Tighe&Bond
Engineers | Environmental Specialists

P-0534
September 7, 2021

Mr. Timothy Maus
Massachusetts Department of Environmental Protection
8 New Bond Street
Worcester, MA 01606

**Re: IRA Status Report No. 4**
**6 Town Hall Drive, Princeton**
**RTN 2-21072**

Dear Mr. Maus:

On behalf of the Town of Princeton (the "Town"), Tighe & Bond has prepared this Immediate Response Action (IRA) Status Report for the response actions that commenced after the Massachusetts Department of Environmental Protection (MassDEP) sent a Notice of Responsibility (NOR) to the Town dated November 25, 2019, in response to the reported detection of per- and polyfluoroalkyl substances (collectively known as PFAS) in the drinking water well that serves the Princeton Town Hall campus at 6 Town Hall Drive in Princeton ("the Site").

The Site previously was identified as a disposal site for a release of fuel oil from underground storage tanks (UST) removed in 1987 that has been the subject of response actions conducted under Release Tracking Number (RTN) 2-11327. In May 2019, the Town and MassDEP entered into Administrative Consent Order ACO-CE-19-5D00006872 (ACO) to address the Town's obligations for the Public Water Supply (PWS) being operated at the Site. In accordance with Section 8(C)(vii) of the ACO, drinking water samples from the PWS well were collected by the Town's PWS operator on September 5, 2019 and September 27, 2019. These sample results identified a PFAS6 concentration of 127 and 102 nanograms/liter (ng/L), respectively. At that time, MassDEP's drinking water guideline was 70 ng/L, and MassDEP's proposed Maximum Contaminant Level (MCL) for PFAS in public water supply wells was proposed to be 20 ng/L for PFAS6.

The PWS sampling results were reported by the Town's PWS operator to the MassDEP's Division of Water Supply, which reportedly informed MassDEP's Bureau of Waste Site Cleanup (BWSC) staff of the results. Subsequently, MassDEP's BWSC staff contacted Jeffrey Arps of Tighe & Bond, as the LSP of record for RTN 2-11327, to suggest that action should be taken to address the results under the Massachusetts Contingency Plan (MCP). On November 4, 2019, on behalf of the Town of Princeton, Tighe & Bond verbally notified MassDEP of these drinking water sample results as a 2-hour reporting condition, although the MCP at 310 CMR 40.0317(11) states that releases of oil and/or hazardous material in groundwater detected by sampling conducted by PWS owners or operators under 310 CMR 22.00: Drinking Water, as indicated by the presence of oil and/or hazardous material in a PWS source, are exempt from the notification requirements in the MCP.

On November 4, 2019, MassDEP assigned RTN 2-21072 to the notification and modified the release to a 72-hour Substantial Release Migration (SRM) condition under 310 CMR 40.0313(4)(d). Under the MCP, the requirement to provide notification for an SRM condition is triggered when a release to groundwater is detected in a PWS well, where that condition is associated with a release for which notification otherwise is or has at any time in the past been required under the MCP. Although the presence of PFAS in the PWS well at the Site was not identified as a condition associated with a release for which notification is or has at any time in the past been required under the MCP, the NOR sent to the Town by MassDEP states:

"The detection of PFAS in the public drinking water supply well from a release at the Site constitutes a condition of SRM."

Under 310 CMR 40.0414(3), IRAs are presumed to require elimination and/or mitigation of a Critical Exposure Pathway (CEP), which in this instance would include routes by which PFAS may be transported to human receptors by ingestion of "measurable concentrations" of PFAS from drinking water supply wells located at and servicing a pre-school, daycare, school or occupied residential dwelling. Given the proximity of residences served by private wells in the vicinity of the Site, the IRA plan included steps to investigate the presence of PFAS in private wells and, if measurable concentrations were detected, to mitigate the potential for ingestion of PFAS.

The activities described herein include immediate response actions completed since the submittal of the IRA Status Report No. 3 on March 10, 2021 and the Quarterly Status Report submitted on June 4, 2021.

A Site Plan (Figure 1) showing private well locations and their respective PFAS6 results is included in Appendix A for reference. A complete summary of all potable well results collected to date is presented in Table 1, included in Appendix B.

# Status of Immediate Response Actions

## IRA Modification No. 4 Approval

Tighe & Bond received IRA Modification No. 4 Conditional Approval from MassDEP on June 21, 2021. IRA Modification No. 4 was submitted on June 4, 2021 with the opinion that a reduction in potable well sampling and POET monitoring is appropriate for this site. As stated in the letter, MassDEP approved the IRA Plan modification to reduce the frequency of potable well sampling from quarterly to semi-annually and the sampling of POET system monitoring in accordance with the following schedule.

1. Within the first month of operation, the POET system effluent shall be sampled.
2. After one year of operation, the POET system midfluent and effluent shall be sampled semi-annually.
3. After two years of operation, the POET system midfluent and effluent shall be sampled quarterly until the carbon requires replacement.

## Potable Well Sampling

With the submittal of this Status Report, all potable wells within the current disposal site boundary have been sampled, with the exception of 27 and 31 Prospect Street, 18 Connor Lane and 38 Boylston Avenue. There has been not contact with the respective owners of 27 and 31 Prospect Street or 18 Connor Lane. The property at 27 Prospect Street does appear to be occupied but 31 Prospect is a vacant and condemned property. Numerous attempts have been made to contact the owners of these properties. Notification letters were sent again on April 29, 2021 by certified mail and multiple attempts were made to contact the residents by leaving flyers on the door; however, no responses have been received to date. The owner of 29 Brooks Station Road contacted the town inquiring about sampling of the potable well at their location, which is located approximately 700 feet southwest of 18 Connor Lane. On July 29, 2021, a sample from the potable well at 29 Brooks Station Road was collected due to the lack of access to 18 Connor Lane. Based on those results, PFAS6 was not detected above laboratory detection limits.

