics</b>	Not detected; laboratory reporting limit exceeds effective MCL or AGQS.
†	MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.

PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April 2018. The naming convention has been changed for this table for consistency.



**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		149/151 Portsmouth Avenue*			152 Portsmouth Avenue		156 Portsmouth Avenue	157 Portsmouth Avenue		159 Portsmouth Avenue	
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †	149/151 Portsmouth Ave	149 Portsmouth Ave	Primary Well				Stratham Central Condos		Apartment Complex	
Sample Date		3/5/2019	9/29/2020	5/3/2019	9/29/2020		3/22/2019	3/22/2019	10/1/2020	4/24/2019	9/29/2020
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>											
Perfluorobutane Sulfonate (PFBS)	NS	6.4	2.0 U	8.2	6.2		4.6	15	14	7.6	7.4
Perfluorohexanoic Acid (PFHxA)	NS	12.8	2.0 U	24	16		21	53	36	22	15
Perfluorohexane sulfonate (PFHxS)	18	<b>63</b>	2.0 U	<b>160</b>	<b>150</b>		<b>58</b>	<b>222</b>	<b>180</b>	<b>76</b>	<b>66</b>
Perfluoroheptanoic Acid (PFHpA)	NS	3.0	2.0 U	10	7.5		11	16	11	7.5	5.4
Perfluorooctanoic Acid (PFOA)	12	<b>31</b>	2.0 U	<b>57</b>	<b>46</b>		<b>33</b>	<b>84</b>	<b>89</b>	<b>41</b>	<b>28</b>
Perfluorooctane Sulfonate (PFOS)	15	<b>40</b>	2.0 U	<b>150</b>	<b>110</b>		<b>149</b>	<b>206</b>	<b>150</b>	<b>69</b>	<b>39</b>
Perfluorononanoic Acid (PFNA)	11	1.7	2.0 U	1.6	2.0 U		2.1	1.9 U	2.0 U	0.50	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	--	2.0 U	0.28 U	2.0 U		2.0 U	1.9 U	2.0 U	0.28 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	--	2.0 U	--	2.0 U		2.0 U	3.0	2.0 U	--	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	--	2.0 U	1.0 U	2.0 U		2.0 U	1.9 U	2.0 U	1.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	--	2.0 U	1.1 U	2.0 U		2.0 U	1.9 U	2.0 U	1.1 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	--	2.0 U	0.49 U	2.0 U		2.0 U	1.9 U	2.0 U	0.49 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTTrDA)	NS	--	2.0 U	1.2 U	2.0 U		2.0 U	1.9 U	2.0 U	1.2 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	--	2.0 U	0.26 U	2.0 U		2.0 U	1.9 U	2.0 U	0.26 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	2.0 U	--	2.0 U		--	--	2.0 U	--	2.0 U
11CI-PF3OUdS (F53B Major)	NS	--	2.0 U	--	2.0 U		--	--	2.0 U	--	2.0 U
9CI-PF3ONS (F53B Minor)	NS	--	2.0 U	--	2.0 U		--	--	2.0 U	--	2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	--	2.0 U	--	2.0 U		--	--	2.0 U	--	2.0 U
6:2 Fluorotelomer Sulfonate	NS	--	--	1.8 U	--		2.0 U	1.9 U	--	2.2	--
8:2 Fluorotelomer sulfonate	NS	--	--	0.34 U	--		2.0 U	1.9 U	--	0.33 U	--
Perfluorobutanoic Acid (PFBA)	NS	2.5	--	7.5	--		6.7	17	--	6.8	--
Perfluoropentanoic Acid (PFPeA)	NS	4.6	--	15	--		20	60	--	16	--
Perfluoroheptane Sulfonate (PFHpS)	NS	--	--	3.3	--		2.0 U	4.2	--	2.0	--
Perfluorooctane Sulfonamide (PFOSA)	NS	--	--	--	--		2.0 U	1.9 U	--	--	--
Perfluorodecane Sulfonate (PFDS)	NS	--	--	0.29 U	--		2.0 U	1.9 U	--	0.29 U	--

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

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- J Estimated concentration.
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**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		160 Portsmouth Avenue		161-2 Portsmouth Avenue		164 Portsmouth Avenue		165 Portsmouth Avenue	166 Portsmouth Avenue	
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †									
Sample Date		7/15/2019	9/29/2020	5/24/2019	9/29/2020	7/15/2019	9/30/2020	5/2/2019	5/2/2019	9/29/2020
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>										
Perfluorobutane Sulfonate (PFBS)	NS	5.6	2.8	5.3	5.8	9.0	7.5	5.4	11	5.3
Perfluorohexanoic Acid (PFHxA)	NS	8.9	8.6	18	9.5	6.7	6.8	3.4	2.5	2.6
Perfluorohexane sulfonate (PFHxS)	18	13	9.6	<b>57</b>	<b>38</b>	<b>26</b>	<b>24</b>	4.9	<b>21</b>	<b>19</b>
Perfluoroheptanoic Acid (PFHpA)	NS	3.1	3.6	6.1	2.9	2.5	3.4	1.5	1.7	2.0 U
Perfluorooctanoic Acid (PFOA)	12	8.8	9.2	<b>37</b>	<b>20</b>	12	12	6.2	7.5	6.9
Perfluorooctane Sulfonate (PFOS)	15	2.0 U	2.0 U	<b>73</b>	<b>30</b>	2.0 U	2.0 U	9.8	2.0	2.0 U
Perfluorononanoic Acid (PFNA)	11	2.0 U	2.0 U	0.73	2.0 U	2.0 U	2.0 U	0.40	1.8 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	2.0 U	0.67	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	--	--	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	2.0 U	2.0 U	1.7	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	2.0 U	2.0 U	1.2 U	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	2.0 U	0.66	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	2.0 U	2.0 U	1.2 U	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	2.0 U	2.0 U	0.32	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	--	2.0 U
11Cl-PF3OUdS (F53B Major)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	--	2.0 U
9Cl-PF3ONS (F53B Minor)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	--	2.0 U
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	NS	--	2.0 U	--	2.0 U	--	2.0 U	--	--	2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0 U	--	2.2	--	2.0 U	--	1.9 U	1.8 U	--
8:2 Fluorotelomer sulfonate	NS	2.0 U	--	0.36 U	--	2.0 U	--	1.9 U	1.8 U	--
Perfluorobutanoic Acid (PFBA)	NS	2.7	--	4.0	--	2.1	--	2.9	3.2	--
Perfluoropentanoic Acid (PFPeA)	NS	7.5	--	12	--	6.0	--	3.3	1.3	--
Perfluoroheptane Sulfonate (PFHpS)	NS	2.0 U	--	1.5	--	2.0 U	--	0.20	1.8 U	--
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	--	--	--	2.0 U	--	--	--	--
Perfluorodecane Sulfonate (PFDS)	NS	2.0 U	--	0.31 U	--	2.0 U	--	1.9 U	1.8 U	--

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- U Not detected at or above the listed laboratory reporting limit.
- J Estimated concentration.
- B Constituent detected in blank; sample result >5x blank (>10x for common laboratory contaminants); result valid.
- UB Constituent detected in blank; sample result <5x blank (<10x for common laboratory contaminants); sample result changed to non-detection.
- Sample not analyzed for this constituent.
- NS No standard established.
- bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection
- bold italics** Not detected; laboratory reporting limit exceeds effective MCL or AGQS.
- † MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.

PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April 2018. The naming convention has been changed for this table for consistency.



**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		169 Portsmouth Avenue	170 Portsmouth Avenue	172 Portsmouth Avenue	175 Portsmouth Avenue	176 Portsmouth Avenue	232 Portsmouth Avenue	Stratham Green Road	Stratham Green Road
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †					Primary Well		Well #1	Well #2
Sample Date		5/2/2019	5/24/2019	4/24/2019	5/3/2019	5/3/2019	4/29/2019	3/22/2019	3/22/2019
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>									
Perfluorobutane Sulfonate (PFBS)	NS	5.0	5.2	4.7	3.7	3.7	0.76	3.7	3.7
Perfluorohexanoic Acid (PFHxA)	NS	0.79	2.6	2.9	3.6	3.6	4.7	5.6	3.8
Perfluorohexane sulfonate (PFHxS)	18	4.7	3.1	3.0	3.1	3.1	0.49	13	14
Perfluoroheptanoic Acid (PFHpA)	NS	0.48	2.2	2.5	2.8	2.8	0.55	3.2	2.3
Perfluorooctanoic Acid (PFOA)	12	2.4	6.9	10	9.0	9.0	3.1	<b>18</b>	<b>12.4</b>
Perfluorooctane Sulfonate (PFOS)	15	1.9 U	0.49 U	5.4	1.0	1.0	0.80	<b>29</b>	14
Perfluorononanoic Acid (PFNA)	11	1.9 U	0.25 U	0.46	--	0.26 U	1.0	1.9 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	1.9 U	0.28 U	1.8 U	--	0.30 U	0.70	1.9 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	--	--	--	--	--	--	1.9 U	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.9 U	1.0 U	1.8 U	--	1.1 U	1.8 U	1.9 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.9 U	1.1 U	1.8 U	--	1.2 U	1.8 U	1.9 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	1.9 U	0.50 U	1.8 U	--	0.53 U	1.8 U	1.9 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTTrDA)	NS	1.9 U	1.2 U	1.8 U	--	1.3 U	1.8 U	1.9 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTTeDA)	NS	1.9 U	0.26 U	1.8 U	--	0.28 U	1.8 U	1.9 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	--	--	--	--	--	--	--
11Cl-PF3OUdS (F53B Major)	NS	--	--	--	--	--	--	--	--
9Cl-PF3ONS (F53B Minor)	NS	--	--	--	--	--	--	--	--
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	--	--	--	--	--	--	--	--
6:2 Fluorotelomer Sulfonate	NS	1.9 U	1.8 U	1.8 U	--	1.9 U	1.8 U	1.9 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	1.9 U	1.8 U	1.8 U	--	0.36 U	1.8 U	1.9 U	2.0 U
Perfluorobutanoic Acid (PFBA)	NS	2.1	2.0	1.7	2.9	2.9	2.4	3.6	4.8
Perfluoropentanoic Acid (PFPeA)	NS	0.72	1.6	1.8	2.5	2.5	3.0	3.4	2.0 U
Perfluoroheptane Sulfonate (PFHpS)	NS	1.9 U	0.17 U	2.5	--	0.18 U	1.8 U	1.9 U	2.0 U
Perfluorooctane Sulfonamide (PFOSA)	NS	--	--	--	--	--	--	1.9 U	2.0 U
Perfluorodecane Sulfonate (PFDS)	NS	1.9 U	0.29 U	1.8 U	--	0.31 U	1.8 U	1.9 U	2.0 U

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 Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire  
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 contaminants); result valid.  
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 contaminants); sample result changed to non-detection.  
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 NS No standard established.  
**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection  
*bold italics* Not detected; laboratory reporting limit exceeds effective MCL or AGQS.  
 † MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),  
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 PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April  
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**TABLE 3**  
**Drinking Water Samples - Summary of Analytical Results**  
 Stratham Fire Department  
 4 Winnicutt Road, Stratham, New Hampshire  
 NHDES Site #199507007

Street Address		Stratham Green Road	7 Tansy Avenue	4 Winnicutt Road		7/7R Winnicutt Road (shared well)		9 Winnicutt Road	17 Winnicutt Road	18 Winnicutt Road	5 French Lane	
Sample Identification (if different from address)	Maximum Contaminant Level (MCLs) †	Well #3		Stratham Fire Dept		7 Winnicutt Road	7R Winnicutt Road					
Sample Date		3/22/2019	5/3/2019	3/22/2019	9/29/2020	3/22/2019	9/29/2020	5/9/2019	6/21/2019	4/25/2019	6/28/2019	11/12/2019
<b>Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)</b>												
Perfluorobutane Sulfonate (PFBS)	NS	4.0	1.9 U	4.6	4.5	5.9	2.0 U	0.60	2.0	0.50	0.29	5.4
Perfluorohexanoic Acid (PFHxA)	NS	3.0	1.0	21	17	22	3.4	1.8	3.9	1.2	1.8 U	2.0 U
Perfluorohexane sulfonate (PFHxS)	18	<b>22</b>	0.54	<b>58</b>	<b>70</b>	6.7	2.0 U	1.9	1.8	1.2	0.97 U	12
Perfluoroheptanoic Acid (PFHpA)	NS	2.0 U	0.35	11	11	6.9	2.0 U	0.92	1.6	0.72	0.25	2.0 U
Perfluorooctanoic Acid (PFOA)	12	<b>13</b>	1.8	<b>33</b>	<b>37</b>	<b>17</b>	2.0 U	3.1	6.1	2.7	1.4	3.4
Perfluorooctane Sulfonate (PFOS)	15	<b>19</b>	1.0	<b>149</b>	<b>140</b>	0.92	2.0 U	0.51 U	1.6	--	0.79	2.0 U
Perfluorononanoic Acid (PFNA)	11	2.0 U	1.9 U	2.1	2.1	0.47	2.0 U	0.26 U	1.8 U	--	1.8 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	0.29 U	1.8 U	--	1.8 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	2.0 U	--	2.0 U	2.0 U	--	2.0 U	--	--	--	--	2.0 U
Perfluoroundecanoic acid (PFUA/PFUuA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	1.0 U	1.8 U	--	1.8 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	1.2 U	1.8 U	--	1.8 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	0.52 U	1.8 U	--	1.8 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTTrDA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	1.2 U	1.8 U	--	1.8 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	0.27 U	1.8 U	--	1.8 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	--	--	--	2.0 U	--	2.0 U	--	--	--	--	--
11Cl-PF3OUdS (F53B Major)	NS	--	--	--	2.0 U	--	2.0 U	--	--	--	--	--
9Cl-PF3ONS (F53B Minor)	NS	--	--	--	2.0 U	--	2.0 U	--	--	--	--	--
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	--	--	--	2.0 U	--	2.0 U	--	--	--	--	--
6:2 Fluorotelomer Sulfonate	NS	2.0 U	1.9 U	2.0 U	--	8.9 U	--	1.9 U	9.1 U	--	8.8 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	2.0 U	1.9 U	2.0 U	--	1.8 U	--	0.35 U	1.8 U	--	1.8 U	2.0 U
Perfluorobutanoic Acid (PFBA)	NS	5.1	1.2	6.7	--	6.7	--	1.8	2.1	1.7	0.50	2.0 U
Perfluoropentanoic Acid (PFPeA)	NS	2.4	0.59	20	--	22	--	1.4	2.9	1.0	1.8 U	2.0 U
Perfluoroheptane Sulfonate (PFHpS)	NS	2.0 U	1.9 U	2.0 U	--	1.8 U	--	0.18 U	1.8 U	--	1.8 U	2.0 U
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	--	2.0 U	--	--	--	--	--	--	--	2.0 U
Perfluorodecane Sulfonate (PFDS)	NS	2.0 U	1.9 U	2.0 U	--	1.8 U	--	0.30 U	1.8 U	--	1.8 U	2.0 U

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**TABLE 4**  
**Potential Human Receptor List**  
**Stratham Fire Department**  
**4 Winnicutt Road, Stratham, New Hampshire**  
**NHDES Site No. 199507007**

Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 012	1 College Road	Rawson, Marjorie	--	Residential	No	Yes	(NHDES) 7/3/19 (W&B) 9/29/20	7/3/19: PFOA	outside spigot on side of house	--	--
17/ 035	2 College Road	Parsons M H & Sons Lumber Co.	P.O. Box 450, York, ME 03909	Commercial/ Industrial (post office)	No	Yes	(W&B) 7/5/19 (W&B) 9/29/20	7/5/19: PFHxS, PFOA, PFOS	inside sink	--	--
17/ 015	3 College Road	Schmidt Family Trust	P.O. Box 252, Stratham, NH 03885	Residential	No	Yes	(NHDES) 7/3/19 (W&B) 9/29/20	7/3/19: detections just below MCLs	outside spigot on back of house	--	sediment filter and softener
17/ 034	4 College Road Nursery Building	4 College Rd Real Estate LLC, c/o David Short	P.O. Box 715, Stratham, NH 03885	Commercial/ Industrial (Nursery)	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/29/19: PFOA, PFOS	nursery building sink	--	--
17/ 032	4R College Road Primary Well	Short, David and Jeanne	P.O. Box 715, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/24/19: PFOA, PFOS	outside spigot	--	--
17/ 032	4R College Road Irrigation Well	Short, David and Jeanne	P.O. Box 715, Stratham, NH 03885	Barn	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/24/19: PFOA, PFOS	base of pressure tank in barn	--	--
17/ 017	5 College Road	Rawson, III Verne Edward	--	Residential	No	Yes	(W&B) 11/12/19 (W&B) 9/29/20	11/12/19: PFOA, PFOS	outside spigot	--	softener
17/ 033	6 College Road	4 College Rd Real Estate LLC, c/o David Short	P.O. Box 715, Stratham, NH 03885	Commercial/ Industrial	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/24/19: PFHxS, PFOA, PFOS	base of pressure tank	--	--
17/ 018	9 College Road	Rawson, Jr. Verne E.	--	Residential	No	Yes	(W&B) 11/12/19 (W&B) 9/29/20	11/12/19: PFOS	spigot at front door	--	softener
17/ 019	11 College Road	Shine-Canty, Andrea J. and Alan P.	--	Residential	No	Yes	(NHDES) 6/13/19 (W&B) 9/29/20	6/13/19: PFOA, PFOS	base of pressure tank in basement	--	--
17/ 020	13 College Road	Secore, Dennis and Gail	--	Residential	No	Yes	(NHDES) 10/2/19	10/2/19: PFHxS, PFOA, PFOS	--	--	--
17/ 021	15 College Road	Fawcett, Robert S. and Anne M.	--	Residential	No	Yes	(NHDES) 6/21/19 (W&B) 9/30/20	6/21/19: PFHxS, PFOA	--	--	--
17/ 024	19 College Road	Wingate Woods LLC	6 Patriots Road, Stratham, NH 03885	Residential	No	Yes	--	--	--	--	--
17/ 025	23 College Road	Desroches, Michael and Margaret	--	Residential	No	Yes	(NHDES) 6/28/19 (W&B) 9/29/20	6/28/19: PFOA	outside spigot on side of house	Yes	softener and POE system

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**Potential Human Receptor List**  
**Stratham Fire Department**  
**4 Winnicutt Road, Stratham, New Hampshire**  
**NHDES Site No. 199507007**

Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 026	25 College Road	Bruno, Sharon and David	--	Residential	No	Yes	(NHDES) 6/28/19	detections below MCLs	--	--	--
17/ 012	5 French Lane	Rowe, Kenneth and Dorothy	P.O. Box 146, Stratham, NH 03885	Residential	No	Yes	(NHDES) 6/28/19 (W&B) 11/12/19	detections below MCLs	--	--	--
17/ 023	16 French Lane	Poco Realty Trust	6 Patriots Road, Stratham, NH 03885	Residential	No	Yes	--	--	--	--	--
17/ 022	131 Portsmouth Avenue	Emanuel, Fred Revocable Trust	6 Patriots Road, Stratham, NH 03885	Residential	No	Yes	(W&B) 11/12/19	detections below MCLs	--	--	--
17/ 013	132 Portsmouth Avenue	Tonal Hearth Property Management	--	Mixed Residential/ Commercial	No	Yes	(W&B) 11/12/19 (W&B) 9/30/20	11/12/19: detections just below MCLs	--	--	--
17/ 036	137 Portsmouth Avenue	Zeff, Maureen and Richard	14 Evergreen Way, Stratham, NH 03885	Commercial/ Industrial (doctor's office)	No	Yes	(W&B) 7/15/19	detections below MCLs	--	--	--
13/ 068	138 Portsmouth Avenue	King, Daryl M.	--	Residential	No	Yes	(NHDES) 4/29/19	detections below MCLs	--	--	--
17/ 037	139 Portsmouth Avenue	JP Commons LLC	--	Commercial (Salon/Spa)	No	Yes	--	--	--	--	--
13/ 067	140 Portsmouth Avenue	King Revocable Trust of 2001	P.O. Box 216, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/29/19	detections below MCLs	--	--	--
17/ 119	142 Portsmouth Avenue	Piper's Landing Partnership	--	Commercial (Offices)	No	Yes	(W&B) 7/15/19 (W&B) 9/29/20	7/15/19: PFHxS, PFOA, PFOS	--	--	--
17/ 120	142R Portsmouth Avenue	142 R Portsmouth Ave, LLC	P.O. Box 432, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/23/19	detections below MCLs	--	--	--
17/ 038	145 Portsmouth Avenue	F & T Realty Partnership c/o Cadieux, Thomas and Frank	P.O. Box 155, Stratham, NH 03885	Commercial (retail/shops)	No	Yes	(W&B) 4/23/19 (W&B) 9/29/20	4/23/19: PFHxS, PFOA, PFOS	bathroom sink	--	--
17/ 118	148 Portsmouth Avenue	Jones, Bradley R.	P.O. Box 175, Stratham, NH 03885	Commercial (restaurant/ apartments)	No	Yes	--	--	--	--	--
17/ 040	149/151R Portsmouth Avenue	Jedi Realty, Inc.	149 Portsmouth Avenue, Stratham, NH 03885	Commercial/ Industrial (Dentist)	No	Yes	(W&B) 3/5/19 (W&B) 9/29/20	3/5/19: PFHxS, PFOA, PFOS	raw influent	Yes	sediment, softener, and POE system

**TABLE 4**  
**Potential Human Receptor List**  
**Stratham Fire Department**  
**4 Winnicutt Road, Stratham, New Hampshire**  
**NHDES Site No. 199507007**

Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 117	152 Portsmouth Avenue	Leshas LLC	24 Pinewood Drive, Stratham, NH 03885	Commercial (office)	No	Yes	(W&B) 3/5/19	3/5/19: PFHxS, PFOA, PFOS	--	--	--
17/ 116	154 Portsmouth Avenue	Scheel, John B.	4 Tall Pines Drive, Stratham, NH 03885	Residential	No	Yes	--	--	--	--	--
17/ 115	156 Portsmouth Avenue	Lake, Colleen D. Revocable Trust	--	Commercial/ Industrial	No	Yes	(NHDES) 3/22/19	3/22/19: PFHxS, PFOA, PFOS	--	--	--
17/ 041	157 Portsmouth Avenue	Forma Realty II, LLC	18 Congress Street, Suite 302, Portsmouth, NH 03801	Commercial/ Residential mixed use	No	Yes	3/22/19 (NHDES) 10/1/20 (W&B)	3/22/19: PFHxS, PFOA, PFOS	base of pressure tank	--	sediment filter and two sets of softeners
17/ 042	159 Portsmouth Avenue	Forma, John Revocable Trust	18 Congress Street, Suite 302, Portsmouth, NH 03801	Apartments	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/29/19: PFHxS, PFOA, PFOS	outside spigot	--	--
17/ 089	160 Portsmouth Avenue	Chittenden Trust Company c/o People's United Bank	850 Main Street, Bridgeport, CT 06604	Commercial (bank)	No	Yes	(W&B) 7/15/19 (W&B) 9/29/20	7/15/19: PFHxS, PFOA, PFOS	--	--	--
17/ 043	161-2 Portsmouth Avenue	Deane, Ronald and Sandra	161 Portsmouth Avenue, Unit 2, Stratham, NH 03885	Residential (condex)	No	Yes	(NHDES) 5/24/19	5/24/19: PFHxS, PFOA, PFOS	--	--	--
17/ 088	164 Portsmouth Avenue	Blunt Family Revocable Trust	P.O. Box 268, Stratham, NH 03885	Commercial (store)	No	Yes	(W&B) 7/15/19 (W&B) 9/29/20	7/15/19: PFHxS	bathroom sink		
17/ 044	165 Portsmouth Avenue	Libby Revocable Trust 2017	--	Residential	No	Yes	(NHDES) 5/2/19	detections below MCLs	--	--	--
17/ 087	166 Portsmouth Avenue	McLaughlin, Robert and Smith, Barbara	P.O. Box 793, Stratham, NH 03885	Residential	No	Yes	(NHDES) 5/2/19 (W&B) 9/29/20	5/2/19: PFHxS	outside spigot on side of house	--	--
17/ 045	169 Portsmouth Avenue	169 Portsmouth Ave, LLC	98 Linden Street, Exeter, NH 03833	Residential	No	Yes	(NHDES) 5/2/19	detections below MCLs	--	--	--
17/ 086	170 Portsmouth Avenue	Marston, Christopher Glen	7 Winnicutt Road, Stratham, NH 03885	Residential	No	Yes	(NHDES) 5/24/19	detections below MCLs	--	--	--
17/ 085	172 Portsmouth Avenue	Izzo, Patricia and Mario	--	Residential	No	Yes	(NHDES) 4/24/19	detections below MCLs	--	--	--
17/ 047	175 Portsmouth Avenue	Thibault, Gerard	--	Residential	No	Yes	(NHDES) 5/3/19	detections below MCLs	--	--	--

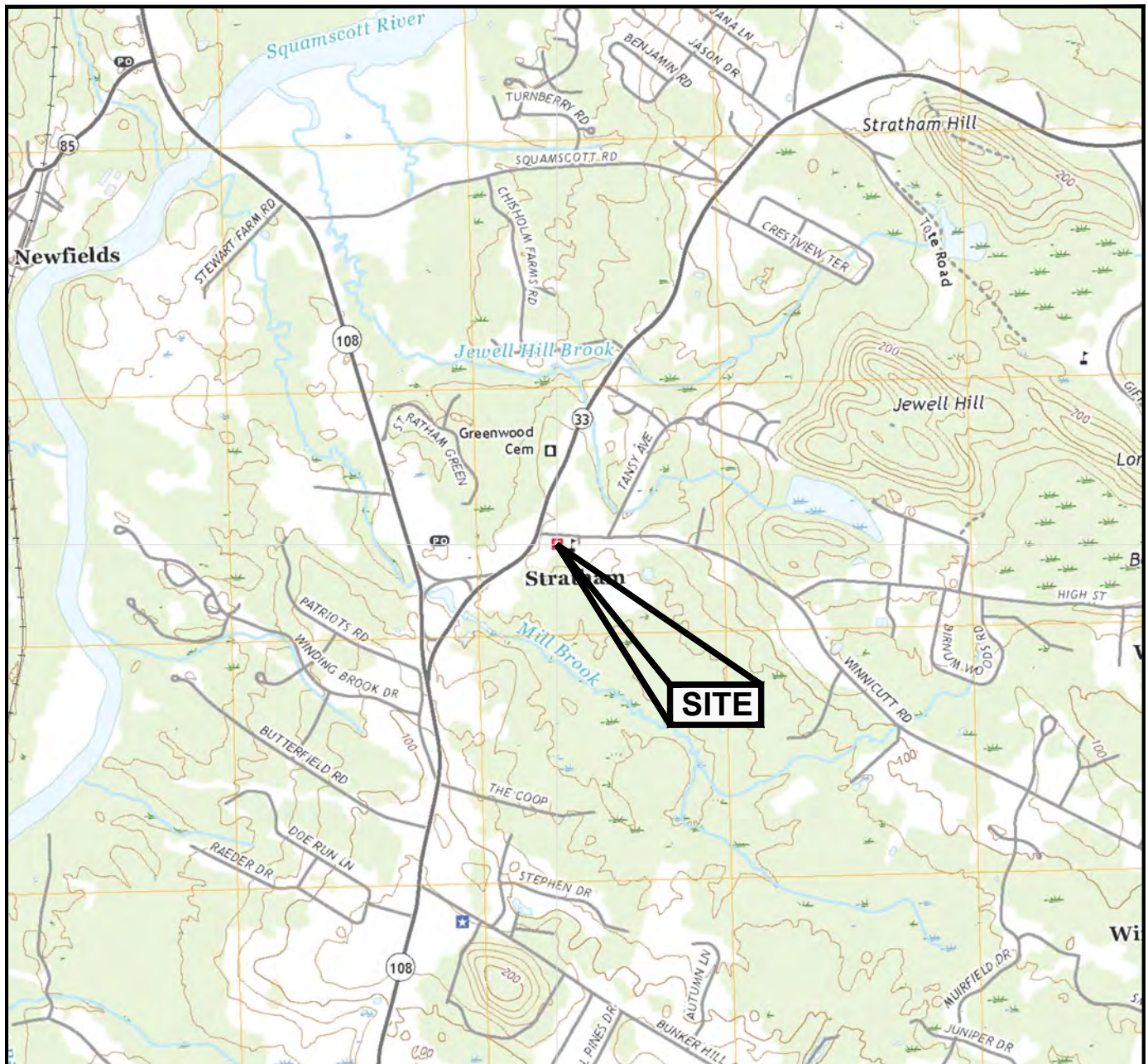


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**Potential Human Receptor List**  
**Stratham Fire Department**  
**4 Winnicutt Road, Stratham, New Hampshire**  
**NHDES Site No. 199507007**

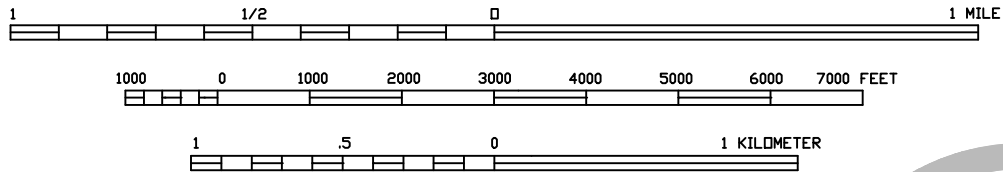
Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 083	176 Portsmouth Avenue	Johnson, Joel	--	Residential	No	Yes	(NHDES) 5/3/19	detections below MCLs	--	--	--
21/ 055	232 Portsmouth Avenue	Munton, Christopher and Amanda	--	Residential	No	Yes	(NHDES)4/29/19	detections below MCLs	--	--	--
17/ 093	1 Tansy Avenue	Waldron, George B.	--	Residential	No	Yes	--	--	--	--	--
17/ 094	7 Tansy Avenue	Hennessy, Sean and Casandra	--	Residential	No	Yes	(NHDES) 5/3/19	detections below MCLs	--	--	--
17/ 114	4 Winnicutt Road	Town of Stratham	10 Bunker Hill Avenue, Stratham, NH 03885	Fire Department	No	Yes	(NHDES) 3/22/19	3/22/19: PFHxS, PFOA, PFOS	--	--	--
17/ 090	7 Winnicutt Road	Marston, Gregory W.	--	Residential	No	Yes	(NHDES) 3/22/19	6/17/19: PFOA	outside spigot located on 7R Winnicutt Road	--	--
4/ 25/ 0	7R Winnicutt Road	Marston, Ralph	--	Residential							
17/ 113	8 Winnicutt Road	Cornerstone Baptist Church	--	Church	No	No	Abandoned - water turned off	--	--	--	--
17/ 092	9 Winnicutt Road	Herrington, Dale and Amy	--	Residential	No	Yes	(NHDES) 5/9/19	detections below MCLs	--	--	--
17/ 106	17 Winnicutt Road	Iudice, John and Iannacone, Melissa	--	Residential	No	Yes	(NHDES) 6/21/19	detections below MCLs	--	--	--
17/ 112	18 Winnicutt Road	Stark-Jones Revocable Trust	P.O. Box 175, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/25/19	detections below MCLs	--	--	--

Notes: \* = All addresses are Stratham, New Hampshire 03885 unless noted.  
Information obtained from the Town of Stratham Assessor's Database on October 21 and December 26, 2019.  
-- = information not readily available.

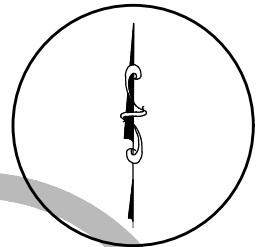
## **FIGURES**



SCALE: 1:24,000



CONTOUR INTERVAL 20 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1988

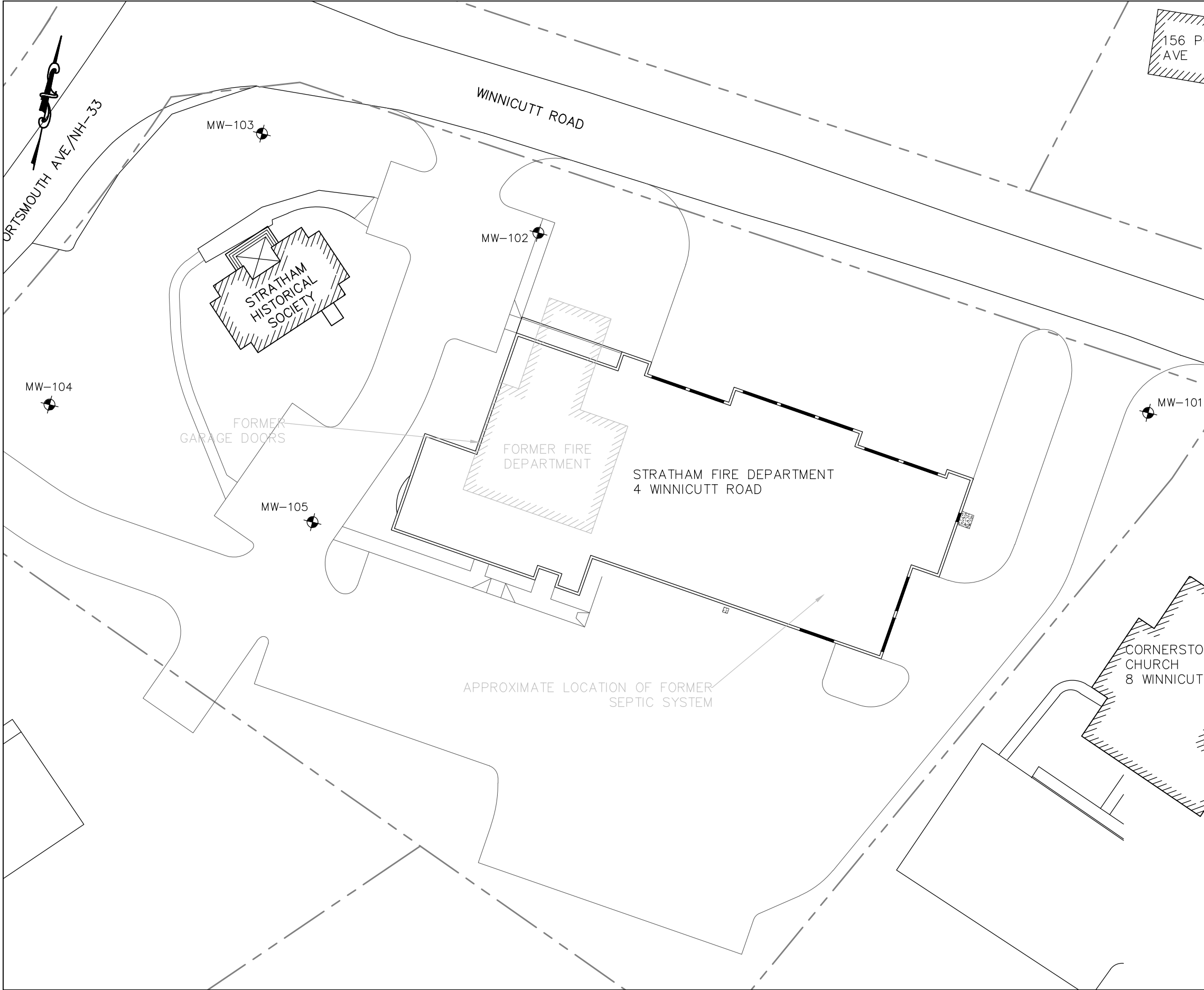


DATE September 25, 2019	SCALE As shown	FILE STRTO001_Site Location Map
APPROVED BY RWB	DRAWN BY ZP	REVISED
CLIENT Town of Stratham, NH	JOB NUMBER STRTO001	
LOCATION Stratham Fire Department 4 Winnicutt Road Stratham, New Hampshire NHDES Site #199507007	MAP SOURCE Newmarket, NH USGS QUAD 2018	

**Wilcox & Barton INC.**  
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**SITE LOCATION MAP**

*Figure 1*

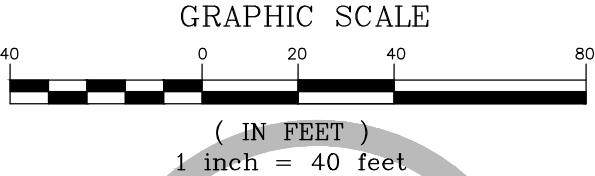


LEGEND

- MW-101 MONITORING WELL
- PROPERTY LINE

NOTES

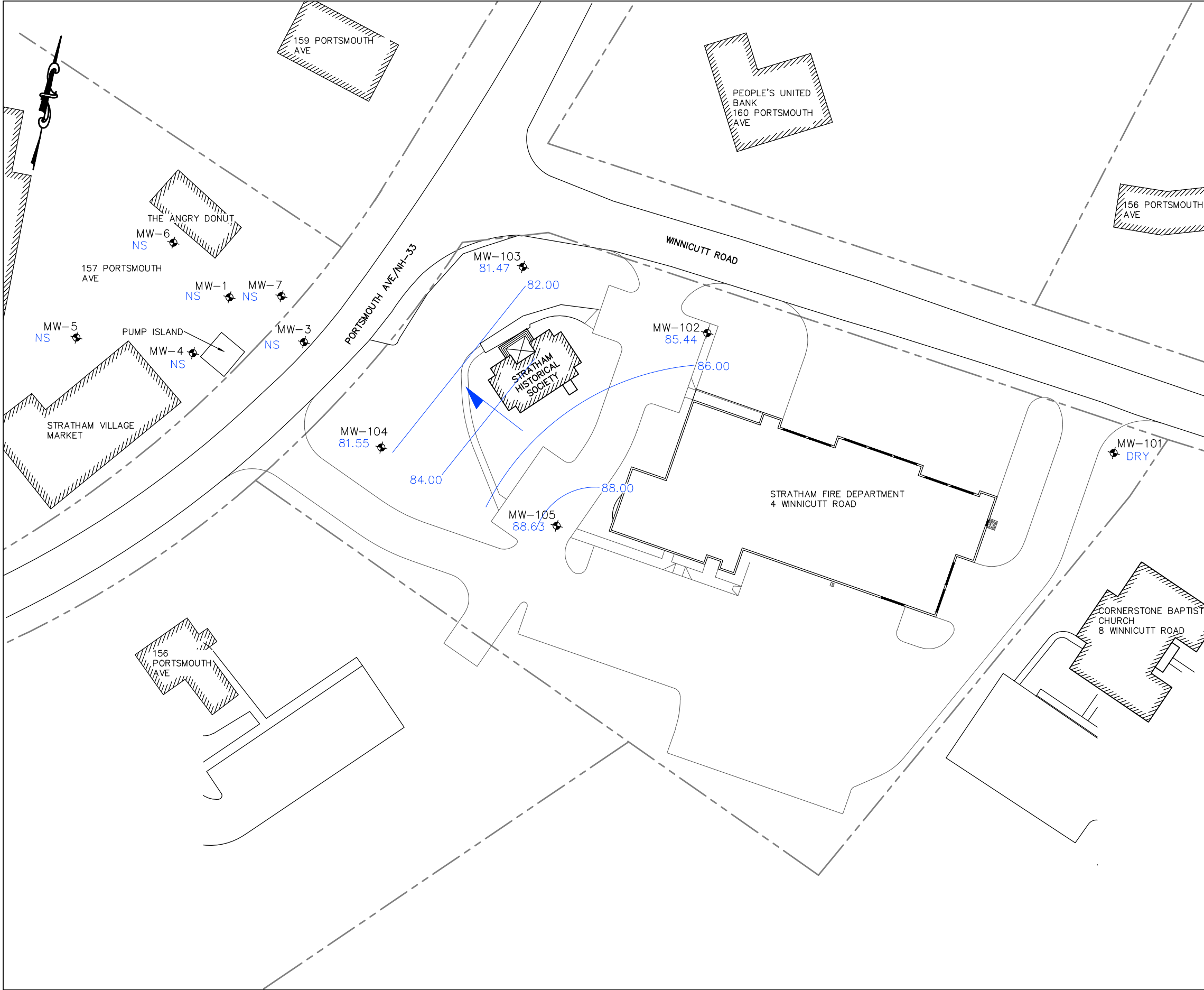
- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- PLAN BASED ON STRATHAM GIS DATA, AERIAL MAPS, SITE VISITS, WILCOX & BARTON INC. SURVEY DATA, AND A SITE CONSTRUCTION RECORD DRAWING PREPARED BY SEVERINO TRUCKING CO., INC. DATED NOVEMBER 20, 2008.
- THIS PLAN IS NOT A PROFESSIONAL SURVEY AND IS NOT INTENDED TO ESTABLISH PROPERTY BOUNDARIES.



Wilcox & Barton INC. CIVIL · ENVIRONMENTAL · GEOTECHNICAL		
TITLE SITE PLAN		
DATE December 16, 2019	SCALE SEE GRAPHIC	FILE Master_Plan
APPROVED BY RWB	DRAWN BY CMH	REVISED
CLIENT Town of Stratham, NH		JOB NUMBER STRT0001
LOCATION Stratham Fire Department 4 Winnicutt Road Stratham, New Hampshire NHDES Site #199507007		DRAWING NUMBER FIGURE 2





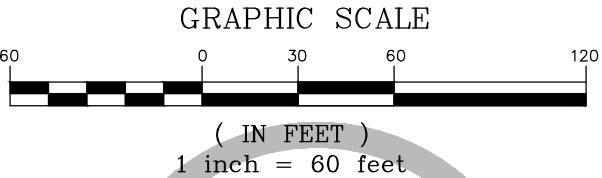


LEGEND

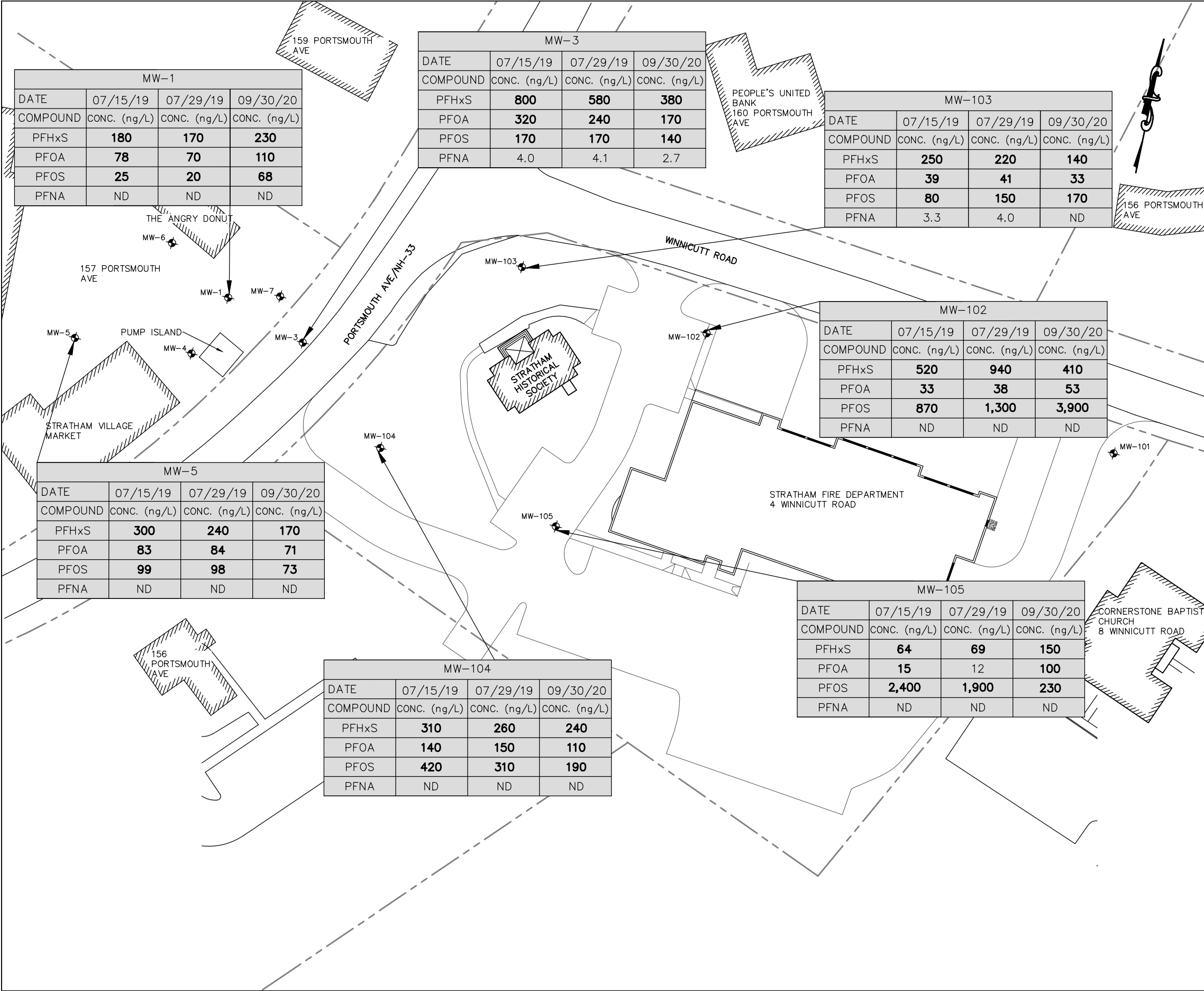
- MONITORING WELL LOCATION WITH PIEZOMETRIC HEAD ELEVATION IN FEET RELATIVE TO BENCHMARK
- PIEZOMETRIC HEAD ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- NOT SURVEYED
- PROPERTY LINE

NOTES

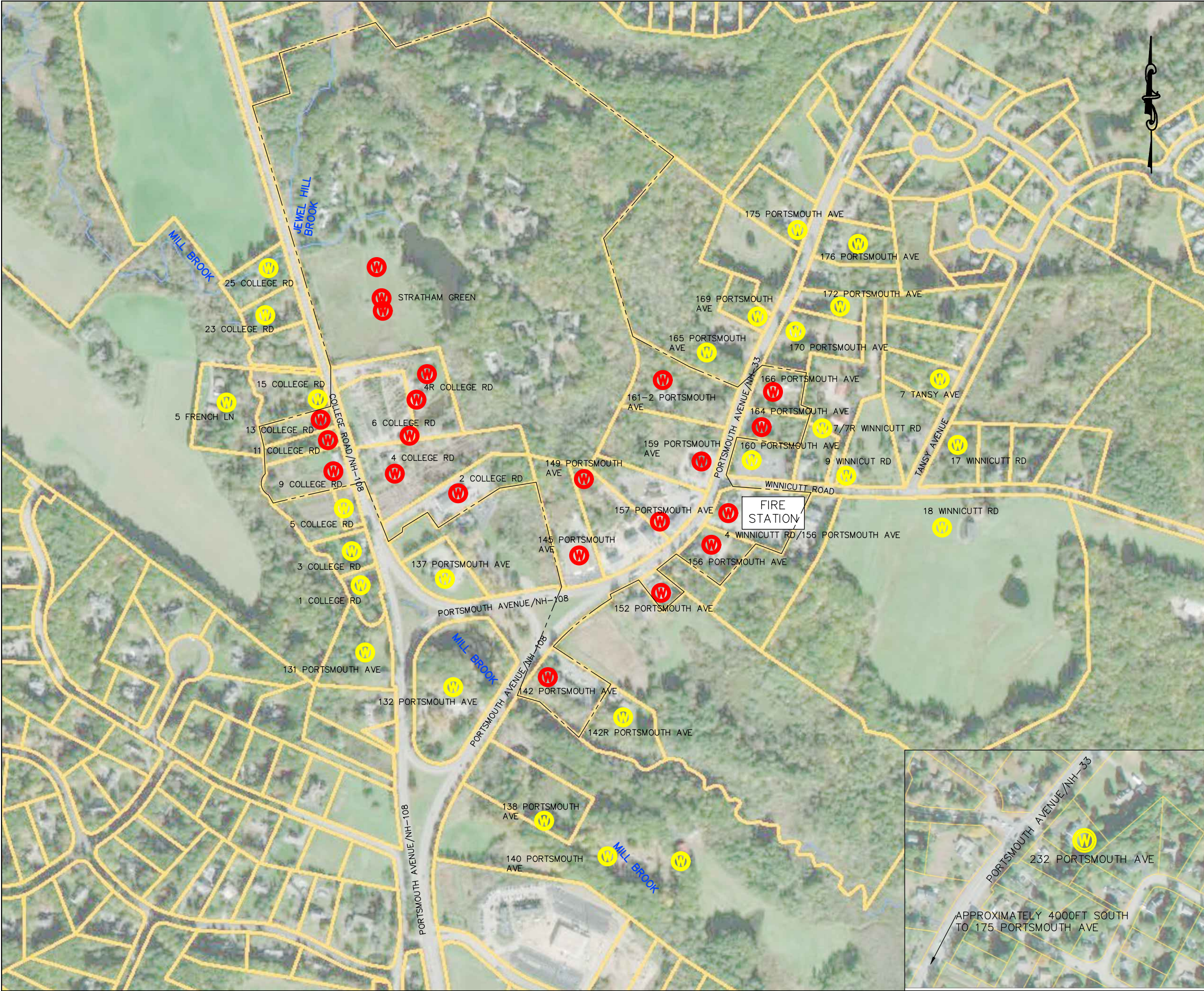
- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- 2. PLAN BASED ON STRATHAM GIS DATA, AERIAL MAPS, SITE VISITS, WILCOX & BARTON INC. SURVEY DATA, AND A SITE CONSTRUCTION RECORD DRAWING PREPARED BY SEVERINO TRUCKING CO., INC. DATED NOVEMBER 20, 2008.
- 3. THIS PLAN IS NOT A PROFESSIONAL SURVEY AND IS NOT INTENDED TO ESTABLISH PROPERTY BOUNDARIES.
- 4. GROUNDWATER FLOW DIRECTION AT 157 PORTSMOUTH AVENUE BASED OFF GEOINSIGHT INC. HISTORICAL REPORTS, RELATIVE TO IMMEDIATE SITE AREA. ABSOLUTE GROUNDWATER ELEVATIONS UNKNOWN.



<div>Wilcox &amp; Barton INC.</div> <div>CIVIL · ENVIRONMENTAL · GEOTECHNICAL</div>		
TITLE PIEZOMETRIC HEAD ELEVATION PLAN Gauging Date: September 30, 2020		
DATE December 16, 2020	SCALE SEE GRAPHIC	FILE Master_Plan
APPROVED BY RWB	DRAWN BY CMH	REVISED October 29, 2020
CLIENT Town of Stratham, NH		JOB NUMBER STRT0001
LOCATION Stratham Fire Department 4 Winnicutt Road Stratham, New Hampshire NHDES Site #199507007		DRAWING NUMBER FIGURE 4





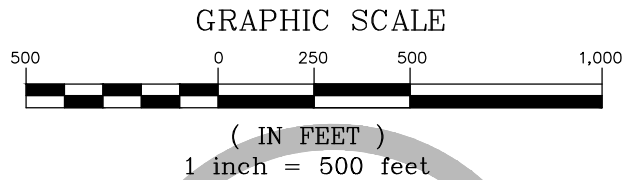


LEGEND

- PROPERTY LINE
- PROPOSED GMZ BOUNDARY
- DRINKING WATER WELL WITH ONE OR MORE MCL EXCEEDANCES (AS OF OCTOBER 1, 2020)
- DRINKING WATER WELL WITH ONE OR MORE DETECTIONS AT OR BELOW MCLs

NOTES

- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- PLAN BASED ON STRATHAM GIS DATA, AERIAL MAPS, SITE VISITS, WILCOX & BARTON INC. SURVEY DATA, AND NH GRANIT WELL LOCATIONS. EXACT WELL LOCATIONS UNKNOWN FOR 132, 131, 160 AND 164 PORTSMOUTH AVE, AND 18 WINNICUTT RD. DRAWING REPRESENTS APPROXIMATION.
- THIS PLAN IS NOT A PROFESSIONAL SURVEY AND IS NOT INTENDED TO ESTABLISH PROPERTY BOUNDARIES.
- ONLY DETECTIONS AND EXCEEDANCES FOR PFHxS, PFOA, PFOS, AND PFNA CONSIDERED, AS THESE COMPOUNDS HAVE ESTABLISHED MCLs.
- PFAS EXCEEDANCES BASED ON SAMPLES COLLECTED BY BOTH WILCOX & BARTON INC. AND NHDES.



**Wilcox & Barton INC.**  
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TITLE <i>REGIONAL PFAS OVERVIEW</i>		
DATE December 16, 2019	SCALE SEE GRAPHIC	FILE Master_Plan
APPROVED BY RWB	DRAWN BY CMH	REVISED November 20, 2020
CLIENT Town of Stratham, NH		JOB NUMBER STRT0001
LOCATION Stratham Fire Department 4 Winnicutt Road Stratham, New Hampshire		DRAWING NUMBER <b>FIGURE 6</b>



**APPENDIX A**  
**NHDES Correspondence**



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Robert R. Scott, Commissioner**

EMAIL ONLY

July 21, 2020

Michael Houghton  
Select Board Chair, Town of Stratham  
10 Bunker Hill Avenue  
Stratham, NH 03885

**Subject:**      **Stratham** – Stratham Fire Department, 4 Winnicutt Road  
DES Site #199507007, Project #39022

**Focused Site Investigation Report, Stratham Fire Department, 4 Winnicutt Road, Stratham New Hampshire**, prepared by Wilcox & Barton, Inc., dated February 24, 2020

Dear Mr. Houghton:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the above-referenced submittal prepared on behalf of the Town of Stratham by Wilcox & Barton, Inc. (WBI) for the Stratham Fire Department (Site) located at the 4 Winnicutt Road in Stratham. The report documents the focused site investigation (FSI) work completed to evaluate the presence of per- and polyfluoroalkyl substances (PFAS) in groundwater, as requested by NHDES in a letter dated April 26, 2019.

WBI attributes the source of PFAS in groundwater (and soil) to past use of Class B firefighting foam at the site. According to the report, the fire department switched in 2000 from a foam product that contained PFAS to a product that is 'fluorine free' and wash water for fire apparatus/equipment is contained in underground tanks for offsite disposal at the new fire station building. No specific release area has been identified at the site, though two cross gradient monitoring wells (MW-102 and MW-105) on either side of the site both contain elevated PFAS, indicating overburden groundwater contamination extends cross-gradient from the north to the south side of the present and past fire station buildings. PFAS detected in onsite monitoring wells are consistent with a historic release of Class B firefighting foam and, based on the information presented, there does not appear to be an on-going release related to current use of foam at the site.

Properties in the area surrounding the site use wells for their water supply. According to WBI, 50 samples collected from 48 water supply wells were analyzed for PFAS. PFAS were detected in all of the samples, and groundwater samples from 27 wells have elevated PFAS concentrations that warrant additional confirmation sampling and potential future treatment.

Based on a review of the information submitted to date, additional site investigation work does not appear warranted at this time; however, NHDES strongly encourages confirmation sampling be conducted prior to remedy implementation. NHDES requests submission of a Remedial Action Plan (RAP) for implementation of a presumptive remedy to address impacted water supply wells. NHDES' expectation, unless you indicate otherwise, is that Point-of-Entry (POE) treatment

[www.des.nh.gov](http://www.des.nh.gov)

PO Box 95, 29 Hazen Drive, Concord, NH 03302-0095

Telephone: (603) 271-2908    Fax: (603) 271-2181    TDD Access: Relay NH 1-800-735-2964

systems will be installed at impacted properties to mitigate groundwater contamination above the applicable standards. The RAP should include general details of the proposed POEs for the water supply wells. In addition, a Groundwater Management Permit (GMP) Application should be submitted as part of the RAP that provides for performance monitoring of treated water supply wells combined with the monitoring of contaminant trends and compliance with the Ambient Groundwater Quality Standards (AGQS).

NHDES appreciates the Town's efforts to conduct this investigation and provide bottled water to affected well users. Should you have any questions about the focused site investigation discussed herein, please do not hesitate to contact me directly at NHDES' Waste Management Division. Please provide NHDES with a schedule for submission of the RAP as soon as it is available.

Sincerely,



Jeffrey M. Marts, P.G.  
Senior Hydrogeologist  
Hazardous Waste Remediation Bureau  
Tel: (603) 271-6573  
Fax: (603) 271-2181  
Email: [Jeffrey.Marts@des.nh.gov](mailto:Jeffrey.Marts@des.nh.gov)

ec: Amy Doherty, P.G., State Sites Supervisor, HWRB  
Chelsea Hensley, Wilcox & Barton, Inc.  
David Moore, Town Administrator, Town of Stratham  
Matt Larrabee, Fire Chief, Town of Stratham  
Attention Health Officer, Town of Stratham

## **APPENDIX B**

### **Wilcox & Barton, Inc. Standard Operating Procedures**



## STANDARD OPERATING PROCEDURE

<b>Title:</b>	Groundwater Sampling for Per- and Polyfluoroalkyl Substances (PFAS)	<b>No:</b>	<b>FP-17</b>
<b>Approved:</b>	R. Rooks	<b>Original Date:</b>	4/14/17
		<b>Revised:</b>	

### Purpose:

To provide guidance on proper collection of groundwater samples that will be analyzed for Per- and Polyfluoroalkyl substances (PFAS).

### Introduction:

PFAS are a large group of man-made fluorine-containing chemicals with unique properties to make materials to which they are applied stain and stick-resistant. Chemicals in this group have been used in many industries, including aerospace, automotive, construction, manufacturing, electronic, and textile. PFAS have been used since the 1940s as manufacturer-applied oil and water repellants on products such as clothing, upholstery, paper, and carpets, and were also used in making fluoropolymers for non-stick cookware. PFAS have also been used as mist suppressants that can be added to metal plating baths, to prevent air releases, and to firefighting foams used on fires involving flammable liquids.

EPA has established a Drinking Water Health Advisory Level of 70 parts per trillion (ppt, or 0.070 ppb), which is an order of magnitude lower than typical analytes at typical release sites. State-specific limits can be lower. Therefore, preparation and sampling technique are of critical importance to avoid cross- and background contamination. Further, much of our normal sampling equipment contains Teflon and other fluoropolymer materials (e.g., Teflon tubing, Teflon-lined container caps). Tyvek contains PFAS, as do Sharpies, waterproof field logbooks, cosmetics, moisturizers and sunscreens, fabric softener, aluminum foil, Post-it notes, and fast food wrappers. Such materials should not be present at the project site or contacted on the day of the planned sampling event, as discussed further below. Maintain separate coolers for PFAS sampling and do not store PFAS sample containers with other typical containers/glassware.

The mechanical process of groundwater sample collection is the same as sampling groundwater for volatile organics. The key and most important distinction is an ultra-high level of diligence to prevent cross-contamination and background contamination. Read this protocol in its entirety before preparing for a sampling event.

### Equipment/Materials\*:

1. Water-level indicator or oil/water interface probe.
2. Peristaltic pump and power source.
3. YSI Multi-Probe System.
4. High density polyethylene or silicone tubing (no Teflon) – shall be dedicated for each sampling event and disposable.
5. Bailers (HDPE, no Teflon) – shall be dedicated for each sampling event and disposable
6. Pre-cleaned, laboratory-supplied sampling containers in individual Ziploc bags. The laboratory will send multiple 250-mL polypropylene bottles with wide-mouth screw caps

for each sample location. If sampling groundwater or non-potable water, the bottles will be unpreserved.

7. Loose-leaf note paper for field notes (e.g., project checklist). Waterproof field books shall not be used.
8. Coolers/packing materials/wet ice (no Blu-Ice or chemical packs of any kind).
9. Ball point pen or pencil and metal or Masonite clipboard.

\* Materials that are not allowed, per the above, shall not be present on the project site. Where prohibited items are part of routine sampling gear, they should be left inside the field vehicle and not contacted or handled by the field sampler prior to PFAS sample collection.

### Sample Collection:

Actual collection of samples in the field shall be performed using low-flow techniques in accordance with *SOP# FP-07* or via bailer in accordance with *SOP# FP-08*. Analytical method SW-846 Method 537 should be specified on the chain of custody.

### Duplicates and Blanks:

- Trip Blanks: At least one laboratory-prepared trip blank shall accompany each cooler of samples submitted for PFAS analysis.
- Equipment Blanks: At least one equipment blank shall be collected for each type of equipment for which decontamination is performed. In addition, one equipment blank shall be collected from a representative item of new (unused) equipment (e.g., sample tubing, bailer). Laboratory-supplied reagent-free water shall be used for development of all equipment blanks.
- Field Blanks: At least one field blank shall be collected during each sampling event. The field blank should be prepared by the sampler at the time and site of sample collection using the procedure below, **prior to** collecting any field samples.
  - Open the bottle labeled “reagent free water.” Transfer the reagent free water by pouring it into the bottle labeled “Field Blank,” then seal it. This is to assess whether contamination occurs during sample collection. The field blank and the empty bottle should be shipped back to the laboratory with the field samples.
- Duplicates: At least one blind replicate or field split shall be collected for each environmental medium sampled. Duplicates should be collected for each drinking water sample submitted, but held at the laboratory for analysis only if PFAS are detected in the original sample. Sample HOLD must be clearly indicated on the chain of custody.

### Field Clothing and Personal Protective Equipment:

1. Do not wear water resistant, waterproof, or stain-treated clothing. Synthetic and natural fibers are acceptable. Field clothing must be laundered without the use of fabric softener, and washed at least six times from the time of purchase before use in the field. Do not wear new clothing while sampling.
2. Do not wear clothing or boots containing Gore-Tex or treated with DWR (Durable Water Resistant) coating. All safety footwear shall consist of steel-toed boots made with polyurethane or PVC.



3. Do not wear Tyvek clothing.
4. Disposable nitrile gloves must be worn at all times. Gloves should be changed frequently throughout the sampling operation. Anytime a distinct operation changes, such as between well purging and sample collection, and new pair of gloves should be donned.

#### Sample Containers:

1. Groundwater samples shall be collected in 250 mL polypropylene or HDPE bottles fitted with an unlined (no Teflon), polypropylene, or HDPE, wide-mouth screw cap. This requirement MUST be specified when ordering sampling supplies from the laboratory.
2. Container labels shall be completed using pen (no markers) after the caps have been placed back on each bottle.
3. Each sample should be placed into an individual, fully-sealed, Ziploc bag and placed in a cooler packed only with ice (wet ice only, no chemical packs).
4. PFAS samples should be placed in a dedicated cooler separate from all other non-PFAS samples.
5. Glass containers shall not be used due to potential loss of analyte through adsorption.

#### Wet Weather:

Field sampling during wet weather should be conducted while wearing appropriate clothing that will not pose a risk for cross contamination. Rain gear shall be made from polyurethane and wax-coated or oil-cloth materials. Treated textiles shall not be used.

#### Decontamination:

1. Re-usable equipment, including depth-to-water and oil/water interface meters, shall be decontaminated between measurement points (*i.e.*, wells).
2. Alconox and Liquinox soaps are acceptable. Decon-90 must not be used.
3. Water used for decontamination shall be laboratory-certified PFC-free. Standard de-ionized water shall not be used.
4. Decontamination shall follow the steps outlined in *SOP# FP-06*.

#### Personal Hygiene:

1. Field personnel may not use cosmetics, moisturizers, hand cream, or other related products as part of their personal cleaning/showering routine on the morning of the sampling event.
2. Sunblock and insect repellants, if used, should consist of 100% natural ingredients. Many manufactured products contain PFAS and are not to be brought to the project site.
3. No food or drink shall be brought on site, with the exception of bottled water and hydration drinks. Food for lunch, preferably from home, can be left in the field vehicle and consumed outside the work area.
4. Field personnel shall not have physical contact with fast food containers or wrappers on the day of the sampling event prior to sampling.

### Sampling of Other Media:

When project plans require analysis of soil, sediment, or other non-aqueous media for PFAS, project teams should be aware that there are no established laboratory protocols at this time. However, it is possible that extraction techniques will be developed so that these matrices can be analyzed using EPA Method 537. The Project Manager shall contact the laboratory during the planning stage for sampling all environmental media for PFAS. In general, sample collection will be like normal, subject to the cross-contamination and sample container requirements outline above.

### Documentation and Communication

Please note that you have followed PFAS sampling protocols in your field notes along with the weather. If a possible source of cross-contamination is discovered or recalled during or following sampling, please advise the Project Manager so that samples can be re-collected and/or data can be properly evaluated. Reference adherence to standard operating procedure FP-17 in the field notes.

**APPENDIX C**

**Laboratory Analytical Reports**

October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 4, 4R, 6 College Rd, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1551

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R. J. McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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QC Data	10
Semivolatile Organic Compounds by - LC/MS-MS	10
B268145	10
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Chain of Custody/Sample Receipt	13

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     20I1551

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     4, 4R, 6 College Rd, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
4 College Rd	20I1551-01	Drinking Water		EPA 537.1	
4R College Rd- Primary	20I1551-02	Drinking Water		EPA 537.1	
4R College Rd- Irrigation	20I1551-03	Drinking Water		EPA 537.1	
6 College Rd	20I1551-04	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopycinski". The signature is fluid and cursive, with the first name "Tod" being more prominent.

Tod E. Kopycinski  
Laboratory Director



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4, 4R, 6 College Rd, Stratham, NH

Sample Description:

Work Order: 2011551

Date Received: 9/29/2020

Field Sample #: 4 College Rd

Sampled: 9/29/2020 10:55

Sample ID: 2011551-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorohexanoic acid (PFHxA)	7.8	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorohexanesulfonic acid (PFHxS)	13	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluoroheptanoic acid (PFHpA)	5.4	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorooctanoic acid (PFOA)	21	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorooctanesulfonic acid (PFOS)	56	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorononanoic acid (PFNA)	2.3	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	78.8	70-130	10/8/20 23:26
M3HFPO-DA	73.4	70-130	10/8/20 23:26
13C-PFDA	76.6	70-130	10/8/20 23:26
d5-NEtFOSAA	87.1	70-130	10/8/20 23:26

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4, 4R, 6 College Rd, Stratham, NH

Sample Description:

Work Order: 2011551

Date Received: 9/29/2020

Field Sample #: 4R College Rd- Primary

Sampled: 9/29/2020 10:55

Sample ID: 2011551-02

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	3.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorohexanoic acid (PFHxA)	5.8	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorohexanesulfonic acid (PFHxS)	14	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluoroheptanoic acid (PFHpA)	4.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorooctanoic acid (PFOA)	21	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorooctanesulfonic acid (PFOS)	26	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	79.1	70-130	10/8/20 23:47
M3HFPO-DA	75.8	70-130	10/8/20 23:47
13C-PFDA	76.8	70-130	10/8/20 23:47
d5-NEtFOSAA	90.4	70-130	10/8/20 23:47

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4, 4R, 6 College Rd, Stratham, NH

Sample Description:

Work Order: 2011551

Date Received: 9/29/2020

Field Sample #: 4R College Rd- Irrigation

Sampled: 9/29/2020 10:40

Sample ID: 2011551-03

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.3	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorohexanoic acid (PFHxA)	6.6	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorohexanesulfonic acid (PFHxS)	14	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluoroheptanoic acid (PFHpA)	4.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorooctanoic acid (PFOA)	27	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorooctanesulfonic acid (PFOS)	49	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorononanoic acid (PFNA)	2.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	77.9	70-130	10/9/20 0:09
M3HFPO-DA	74.3	70-130	10/9/20 0:09
13C-PFDA	76.4	70-130	10/9/20 0:09
d5-NEtFOSAA	83.4	70-130	10/9/20 0:09

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4, 4R, 6 College Rd, Stratham, NH

Sample Description:

Work Order: 2011551

Date Received: 9/29/2020

Field Sample #: 6 College Rd

Sampled: 9/29/2020 10:45

Sample ID: 2011551-04

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	3.0	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorohexanoic acid (PFHxA)	3.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorohexanesulfonic acid (PFHxS)	21	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorooctanoic acid (PFOA)	12	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorooctanesulfonic acid (PFOS)	20	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	78.8	70-130	10/9/20 22:52
M3HFPO-DA	76.4	70-130	10/9/20 22:52
13C-PFDA	79.0	70-130	10/9/20 22:52
d5-NEtFOSAA	76.9	70-130	10/9/20 22:52

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**Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1551-01 [4 College Rd]	B268145	250	1.00	10/07/20
20I1551-02 [4R College Rd- Primary]	B268145	250	1.00	10/07/20
20I1551-03 [4R College Rd- Irrigation]	B268145	250	1.00	10/07/20
20I1551-04 [6 College Rd]	B268145	250	1.00	10/07/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected



**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

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I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False**

Client W and B

Received By su Date 4/29/20 Time 2005

How were the samples received? In Cooler T No Cooler        On Ice T No Ice         
Direct from Sampling        Ambient        Melted Ice       

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank #        Actual Temp -       

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished? F Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T  
Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified?       

Are there Rushes? F Who was notified?       

Are there Short Holds? F Who was notified?       