During an in-person interview on April 20, 2021, the owner of 38 Boylston Avenue indicated that they did not want their drinking water sampled because they have installed a treatment system to mitigate PFAS. On April 30, 2021, Tighe & Bond sent a letter to the owner to document the denial of our request and to again request access. Copies of the letters sent to these entities were included in the June 4, 2021 Quarterly Status Report. The owner of 38 Boylston Avenue recently contacted Tighe & Bond and has agreed to have their potable well sampled. The results of this sample will be included in the December 2021 Quarterly Status Report.

The most recent sampling event took place in April 2021. In accordance with IRA Plan Modification No. 4, the next semi-annual sampling event will be completed in October 2021.

The laboratory data for all potable well results received to date are summarized in Table 1, in Appendix B. The laboratory reports for the April 2021 quarterly sampling event were partially submitted with the June 4, 2021 Quarterly Status Report in the individual notification letters included in Appendix E of that report. The remaining notification letters and laboratory reports are included in Appendix C of this IRA status report. Table C-1, included at the beginning of Appendix C, provides a summary of the dates that samples were collected, the notification letter due dates and the MassDEP submittal status.

## Point-of-Entry Treatment System Status

POET systems are required for all locations with PFAS6 concentrations exceeding 20 ng/L. To date, 28 locations have been identified as requiring treatment. POET systems have been installed at 27 of these locations. The POET system for 14 Mountain Road required MassDEP approval due to its status as a public water supply. During the April 2021 quarterly sampling event, PFAS6 concentrations exceeding 20 ng/L were detected at 7 Prospect Street at a concentration of 21.9 ng/L. A POET system was installed at this location on June 23, 2021. The system was sampled on July 22, 2021 and PFAS6 was not detected in the midfluent or effluent samples at that time. A summary table of the POET systems installed to date is provided in Table 2 of Appendix B, for reference.

### 14 Mountain Road

The Princeton First Congregational Church is located at 14 Mountain Road and the water supply well for the church is registered as a transient non-community public water supply. As such, MassDEP approval is required prior to the installation of a POET system. A permit application for system modification was submitted to MassDEP on April 22, 2021. Approval for the designed system was received on July 2, 2021 and specifies the installation of two 6-cubic foot capacity granular activated carbon vessels for the treatment of PFAS6. The installation of the treatment system at 14 Mountain Road is currently pending receipt of the required equipment and is anticipated to be installed prior to the submittal of the December 2021 Quarterly Status Report. For reference, a copy of the permit approval letter received from MassDEP is included in Appendix D.

## POET Performance

POET system monitoring to date has not detected breakthrough of the primary carbon vessel at any of the 27 locations where POETs have been installed and midfluent and effluent samples were collected. Tighe and Bond will continue to monitor the effectiveness of the POET systems in accordance with the IRA Plan Modification No. 4 conditional approval.

# Town Hall Campus Potable Well Quarterly Sampling

White Water is the licensed operator for the Town Hall well. The PFAS treatment system for this well is currently being designed. All of the sinks in the four municipal buildings on the Town Hall campus have been labeled as "not for potable use" and bottled water is available in all of the buildings served by the well. The status of this treatment system will be updated in subsequent status reports.

Quarterly PFAS sample results collected by White Water are shown in Table 1, included in Appendix B. White Water collected potable well water samples from the town campus well on June 15 and August 10, 2021. The PFAS6 results on those dates were 308.3 and 126.8 ng/L, respectively. Copies of the laboratory reports for those dates are included in Appendix E.

## Quarterly Stormwater Sampling

In accordance with the IRA Plan Modification No. 3 Conditional Approval dated February 2, 2021, seasonal stormwater sampling was completed near 41 Prospect Street and 30 Mountain Road on July 12, 2021.

The 41 Prospect Street runoff sample was collected after a rainstorm from a natural drainage swale approximately 50 feet west of the residence located at 41 Prospect Street. At the time that the sample was collected, water was flowing freely within the swale.

The 30 Mountain Road runoff sample was collected from water that was flowing off the 30 Mountain Road property and over the exposed bedrock face along Mountain Road. This is the same bedrock face where water flowing from a pipe was previously sampled in March 2020 (the pipe was sealed by the 30 Mountain Road property owner in April 2020).

Laboratory results for the runoff samples collected on July 12, 2021 indicated that PFAS was not detected in the sample collected near 41 Prospect Street. PFAS6 concentrations in the runoff at the Mountain Road location were detected at 2,690 ng/L. These results are lower than the results obtained from the sample collected from the pipe flow in March 2020 sample. An Imminent Hazard evaluation performed on the March 2020 results showed no IH condition; therefore, July 12, 2021 results also do not meet the threshold for an IH condition. Laboratory results for the stormwater samples are included in the Table included in Appendix F. The laboratory reports for the July 12, 2021 stormwater samples are also included in Appendix F. The locations where these runoff samples were collected are shown on Figure 2B, included in Appendix A.

## Disposal Site Surface Water Drainage

In accordance with IRA Plan Conditional Approval No. 3 dated February 2, 2021, Tighe & Bond has mapped surface water flow and drainage within the lower Mountain Road, Gregory Hill Road, and Boylston Avenue areas. The maps are based on a LiDAR Digital Elevation Model that is provided by MassGIS and are divided into three separate figures, included in Appendix A, to retain clarity. Figure 2A shows area drainage and surface water flow from 30 Mountain Road. Figure 2B shows the locations of surface water runoff samples collected at 30 Mountain Road and 41 Prospect Street and surface flow in those areas. Figure 2C shows surface water flow in the area of Boylston Avenue. Catch basins are also located within Hubbardston Road and the upper part of Worcester Road; however, the outfall locations from these areas have not been confirmed and will require additional evaluation.