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid        Base       

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>8</u>	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

**Unused Media**

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 23 College Rd, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1557

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011557

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     23 College Rd, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
23 College Rd	2011557-01	Drinking Water		EPA 537.1	

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

#### EPA 537.1

#### Qualifications:

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##### MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

#### Analyte & Sample(s) Qualified:

##### Perfluorohexanesulfonic acid (PFH)

B268145-MSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopyscinski", written in a cursive style.

Tod E. Kopyscinski  
Laboratory Director

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 23 College Rd, Stratham, NH

Sample Description:

Work Order: 2011557

Date Received: 9/29/2020

Field Sample #: 23 College Rd

Sampled: 9/29/2020 08:45

Sample ID: 2011557-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.4	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorohexanesulfonic acid (PFHxS)	13	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorooctanoic acid (PFOA)	11	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorooctanesulfonic acid (PFOS)	7.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	76.2	70-130	10/9/20 0:52
M3HFPO-DA	72.6	70-130	10/9/20 0:52
13C-PFDA	72.8	70-130	10/9/20 0:52
d5-NEtFOSAA	81.6	70-130	10/9/20 0:52



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**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1557-01 [23 College Rd]	B268145	250	1.00	10/07/20

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

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## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Matrix Spike (B268145-MS1)</b>	<b>Source: 2011557-01</b>			Prepared: 10/07/20 Analyzed: 10/08/20						
Perfluorobutanesulfonic acid (PFBS)	6.43	2.0	ng/L	1.77	4.37	116	50-150			
Perfluorohexanoic acid (PFHxA)	3.87	2.0	ng/L	2.00	1.76	106	50-150			
Perfluorohexanesulfonic acid (PFHxS)	15.4	2.0	ng/L	1.82	13.3	115	50-150			
Perfluoroheptanoic acid (PFHpA)	3.39	2.0	ng/L	2.00	1.43	97.9	50-150			
Perfluorooctanoic acid (PFOA)	13.8	2.0	ng/L	2.00	11.1	133	50-150			
Perfluorooctanesulfonic acid (PFOS)	9.74	2.0	ng/L	1.85	7.92	98.2	50-150			
Perfluorononanoic acid (PFNA)	2.07	2.0	ng/L	2.00	ND	103	50-150			
Perfluorodecanoic acid (PFDA)	1.79	2.0	ng/L	2.00	ND	89.5	50-150			U
N-EtFOSAA	1.83	2.0	ng/L	2.00	ND	91.5	50-150			U
Perfluoroundecanoic acid (PFUnA)	1.73	2.0	ng/L	2.00	ND	86.3	50-150			U
N-MeFOSAA	1.73	2.0	ng/L	2.00	ND	86.4	50-150			U
Perfluorododecanoic acid (PFDoA)	1.65	2.0	ng/L	2.00	ND	82.7	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.50	2.0	ng/L	2.00	ND	74.9	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.66	2.0	ng/L	2.00	ND	82.9	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.09	2.0	ng/L	2.00	ND	105	50-150			
11Cl-PF3OUdS (F53B Major)	1.67	2.0	ng/L	1.88	ND	88.8	50-150			U
9Cl-PF3ONS (F53B Minor)	1.56	2.0	ng/L	1.86	ND	83.7	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.80	2.0	ng/L	2.00	ND	89.9	50-150			U
Surrogate: 13C-PFHxA	32.0		ng/L	40.0		80.1	70-130			
Surrogate: M3HFPO-DA	30.5		ng/L	40.0		76.4	70-130			
Surrogate: 13C-PFDA	30.3		ng/L	40.0		75.7	70-130			
Surrogate: d5-NEtFOSAA	135		ng/L	160		84.5	70-130			
<b>Matrix Spike Dup (B268145-MSD1)</b>	<b>Source: 2011557-01</b>			Prepared: 10/07/20 Analyzed: 10/08/20						
Perfluorobutanesulfonic acid (PFBS)	6.70	2.0	ng/L	1.77	4.37	131	50-150	4.16	30	
Perfluorohexanoic acid (PFHxA)	3.87	2.0	ng/L	2.00	1.76	106	50-150	0.0129	30	
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	16.1	2.0	ng/L	1.82	13.3	<b>152</b> *	50-150	4.30	30	MS-22
Perfluoroheptanoic acid (PFHpA)	3.41	2.0	ng/L	2.00	1.43	99.1	50-150	0.701	30	
Perfluorooctanoic acid (PFOA)	14.0	2.0	ng/L	2.00	11.1	144	50-150	1.47	30	
Perfluorooctanesulfonic acid (PFOS)	9.94	2.0	ng/L	1.85	7.92	109	50-150	2.06	30	
Perfluorononanoic acid (PFNA)	1.98	2.0	ng/L	2.00	ND	99.2	50-150	4.29	30	U
Perfluorodecanoic acid (PFDA)	1.88	2.0	ng/L	2.00	ND	94.1	50-150	5.08	30	U
N-EtFOSAA	1.89	2.0	ng/L	2.00	ND	94.4	50-150	3.12	30	U
Perfluoroundecanoic acid (PFUnA)	1.64	2.0	ng/L	2.00	ND	81.8	50-150	5.35	30	U
N-MeFOSAA	1.74	2.0	ng/L	2.00	ND	87.0	50-150	0.709	30	U
Perfluorododecanoic acid (PFDoA)	1.52	2.0	ng/L	2.00	ND	75.8	50-150	8.63	30	U
Perfluorotridecanoic acid (PFTTrDA)	1.62	2.0	ng/L	2.00	ND	81.0	50-150	7.80	30	U
Perfluorotetradecanoic acid (PFTA)	1.53	2.0	ng/L	2.00	ND	76.7	50-150	7.85	30	U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.49	2.0	ng/L	2.00	ND	125	50-150	17.5	30	
11Cl-PF3OUdS (F53B Major)	1.40	2.0	ng/L	1.88	ND	74.7	50-150	17.3	30	U
9Cl-PF3ONS (F53B Minor)	1.57	2.0	ng/L	1.86	ND	84.7	50-150	1.13	30	U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.75	2.0	ng/L	2.00	ND	87.5	50-150	2.70	30	U
Surrogate: 13C-PFHxA	31.1		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	30.0		ng/L	40.0		74.9	70-130			
Surrogate: 13C-PFDA	28.7		ng/L	40.0		71.7	70-130			
Surrogate: d5-NEtFOSAA	127		ng/L	160		79.6	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

<http://www.contestlabs.com>

Doc # 381 Rev 2 06262019



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CHAIN OF CUSTODY RECORD

39 Spruce Street  
East Longmeadow, MA 01028

Page 1 of 1

## CHAIN OF CUSTODY RECORD

## ANALYSIS REQUESTED

Company Name: Wilcox & Barton, Inc.  
Address: 18 Commons Dr, Unit 12B, Londonderry  
Phone: 603 364-4190  
Project Name: STR0001  
Project Location: 23 College Rd, Stratham, NH  
Project Number: STR0001  
Project Manager: R. Barton  
Con-Test Quote Name/Number:  
Invoice Recipient:  
Sampled By: M. Broussard & C. Hensley

Requested Turnaround Time		Dissolved Metals Samples	
7-Day <input type="checkbox"/>	10-Day <input type="checkbox"/>	<input type="radio"/>	Field Filtered
PFAS 10-Day (std) <input checked="" type="checkbox"/>	Due Date:	<input type="radio"/>	Lab to Filter
Rush-Approval Required		Orthophosphate Samples	
1-Day <input type="checkbox"/>	3-Day <input type="checkbox"/>	<input type="radio"/>	Field Filtered
2-Day <input type="checkbox"/>	4-Day <input type="checkbox"/>	<input type="radio"/>	Lab to Filter
Data Delivery			
Format:	PDF <input checked="" type="checkbox"/>	EXCEL	<input checked="" type="checkbox"/>
Other: _____			
CLP Like Data Pkg Required:		<input type="checkbox"/>	
Email To:	p.barton@wilcoxandbarton.com		
Fax To #:			

[illegible]

Relinquished by: (signature) <i>Chadley M. Ausby</i>	Date/Time: 9/29/20
Received by: (signature) <i>Jay Velt</i>	Date/Time: 9/29/20 16
Relinquished by: (signature) <i>Jay Velt</i>	Date/Time: 9/29/20 2002
Received by: (signature) <i>SWIFT IM 3A</i>	Date/Time: 9/29/20 2002
Relinquished by: (signature)	Date/Time:

Client Comments: MS/MSD requested by lab

Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:

Detection Limit Requirements		Special Requirements	
MA	<input type="checkbox"/>	MA MCP Required	
	<input type="checkbox"/>	MCP Certification Form Required	
CT	<input type="checkbox"/>	CT RCP Required	
	<input type="checkbox"/>	RCP Certification Form Required	
Other:	NHDES A-C-RS	SPWSD #	MA State DW Required

Please use the following codes to indicate possible sample concentration within the Conc Code column above:  
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Project Entity			
Government	<input type="checkbox"/>	Municipality	<input type="checkbox"/>
Federal	<input type="checkbox"/>	21 J	<input type="checkbox"/>
City	<input type="checkbox"/>	Brownfield	<input type="checkbox"/>
		MWRA	<input type="checkbox"/>
		School	<input type="checkbox"/>
		MBTA	<input type="checkbox"/>
		WRTA	<input type="checkbox"/>

NELAP and AIHA-LAP LLC Accredited

Other

☐ Chromatogram

☐ AIHA-LAP, LLC

PCB ONLY	
<input type="checkbox"/>	Soxhlet
<input type="checkbox"/>	Non Soxhlet

Comments:

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By GA Date 4/29/20 Time 2005  
How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
Were samples within Temperature? 2-6°C T By Gun # 9 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? F Does Chain Agree With Samples? T  
Are there broken/leaking/loose caps on any samples? F  
Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T  
Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_  
Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? T  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>6</u>	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

#### Unused Media

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 11 College Rd, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1562

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager



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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011562

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     11 College Rd, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
11 College Rd	2011562-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopyscinski". The signature is fluid and cursive, with the first name "Tod" being more prominent.

Tod E. Kopyscinski  
Laboratory Director

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 11 College Rd, Stratham, NH

Sample Description:

Work Order: 2011562

Date Received: 9/29/2020

Field Sample #: 11 College Rd

Sampled: 9/29/2020 09:15

Sample ID: 2011562-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.1	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorohexanoic acid (PFHxA)	7.0	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorohexanesulfonic acid (PFHxS)	16	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluoroheptanoic acid (PFHpA)	3.8	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorooctanoic acid (PFOA)	22	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorooctanesulfonic acid (PFOS)	50	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	101	70-130	10/9/20 1:13
M3HFPO-DA	96.5	70-130	10/9/20 1:13
13C-PFDA	82.7	70-130	10/9/20 1:13
d5-NEtFOSAA	93.2	70-130	10/9/20 1:13

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1562-01 [11 College Rd]	B268145	250	1.00	10/07/20

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021





I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By CU Date 4/29/20 Time 2005  
How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T  
Are there broken/leaking/loose caps on any samples? F  
Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all pertinent Information? Client T Analysis T Sampler Name T  
Project T ID's T Collection Dates/Times T  
Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_  
Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 4 Winnicutt Rd., Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1563

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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Certifications	9
Chain of Custody/Sample Receipt	10

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011563

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     4 Winnicutt Rd., Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
4 Winnicutt Rd	2011563-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopyscinski". The signature is fluid and cursive, with a large, stylized "T" and "K".

Tod E. Kopyscinski  
Laboratory Director



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Stratham, NH

Sample Description:

Work Order: 2011563

Date Received: 9/29/2020

Field Sample #: 4 Winnicutt Rd

Sampled: 9/29/2020 16:05

Sample ID: 2011563-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorohexanoic acid (PFHxA)	17	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorohexanesulfonic acid (PFHxS)	70	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluoroheptanoic acid (PFHpA)	11	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorooctanoic acid (PFOA)	37	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorooctanesulfonic acid (PFOS)	140	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorononanoic acid (PFNA)	2.1	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	77.9	70-130	10/9/20 1:35
M3HFPO-DA	74.6	70-130	10/9/20 1:35
13C-PFDA	75.4	70-130	10/9/20 1:35
d5-NEtFOSAA	82.0	70-130	10/9/20 1:35

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1563-01 [4 Winnicutt Rd]	B268145	250	1.00	10/07/20

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False

Statement will be brought to the attention of the Client - State True or False

Client W and B

Received By CU

Date 4/29/20

Time 2005

How were the samples  
received?

In Cooler T

No Cooler \_\_\_\_\_

On Ice T

No Ice \_\_\_\_\_

Direct from Sampling \_\_\_\_\_

Ambient \_\_\_\_\_

Melted Ice \_\_\_\_\_

Were samples within  
Temperature? 2-6°C T

By Gun # 9

Actual Temp - 3.9

By Blank # \_\_\_\_\_

Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA

Were Samples Tampered with? NA

Was COC Relinquished? T

Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T

Were samples received within holding time? T

Did COC include all  
pertinent Information? T

Client T

Analysis T

Sampler Name T

Project T

ID's T

Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? F

Are there Short Holds? F

Is there enough Volume? T

Is there Headspace where applicable? NA

MS/MSD? T

Proper Media/Containers Used? T

Is splitting samples required? F

Were trip blanks received? F

On COC? F

Do all samples have the proper pH? NA

Acid \_\_\_\_\_

Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:



October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 3 College Rd, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1565

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

## Table of Contents

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011565

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     3 College Rd, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
3 College Rd	2011565-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopycinski", with a stylized, cursive script.

Tod E. Kopycinski  
Laboratory Director

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 3 College Rd, Stratham, NH

Sample Description:

Work Order: 2011565

Date Received: 9/29/2020

Field Sample #: 3 College Rd

Sampled: 9/29/2020 11:35

Sample ID: 2011565-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	2.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorohexanoic acid (PFHxA)	2.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorohexanesulfonic acid (PFHxS)	5.0	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorooctanoic acid (PFOA)	7.1	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorooctanesulfonic acid (PFOS)	10	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	80.4	70-130	10/9/20 1:56
M3HFPO-DA	75.9	70-130	10/9/20 1:56
13C-PFDA	80.6	70-130	10/9/20 1:56
d5-NEtFOSAA	95.3	70-130	10/9/20 1:56

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1565-01 [3 College Rd]	B268145	250	1.00	10/07/20

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
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MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

## Table of Contents

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B

Received By su

Date 4/29/20

Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? F

Are there Short Holds? F

Is there enough Volume? T

Is there Headspace where applicable? NA

Proper Media/Containers Used? T MS/MSD? F

Were trip blanks received? F Is splitting samples required? F

Do all samples have the proper pH? NA On COC? F

Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 2 College Rd Stratham NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1569

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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B268145	7
Flag/Qualifier Summary	8
Certifications	9
Chain of Custody/Sample Receipt	10

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011569

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     2 College Rd Stratham NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
2 College Rd	2011569-01	Drinking Water		EPA 537.1	



**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopyscinski". The signature is fluid and cursive, with the first name "Tod" being more prominent.

Tod E. Kopyscinski  
Laboratory Director

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 2 College Rd Stratham NH

Sample Description:

Work Order: 2011569

Date Received: 9/29/2020

Field Sample #: 2 College Rd

Sampled: 9/29/2020 11:55

Sample ID: 2011569-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	6.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorohexanoic acid (PFHxA)	8.7	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorohexanesulfonic acid (PFHxS)	34	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluoroheptanoic acid (PFHpA)	2.3	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorooctanoic acid (PFOA)	19	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorooctanesulfonic acid (PFOS)	30	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	77.0	70-130	10/9/20 2:18
M3HFPO-DA	72.7	70-130	10/9/20 2:18
13C-PFDA	72.5	70-130	10/9/20 2:18
d5-NEtFOSAA	81.2	70-130	10/9/20 2:18

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1569-01 [2 College Rd]	B268145	250	1.00	10/07/20

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
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4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

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NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

## Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



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ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client W and B

Received By RU

Date 4/29/20

Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_

Direct from Sampling \_\_\_\_\_

Ambient \_\_\_\_\_

Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T

By Gun # 9

Actual Temp - 3.9

By Blank # \_\_\_\_\_

Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA

Were Samples Tampered with? NA

Was COC Relinquished? F

Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T

Were samples received within holding time? T

Did COC include all Client T

Analysis T

Sampler Name T

pertinent Information? Project T

ID's T

Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? F

Are there Short Holds? F

Is there enough Volume? T

Is there Headspace where applicable? NA

Proper Media/Containers Used? T

Were trip blanks received? F

Do all samples have the proper pH? NA

Who was notified? \_\_\_\_\_

Who was notified? \_\_\_\_\_

Who was notified? \_\_\_\_\_

MS/MSD? T

Is splitting samples required? F

On COC? F

Acid \_\_\_\_\_

Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:



October 19, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 1 College Rd, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1570

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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Chain of Custody/Sample Receipt	11

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011570

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     1 College Rd, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
1 College Rd	2011570-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 1 College Rd, Stratham, NH

Sample Description:

Work Order: 2011570

Date Received: 9/29/2020

Field Sample #: 1 College Rd

Sampled: 9/29/2020 11:40

Sample ID: 2011570-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	2.3	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorohexanoic acid (PFHxA)	3.1	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorohexanesulfonic acid (PFHxS)	5.9	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorooctanoic acid (PFOA)	6.8	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorooctanesulfonic acid (PFOS)	5.7	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	82.9	70-130	10/16/20 18:37
M3HFPO-DA	83.2	70-130	10/16/20 18:37
13C-PFDA	77.5	70-130	10/16/20 18:37
d5-NEtFOSAA	72.7	70-130	10/16/20 18:37

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1570-01RE1 [1 College Rd]	B268466	250	1.00	10/12/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268466 - EPA 537.1</b>										
<b>Blank (B268466-BLK1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
Surrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
Surrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268466-BS1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	7.23	2.0	ng/L	10.0		72.3	70-130			
11Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
9Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			



**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

## Table of Contents

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By cu Date 4/29/20 Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client \_\_\_\_\_ Analysis T Sampler Name T  
pertinent Information? Project \_\_\_\_\_ ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

#### Unused Media

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 19, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 145 Portsmouth Ave, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1572

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011572

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     145 Portsmouth Ave, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
145 Portsmouth Ave	2011572-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 145 Portsmouth Ave, Stratham, N

Sample Description:

Work Order: 2011572

Date Received: 9/29/2020

Field Sample #: 145 Portsmouth Ave

Sampled: 9/29/2020 14:20

Sample ID: 2011572-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	11	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorohexanoic acid (PFHxA)	23	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorohexanesulfonic acid (PFHxS)	140	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluoroheptanoic acid (PFHpA)	6.5	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorooctanoic acid (PFOA)	70	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorooctanesulfonic acid (PFOS)	140	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	82.3	70-130	10/16/20 18:59
M3HFPO-DA	83.6	70-130	10/16/20 18:59
13C-PFDA	79.8	70-130	10/16/20 18:59
d5-NEtFOSAA	81.0	70-130	10/16/20 18:59

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1572-01RE1 [145 Portsmouth Ave]	B268466	250	1.00	10/12/20

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## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268466 - EPA 537.1</b>										
<b>Blank (B268466-BLK1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
Surrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
Surrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268466-BS1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	7.23	2.0	ng/L	10.0		72.3	70-130			
11Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
9Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client W and B

Received By cu

Date 4/29/20

Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T

By Gun # 4

Actual Temp - 3.9

By Blank # \_\_\_\_\_

Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA

Were Samples Tampered with? NA

Was COC Relinquished? F

Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T

Were samples received within holding time? T

Did COC include all Client T

Analysis T

Sampler Name T

pertinent Information? Project T

ID's T

Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Who was notified? \_\_\_\_\_

Are there Rushes? F

Who was notified? \_\_\_\_\_

Are there Short Holds? F

Who was notified? \_\_\_\_\_

Is there enough Volume? T

Is there Headspace where applicable? NA

MS/MSD? T

Proper Media/Containers Used? T

Is splitting samples required? F

Were trip blanks received? F

On COC? F

Do all samples have the proper pH? NA

Acid \_\_\_\_\_

Base \_\_\_\_\_

	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:



October 19, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 152 Portsmouth ave Stratham NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1574

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011574

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     152 Portsmouth ave Stratham NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
152 Portsmouth Ave	2011574-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 152 Portsmouth ave Stratham NH

Sample Description:

Work Order: 2011574

Date Received: 9/29/2020

Field Sample #: 152 Portsmouth Ave

Sampled: 9/29/2020 14:50

Sample ID: 2011574-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	6.2	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorohexanoic acid (PFHxA)	16	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorohexanesulfonic acid (PFHxS)	150	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluoroheptanoic acid (PFHpA)	7.5	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorooctanoic acid (PFOA)	46	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorooctanesulfonic acid (PFOS)	110	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	79.2	70-130	10/16/20 19:20
M3HFPO-DA	81.8	70-130	10/16/20 19:20
13C-PFDA	79.5	70-130	10/16/20 19:20
d5-NEtFOSAA	75.8	70-130	10/16/20 19:20

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1574-01RE1 [152 Portsmouth Ave]	B268466	250	1.00	10/12/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268466 - EPA 537.1</b>										
<b>Blank (B268466-BLK1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
Surrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
Surrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268466-BS1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	7.23	2.0	ng/L	10.0		72.3	70-130			
11Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
9Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			



**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



**Email:** [info@contestlabs.com](mailto:info@contestlabs.com)

CHAIN OF CUSTODY RECORD

39 Spruce Street  
East Longmeadow, MA 01028

Page 1 of 1

Company Name: Wilcox & Barton, Inc.  
Address: 18 Commons Dr, Unit 12B, Londonderry  
Phone: 603-369-4190  
Project Name: SIRT0001  
Project Location: 152 Portsmouth Ave, Stratham, NH  
Project Number: SIRT0001  
Project Manager: R. Barton  
Con-Test Quote Name/Number:  
Invoice Recipient:  
Sampled By: M. Broussard & C. Henshaw

Requested Turnaround Time		Dissolved Metals Samples	
7-Day <input type="checkbox"/>	10-Day <input type="checkbox"/>	<input type="radio"/> Field Filtered	
PFAS 10-Day (std) <input checked="" type="checkbox"/>	Due Date:	<input type="radio"/> Lab to Filter	
Rush-Approval Required		Orthophosphate Samples	
1-Day <input type="checkbox"/>	3-Day <input type="checkbox"/>	<input type="radio"/> Field Filtered	
2-Day <input type="checkbox"/>	4-Day <input type="checkbox"/>	<input type="radio"/> Lab to Filter	
Data Delivery			
Format:	PDF <input checked="" type="checkbox"/>	EXCEL <input checked="" type="checkbox"/>	
Other:			
CLP Like Data Pkg Required:		<input type="checkbox"/>	
Email To:	wbarton@wilcoxandbarton.com		
Fax To #:			

## ANALYSIS REQUESTED

0		2 Preservation Code										
		Coulter Use Only										
		<u>Total Number Of:</u>										
												VIALS _____
												GLASS _____
												PLASTIC _____
												BACTERIA _____
												ENCORE _____
												Glassware in the fridge? Y / N
												Glassware in freezer? Y / N
												Prepackaged Cooler? Y / N

[illegible]

Relinquished by: (signature) <i>Wanda M. Husley</i>	Date/Time: 9/29/20
Received by: (signature) <i>Kurt Kolb</i>	Date/Time: 9/29/20 16:30
Relinquished by: (signature) <i>Kurt Kolb</i>	Date/Time: 9/29/20 16:30
Received by: (signature) <i>[Signature]</i> 34 9/29	Date/Time: 2008
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

**Client Comments:**

①

Detection Limit Requirement:	
MA	
CT	
Other:	NIHDES A2-A5

Special Requirements	
<input type="checkbox"/>	MA MCP Required
	MCP Certification Form Required
<input type="checkbox"/>	CT RCP Required
	RCP Certification Form Required
<input type="checkbox"/>	MA State DW Required
PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:

H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

H = HCL  
M = Methanol  
N = Nitric Acid  
S = Sulfuric Acid  
B = Sodium Bisulfate  
X = Sodium Hydroxide  
T = Sodium  
Thiosulfate  
O = Other (please  
define)

	Federal	270	Brownfield
Comments:			

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

Client W and B  
 Received By su Date 4/29/20 Time 2005  
 How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
 Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
 Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
 By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
 Was Custody Seal Intact? NA Were Samples Tampered with? NA  
 Was COC Relinquished? T Does Chain Agree With Samples? T  
 Are there broken/leaking/loose caps on any samples? F  
 Is COC in ink/ Legible? T Were samples received within holding time? T  
 Did COC include all pertinent Information? Client T Analysis T Sampler Name T  
 Project T ID's T Collection Dates/Times T  
 Are Sample labels filled out and legible? T  
 Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
 Are there Rushes? F Who was notified? \_\_\_\_\_  
 Are there Short Holds? F Who was notified? \_\_\_\_\_  
 Is there enough Volume? T  
 Is there Headspace where applicable? NA MS/MSD? F  
 Proper Media/Containers Used? T Is splitting samples required? F  
 Were trip blanks received? F On COC? F  
 Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

**Unused Media**

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 142 Portsmouth Ave, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1575

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

## Table of Contents

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011575

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     142 Portsmouth Ave, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
142 Portsmouth Ave	2011575-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopycinski". The signature is fluid and cursive, with the first name "Tod" being more prominent.

Tod E. Kopycinski  
Laboratory Director



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 142 Portsmouth Ave, Stratham, N

Sample Description:

Work Order: 2011575

Date Received: 9/29/2020

Field Sample #: 142 Portsmouth Ave

Sampled: 9/29/2020 14:00

Sample ID: 2011575-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorohexanoic acid (PFHxA)	9.0	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorohexanesulfonic acid (PFHxS)	54	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluoroheptanoic acid (PFHpA)	2.1	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorooctanoic acid (PFOA)	31	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorooctanesulfonic acid (PFOS)	29	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	84.4	70-130	10/9/20 4:05
M3HFPO-DA	79.2	70-130	10/9/20 4:05
13C-PFDA	79.0	70-130	10/9/20 4:05
d5-NEtFOSAA	90.0	70-130	10/9/20 4:05

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1575-01 [142 Portsmouth Ave]	B268145	250	1.00	10/07/20

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

## Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

Client W and B  
 Received By MA Date 4/29/20 Time 2005  
 How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
 Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
 Were samples within Temperature? 2-6°C T By Gun # 9 Actual Temp - 3.9  
 By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
 Was Custody Seal Intact? NA Were Samples Tampered with? NA  
 Was COC Relinquished? F Does Chain Agree With Samples? T  
 Are there broken/leaking/loose caps on any samples? F  
 Is COC in ink/ Legible? T Were samples received within holding time? T  
 Did COC include all pertinent Information? Client T Analysis T Sampler Name T  
 Project T ID's T Collection Dates/Times T  
 Are Sample labels filled out and legible? T  
 Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
 Are there Rushes? F Who was notified? \_\_\_\_\_  
 Are there Short Holds? F Who was notified? \_\_\_\_\_  
 Is there enough Volume? T  
 Is there Headspace where applicable? NA MS/MSD? F  
 Proper Media/Containers Used? T Is splitting samples required? F  
 Were trip blanks received? F On COC? F  
 Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

#### Unused Media

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 12, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 5 College Rd., Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1577

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager



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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011577

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     5 College Rd., Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
5 College Rd	2011577-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, reading "Tod Kopycinski". The signature is written in a cursive, flowing style.

Tod E. Kopycinski  
Laboratory Director

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 5 College Rd., Stratham, NH

Sample Description:

Work Order: 2011577

Date Received: 9/29/2020

Field Sample #: 5 College Rd

Sampled: 9/29/2020 11:15

Sample ID: 2011577-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	3.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorohexanoic acid (PFHxA)	3.6	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorohexanesulfonic acid (PFHxS)	8.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluoroheptanoic acid (PFHpA)	2.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorooctanoic acid (PFOA)	12	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorooctanesulfonic acid (PFOS)	15	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	80.1	70-130	10/9/20 4:27
M3HFPO-DA	74.3	70-130	10/9/20 4:27
13C-PFDA	75.3	70-130	10/9/20 4:27
d5-NEtFOSAA	84.7	70-130	10/9/20 4:27

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1577-01 [5 College Rd]	B268145	250	1.00	10/07/20

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268145 - EPA 537.1</b>										
<b>Blank (B268145-BLK1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
Surrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
Surrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
Surrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
<b>LCS (B268145-BS1)</b>										
Prepared: 10/07/20 Analyzed: 10/08/20										
Perfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
Perfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
Perfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
Perfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
Perfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
Perfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
Perfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
N-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
Perfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
N-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
Perfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
Perfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
11Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
Surrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
Surrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
Surrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

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NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021





I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



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ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By mu Date 4/29/20 Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 13, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 149 Portsmouth Ave, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1578

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

## Table of Contents

Sample Summary	3
Case Narrative	4
Sample Results	5
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Semivolatile Organic Compounds by - LC/MS-MS	7
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Flag/Qualifier Summary	8
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---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011578

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     149 Portsmouth Ave, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
149 Portsmouth Ave	2011578-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 149 Portsmouth Ave, Stratham, N

Sample Description:

Work Order: 2011578

Date Received: 9/29/2020

Field Sample #: 149 Portsmouth Ave

Sampled: 9/29/2020 14:40

Sample ID: 2011578-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	83.6	70-130	10/10/20 9:37
M3HFPO-DA	80.3	70-130	10/10/20 9:37
13C-PFDA	83.6	70-130	10/10/20 9:37
d5-NEtFOSAA	84.1	70-130	10/10/20 9:37

---

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**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1578-01 [149 Portsmouth Ave]	B268326	250	1.00	10/09/20

---



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
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#	Data exceeded client recommended or regulatory level
ND	Not Detected
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Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

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NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

<http://www.contestlabs.com>



Email: [info@contestlabs.com](mailto:info@contestlabs.com)

CHAIN OF CUSTODY RECORD

39 Spruce Street  
East Longmeadow, MA 01028

Doc # 381 Rev 2 06262019

Page 1 of 1

## ANALYSIS REQUESTED

[illegible]

Comments:

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Page 10 of 11

## Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client W and B

Received By su

Date 4/29/20

Time 2005

How were the samples received?

In Cooler T

No Cooler       

On Ice T

No Ice       

Direct from Sampling       

Ambient       

Melted Ice       

By Gun # 9

Actual Temp - 3.9

Were samples within Temperature? 2-6°C T

By Blank #       

Actual Temp -       

Was Custody Seal Intact? NA

Were Samples Tampered with? NA

Was COC Relinquished? T

Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T

Were samples received within holding time? T

Did COC include all

Client T

Analysis T

Sampler Name T

pertinent Information? Project T

ID's T

Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Who was notified?       

Are there Rushes? F

Who was notified?       

Are there Short Holds? F

Who was notified?       

Is there enough Volume? T

Is there Headspace where applicable? NA

MS/MSD? F

Proper Media/Containers Used? T

Is splitting samples required? F

Were trip blanks received? F

On COC? F

Do all samples have the proper pH? NA

Acid       

Base       

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

#### Unused Media

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 19, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 159 Portsmouth Ave, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1579

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011579

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     159 Portsmouth Ave, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
159 Portsmouth Ave	2011579-01	Drinking Water		EPA 537.1	



**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 159 Portsmouth Ave, Stratham, N

Sample Description:

Work Order: 2011579

Date Received: 9/29/2020

Field Sample #: 159 Portsmouth Ave

Sampled: 9/29/2020 15:10

Sample ID: 2011579-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	7.4	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorohexanoic acid (PFHxA)	15	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorohexanesulfonic acid (PFHxS)	66	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluoroheptanoic acid (PFHpA)	5.4	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorooctanoic acid (PFOA)	28	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorooctanesulfonic acid (PFOS)	39	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	83.3	70-130	10/16/20 19:42
M3HFPO-DA	84.9	70-130	10/16/20 19:42
13C-PFDA	80.9	70-130	10/16/20 19:42
d5-NEtFOSAA	85.7	70-130	10/16/20 19:42

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1579-01RE1 [159 Portsmouth Ave]	B268466	250	1.00	10/12/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268466 - EPA 537.1</b>										
<b>Blank (B268466-BLK1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
Surrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
Surrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268466-BS1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	7.23	2.0	ng/L	10.0		72.3	70-130			
11Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
9Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



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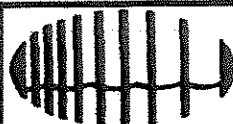
ANALYSIS REQUESTED										Page _____ of _____	
0										2 Preservation Code	
										Courier Use Only	
										Total Number Of:	
										VIALS _____	
										GLASS _____	
										PLASTIC _____	
										BACTERIA _____	
										ENCORE _____	

[illegible]

<p>Please use the following codes to indicate possible sample concentration within the Conc Code column above:</p> <p>H - High; M - Medium; L - Low; C - Clean; U - Unknown</p>	<p><b>2 Preservation Codes:</b></p> <p>I = Iced</p> <p>H = HCL</p> <p>M = Methanol</p> <p>N = Nitric Acid</p> <p>S = Sulfuric Acid</p> <p>B = Sodium Bisulfate</p> <p>X = Sodium Hydroxide</p> <p>T = Sodium Thiosulfate</p> <p>O = Other (please define)</p>
<p><b>NELAC and AIHA-LAP, LLC Accredited</b></p>	<p><b><u>PCB ONLY</u></b></p>
<p><input type="checkbox"/></p>	<p><input type="checkbox"/> Soxhlet</p> <p><input type="checkbox"/> Non Soxhlet</p>
<p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> Chromatogram</p> <p><input type="checkbox"/> AIHA-LAP, LLC</p>	

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine who analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By su Date 4/29/20 Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T  
Are there Lab to Filters? F  
Are there Rushes? F  
Are there Short Holds? F  
Is there enough Volume? T  
Is there Headspace where applicable? NA  
Proper Media/Containers Used? T  
Were trip blanks received? F  
Do all samples have the proper pH? NA

Who was notified? \_\_\_\_\_  
Who was notified? \_\_\_\_\_  
Who was notified? \_\_\_\_\_

MS/MSD? F  
Is splitting samples required? F  
On COC? F

Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:



October 13, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 161-2 Portsmouth Ave, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1580

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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Certifications	9
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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011580

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     161-2 Portsmouth Ave, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
161-2 Portsmouth Ave	2011580-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 161-2 Portsmouth Ave, Stratham,

Sample Description:

Work Order: 2011580

Date Received: 9/29/2020

Field Sample #: 161-2 Portsmouth Ave

Sampled: 9/29/2020 15:40

Sample ID: 2011580-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	5.8	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorohexanoic acid (PFHxA)	9.5	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorohexanesulfonic acid (PFHxS)	38	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluoroheptanoic acid (PFHpA)	2.9	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorooctanoic acid (PFOA)	20	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorooctanesulfonic acid (PFOS)	30	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	80.6	70-130	10/10/20 10:42
M3HFPO-DA	80.0	70-130	10/10/20 10:42
13C-PFDA	74.4	70-130	10/10/20 10:42
d5-NEtFOSAA	74.7	70-130	10/10/20 10:42

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1580-01 [161-2 Portsmouth Ave]	B268326	250	1.00	10/09/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected



**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test**<sup>®</sup>  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By CU Date 4/29/20 Time 2005  
How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? F Does Chain Agree With Samples? T  
Are there broken/leaking/loose caps on any samples? F  
Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all pertinent Information? Client T Analysis T Sampler Name T  
Project T ID's T Collection Dates/Times T  
Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_  
Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 13, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 166 Portsmouth Ave., Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1581

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R. J. McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011581

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     166 Portsmouth Ave., Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
166 Portsmouth Ave	2011581-01	Drinking Water		EPA 537.1	

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

#### EPA 537.1

#### Qualifications:

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##### PF-03

Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar internal standard non-conformance. Original results reported.

#### Analyte & Samples(s) Qualified:

##### d3-NMeFOSAA

2011581-01[166 Portsmouth Ave]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light gray rectangular background.

Lisa A. Worthington

Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 166 Portsmouth Ave., Stratham, N

Sample Description:

Work Order: 2011581

Date Received: 9/29/2020

Field Sample #: 166 Portsmouth Ave

Sampled: 9/29/2020 15:45

Sample ID: 2011581-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	5.3	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorohexanoic acid (PFHxA)	2.6	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorohexanesulfonic acid (PFHxS)	19	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorooctanoic acid (PFOA)	6.9	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	73.9	70-130	10/10/20 11:03
M3HFPO-DA	71.5	70-130	10/10/20 11:03
13C-PFDA	87.0	70-130	10/10/20 11:03
d5-NEtFOSAA	91.2	70-130	10/10/20 11:03



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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1581-01 [166 Portsmouth Ave]	B268326	250	1.00	10/09/20

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
PF-03	Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar internal standard non-conformance. Original results reported.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



Email: [info@contestlabs.com](mailto:info@contestlabs.com)

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 2 06262019

Page 1 of 1

[illegible]

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



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ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By CU Date 4/29/20 Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 13, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 9 College Rd, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1582

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011582

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     9 College Rd, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
9 College Rd	2011582-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 9 College Rd, Stratham, NH

Sample Description:

Work Order: 2011582

Date Received: 9/29/2020

Field Sample #: 9 College Rd

Sampled: 9/29/2020 09:30

Sample ID: 2011582-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	3.9	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorohexanoic acid (PFHxA)	3.0	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorohexanesulfonic acid (PFHxS)	9.7	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorooctanoic acid (PFOA)	11	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorooctanesulfonic acid (PFOS)	21	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	77.7	70-130	10/12/20 15:43
M3HFPO-DA	71.8	70-130	10/12/20 15:43
13C-PFDA	77.7	70-130	10/12/20 15:43
d5-NEtFOSAA	79.7	70-130	10/12/20 15:43

---

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**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1582-01 [9 College Rd]	B268326	250	1.00	10/09/20

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
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Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
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Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

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NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021





I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test**<sup>®</sup>  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B

Received By MA

Date 4/29/20

Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 9 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished? F Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? F

Are there Short Holds? F

Is there enough Volume? T

Is there Headspace where applicable? NA

Proper Media/Containers Used? T

Were trip blanks received? F

Do all samples have the proper pH? NA

Who was notified? \_\_\_\_\_

Who was notified? \_\_\_\_\_

Who was notified? \_\_\_\_\_

MS/MSD? F

Is splitting samples required? F

On COC? F

Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 13, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 7R Winnicutt, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1583

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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Chain of Custody/Sample Receipt	10

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011583

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     7R Winnicutt, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
7R Winnicutt Rd	2011583-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 7R Winnicutt, Stratham, NH

Sample Description:

Work Order: 2011583

Date Received: 9/29/2020

Field Sample #: 7R Winnicutt Rd

Sampled: 9/29/2020 15:55

Sample ID: 2011583-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorohexanoic acid (PFHxA)	3.4	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	78.1	70-130	10/10/20 11:46
M3HFPO-DA	74.3	70-130	10/10/20 11:46
13C-PFDA	73.7	70-130	10/10/20 11:46
d5-NEtFOSAA	81.7	70-130	10/10/20 11:46

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1583-01 [7R Winnicult Rd]	B268326	250	1.00	10/09/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

Phone: 413-525-2332  
Fax: 413-525-6405  
Email: [info@contestlabs.com](mailto:info@contestlabs.com)

2011583

<http://www.contestlabs.com>

CHAIN OF CUSTODY RECORD

39 Spruce Street  
East Longmeadow, MA 01028

Doc # 381 Rev 2\_06262019

Page \_\_\_\_ of \_\_\_\_

## ANALYSIS REQUESTED

Company Name: Wilcox & Barton, Inc.  
Address: 16 Commons Dr, Unit 12B, Londonderry NH  
Phone: 603-369-4190  
Project Name: STR0001  
Project Location: 7R Winnicut Rd, Stratham, NH  
Project Number: STR0001  
Project Manager: R. Barton  
Con-Test Quote Name/Number:  
Invoice Recipient:  
Sampled By: M. Broussard & C. Hensley

Requested Turnaround Time		Dissolved Metals Samples	
7-Day <input type="checkbox"/>	10-Day <input type="checkbox"/>	<input type="radio"/>	Field Filtered
PFAS 10-Day (std) <input checked="" type="checkbox"/>	Due Date:	<input type="radio"/>	Lab to Filter
Rush Approval Required		Orthophosphate Samples	
1-Day <input type="checkbox"/>	3-Day <input type="checkbox"/>	<input type="radio"/>	Field Filtered
2-Day <input type="checkbox"/>	4-Day <input type="checkbox"/>	<input type="radio"/>	Lab to Filter
Data Delivery			
Format:	PDF <input checked="" type="checkbox"/>	EXCEL <input checked="" type="checkbox"/>	
Other:			
CLP Like Data Pkg Required: <input type="checkbox"/>			
Email To:	rbarton@wilcoxonandbarton.com		
Fax To #:			

[illegible]

Relinquished by: (signature) <i>William M. Hensley</i>	Date/Time: 9/29/20
Received by: (signature) <i>Jeff Clark</i>	Date/Time: 9/29/20 1630
Relinquished by: (signature) <i>Jeff Clark</i>	Date/Time: 9/29/20 2005
Received by: (signature) <i>EWING MN</i>	Date/Time: 3.9.9/29/2022
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:									
<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 10px;">A</div>									
Detection Limit Requirements				Special Requirements				Please use the following codes to indicate possible sample concentration within the Concentration Code column above: H - High; M - Medium; L - Low; C - Clean; U - Unknown	
MA		<input type="checkbox"/>					MA MCP Required		
							MCP Certification Form Required		
		<input type="checkbox"/>					CT RCP Required		
CT							RCP Certification Form Required		
		<input type="checkbox"/>					MA State DW Required		
Other: NHDES ABQS				PWSID #				NELAC and AIHA-LAP, LLC Accredited	
Project Entity								Other	
Government	<input type="checkbox"/>	Municipality	<input type="checkbox"/>	MWRA	<input type="checkbox"/>	WRTA	<input type="checkbox"/>	<input type="checkbox"/> Chromatogram	
Federal	<input type="checkbox"/>	21 J	<input type="checkbox"/>	School	<input type="checkbox"/>			<input type="checkbox"/> AIHA-LAP, LLC	
City	<input type="checkbox"/>	Brownfield	<input type="checkbox"/>	MBTA	<input type="checkbox"/>				

Freeze

<sup>2</sup> Preservation Codes:

I = Iced  
H = HCL  
M = Methanol  
N = Nitric Acid  
S = Sulfuric Acid  
B = Sodium Bisulfate  
X = Sodium Hydroxide  
T = Sodium  
Thiosulfate  
O = Other (please  
define)

---

PCB ONLY

☐ Soxhlet

☐ Non Soxhlet

**Comments:**

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

## Table of Contents

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By W Date 4/29/20 Time 2005

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

By Gun # 4 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Were samples within Temperature? 2-6°C T  
Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? T  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	2	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 13, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 160 Portsmouth Ave., Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1584

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

## Table of Contents

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011584

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     160 Portsmouth Ave., Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
160 Portsmouth Ave	2011584-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 160 Portsmouth Ave., Stratham, NH

Sample Description:

Work Order: 2011584

Date Received: 9/29/2020

Field Sample #: 160 Portsmouth Ave

Sampled: 9/29/2020 15:30

Sample ID: 2011584-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	2.8	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorohexanoic acid (PFHxA)	8.6	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorohexanesulfonic acid (PFHxS)	9.6	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluoroheptanoic acid (PFHpA)	3.6	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorooctanoic acid (PFOA)	9.2	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	78.4	70-130	10/12/20 16:26
M3HFPO-DA	76.0	70-130	10/12/20 16:26
13C-PFDA	79.2	70-130	10/12/20 16:26
d5-NEtFOSAA	80.2	70-130	10/12/20 16:26

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1584-01 [160 Portsmouth Ave]	B268326	250	1.00	10/09/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client W and B  
Received By mu Date 4/29/20 Time 2005  
How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
Were samples within Temperature? 2-6°C T By Gun # 9 Actual Temp - 3.9  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? F Does Chain Agree With Samples? T  
Are there broken/leaking/loose caps on any samples? F  
Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T  
Are Sample labels filled out and legible? T  
Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_  
Is there enough Volume? T  
Is there Headspace where applicable? NA MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? NA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

#### Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

October 14, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 15 College Rd., Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1639

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager



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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/14/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011639

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     15 College Rd., Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
15 College Road	2011639-01	Ground Water		SOP 434-PFAAS	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 15 College Rd., Stratham, NH

Sample Description:

Work Order: 2011639

Date Received: 9/30/2020

Field Sample #: 15 College Road

Sampled: 9/30/2020 11:25

Sample ID: 2011639-01

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C-PFHxA	75.7	70-130							
13C-PFDA	76.2	70-130							
d5-NEtFOSAA	71.2	70-130							