Based on a review of these maps, surface water runoff is mostly overland with catch basins located in the immediate area of lower Mountain Road, Hubbardston Road, Gregory Hill Road,

upper Boylston Avenue, and upper Worcester Road. For the purposes of our initial surface water investigation, the area of lower Mountain Road and Gregory Hill Road was reviewed due to the reported use of AFFF during the fire that took place at 30 Mountain Road in May 2017 and the results of the 30 Mountain Road Runoff samples. Discussions with Town personnel, as well as site reconnaissance completed by Tighe & Bond, indicate that stormwater is collected from the road surface immediately west of 30 Mountain Road. Stormwater appears to flow southerly through the system beneath Mountain Road and then northeast down Gregory Hill Road. At the intersection of Gregory Hill Road and East Princeton Road, the system appears to be culverted into a wooded area to the west of the intersection. Stormwater in this area appears to flow overland on the west side of Gregory Hill Road, flowing southwest for approximately 200 feet before entering a culvert that crosses beneath Gregory Hill Road. This culvert discharges into a stream that flows in a southeasterly direction towards the Met-Calf Prescott Conservation Area and Wachusett Reservoir Watershed. This flow pattern is highlighted yellow on Figure 2A.

Based on these findings it is anticipated that surface water within the stream channel that receives surface from lower Mountain Road and Gregory Hill Road will require additional investigation for PFAS.

## Remediation Waste

No remediation waste has been generated to date under RTN 2-21072.

## Permits

The only permits involved with this project are the permits needed to install POET systems on the public water systems at the Town Hall and the church at 14 Mountain Road. No other permits are required for the IRA activities completed to date or the proposed IRA activities planned under the modifications for RTN 2-21072.

## Notification of Environmental Sampling Results

In accordance with the MCP at 310 CMR 40.1403(10) a Notice of Environmental Sampling is required any time environmental samples are taken at a property in the course of investigating a release for which a notification to the Department has been made on behalf of someone other than the owner of the property, within 30 days of the date the sample results are issued by the laboratory. Table C-1 in Appendix C provides a summary of the dates that laboratory reports were received, the dates when public notifications are due, and the dates when the notification letters were sent. Copies of the public notification letters sent since the submittal of the June 2021 Quarterly Status Report are also included in Appendix C. The BWSC-123 forms and laboratory reports for the potable well sampling are included with the individual letters.

Verbal notifications of sample results were made within 24 hours to all residents (along with the notifications to MassDEP, and Town of Princeton).

## Surface Soil Sampling

Surface soil sampling was completed at 22, 30, and 54 Mountain Road on July 29, May 25, and August 24, 2021 respectively. The results for the samples collected at 54 Mountain Road are pending laboratory analysis and will be provided in a later submittal.

The soil sample locations for the soil samples collected from 22 and 30 Mountain Road are shown on Figures 3A and 3B, included in Appendix A. The soil sample results are summarized in the Tables H-1 and H-2 included in Appendix H, along with the laboratory reports. Based

on the soil sample results at 22 and 30 Mountain Road summarized below, additional soil samples will be required to delineate the horizontal and vertical extent of PFAS impacts to soil at these locations.

**30 Mountain Road**

On May 25, 2021, six surface soil samples (S-1 through S-6) and one duplicate soil sample (S-4 Dup) were collected from the area surrounding the structure at 30 Mountain Road that was destroyed in the May 2017 fire. In addition, two soil samples were collected from the basement of the former structure, identified as Basement-1 and Basement-2. The soil samples were collected following the standard operating procedure, included in Appendix G, from 0-6 inches below surface grade. The samples were submitted for PFAS laboratory analysis using the isotope dilution method.

A review of the soil analytical results indicates that PFOA was detected in two soil samples above the S-1 Reportable Concentration (RCS-1) of 0.72 µg/kg, PFOS was detected in seven samples above the RCS-1 of 2 µg/kg, and PFHxS was detected in six soil samples above its RCS-1 value (0.3 µg/kg). The highest concentrations detected in the soil samples collected on May 25, 2021 were PFOS in the Basement-1 and soil sample S-2 at concentrations of 120 and 100 µg/kg, respectively. PFOS is also the dominant compound detected in the surface water runoff samples collected from 30 Mountain Road as well as the groundwater sample collected from the well (not currently in use) that served the building that was lost in the 2017 fire. PFOS and PFHxS are the most dominant compounds in the well that serves the currently-occupied, structure at 30 Mountain Road.

**22 Mountain Road**

On July 29, 2021, nine surface soil samples (S-1 through S-9) and one duplicate sample (S-1 Dup) were collected from 22 Mountain Road, which is located downhill from 30 Mountain Road. It was reported that firefighting water and foam were observed flowing over this property during the May 2017 firefighting efforts at 30 Mountain Road. The soil samples were collected and analyzed using the same methods as the soil samples at 30 Mountain Road.

Based on the soil analytical results, all PFAS6 compounds were detected in the nine soil samples collected throughout the property at concentrations exceeding RCS-1 values. PFOA and PFAS concentrations are notably lower at 22 Mountain when compared to the 30 Mountain Road results. The highest concentrations were detected at soil sample S-1, which is the closest sample location to 30 Mountain Road.

# Conceptual Site Model

While all potential sources of PFAS in the area have not been identified, two sources of PFAS have been reported in the vicinity of upper and lower Mountain Road, i.e., the reported use of AFFF at the Town Campus property several decades ago, and the reported use of AFFF during the firefighting efforts at 30 Mountain Road in May 2017. These sources apparently resulted in surface impacts that subsequently percolated vertically through the overburden soils with precipitation.

Groundwater in deep bedrock with PFAS detections extends from these apparent source areas radially, but has migrated primarily to the south-southwest, as evidenced by PFAS detections in deep bedrock private water supply wells on properties extending in that direction. The apparent northern boundary of the PFAS migration appears to be limited by 33 Allen Hill Road, as PFAS was not detected at 7 Thompson Road. Merriam Road and East Princeton Road appear to be the current easterly limit of PFAS migration as PFAS6 has not been detected northeast of Merriam Road or beyond 18 and 26 Prospect Street. The southerly limits of the

PFAS migration appear to be limited to 10 Worcester Road, 17 Boylston Ave, and 18 Connor Lane. The western limit appears to be the properties identified as 18 and 28 Radford Road.

Quarterly sampling of potable wells to the southwest suggest the extent of PFAS migration in this direction is limited to the vicinity of lower Radford Road and its intersection with Connor Lane and Brooks Station Road.

During the April 2021 quarterly sampling round, 7 Prospect Street had a detection of PFAS6 above the MCL of 20 ng/L. Previous samples collected at 7 Prospect Street had PFAS6 concentrations ranging from 13 to 17 ng/L. A POET system was installed at 7 Prospect Street in June 2021.