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method: SOP 434-PFAAS-SOP 434-PFAAS**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1639-01 [15 College Road]	B268229	250	1.00	10/08/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268229 - SOP 434-PFAAS</b>										
<b>Blank (B268229-BLK1)</b>										
Prepared: 10/08/20 Analyzed: 10/13/20										
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L							U
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							U
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	32.5		ng/L	40.0		81.1	70-130			
Surrogate: 13C-PFDA	32.5		ng/L	40.0		81.4	70-130			
Surrogate: d5-NEtFOSAA	126		ng/L	160		78.8	70-130			
<b>LCS (B268229-BS1)</b>										
Prepared: 10/08/20 Analyzed: 10/13/20										
Perfluorobutanoic acid (PFBA)	8.52	2.0	ng/L	10.0		85.2	70-130			
Perfluorobutanesulfonic acid (PFBS)	8.17	2.0	ng/L	8.85		92.3	70-130			
Perfluoropentanoic acid (PFPeA)	10.0	2.0	ng/L	10.0		100	70-130			
Perfluorohexanoic acid (PFHxA)	9.41	2.0	ng/L	10.0		94.1	70-130			
Perfluorohexanesulfonic acid (PFHxS)	8.07	2.0	ng/L	9.10		88.7	70-130			
Perfluoroheptanoic acid (PFHpA)	8.61	2.0	ng/L	10.0		86.1	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	8.52	2.0	ng/L	9.50		89.6	70-130			
Perfluorooctanoic acid (PFOA)	9.57	2.0	ng/L	10.0		95.7	70-130			
Perfluorooctanesulfonic acid (PFOS)	8.46	2.0	ng/L	9.25		91.4	70-130			
Perfluorooctanesulfonamide (FOSA)	8.15	2.0	ng/L	10.0		81.5	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	8.54	2.0	ng/L	9.50		89.9	70-130			
Perfluorononanoic acid (PFNA)	9.62	2.0	ng/L	10.0		96.2	70-130			
Perfluorodecanoic acid (PFDA)	9.45	2.0	ng/L	10.0		94.5	70-130			
Perfluorodecanesulfonic acid (PFDS)	8.44	2.0	ng/L	9.65		87.4	70-130			
N-EtFOSAA	10.5	2.0	ng/L	10.0		105	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	8.50	2.0	ng/L	9.60		88.5	70-130			
Perfluoroundecanoic acid (PFUnA)	8.59	2.0	ng/L	10.0		85.9	70-130			
N-MeFOSAA	9.24	2.0	ng/L	10.0		92.4	70-130			
Perfluorododecanoic acid (PFDoA)	8.46	2.0	ng/L	10.0		84.6	70-130			
Perfluorotridecanoic acid (PFTrDA)	8.56	2.0	ng/L	10.0		85.6	70-130			
Perfluorotetradecanoic acid (PFTA)	7.94	2.0	ng/L	10.0		79.4	70-130			
Surrogate: 13C-PFHxA	32.6		ng/L	40.0		81.5	70-130			
Surrogate: 13C-PFDA	32.9		ng/L	40.0		82.3	70-130			
Surrogate: d5-NEtFOSAA	130		ng/L	160		81.3	70-130			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268229 - SOP 434-PFAAS</b>										
<b>Matrix Spike (B268229-MS2)</b>	<b>Source: 2011639-01</b>			Prepared: 10/08/20 Analyzed: 10/13/20						
Perfluorobutanoic acid (PFBA)	8.63	2.0	ng/L	10.0	ND	86.3	70-130			
Perfluorobutanesulfonic acid (PFBS)	8.04	2.0	ng/L	8.85	ND	90.8	70-130			
Perfluoropentanoic acid (PFPeA)	9.56	2.0	ng/L	10.0	ND	95.6	70-130			
Perfluorohexanoic acid (PFHxA)	9.05	2.0	ng/L	10.0	ND	90.5	70-130			
Perfluorohexanesulfonic acid (PFHxS)	8.85	2.0	ng/L	9.10	ND	97.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.75	2.0	ng/L	10.0	ND	87.5	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	8.40	2.0	ng/L	9.50	ND	88.4	70-130			
Perfluorooctanoic acid (PFOA)	9.48	2.0	ng/L	10.0	ND	94.8	70-130			
Perfluorooctanesulfonic acid (PFOS)	8.43	2.0	ng/L	9.25	0.964	80.7	70-130			
Perfluorooctanesulfonamide (FOSA)	8.28	2.0	ng/L	10.0	ND	82.8	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	8.96	2.0	ng/L	9.50	ND	94.3	70-130			
Perfluorononanoic acid (PFNA)	9.24	2.0	ng/L	10.0	ND	92.4	70-130			
Perfluorodecanoic acid (PFDA)	9.40	2.0	ng/L	10.0	ND	94.0	70-130			
Perfluorodecanesulfonic acid (PFDS)	8.77	2.0	ng/L	9.65	ND	90.8	70-130			
N-EtFOSAA	10.9	2.0	ng/L	10.0	ND	109	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	9.54	2.0	ng/L	9.60	ND	99.3	70-130			
Perfluoroundecanoic acid (PFUnA)	8.61	2.0	ng/L	10.0	ND	86.1	70-130			
N-MeFOSAA	8.38	2.0	ng/L	10.0	ND	83.8	70-130			
Perfluorododecanoic acid (PFDoA)	7.89	2.0	ng/L	10.0	ND	78.9	70-130			
Perfluorotridecanoic acid (PFTrDA)	8.01	2.0	ng/L	10.0	ND	80.1	70-130			
Perfluorotetradecanoic acid (PFTA)	7.67	2.0	ng/L	10.0	ND	76.7	70-130			
Surrogate: 13C-PFHxA	30.7		ng/L	40.0		76.7	70-130			
Surrogate: 13C-PFDA	30.0		ng/L	40.0		74.9	70-130			
Surrogate: d5-NEtFOSAA	119		ng/L	160		74.3	70-130			
<b>Matrix Spike Dup (B268229-MSD2)</b>	<b>Source: 2011639-01</b>			Prepared: 10/08/20 Analyzed: 10/13/20						
Perfluorobutanoic acid (PFBA)	8.29	2.0	ng/L	10.0	ND	82.9	70-130	4.01	30	
Perfluorobutanesulfonic acid (PFBS)	7.49	2.0	ng/L	8.85	ND	84.6	70-130	7.08	30	
Perfluoropentanoic acid (PFPeA)	8.61	2.0	ng/L	10.0	ND	86.1	70-130	10.4	30	
Perfluorohexanoic acid (PFHxA)	9.48	2.0	ng/L	10.0	ND	94.8	70-130	4.62	30	
Perfluorohexanesulfonic acid (PFHxS)	7.76	2.0	ng/L	9.10	ND	85.3	70-130	13.1	30	
Perfluoroheptanoic acid (PFHpA)	8.51	2.0	ng/L	10.0	ND	85.1	70-130	2.77	30	
Perfluoroheptanesulfonic acid (PFHpS)	8.14	2.0	ng/L	9.50	ND	85.7	70-130	3.20	30	
Perfluorooctanoic acid (PFOA)	9.15	2.0	ng/L	10.0	ND	91.5	70-130	3.48	30	
Perfluorooctanesulfonic acid (PFOS)	8.62	2.0	ng/L	9.25	0.964	82.7	70-130	2.24	30	
Perfluorooctanesulfonamide (FOSA)	8.12	2.0	ng/L	10.0	ND	81.2	70-130	1.98	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	8.62	2.0	ng/L	9.50	ND	90.7	70-130	3.89	30	
Perfluorononanoic acid (PFNA)	8.99	2.0	ng/L	10.0	ND	89.9	70-130	2.73	30	
Perfluorodecanoic acid (PFDA)	9.24	2.0	ng/L	10.0	ND	92.4	70-130	1.66	30	
Perfluorodecanesulfonic acid (PFDS)	8.70	2.0	ng/L	9.65	ND	90.1	70-130	0.772	30	
N-EtFOSAA	10.8	2.0	ng/L	10.0	ND	108	70-130	1.01	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	8.02	2.0	ng/L	9.60	ND	83.5	70-130	17.3	30	
Perfluoroundecanoic acid (PFUnA)	8.79	2.0	ng/L	10.0	ND	87.9	70-130	2.08	30	
N-MeFOSAA	9.56	2.0	ng/L	10.0	ND	95.6	70-130	13.2	30	
Perfluorododecanoic acid (PFDoA)	8.00	2.0	ng/L	10.0	ND	80.0	70-130	1.39	30	
Perfluorotridecanoic acid (PFTrDA)	8.52	2.0	ng/L	10.0	ND	85.2	70-130	6.13	30	
Perfluorotetradecanoic acid (PFTA)	8.50	2.0	ng/L	10.0	ND	85.0	70-130	10.3	30	
Surrogate: 13C-PFHxA	29.7		ng/L	40.0		74.2	70-130			
Surrogate: 13C-PFDA	29.8		ng/L	40.0		74.5	70-130			
Surrogate: d5-NEtFOSAA	122		ng/L	160		76.5	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected



# CERTIFICATIONS

## Certified Analyses included in this Report

Analyte	Certifications
<b>SOP 434-PFAAS in Water</b>	
Perfluorobutanoic acid (PFBA)	NH-P
Perfluorobutanesulfonic acid (PFBS)	NH-P
Perfluoropentanoic acid (PFPeA)	NH-P
Perfluorohexanoic acid (PFHxA)	NH-P
Perfluorohexanesulfonic acid (PFHxS)	NH-P
Perfluoroheptanoic acid (PFHpA)	NH-P
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH-P
Perfluorononanoic acid (PFNA)	NH-P
Perfluorodecanoic acid (PFDA)	NH-P
N-EtFOSAA	NH-P
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH-P
Perfluoroundecanoic acid (PFUnA)	NH-P
N-MeFOSAA	NH-P
Perfluorododecanoic acid (PFDoA)	NH-P
Perfluorotridecanoic acid (PFTrDA)	NH-P
Perfluorotetradecanoic acid (PFTA)	NH-P

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



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CHAIN OF CUSTODY RECORD

39 Spruce Street  
East Longmeadow, MA 01028

Doc # 381 Rev 2 06262019

Page 1 of 1

Company Name: Wilcox & Barton, Inc.  
Address: #18 Commons Drive, Unit 128, Londonderry, NH  
Phone: 978-491-9943  
Project Name: STRT0001  
Project Location: 15 College Road, Stratham, NH  
Project Number: STRT0001  
Project Manager: Russ Barton  
Con-Test Quote Name/Number:  
Invoice Recipient:  
Sampled By: C. Hensley / M. Broussard

Requested Turnaround Time		Dissolved Metals Samples	
7-Day <input type="checkbox"/>	10-Day <input type="checkbox"/>	<input type="radio"/>	Field Filtered
PFAS 10-Day (std) <input checked="" type="checkbox"/>	Due Date:	<input type="radio"/>	Lab to Filter
Rush Approval Required		Orthophosphate Samples	
1-Day <input type="checkbox"/>	3-Day <input type="checkbox"/>	<input type="radio"/>	Field Filtered
2-Day <input type="checkbox"/>	4-Day <input type="checkbox"/>	<input type="radio"/>	Lab to Filter
Data Delivery			
Format:	PDF <input checked="" type="checkbox"/>	EXCEL	<input checked="" type="checkbox"/>
Other: _____			
CLP Like Data Pkg Required: <input type="checkbox"/>			
Email To: <u>rbarton@wilcoxandbarton.com</u>			
Fax To #: _____			

ANALYSIS REQUESTED															2 Preservation Code
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PFAS 537.1</div> <div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div> </div>															<b>Counter Use Only</b> <u>Total Number Of:</u>  VIALS _____ GLASS _____ PLASTIC _____ BACTERIA _____ ENCORE _____  Glassware in the fridge? Y / N  Glassware in freezer? Y / N  Prepackaged Cooler? Y / N  *Contest is not responsible for missing samples from prepacked coolers  <b>1 Matrix Codes:</b> GW = Ground Water WW = Waste Water DW = Drinking Water A = Air S = Soil SL = Sludge SOL = Solid O = Other (please define) _____  <b>2 Preservation Codes:</b> I = Iced H = HCL M = Methanol N = Nitric Acid S = Sulfuric Acid B = Sodium Bisulfate X = Sodium Hydroxide T = Sodium Thiosulfate O = Other (please define) _____ <b>Triuma</b>
															<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>ICP Required <input type="checkbox"/></p> <p>Form Required <input type="checkbox"/></p> <p>ICP Required <input type="checkbox"/></p> <p>Form Required <input type="checkbox"/></p> <p>DW Required <input type="checkbox"/></p> </div> <div style="width: 60%; text-align: center;"> <p>Please use the following codes to indicate possible sample concentration within the Conc Code column above:</p> <p>H - High; M - Medium; L - Low; C - Clean; U - Unknown</p> </div> </div>
NELAP and AHA-LAP, LLC Accredited															
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>WRTA <input type="checkbox"/></p> </div> <div style="width: 60%; text-align: center;"> <p>Other</p> <p><input type="checkbox"/> Chromatogram</p> <p><input type="checkbox"/> AIHA-LAP, LLC</p> </div> </div>															<p style="text-align: center;"><b>PCB ONLY</b></p> <p><input type="checkbox"/> Soxhlet</p> <p><input type="checkbox"/> Non Soxhlet</p>

Relinquished by: (signature) <i>Charles M. Hussey</i>	Date/Time: <b>7:30:20</b>
Received by: (signature) <i>Kevin O'Leary</i>	Date/Time: <b>9/30/20 1450</b>
Relinquished by: (signature) <i>[Signature]</i>	Date/Time: <b>9/30/20 1850</b>
Received by: (signature) <i>[Signature]</i>	Date/Time: <b>9/30/20 1850</b>
Relinquished by: (signature) <i>[Signature]</i>	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Client Comments: **MS/MSD requested by lab**

Detection Limit Requirements		Special Requirements		
MA	<input type="checkbox"/>	MA MCP Required	Please use the following codes to indicate possible sample concentration within the Conc Code column above: H - High; M - Medium; L - Low; C - Clean; U - Unknown	
	<input type="checkbox"/>	MCP Certification Form Required		
CT	<input type="checkbox"/>	CT RCP Required		
	<input type="checkbox"/>	RCP Certification Form Required		
	<input type="checkbox"/>	MA State DW Required		
Other:	<b>NHDES AGQS</b>		PWSID #	NELAP and AHA-LAP, LLC Accredited

Project Entity				Other				
Government	<input type="checkbox"/>	Municipality	<input type="checkbox"/>	MWRA	<input type="checkbox"/>	WRTA	<input type="checkbox"/>	<input type="checkbox"/> Chromatogram
Federal	<input type="checkbox"/>	21 J	<input type="checkbox"/>	School	<input type="checkbox"/>			<input type="checkbox"/> AHA-LAP, LLC
City	<input type="checkbox"/>	Brownfield	<input type="checkbox"/>	MBTA	<input type="checkbox"/>			

**2 Preservation Codes:**  
**I** = Iced  
**H** = HCL  
**M** = Methanol  
**N** = Nitric Acid  
**S** = Sulfuric Acid  
**B** = Sodium Bisulfate  
**X** = Sodium Hydroxide  
**T** = Sodium  
 Thiosulfate  
**O** = Other (please  
 define).

**Trizma**

**PCB ONLY**

☐ Soxhlet

☐ Non Soxhlet

Comments:

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client Wilcox & Barton

Received By SA Date 9/30 Time 1850

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 4.4  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? ND Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? \_\_\_\_\_

Are there Rushes? F Who was notified? \_\_\_\_\_

Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? \_\_\_\_\_ Acid F Base NA

Vials	#	Containers:	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic	16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic	8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria	2oz Amb/Clear
DI-		Other Glass		Other Plastic	Encore
Thiosulfate-		SOC Kit		Plastic Bag	Frozen:
Sulfuric-		Perchlorate		Ziplock	

#### Unused Media

Vials	#	Containers:	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic	16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic	8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint	2oz Amb/Clear
DI-		Other Plastic		Other Glass	Encore
Thiosulfate-		SOC Kit		Plastic Bag	Frozen:
Sulfuric-		Perchlorate		Ziplock	

Comments:

October 19, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 164 Portsmouth Ave., Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1640

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

## Table of Contents

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011640

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     164 Portsmouth Ave., Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
164 Portsmouth Ave	2011640-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Tod Kopyscinski". The signature is fluid and cursive, with a large, sweeping initial "T".

Tod E. Kopyscinski  
Laboratory Director

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 164 Portsmouth Ave., Stratham, N

Sample Description:

Work Order: 2011640

Date Received: 9/30/2020

Field Sample #: 164 Portsmouth Ave

Sampled: 9/30/2020 10:55

Sample ID: 2011640-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	7.5	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorohexanoic acid (PFHxA)	6.8	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorohexanesulfonic acid (PFHxS)	24	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluoroheptanoic acid (PFHpA)	3.4	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorooctanoic acid (PFOA)	12	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	84.2	70-130	10/16/20 20:04
M3HFPO-DA	82.5	70-130	10/16/20 20:04
13C-PFDA	83.9	70-130	10/16/20 20:04
d5-NEtFOSAA	85.2	70-130	10/16/20 20:04



---

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**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1640-01RE1 [164 Portsmouth Ave]	B268466	250	1.00	10/12/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268466 - EPA 537.1</b>										
<b>Blank (B268466-BLK1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
Surrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
Surrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268466-BS1)</b>										
Prepared: 10/12/20 Analyzed: 10/16/20										
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	7.23	2.0	ng/L	10.0		72.3	70-130			
11Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
9Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



Email: [info@contestlabs.com](mailto:info@contestlabs.com)

39 Spruce Street  
East Longmeadow, MA 01028

Page \_\_\_\_\_ of \_\_\_\_\_

ANALYSIS REQUESTED

Company Name: <b>Wilcox &amp; Barton, Inc.</b>		Email: info@contestlabs.com		7-Day <input type="checkbox"/> 10-Day <input type="checkbox"/>		PFAS 10-Day (std) <input checked="" type="checkbox"/> Due Date: <input type="checkbox"/>		<input type="radio"/> Field Filtered		<input type="radio"/> Lab to Filter		Preservation Code	
Address: <b>18 Commons Dr, Unit 12B, Londonderry, NH</b>		Phone: <b>603-369-4190</b>		Rush Approval Required		Orthophosphate Samples		1-Day <input type="checkbox"/> 3-Day <input type="checkbox"/>		<input type="radio"/> Field Filtered		Total Number Of:	
Project Name: <b>STR0001</b>		Project Location: <b>164 Portsmouth Ave, Stratham, NH</b>		2-Day <input type="checkbox"/> 4-Day <input type="checkbox"/>		<input type="radio"/> Lab to Filter		Data Delivery		Format: PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/>		VIALS _____	
Project Number: <b>STR0001</b>		Project Manager: <b>R. Barton</b>		Con-Test Quote Name/Number:		CLP Like Data Pkg Required: <input type="checkbox"/>		Email To: <b>rbarton@wilcoxandbarton.com</b>		Fax To #:		GLASS _____	
Invoice Recipient:		Sampled By: <b>M. Brissard &amp; C. Hensley</b>		Con-Test Work Order#		Client Sample ID / Description		Beginning Date/Time		Ending Date/Time		PLASTIC _____	
				1		164 Portsmouth Ave		9/30/20		10/5/20		BACTERIA _____	
												ENCORE _____	
												Glassware in the fridge? Y / N	
												Glassware in freezer? Y / N	
												Prepackaged Cooler? Y / N	
												*Contest is not responsible for missing samples from prepacked coolers	
												<sup>1</sup> Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water A = Air S = Soil SL = Sludge SOL = Solid O = Other (please define) <b>WZMA</b>	
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20</b>		Client Comments: <b>(A)</b>		Detection Limit Requirements		Special Requirements		Please use the following codes to indicate possible sample concentration within the Conc Code column above: H - High; M - Medium; L - Low; C - Clean; U - Unknown		<sup>2</sup> Preservation Codes: I = Iced H = HCL M = Methanol N = Nitric Acid S = Sulfuric Acid B = Sodium Bisulfate X = Sodium Hydroxide T = Sodium Thiosulfate O = Other (please define)	
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1455</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>											

Comments:

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

## Table of Contents

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False

Client Wilcox & Barton

Received By SA Date 9/30 Time 1850

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 4.4  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? ND Were Samples Tampered with? NA

Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? \_\_\_\_\_

Are there Rushes? F Who was notified? \_\_\_\_\_

Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? \_\_\_\_\_ Acid F Base NA

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

#### Unused Media

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 14, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 132 Portsmouth Ave., Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1641

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed within a light gray rectangular box.

Raymond J. McCarthy  
Project Manager



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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/14/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     2011641

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     132 Portsmouth Ave., Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
132 Portsmouth Ave	2011641-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light pink rectangular background.

Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 132 Portsmouth Ave., Stratham, N

Sample Description:

Work Order: 2011641

Date Received: 9/30/2020

Field Sample #: 132 Portsmouth Ave

Sampled: 9/30/2020 10:40

Sample ID: 2011641-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorohexanesulfonic acid (PFHxS)	3.4	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	74.1	70-130	10/12/20 15:00
M3HFPO-DA	71.4	70-130	10/12/20 15:00
13C-PFDA	71.3	70-130	10/12/20 15:00
d5-NEtFOSAA	77.3	70-130	10/12/20 15:00

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method:** EPA 537.1-EPA 537.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1641-01 [132 Portsmouth Ave]	B268326	250	1.00	10/09/20

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268326 - EPA 537.1</b>										
<b>Blank (B268326-BLK1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
Surrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
<b>LCS (B268326-BS1)</b>										
Prepared: 10/09/20 Analyzed: 10/10/20										
Perfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
Perfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
Perfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
Perfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
Perfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
N-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
Perfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
N-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
Perfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
Perfluorotridecanoic acid (PFTTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
Perfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
11Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
9Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
Surrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
Surrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
Surrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021





**Phone: 413-525-2332**

**Fax: 413-525-6405**

**Email:** [info@contestlabs.com](mailto:info@contestlabs.com)

<http://www.contestlabs.com>

## CHAIN OF CUSTODY RECORD

39 Spruce Street  
East Longmeadow, MA 01028

Doc # 381 Rev 2\_06262019

Page \_\_\_\_ of \_\_\_\_

## ANALYSIS REQUESTED

Company Name: <b>Wilcox &amp; Barton, Inc.</b>		7-Day <input checked="" type="checkbox"/> PFAS 10-Day (std) <input checked="" type="checkbox"/> 10-Day <input type="checkbox"/> Due Date: <input type="checkbox"/> Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>																		2 Preservation Code								
Address: <b>1B Commons Dr, Unit 12B, Londonderry</b>		Rush Approval Required		Orthophosphate Samples																		County Use Only						
Phone: <b>603-309-4190</b>		1-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> 4-Day <input type="checkbox"/> Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>																		Total Number Of:								
Project Name: <b>STR0001</b>		Data Delivery																		VIALS _____								
Project Location: <b>132 Portsmouth Ave, Stratnam, Ave</b>		Format: PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/>																		GLASS _____								
Project Number: <b>STR0001</b>		Other: <input type="checkbox"/>																		PLASTIC _____								
Project Manager: <b>R. Barton</b>		CLP Like Data Pkg Required: <input type="checkbox"/>																		BACTERIA _____								
Con-Test Quote Name/Number:		Email To: <b>rbarton@wilcoxandbarton.com</b>																		ENCORE _____								
Invoice Recipient:		Fax To #:																		Glassware in the fridge? Y / N								
Sampled By: <b>M. Broussard &amp; C. Hensley</b>																				Glassware in freezer? Y / N								
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE															Prepackaged Cooler? Y / N		
1	132 Portsmouth Ave	9/30/20	1040	GRAB	DW	U			2			X															*Contest is not responsible for missing samples from prepacked coolers	
Relinquished by: (signature) <b>C. Hensley</b>		Date/Time: <b>9/30/20</b>	Client Comments: <b>(A)</b>																		1 Matrix Codes:							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1455</b>																			GW = Ground Water							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			WW = Waste Water							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			DW = Drinking Water							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			A = Air							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			S = Soil							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			SL = Sludge							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			SOL = Solid							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			O = Other (please define)							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			<b>in Zn</b>							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			2 Preservation Codes:							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			I = Iced							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			H = HCL							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			M = Methanol							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			N = Nitric Acid							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			S = Sulfuric Acid							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			B = Sodium Bisulfate							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			X = Sodium Hydroxide							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			T = Sodium Thiosulfate							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			O = Other (please define)							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			NELAC and AIHA-LAP, LLC Accredited							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			PCB ONLY							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			Soxhlet							
Received by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																			Non Soxhlet							
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																										
Relinquished by: (signature) <b>[Signature]</b>		Date/Time: <b>9/30/20 1850</b>																										
Comments:																												

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine who analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Cor Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

I Have Not Confirmed Sample Container  
Numbers With Lab Staff Before Relinquishing  
Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False  
Statement will be brought to the attention of the Client - State True or False**

Client Wilcox & Barton

Received By SA Date 9/30 Time 1850

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 4.4  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? ND Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client T Analysis T Sampler Name T  
pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? \_\_\_\_\_

Are there Rushes? F Who was notified? \_\_\_\_\_

Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T

Is there Headspace where applicable? NA

Proper Media/Containers Used? T

Were trip blanks received? F

Do all samples have the proper pH? \_\_\_\_\_

MS/MSD? F

Is splitting samples required? F

On COC? F

Acid F Base NA

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

**Unused Media**

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 26, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 157 Portsmouth Ave, Stratham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20J0117

Enclosed are results of analyses for samples received by the laboratory on October 2, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

## Table of Contents

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/26/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

---

WORK ORDER NUMBER:     20J0117

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     157 Portsmouth Ave, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
157 Portsmouth Ave	20J0117-01	Drinking Water		EPA 537.1	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 537.1****Qualifications:****PF-03**

Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar internal standard non-conformance. Original results reported.