The PFAS Source Area Map in Appendix A (Figure 2) includes a percentage breakdown of the most recent PFAS6 compounds detected in those potable wells with PFAS6 concentrations exceeding 20 ng/L. As shown, it appears that two distinct PFAS signatures are present. Potable wells north and west-northwest of 30 Mountain Road ("northern area" - 51, 54, 58, 64 Mountain Road, 43 Hubbardston Road and 28 Radford Road) generally have higher concentrations of PFOA (37 percent average) and little to no PFHxS (4 percent average), while potable wells at and to the south of 30 Mountain Road ("southern area"- 14, 18, 19, 21, 29 and 30 Mountain, 15 Hubbardston and 12 Boylston) have elevated PFHxS concentrations (54 percent average) and little PFOA (6 percent average). PFOS concentrations appear to be similar between the northern and southern signatures with a 30 to 35 percent average.

The method of PFAS manufacture provides information that allows differentiation of potential source materials. The PFAS detected within the southern area is noted to consist almost exclusively of even-numbered compounds, suggesting telomerization manufacturing. The PFAS detected in the northern area are dominated by PFOA and PFOS and have detectable concentrations of PFHpA and PFNA (odd-numbered compounds), suggesting electrochemical fluorination (ECF) manufacturing. Based on these data, it appears that there may be two distinct source materials for the PFAS detected in the northern and southern areas of the Site. According to a 1967 newspaper report, there was a major fire at 54 Mountain Road in April 1967. Although specific details of the firefighting method utilized on that property (i.e., whether AFFF was used) are not available, the soil sampling data from 54 Mountain Road will be informative in evaluating this history.

A review of the groundwater data from samples collected in the monitoring wells on the Town Hall campus indicate a high percentage of PFHxS and PFOS, consistent with the concentrations identified in potable wells located within the southern portion of the disposal site.

PFAS6 concentration detections and fluctuations observed in the potable well data suggest a vertical difference in concentrations rather than simply horizontal separation. This data variability among the residential wells may be due to the varying depths of these wells tapping into different bedrock fractures, as well as seasonal changes in the bedrock aquifer. Furthermore, with the proximity of the two currently presumed source areas to each other, it is likely that some degree of mixing has occurred as the impacted groundwater moves in bedrock fractures.

In summary, based on the activities completed to date, the current conceptual site model is that there are four possible sources of PFAS at the Site: (1) fire training at the Town Campus conducted several decades ago; (2) the firefighting at 30 Mountain Road in 2017, (3) the firefighting at 54 Mountain Road in 1967, and (4) septic system discharges of well water impacted by PFAS and wastewater impacted by domestic, household sources of PFAS. However, there are subcategories for each of the first three potential sources: (a) the impact

to soil from the initial surface discharge of AFFF at the location, (b) runoff of water with AFFF to adjacent locations, (c) infiltration of rainfall through impacted soil to groundwater, and (d) surface runoff of stormwater that is in contact with impacted soil, reaching roadway drainage systems and surface water bodies. Evaluation of the four potential sources and their subcategories will be ongoing as investigations proceed.

## Conclusions

As discussed above, a substantial sampling effort has been performed to identify the extent of PFAS in private wells based upon the directive from MassDEP to evaluate a condition of SRM in the area surrounding the Town Hall Campus. To date, 99 homes have been either sampled or are proposed for sampling based on currently available data.

In addition, POETs have been installed at 27 locations. The April quarterly sampling round identified one new location (7 Prospect Street) that require a POET. The POET at 14 Mountain Road, which is a public water supply, has received final permit approval and is anticipated to be installed prior to submittal of the December 2021 Quarterly Status Report. Permitting and design for the treatment system at the Town Hall public water supply is also ongoing. In the interim, White Water is sampling the Town well quarterly. We will notify MassDEP when a schedule has been determined for these installations.

An Imminent Hazard evaluation completed by Sovereign Consulting, Inc. indicates that the raw water PFAS6 concentrations in excess of 100 ng/L do pose an IH condition, but that condition has been mitigated through the installation of POET systems at locations with PFAS6 concentrations of 20 ng/L or greater, resulting in no ongoing exposure to the residents at the homes with PFAS6 concentrations in excess of IH levels.

Source identification is ongoing to evaluate whether the reported use of AFFF at the Fire Department building on the Town Hall Campus several decades ago and/or the reported use of AFFF during firefighting in May 2017 at 30 Mountain Road, and possibly the firefighting effort at 54 Mountain Road in 1967, might be contributing sources for the PFAS being detected in private wells. It also is being evaluated whether any residual source areas of PFAS may be present in soil at either of these locations that can be managed or controlled to eliminate potential migration of PFAS into the deep bedrock fractures in the area where private water supplies are being derived. Surface soil sampling has been conducted at 22, 30, and 54 Mountain Road, as well as the location at the Town Hall Campus where AFFF was reportedly used.

Area drainage and surface water runoff mapping was recently evaluated in accordance with IRA Conditional Approval No. 3 based on PFAS6 concentrations in the runoff samples collected from 30 Mountain Road. Surface water in this area appears to flow through a stormwater management system that discharges to a stream located south of Gregory Hill Road as discussed in previous section of this report. It is important to note that the surface water flowing off 30 Mountain Road does not directly discharge to the roadway. Surface water runoff from 30 Mountain Road flows over a bedrock outcrop onto a grass area adjacent to the road at the base of the outcrop and presumably infiltrates into the subsurface. During previous sampling events, surface water runoff flowing from 30 Mountain Road has not been observed entering the stormwater system in Mountain Road directly but appears to pool in the grass area as described.

We have also identified two fire ponds as areas for surface water PFAS sampling as they are located within the drainage area of Mountain Road and Boylston Avenue and, although they have not been used as sources of firefighting water since 2017, they remain potential sources of water for the Town's firefighting purposes. Evaluation of PFAS6 in these ponds may

determine whether the Town needs to identify alternative water sources for firefighting. The ponds are identified as Schoolhouse Pond and Airport Pond as shown in Figures 5A and 5C, included in Appendix A.

## Recommendations

Potable well sampling to date has generally defined the extent of PFAS in groundwater at this Site. The next comprehensive sampling round of potable wells is scheduled for October 2021.

Additional POET systems will be installed if PFAS6 concentrations exceed 20 ng/L at any locations. The next sampling round of POET systems is scheduled to be completed in January 2022. With the submittal of this IRA Status Report, all potable well and soil data reported by the laboratory to date will have been submitted to MassDEP and all public notification letters were sent to property owners.

The PFAS patterns suggest two potential sources along Mountain Road, one in the vicinity of 30 Mountain Road and Town Hall campus that is dominated by PFOS and PFHxS and a second area to the north in the vicinity of 54/58/64 Mountain Road, which is dominated by PFOA and PFOS. The source of PFAS in the northern area is not known but may be associated with a 1967 fire at 54 Mountain Road. Based on PFAS distribution, groundwater from both areas appears to be migrating to the southwest, resulting in mixing of the plumes in the vicinity of the Town Hall campus and extending to the southwest of Town Hall. Surface soil sampling conducted at 22, 30, and 54 Mountain Road, and the reported location of AFFF use at the Town Hall Campus, has been conducted. The results for 22 and 30 Mountain Road indicate that additional soil sampling will be required to delineate the vertical and horizontal extent of soil impacts at those properties. The results for the soil samples collected at 54 Mountain Road and the Town Campus are pending analysis.

An update on these activities will be reported to MassDEP in the December 2021 Quarterly status report. If you have any questions or require additional information, please contact me at 413.572.3227.

Very truly yours,

**TIGHE & BOND, INC.**

Jeffrey L. Arps, LSP
Director, Remediation & Field Services

cc: Sherry Patch, Town of Princeton

## Appendices

Appendix A – Figure 1 – Potable Well Radius Map
Figure 1A – PFAS Sources Map
Figure 2A – Stormwater Site Plan (Lower Mountain & Gregory Hill Roads)
Figure 2B – Stormwater Site Plan (Surface Water Sample Locations)
Figure 2C – Stormwater Site Plan (Boylston Ave & Worcester Road)
Figure 3A – Soil Sample Location Plan (30 Mountain Road)
Figure 3B – Soil sample Location Plan (22 Mountain Road)
Figure 4 – Town Hall Campus Site Plan

Appendix B – Request for Access Letters

Appendix C – Table C-1, Summary of PFAS Analytical Data

Appendix D – 14 Mountain Road, Permit Approval

Appendix E – Town Campus Well Laboratory Reports

Appendix F – Stormwater Runoff Results

Appendix G – Soil Sampling Standard Operating Procedure

Appendix H – Table H-1 Summary of Soil Analytical Results (30 Mountain Road)
Table H-2 Summary of Soil Analytical Results (22 Mountain Road)
Soil Analytical Laboratory Reports

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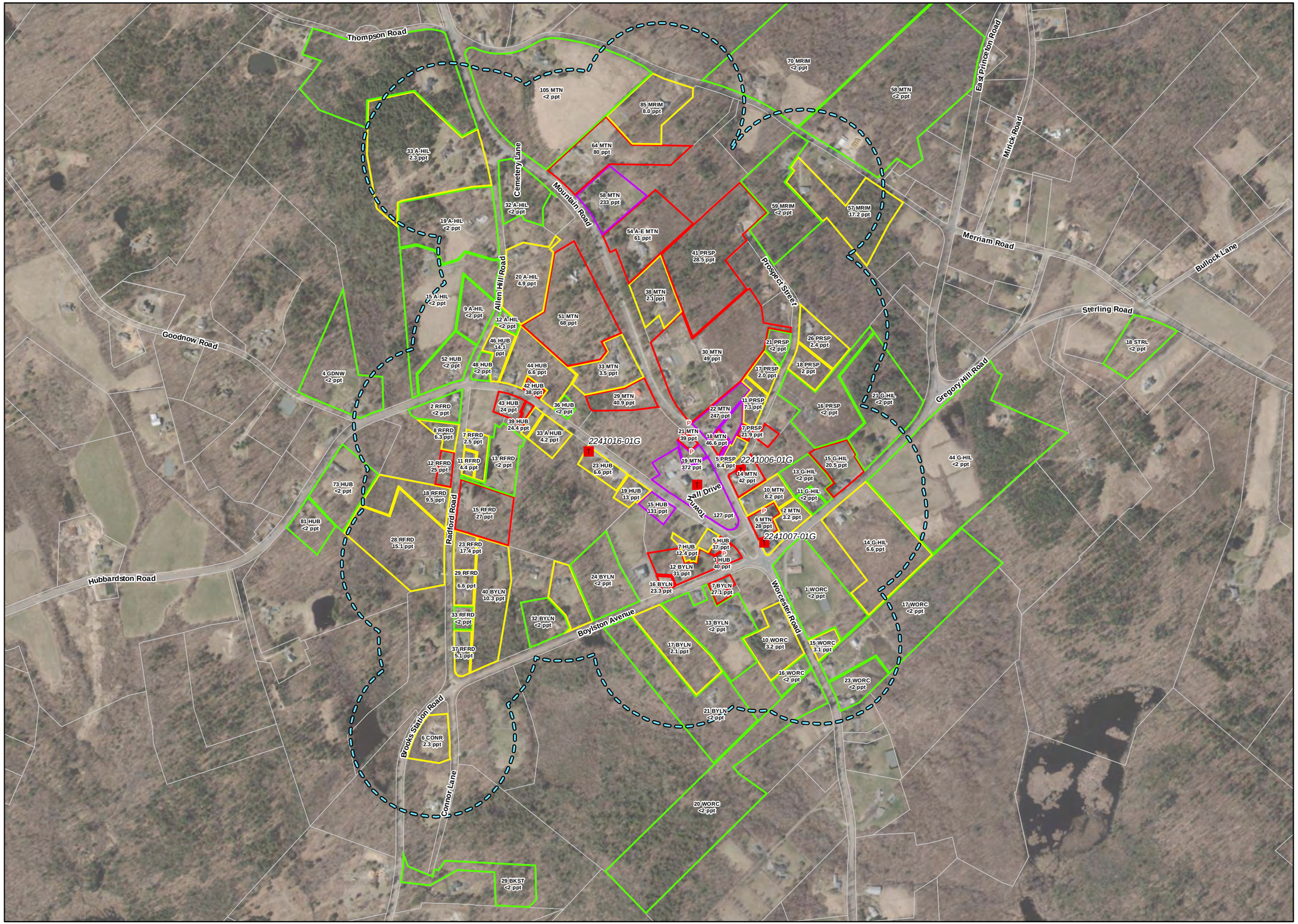
Tighe&Bond