**Analyte & Samples(s) Qualified:****d3-NMeFOSAA**

B268747-BLK1

**S-01**

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

**Analyte & Samples(s) Qualified:****13C-PFDA**

20J0117-01RE1[157 Portsmouth Ave]

**13C-PFHxA**

20J0117-01RE1[157 Portsmouth Ave]

**d5-NEtFOSAA**

20J0117-01RE1[157 Portsmouth Ave]

**M3HFPO-DA**

20J0117-01RE1[157 Portsmouth Ave]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington

Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 157 Portsmouth Ave, Stratham, N

Sample Description:

Work Order: 20J0117

Date Received: 10/2/2020

Field Sample #: 157 Portsmouth Ave

Sampled: 10/1/2020 12:50

Sample ID: 20J0117-01

Sample Matrix: Drinking Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	14	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorohexanoic acid (PFHxA)	36	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorohexanesulfonic acid (PFHxS)	180	20		ng/L	10		EPA 537.1	10/15/20	10/23/20 20:12	JFC
Perfluoroheptanoic acid (PFHpA)	11	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorooctanoic acid (PFOA)	89	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorooctanesulfonic acid (PFOS)	150	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorotridecanoic acid (PFTriDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	80.2	70-130	
<b>13C-PFHxA</b>	*	70-130	S-01, U
M3HFPO-DA	77.4	70-130	
<b>M3HFPO-DA</b>	*	70-130	S-01, U
13C-PFDA	83.5	70-130	
<b>13C-PFDA</b>	*	70-130	S-01, U
d5-NEtFOSAA	73.4	70-130	
<b>d5-NEtFOSAA</b>	*	70-130	S-01, U

---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20J0117-01 [157 Portsmouth Ave]	B268747	250	1.00	10/15/20
20J0117-01RE1 [157 Portsmouth Ave]	B268747	250	1.00	10/15/20



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**
**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268747 - EPA 537.1</b>										
<b>Blank (B268747-BLK1)</b>										
Prepared: 10/15/20 Analyzed: 10/23/20										
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							U
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	30.9		ng/L	40.0		77.3	70-130			
Surrogate: M3HFPO-DA	29.2		ng/L	40.0		73.1	70-130			
Surrogate: 13C-PFDA	33.5		ng/L	40.0		83.8	70-130			
Surrogate: d5-NEtFOSAA	185		ng/L	160		115	70-130			
<b>LCS (B268747-BS1)</b>										
Prepared: 10/15/20 Analyzed: 10/23/20										
Perfluorobutanesulfonic acid (PFBS)	15.2	2.0	ng/L	17.7		86.0	70-130			
Perfluorohexanoic acid (PFHxA)	18.6	2.0	ng/L	20.0		93.0	70-130			
Perfluorohexanesulfonic acid (PFHxS)	16.4	2.0	ng/L	18.2		90.0	70-130			
Perfluoroheptanoic acid (PFHpA)	17.8	2.0	ng/L	20.0		89.0	70-130			
Perfluorooctanoic acid (PFOA)	16.8	2.0	ng/L	20.0		84.0	70-130			
Perfluorooctanesulfonic acid (PFOS)	15.6	2.0	ng/L	18.5		84.2	70-130			
Perfluorononanoic acid (PFNA)	16.8	2.0	ng/L	20.0		84.0	70-130			
Perfluorodecanoic acid (PFDA)	16.5	2.0	ng/L	20.0		82.6	70-130			
N-EtFOSAA	18.3	2.0	ng/L	20.0		91.4	70-130			
Perfluoroundecanoic acid (PFUnA)	15.8	2.0	ng/L	20.0		78.8	70-130			
N-MeFOSAA	17.2	2.0	ng/L	20.0		86.0	70-130			
Perfluorododecanoic acid (PFDoA)	16.6	2.0	ng/L	20.0		83.1	70-130			
Perfluorotridecanoic acid (PFTTrDA)	16.7	2.0	ng/L	20.0		83.3	70-130			
Perfluorotetradecanoic acid (PFTA)	16.8	2.0	ng/L	20.0		84.0	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	15.3	2.0	ng/L	20.0		76.7	70-130			
11Cl-PF3OUdS (F53B Major)	16.1	2.0	ng/L	18.8		85.9	70-130			
9Cl-PF3ONS (F53B Minor)	17.4	2.0	ng/L	18.6		93.7	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	17.0	2.0	ng/L	20.0		85.2	70-130			
Surrogate: 13C-PFHxA	34.6		ng/L	40.0		86.6	70-130			
Surrogate: M3HFPO-DA	30.7		ng/L	40.0		76.8	70-130			
Surrogate: 13C-PFDA	34.7		ng/L	40.0		86.8	70-130			
Surrogate: d5-NEtFOSAA	135		ng/L	160		84.7	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
PF-03	Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar internal standard non-conformance. Original results reported.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
U	Analyte included in the analysis, but not detected

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>EPA 537.1 in Drinking Water</i></b>	
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client WAB

Received By [Signature] Date 10/2/20 Time 1905

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 23  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all Client \_\_\_\_\_ Analysis T Sampler Name T  
pertinent Information? Project \_\_\_\_\_ ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
Are there Rushes? F Who was notified? \_\_\_\_\_  
Are there Short Holds? F Who was notified? \_\_\_\_\_

Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? F  
Proper Media/Containers Used? T Is splitting samples required? F  
Were trip blanks received? F On COC? F  
Do all samples have the proper pH? \_\_\_\_\_ Acid N/A Base N/A

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

#### Unused Media

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

October 19, 2020

Russell Barton  
Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660

Project Location: 4 Winnicutt Rd., Straham, NH  
Client Job Number:  
Project Number: STRT0001  
Laboratory Work Order Number: 20I1638

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R J McCarthy", is displayed on a light gray rectangular background.

Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton  
1115 Route 100B, Suite 200  
Moretown, VT 05660  
ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER:     STRT0001

**ANALYTICAL SUMMARY**

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WORK ORDER NUMBER:     2011638

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:     4 Winnicutt Rd., Straham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	20I1638-01	Ground Water		SOP 434-PFAAS	
MW-3	20I1638-02	Ground Water		SOP 434-PFAAS	
MW-5	20I1638-03	Ground Water		SOP 434-PFAAS	
MW-102	20I1638-04	Ground Water		SOP 434-PFAAS	
MW-103	20I1638-05	Ground Water		SOP 434-PFAAS	
MW-104	20I1638-06	Ground Water		SOP 434-PFAAS	
MW-105	20I1638-07	Ground Water		SOP 434-PFAAS	



**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**SOP 434-PFAAS****Qualifications:****L-05**

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

**Analyte & Samples(s) Qualified:****Perfluoroheptanesulfonic acid (PF1**

2011638-06RE1[MW-104], B268557-BS1

**S-01**

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

**Analyte & Samples(s) Qualified:****13C-PFDA**

2011638-01RE1[MW-1], 2011638-02RE1[MW-3], 2011638-03RE1[MW-5], 2011638-04RE1[MW-102], 2011638-07RE1[MW-105]

**13C-PFHxA**

2011638-01RE1[MW-1], 2011638-02RE1[MW-3], 2011638-03RE1[MW-5], 2011638-04RE1[MW-102], 2011638-07RE1[MW-105]

**d5-NEtFOSAA**

2011638-01RE1[MW-1], 2011638-02RE1[MW-3], 2011638-03RE1[MW-5], 2011638-04RE1[MW-102], 2011638-07RE1[MW-105]

**V-06**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:****Perfluoroheptanesulfonic acid (PF1**

2011638-06RE1[MW-104], B268557-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington

Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Straham, NH

Sample Description:

Work Order: 2011638

Date Received: 9/30/2020

Field Sample #: MW-1

Sampled: 9/30/2020 09:40

Sample ID: 2011638-01

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	17	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorobutanesulfonic acid (PFBS)	18	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluoropentanoic acid (PFPeA)	59	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorohexanoic acid (PFHxA)	50	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorohexanesulfonic acid (PFHxS)	230	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 17:47	JFC
Perfluoroheptanoic acid (PFHpA)	29	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluoroheptanesulfonic acid (PFHpS)	2.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorooctanoic acid (PFOA)	110	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorooctanesulfonic acid (PFOS)	68	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	78.0	70-130	
<b>13C-PFHxA</b>	*	70-130	S-01, U
13C-PFDA	78.1	70-130	
<b>13C-PFDA</b>	*	70-130	S-01, U
d5-NEtFOSAA	81.7	70-130	
<b>d5-NEtFOSAA</b>	*	70-130	S-01, U

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Straham, NH

Sample Description:

Work Order: 2011638

Date Received: 9/30/2020

Field Sample #: MW-3

Sampled: 9/30/2020 09:50

Sample ID: 2011638-02

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	20	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorobutanesulfonic acid (PFBS)	19	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluoropentanoic acid (PFPeA)	65	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorohexanoic acid (PFHxA)	57	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorohexanesulfonic acid (PFHxS)	380	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 18:09	JFC
Perfluoroheptanoic acid (PFHpA)	40	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluoroheptanesulfonic acid (PFHpS)	3.6	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorooctanoic acid (PFOA)	170	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorooctanesulfonic acid (PFOS)	140	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	2.1	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorononanoic acid (PFNA)	2.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	84.7	70-130	
<b>13C-PFHxA</b>	*	70-130	S-01, U
13C-PFDA	86.3	70-130	
<b>13C-PFDA</b>	*	70-130	S-01, U
d5-NEtFOSAA	83.6	70-130	
<b>d5-NEtFOSAA</b>	*	70-130	S-01, U

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Straham, NH

Sample Description:

Work Order: 2011638

Date Received: 9/30/2020

Field Sample #: MW-5

Sampled: 9/30/2020 10:00

Sample ID: 2011638-03

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	8.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorobutanesulfonic acid (PFBS)	17	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluoropentanoic acid (PFPeA)	26	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorohexanoic acid (PFHxA)	29	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorohexanesulfonic acid (PFHxS)	170	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 18:30	JFC
Perfluoroheptanoic acid (PFHpA)	14	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluoroheptanesulfonic acid (PFHpS)	4.0	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorooctanoic acid (PFOA)	71	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorooctanesulfonic acid (PFOS)	73	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	79.3	70-130	
<b>13C-PFHxA</b>	*	70-130	S-01, U
13C-PFDA	82.7	70-130	
<b>13C-PFDA</b>	*	70-130	S-01, U
d5-NEtFOSAA	78.1	70-130	
<b>d5-NEtFOSAA</b>	*	70-130	S-01, U

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Straham, NH

Sample Description:

Work Order: 2011638

Date Received: 9/30/2020

Field Sample #: MW-102

Sampled: 9/30/2020 09:30

Sample ID: 2011638-04

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	3.2	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorobutanesulfonic acid (PFBS)	8.9	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluoropentanoic acid (PFPeA)	7.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorohexanoic acid (PFHxA)	74	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorohexanesulfonic acid (PFHxS)	410	100	ng/L	50		SOP 434-PFAAS	10/8/20	10/16/20 13:15	JFC
Perfluoroheptanoic acid (PFHpA)	5.9	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluoroheptanesulfonic acid (PFHpS)	36	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorooctanoic acid (PFOA)	53	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorooctanesulfonic acid (PFOS)	3900	100	ng/L	50		SOP 434-PFAAS	10/8/20	10/16/20 13:15	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	25	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	73.2	70-130	
<b>13C-PFHxA</b>	*	70-130	S-01, U
13C-PFDA	76.0	70-130	
<b>13C-PFDA</b>	*	70-130	S-01, U
d5-NEtFOSAA	73.8	70-130	
<b>d5-NEtFOSAA</b>	*	70-130	S-01, U

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Straham, NH

Sample Description:

Work Order: 2011638

Date Received: 9/30/2020

Field Sample #: MW-103

Sampled: 9/30/2020 09:50

Sample ID: 2011638-05

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.1	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorobutanesulfonic acid (PFBS)	8.1	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoropentanoic acid (PFPeA)	15	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorohexanoic acid (PFHxA)	21	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorohexanesulfonic acid (PFHxS)	140	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoroheptanoic acid (PFHpA)	5.5	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoroheptanesulfonic acid (PFHpS)	15	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorooctanoic acid (PFOA)	33	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorooctanesulfonic acid (PFOS)	170	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	19	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	74.7	70-130	10/13/20 11:26
13C-PFDA	79.3	70-130	10/13/20 11:26
d5-NEtFOSAA	78.0	70-130	10/13/20 11:26

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Straham, NH

Sample Description:

Work Order: 2011638

Date Received: 9/30/2020

Field Sample #: MW-104

Sampled: 9/30/2020 10:00

Sample ID: 2011638-06

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	7.9	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorobutanesulfonic acid (PFBS)	10	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoropentanoic acid (PFPeA)	20	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorohexanoic acid (PFHxA)	43	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorohexanesulfonic acid (PFHxS)	240	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoroheptanoic acid (PFHpA)	11	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoroheptanesulfonic acid (PFHpS)	5.3	4.0	ng/L	2	L-05, V-06	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorooctanoic acid (PFOA)	110	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorooctanesulfonic acid (PFOS)	190	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorooctanesulfonamide (FOSA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	7.4	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorononanoic acid (PFNA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorodecanoic acid (PFDA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
N-EtFOSAA	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoroundecanoic acid (PFUnA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
N-MeFOSAA	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorododecanoic acid (PFDoA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorotetradecanoic acid (PFTA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	93.9	70-130	10/15/20 16:41
13C-PFDA	78.8	70-130	10/15/20 16:41
d5-NEtFOSAA	79.7	70-130	10/15/20 16:41

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 4 Winnicutt Rd., Straham, NH

Sample Description:

Work Order: 2011638

Date Received: 9/30/2020

Field Sample #: MW-105

Sampled: 9/30/2020 09:40

Sample ID: 2011638-07

Sample Matrix: Ground Water

## Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.0	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorobutanesulfonic acid (PFBS)	11	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoropentanoic acid (PFPeA)	12	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorohexanoic acid (PFHxA)	34	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorohexanesulfonic acid (PFHxS)	150	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoroheptanoic acid (PFHpA)	4.6	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoroheptanesulfonic acid (PFHpS)	6.5	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorooctanoic acid (PFOA)	100	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorooctanesulfonic acid (PFOS)	230	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 19:35	JFC
Perfluorooctanesulfonamide (FOSA)	7.2	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	64	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	80.1	70-130	
<b>13C-PFHxA</b>	*	70-130	S-01, U
13C-PFDA	80.4	70-130	
<b>13C-PFDA</b>	*	70-130	S-01, U
d5-NEtFOSAA	74.8	70-130	
<b>d5-NEtFOSAA</b>	*	70-130	S-01, U



---

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332**Sample Extraction Data****Prep Method: SOP 434-PFAAS-SOP 434-PFAAS**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1638-01 [MW-1]	B268229	250	1.00	10/08/20
20I1638-01RE1 [MW-1]	B268229	250	1.00	10/08/20
20I1638-02 [MW-3]	B268229	250	1.00	10/08/20
20I1638-02RE1 [MW-3]	B268229	250	1.00	10/08/20
20I1638-03 [MW-5]	B268229	250	1.00	10/08/20
20I1638-03RE1 [MW-5]	B268229	250	1.00	10/08/20
20I1638-04 [MW-102]	B268229	250	1.00	10/08/20
20I1638-04RE1 [MW-102]	B268229	250	1.00	10/08/20
20I1638-05 [MW-103]	B268229	250	1.00	10/08/20
20I1638-07 [MW-105]	B268229	250	1.00	10/08/20
20I1638-07RE1 [MW-105]	B268229	250	1.00	10/08/20

**Prep Method: SOP 434-PFAAS-SOP 434-PFAAS**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1638-06RE1 [MW-104]	B268557	250	1.00	10/13/20

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268229 - SOP 434-PFAAS</b>										
<b>Blank (B268229-BLK1)</b>										
Prepared: 10/08/20 Analyzed: 10/13/20										
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L							U
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							U
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	32.5		ng/L	40.0		81.1	70-130			
Surrogate: 13C-PFDA	32.5		ng/L	40.0		81.4	70-130			
Surrogate: d5-NEtFOSAA	126		ng/L	160		78.8	70-130			
<b>LCS (B268229-BS1)</b>										
Prepared: 10/08/20 Analyzed: 10/13/20										
Perfluorobutanoic acid (PFBA)	8.52	2.0	ng/L	10.0		85.2	70-130			
Perfluorobutanesulfonic acid (PFBS)	8.17	2.0	ng/L	8.85		92.3	70-130			
Perfluoropentanoic acid (PFPeA)	10.0	2.0	ng/L	10.0		100	70-130			
Perfluorohexanoic acid (PFHxA)	9.41	2.0	ng/L	10.0		94.1	70-130			
Perfluorohexanesulfonic acid (PFHxS)	8.07	2.0	ng/L	9.10		88.7	70-130			
Perfluoroheptanoic acid (PFHpA)	8.61	2.0	ng/L	10.0		86.1	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	8.52	2.0	ng/L	9.50		89.6	70-130			
Perfluorooctanoic acid (PFOA)	9.57	2.0	ng/L	10.0		95.7	70-130			
Perfluorooctanesulfonic acid (PFOS)	8.46	2.0	ng/L	9.25		91.4	70-130			
Perfluorooctanesulfonamide (FOSA)	8.15	2.0	ng/L	10.0		81.5	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	8.54	2.0	ng/L	9.50		89.9	70-130			
Perfluorononanoic acid (PFNA)	9.62	2.0	ng/L	10.0		96.2	70-130			
Perfluorodecanoic acid (PFDA)	9.45	2.0	ng/L	10.0		94.5	70-130			
Perfluorodecanesulfonic acid (PFDS)	8.44	2.0	ng/L	9.65		87.4	70-130			
N-EtFOSAA	10.5	2.0	ng/L	10.0		105	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	8.50	2.0	ng/L	9.60		88.5	70-130			
Perfluoroundecanoic acid (PFUnA)	8.59	2.0	ng/L	10.0		85.9	70-130			
N-MeFOSAA	9.24	2.0	ng/L	10.0		92.4	70-130			
Perfluorododecanoic acid (PFDoA)	8.46	2.0	ng/L	10.0		84.6	70-130			
Perfluorotridecanoic acid (PFTrDA)	8.56	2.0	ng/L	10.0		85.6	70-130			
Perfluorotetradecanoic acid (PFTA)	7.94	2.0	ng/L	10.0		79.4	70-130			
Surrogate: 13C-PFHxA	32.6		ng/L	40.0		81.5	70-130			
Surrogate: 13C-PFDA	32.9		ng/L	40.0		82.3	70-130			
Surrogate: d5-NEtFOSAA	130		ng/L	160		81.3	70-130			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B268557 - SOP 434-PFAAS</b>										
<b>Blank (B268557-BLK1)</b>										
Prepared: 10/13/20 Analyzed: 10/15/20										
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L							U
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							U
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L							U
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L							U
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
N-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Surrogate: 13C-PFHxA	38.6		ng/L	40.0		96.4	70-130			
Surrogate: 13C-PFDA	35.4		ng/L	40.0		88.6	70-130			
Surrogate: d5-NEtFOSAA	140		ng/L	160		87.7	70-130			
<b>LCS (B268557-BS1)</b>										
Prepared: 10/13/20 Analyzed: 10/15/20										
Perfluorobutanoic acid (PFBA)	11.9	2.0	ng/L	10.0		119	70-130			
Perfluorobutanesulfonic acid (PFBS)	9.12	2.0	ng/L	8.85		103	70-130			
Perfluoropentanoic acid (PFPeA)	11.7	2.0	ng/L	10.0		117	70-130			
Perfluorohexanoic acid (PFHxA)	11.9	2.0	ng/L	10.0		119	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.63	2.0	ng/L	9.10		106	70-130			
Perfluoroheptanoic acid (PFHpA)	11.8	2.0	ng/L	10.0		118	70-130			
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	13.6	2.0	ng/L	9.50		143 *	70-130			V-06, L-05
Perfluorooctanoic acid (PFOA)	11.8	2.0	ng/L	10.0		118	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.84	2.0	ng/L	9.25		106	70-130			
Perfluorooctanesulfonamide (FOSA)	9.23	2.0	ng/L	10.0		92.3	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	11.5	2.0	ng/L	9.50		121	70-130			
Perfluorononanoic acid (PFNA)	11.9	2.0	ng/L	10.0		119	70-130			
Perfluorodecanoic acid (PFDA)	11.0	2.0	ng/L	10.0		110	70-130			
Perfluorodecanesulfonic acid (PFDS)	8.78	2.0	ng/L	9.65		91.0	70-130			
N-EtFOSAA	9.18	2.0	ng/L	10.0		91.8	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	11.4	2.0	ng/L	9.60		119	70-130			
Perfluoroundecanoic acid (PFUnA)	10.4	2.0	ng/L	10.0		104	70-130			
N-MeFOSAA	9.67	2.0	ng/L	10.0		96.7	70-130			
Perfluorododecanoic acid (PFDoA)	9.39	2.0	ng/L	10.0		93.9	70-130			
Perfluorotridecanoic acid (PFTrDA)	9.76	2.0	ng/L	10.0		97.6	70-130			
Perfluorotetradecanoic acid (PFTA)	9.87	2.0	ng/L	10.0		98.7	70-130			
Surrogate: 13C-PFHxA	42.3		ng/L	40.0		106	70-130			
Surrogate: 13C-PFDA	38.1		ng/L	40.0		95.2	70-130			
Surrogate: d5-NEtFOSAA	157		ng/L	160		98.1	70-130			