# APPENDIX A




# FIGURE 1
# ORTHOPHOTOGRAPH SITE PLAN

**LEGEND**

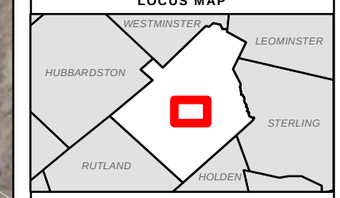
**Total Regulated PFAS Concentrations in Parts-Per-Trillion (ppt)**

- Greater Than 100
- Greater Than 20 But Less Than 100
- Greater Than 2 But Less Than 20
- Non Detect (<2)
- Non-Community Transient Public Water Supply

500' Radius (2021/03/03)

**Affected Property Labels:**
P (Point of Entry Treatment, if present)
Address
PFAS 6-Compound Total

**LOCUS MAP**




N W E S

0 300 600
Feet

1:7,800

**NOTES**

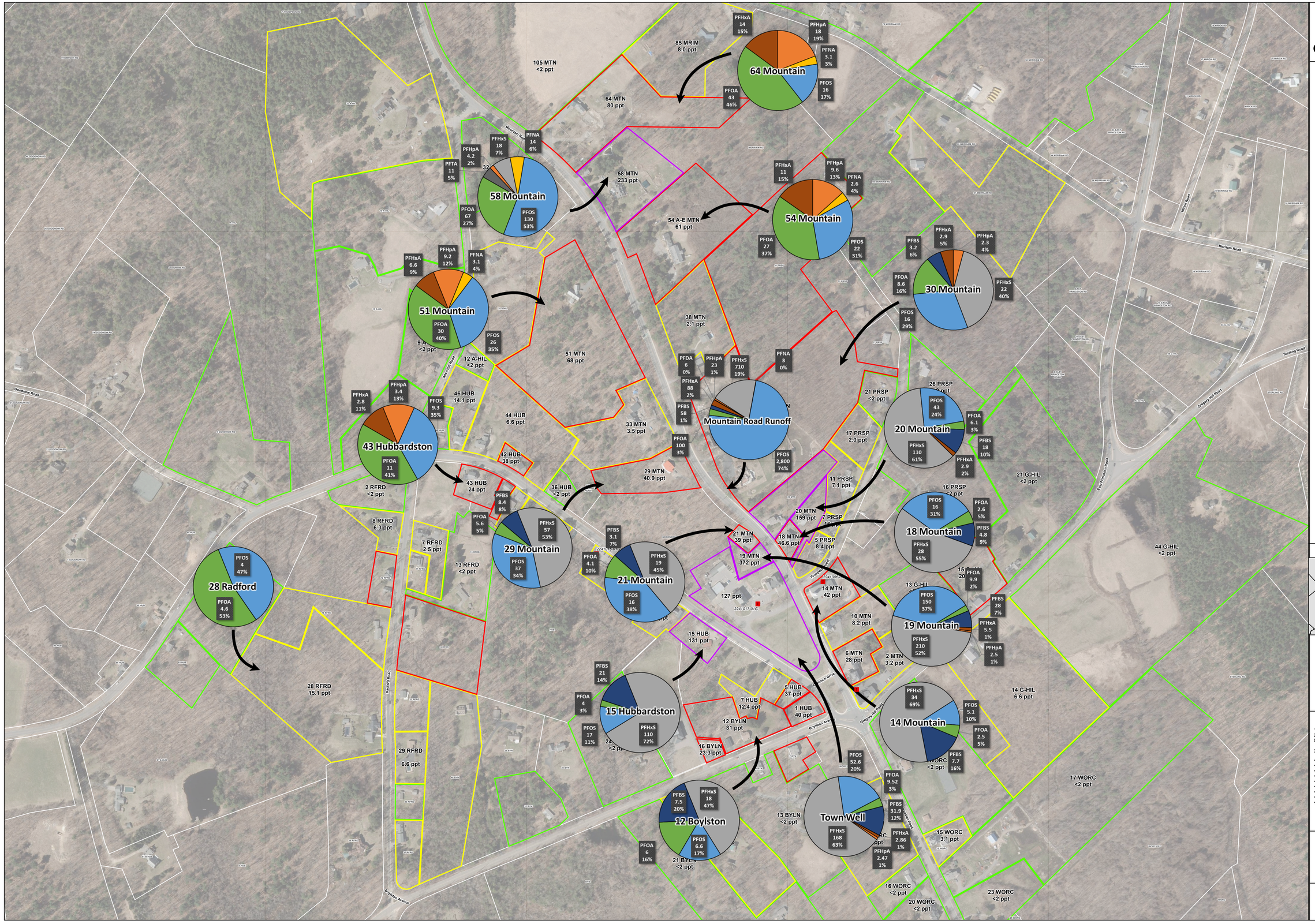
1. Based on MassGIS Orthoimagery (2019)
2. 500' Buffer based on a 50' buffer of building structures. Well locations are assumed to be within 50' of each home.
3. Abbreviation Dictionary:

"ALLEN HILL RD" : "A-HIL"
"BOYLSTON AVE" : "BYLN"
"GREGORY HILL RD" : "G-HIL"
"HUBBARDSTON RD" : "HUB"
"MOUNTAIN RD" : "MTN"
"PROSPECT ST" : "PRSP"
"RADFORD RD" : "RFRD"
"WORCESTER RD" : "WORC"
"MERRIAM RD" : "MRIM"
"GOODNOW RD" : "GDNW"
"CONOR LN" : "CONR"
"GREGORY RD" : "GRGY"
"STERLING RD" : "STRL"
"RALPH RD" : "RLPH"