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
U	Analyte included in the analysis, but not detected
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>SOP 434-PFAAS in Water</i></b>	
Perfluorobutanoic acid (PFBA)	NH-P
Perfluorobutanesulfonic acid (PFBS)	NH-P
Perfluoropentanoic acid (PFPeA)	NH-P
Perfluorohexanoic acid (PFHxA)	NH-P
Perfluorohexanesulfonic acid (PFHxS)	NH-P
Perfluoroheptanoic acid (PFHpA)	NH-P
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH-P
Perfluorononanoic acid (PFNA)	NH-P
Perfluorodecanoic acid (PFDA)	NH-P
N-EtFOSAA	NH-P
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH-P
Perfluoroundecanoic acid (PFUnA)	NH-P
N-MeFOSAA	NH-P
Perfluorododecanoic acid (PFDoA)	NH-P
Perfluorotridecanoic acid (PFTrDA)	NH-P
Perfluorotetradecanoic acid (PFTA)	NH-P

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



<http://www.contestlabs.com>

CHAIN OF CUSTODY RECORD

39 Spruce Street  
East Longmeadow, MA 01028

Doc # 381 Rev 2 06262019

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Fax: 413-525-6405 Email: info@contestlabs.com		Requested Turnaround Time 7-Day <input type="checkbox"/> 10-Day <input type="checkbox"/> PFAS 10-Day (std) <input checked="" type="checkbox"/> Due Date:		Dissolved Metals Samples <input type="radio"/> Field Filtered <input type="radio"/> Lab to Filter		ANALYSIS REQUESTED								
Company Name: <b>Wilcox &amp; Barton, Inc.</b> Address: <b>#18 Commons Drive, Unit 12B, Londonderry, NH</b> Phone: <b>978-491-9943</b>		Rush-Approval Required 1-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> 4-Day <input type="checkbox"/>		Orthophosphate Samples <input type="radio"/> Field Filtered <input type="radio"/> Lab to Filter										
Project Name: <b>STR0001</b> Project Location: <b>4 Winnicutt Road, Stratham, NH</b> Project Number: <b>STR0001</b> Project Manager: <b>Russ Barton</b> Con-Test Quote Name/Number: Invoice Recipient: Sampled By: <b>C. Hensley / M. Broussard</b>		Data Delivery Format: PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> Other: CLP Like Data Pkg Required: <input type="checkbox"/> Email To: <b>r.barton@wilcoxandbarton.com</b> Fax To #:		PFAS 537.1										
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time			COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	
1	MW-1	9-30-20	0940			G	GW	U			x2			X
2	MW-3	9-30-20	0950			G	GW	U			x2			X
3	MW-5	9-30-20	1000			G	GW	U			x2			X
4	MW-102	9-30-20	0930			G	GW	U			x2			X
5	MW-103	9-30-20	0950			G	GW	U			x2			X
6	MW-104	9-30-20	1000			G	GW	U			x2			X
7	MW-105	9-30-20	0940	G	GW	U			x2			X		
Relinquished by: (signature) <i>Charles M. Hensley</i> Date/Time: <b>9/30/20</b>		Client Comments:												
Received by: (signature) <i>James Wilk</i> Date/Time: <b>9/30/20 1455</b>		(A)												
Relinquished by: (signature) <i>James Wilk</i> Date/Time: <b>9/30/20 1850</b>		Detection Limit Requirements MA <input type="checkbox"/>												
Received by: (signature) <i>James Wilk</i> Date/Time: <b>9/30/20 1850</b>		Special Requirements MA MCP Required <input type="checkbox"/> MCP Certification Form Required <input type="checkbox"/> CT RCP Required <input type="checkbox"/> RCP Certification Form Required <input type="checkbox"/> MA State DW Required <input type="checkbox"/>												
Relinquished by: (signature) Date/Time:		Other: <b>NHDES AGQS</b> PWSID #												
Received by: (signature) Date/Time:		Project Entity Government <input type="checkbox"/> Municipality <input type="checkbox"/> MWRA <input type="checkbox"/> WRTA <input type="checkbox"/> Federal <input type="checkbox"/> 21 J <input type="checkbox"/> School <input type="checkbox"/> City <input type="checkbox"/> Brownfield <input type="checkbox"/> MBTA <input type="checkbox"/>												
Relinquished by: (signature) Date/Time:		NELAC and AIHA-LAP, LLC Accredited												
Received by: (signature) Date/Time:		Other <input type="checkbox"/> Chromatogram <input type="checkbox"/> AIHA-LAP, LLC												
Comments:		PCB ONLY <input type="checkbox"/> Soxhlet <input type="checkbox"/> Non Soxhlet												

**Disclaimer:** Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

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## Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test®**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Wilcox & Barron

Received By SA Date 9/30 Time 1850

How were the samples received? In Cooler T No Cooler        On Ice T No Ice         
Direct from Sampling        Ambient        Melted Ice       

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 4.4  
By Blank #        Actual Temp -       

Was Custody Seal Intact? ND Were Samples Tampered with? NA

Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all Client T Analysis T Sampler Name T

pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified?       

Are there Rushes? F Who was notified?       

Are there Short Holds? F Who was notified?       

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH?        Acid F Base NA

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>14</u>	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-		Other Glass		Other Plastic		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

#### Unused Media

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

## **APPENDIX D**

### **Notification Letters to Private Water Well Owners**



January 14, 2021

Marjorie Rawson  
1 College Road  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
1 College Road, Stratham**

Dear Ms. Rawson:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS compounds were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

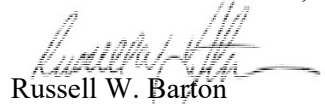
- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,  
**WILCOX & BARTON, INC.**

  
Russell W. Barton  
–SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Parsons M H & Sons Lumber Co.  
P.O. Box 450  
York, Maine 03909

**RE: Water Supply Well Sampling Results – September 29, 2020  
2 College Road, Stratham**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 2 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory report for the sample. Six PFAS compounds were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).


For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

**WWW.WILCOXANDBARTON.COM**

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Offices In: New Hampshire • Vermont • Massachusetts • Connecticut • Hawaii

January 14, 2021

Schmidt Family Trust  
P.O. Box 252  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
3 College Road, Stratham**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 3 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS compounds were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

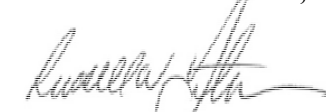
For water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Town of Stratham  
10 Bunker Hill Avenue  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
4 Winnicutt Road, Stratham**

To Whom It May Concern:

Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 4 Winnicutt Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to further evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory report. Seven PFAS compounds were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceeded the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist –

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

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January 14, 2021

David and Jeanne Short  
P.O. Box 715  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
4, 4R, and 6 College Road, Stratham**

Dear Mr. and Mrs. Short:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected samples from the water supply wells servicing your properties at 4, 4R, and 6 College Road. The samples were collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. They were submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory report. Samples were collected from the well servicing the nursery building (4 College Road), the irrigation well (4R College Road), the primary well (4R College Road), and the well servicing 6 College Road. Several PFAS compounds were detected in each of the four samples. The concentrations of two of these compounds, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), exceeded the NHDES health-based Maximum Contaminant Levels (MCLs) in the samples collected from the well servicing 4 College Road and both wells servicing 4R College Road. Two compounds, perfluorohexane sulfonate (PFHxS) and PFOS, were present at concentrations exceeding the applicable MCLs in the sample collected from the well servicing 6 College Road. The following MCLs have been established:


- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau



January 14, 2021

Verne Edward Rawson, III  
5 College Road  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
5 College Road, Stratham, New Hampshire 03885**

Dear Mr. Rawson:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 5 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS compounds were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Gregory and Ralph Marston  
7 and 7R Winnicutt Road  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
7 and 7R Winnicutt Road, Stratham, New Hampshire 03885**

Dear Gregory Marston and Ralph Marston:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your properties at 7 and 7R Winnicutt Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Perfluorohexanoic acid (PFHxA), a compound which does not have an established NHDES health-based Maximum Contaminant Level (MCL), was detected in the sample. The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

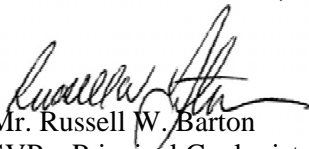
For water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. The NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**

  
Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

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January 14, 2021

Verne E. Rawson, Jr.  
9 College Road  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
9 College Road, Stratham, New Hampshire 03885**

Dear Mr. Rawson, Jr:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 9 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS were detected in the sample. The concentration of perfluorooctane sulfonate (PFOS) in the sample exceeds the NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for PFOS;
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Andrea J. and Alan P. Shine-Canty  
11 College Road  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
11 College Road, Stratham, New Hampshire 03885**

Dear Andrea J. and Alan P. Shine-Canty:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of two of these compounds, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

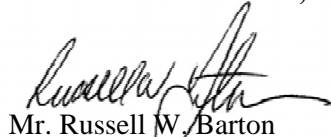
- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for perfluorohexane sulfonate (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Robert S. and Anne M. Fawcett  
15 College Road  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 30, 2020  
15 College Road, Stratham, New Hampshire 03885**

Dear Robert S. and Anne M. Fawcett:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. No PFAS were detected in the drinking water sample collected from your property.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Michael and Margaret Desroches  
23 College Road  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
23 College Road, Stratham, New Hampshire 03885**

Dear Michael and Margaret Desroches:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Four PFAS were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

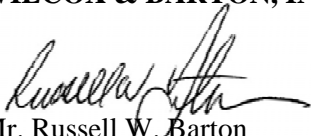
For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Tonal Hearth Property Management  
132 Portsmouth Avenue  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 30, 2020  
132 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Perfluorohexane sulfonic acid (PFHxS) was detected in the sample, but at a concentration below the applicable NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

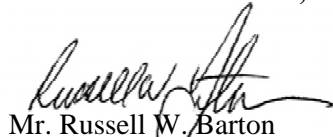
For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau



January 14, 2021

Piper's Landing Partnership  
142 Portsmouth Avenue  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
142 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

F & T Realty Partnership  
c/o Cadieux, Thomas and Frank  
P.O. Box 155  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
145 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

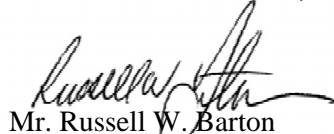
- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

**WWW.WILCOXANDBARTON.COM**

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January 14, 2021

Jedi Realty, Inc.  
149 Portsmouth Avenue  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
149 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

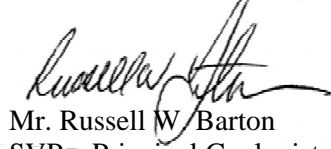
Attached, please find a copy of the laboratory analytical report. Based on the difference in laboratory analytical results between the sample collected in March 2019 to the one collected in September 2020, it is likely that a treatment system was installed at the property and the recent sample consisted of treated drinking water.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau



January 14, 2021

Leshas LLC  
24 Pinewood Drive  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
152 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:


- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Forma Realty II, LLC  
18 Congress Street, Suite 302  
Portsmouth, New Hampshire 03801

**RE: Water Supply Well Sampling Results – October 1, 2020  
157 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

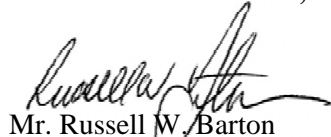
- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

John Forma Revocable Trust  
18 Congress Street, Suite 302  
Portsmouth, New Hampshire 03801

**RE: Water Supply Well Sampling Results – September 29, 2020  
159 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

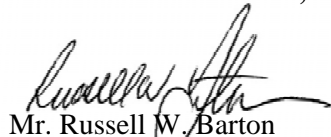
- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Chittenden Trust Company  
c/o People's United Bank  
850 Main Street  
Bridgeport, Connecticut 06604

**RE: Water Supply Well Sampling Results – September 29, 2020  
160 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

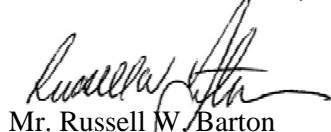
For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

**WWW.WILCOXANDBARTON.COM**

#1B Commons Drive, Unit 12B, Londonderry, NH 03053 • Ph: (603) 369-4190 | (888) 777-5805 • Fax: (603) 369-6639

Offices In: New Hampshire • Vermont • Massachusetts • Connecticut • Hawaii

January 14, 2021

Ronald and Sandra Deane  
161 Portsmouth Avenue, Unit 2  
Bridgeport, Connecticut 06604

**RE: Water Supply Well Sampling Results – September 29, 2020  
161-2 Portsmouth Avenue, Stratham, New Hampshire 03885**

Dear Ronald and Sandra Deane:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

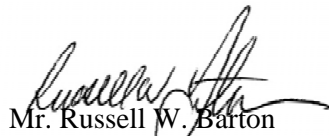
- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau



January 14, 2021

Blunt Family Revocable Trust  
P.O. Box 268  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 30, 2020  
164 Portsmouth Avenue, Stratham, New Hampshire 03885**

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS were detected in the sample. Perfluorohexane sulfonate (PFHxS) was present in the sample at a concentration exceeding the applicable NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

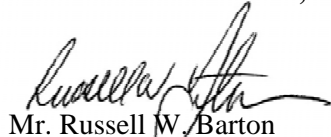
- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

January 14, 2021

Robert McLaughlin and Barbara Smith  
P.O. Box 793  
Stratham, New Hampshire 03885

**RE: Water Supply Well Sampling Results – September 29, 2020  
166 Portsmouth Avenue, Stratham, New Hampshire 03885**

Dear Robert McLaughlin and Barbara Smith:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Four PFAS were detected in the sample. Perfluorohexane sulfonate (PFHxS) was present in the sample at a concentration exceeding the applicable NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

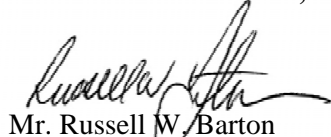
- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

**WILCOX & BARTON, INC.**



Mr. Russell W. Barton  
SVP – Principal Geologist

Attachment: Laboratory Report

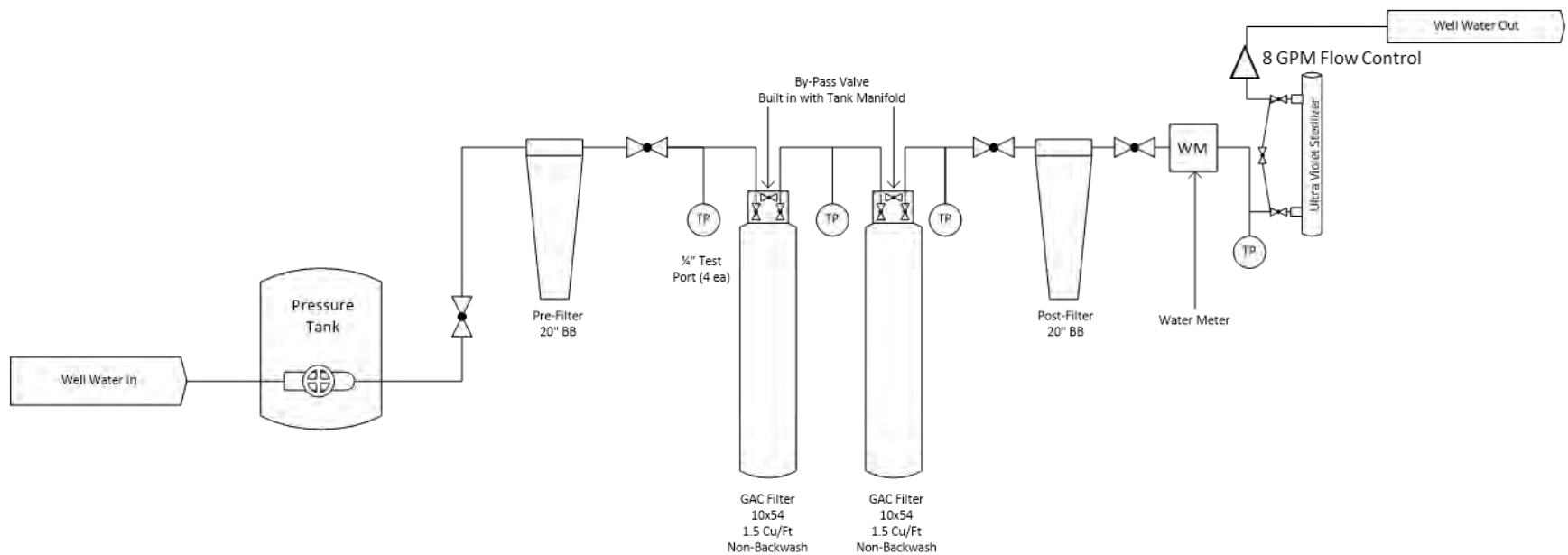
cc: Mr. David Moore, Town of Stratham  
NHDES Hazardous Waste Remediation Bureau

**APPENDIX E**

**POE Treatment System Schematics**



## SafeWell Option #1



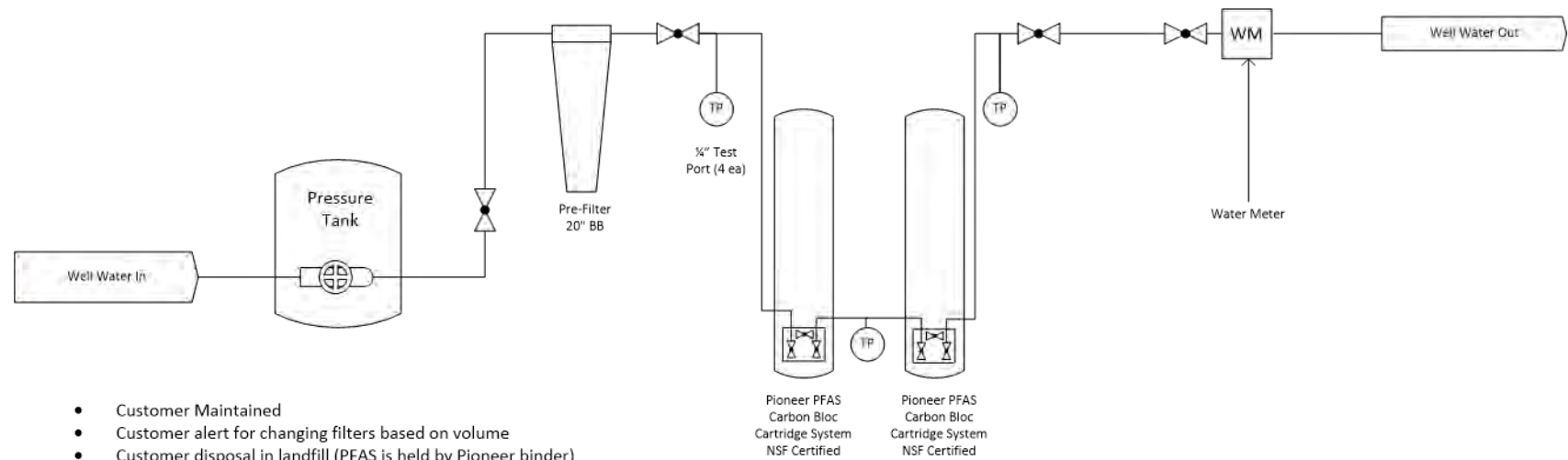
SafeWell PFAS  
Dual Carbon Tank  
Filter System

Configuration Requested By:  
New England Disposal Technologies, Inc.

Version 1.1

06/08/2020

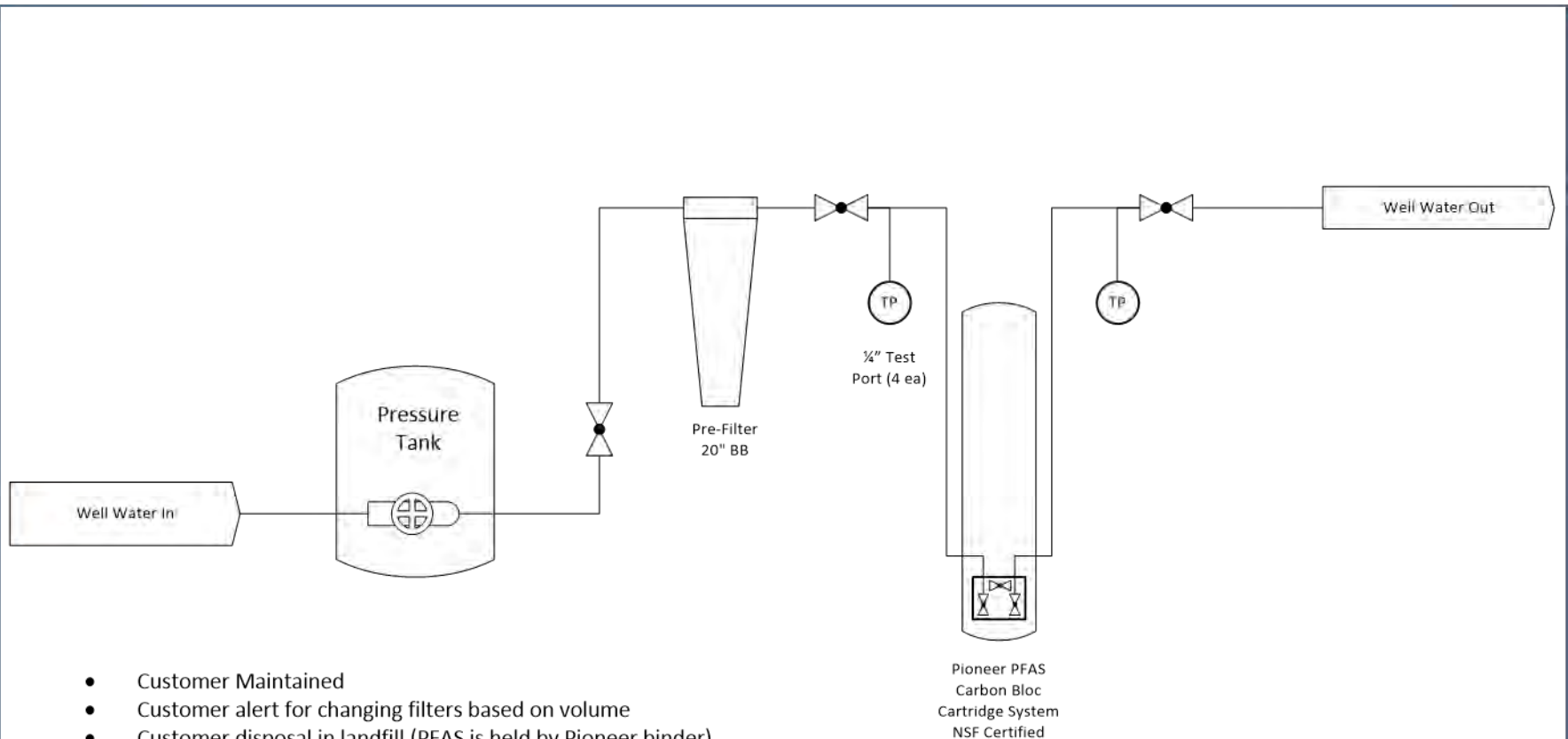
## SafeWell Option #2



SafeWell PFAS  
POE Dual Tank  
Pioneer System

06/08/2020

## SafeWell Option #3 Cost Effective Solution



- Customer Maintained
- Customer alert for changing filters based on volume
- Customer disposal in landfill (PFAS is held by Pioneer binder)
- UV and post sediment not required



SafeWell PFAS  
POE Single Tank  
Pioneer System

06/08/2020

## **APPENDIX F**

### **Groundwater Monitoring Permit Application**