Princeton, Massachusetts

August 2021

Tighe&Bond




# FIGURE 1A

# PFAS SOURCES ORTHOPHOTOGRAPH

## LEGEND

- Non-Community Transient Public Water Supply
- Non Detect (<2)
- Greater Than 2 But Less Than 20
- Greater Than 20 But Less than 100
- Greater Than 100

PFOA 4.6 53%
Compound Name
Concentration in PPT
% Composition of Total PFAS

**Compound Color Code**

| | |
|---|---|
| PFDA | Perfluorodecanoic acid (PFDA) |
| PFHpA | Perfluoroheptanoic acid (PFHpA) |
| PFHxS | Perfluorohexanesulfonic acid (PFHxS) |
| PFNA | Perfluorononanoic acid (PFNA) |
| PFOS | Perfluorooctanesulfonic acid (PFOS) |
| PFOA | Perfluorooctanoic acid (PFOA) |
| PFBS | Perfluorobutanesulfonic acid (PFBS) |
| PFHxA | Perfluorohexanoic acid (PFHxA) |
| PFTA | Perfluorotetradecanoic acid (PFTA) |

## LOCUS MAP

N W E S

400 200 0
Feet

1:2,400

## NOTES

1. Based on Google Imagery (2017)
2. 500' Buffer based on a 50' buffer of building structures. Well locations are assumed to be within 50' of each home.
3. Abbreviation Dictionary:

"ALLEN HILL RD" : "A-HIL"
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"HUBBARDSTON RD" : "HUB"
"MOUNTAIN RD" : "MTN"
"PROSPECT ST" : "PRSP"
"RADFORD RD" : "RFRD"
"WORCESTER RD" : "WORC"
"MERRIAM" : "MRIM"

Princeton, Massachusetts

March 2021

Tighe&Bond

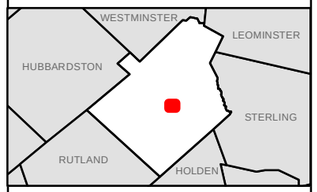
**FIGURE 2A**

STORMWATER SITE PLAN
Lower Mountain & Gregory Hill Roads

LEGEND

- R Manhole
- Outfall
- Drain Line
- Catch Basin
- Flow Accumulation
- Water Body
- Surface Water Flow From 30 Mountain Rd
- General Surface Water Flow Direction

LOCUS MAP




4

0 75 150
Feet

1:1,800

NOTES

1. Based on MassGIS Orthoimagery (2019)
2. Flow Accumulation based on MassGIS LiDAR Terrain Data (2015)
3. Stormwater Features mapped by Tighe & Bond (2021)

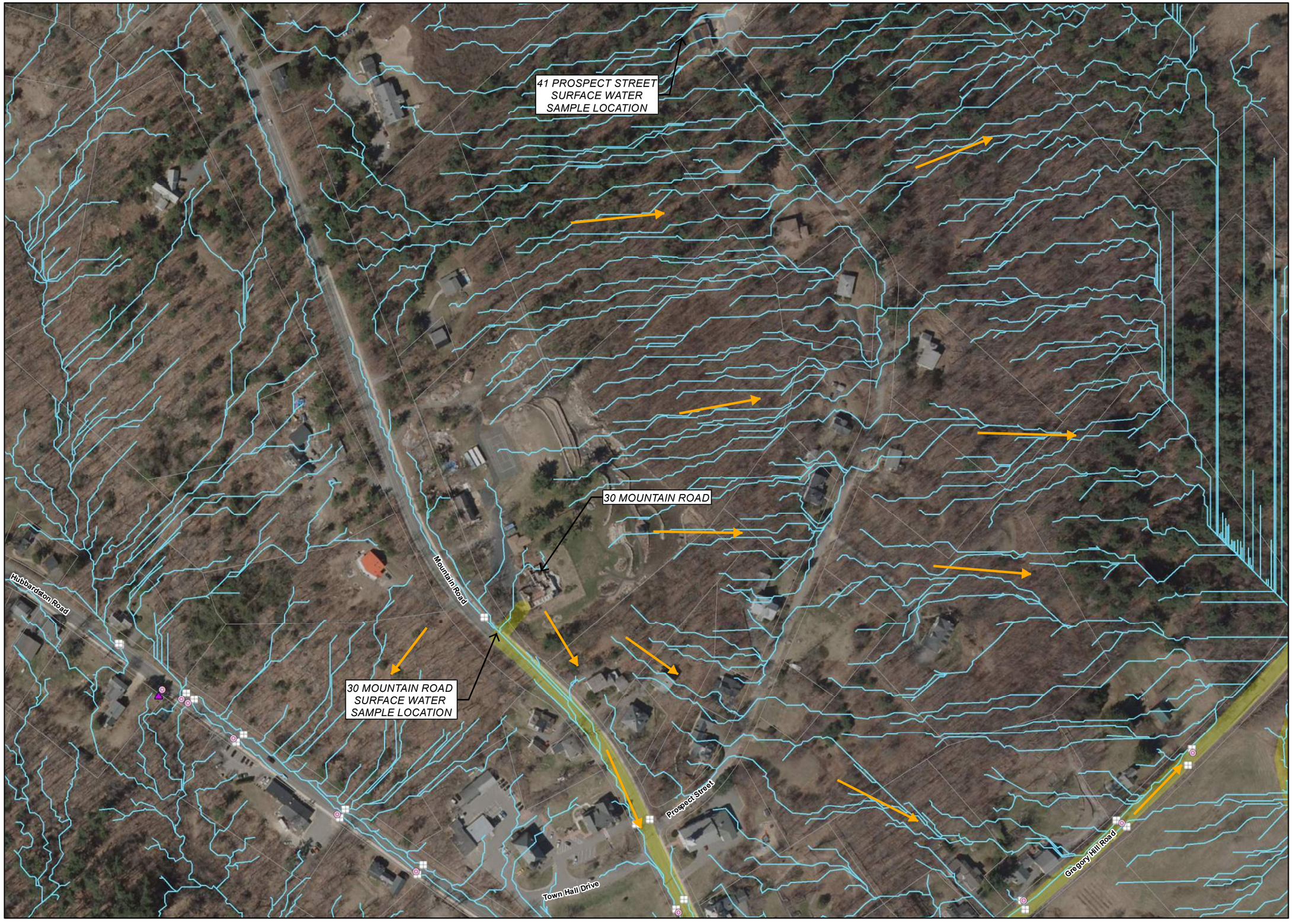
Princeton, Massachusetts

August 2021

Tighe&Bond

G:\GIS\MA\SiteLocus\Princeton\FlowAccumulation_TownHall_11x17_5A.mxd Date Saved: 8/29/2021 User: JWebb

P-0534

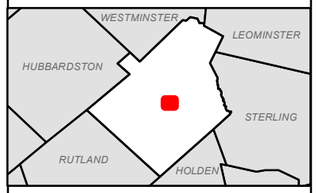



# FIGURE 2B
# STORMWATER SITE PLAN
# Surface Water Sample Locations

**LEGEND**

- Manhole
- Outfall
- Drain Line
- Catch Basin
- Flow Accumulation
- Water Body
- Surface Water Flow From 30 Mountain Rd
- General Surface Water Flow Direction

**LOCUS MAP**




N
W E
S

0 100 200
Feet

1:2,400

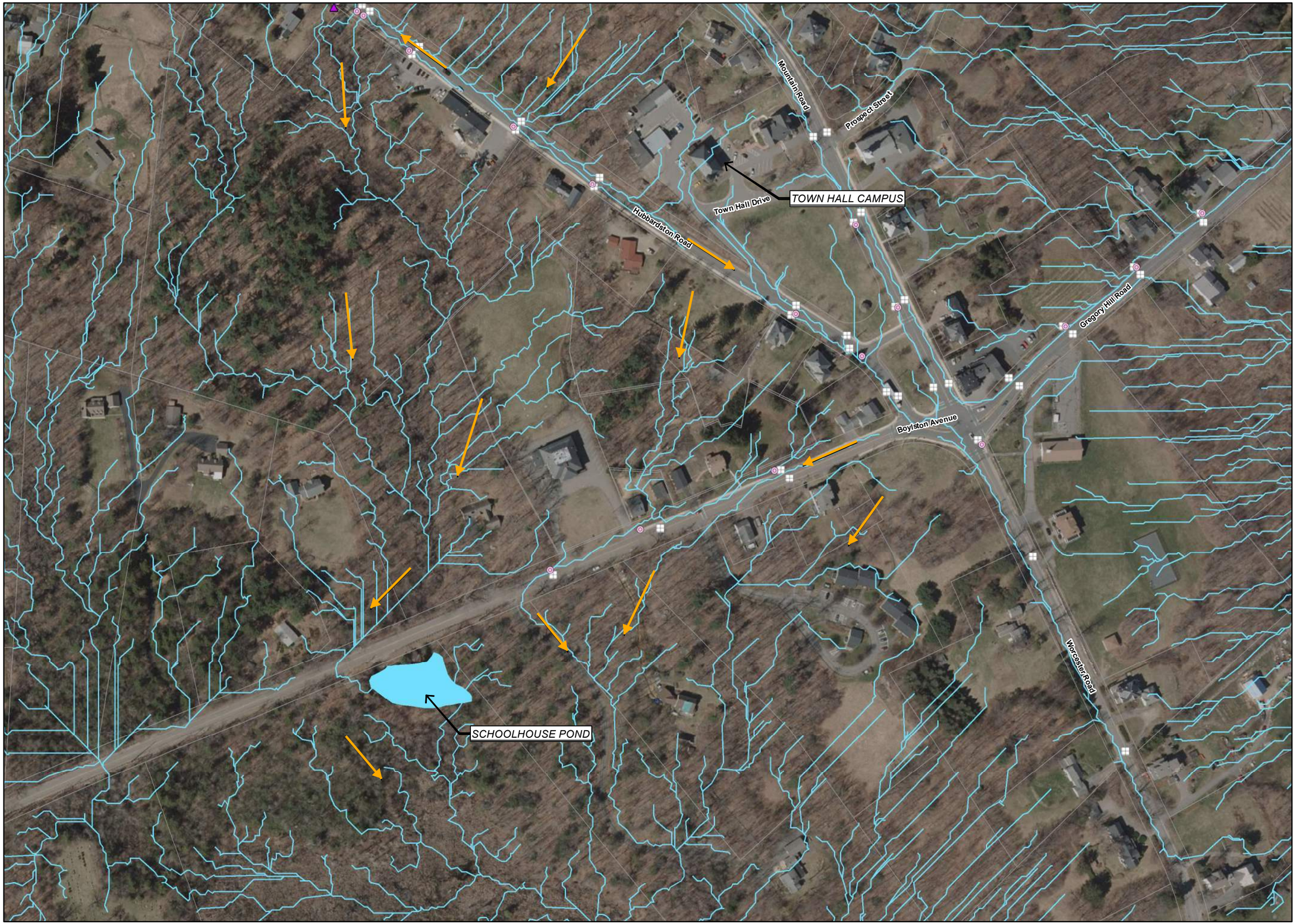
**NOTES**

1. Based on MassGIS Orthoimagery (2019)
2. Flow Accumulation based on MassGIS LiDAR Terrain Data (2015)
3. Stormwater Features mapped by Tighe & Bond (2021)

Princeton, Massachusetts

August 2021

Tighe&Bond

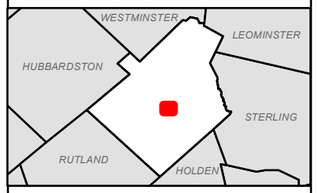



# FIGURE 2C
## STORMWATER SITE PLAN
## Boylston Ave

**LEGEND**

- Manhole
- Outfall
- Drain Line
- Catch Basin
- Flow Accumulation
- Water Body
- General Surface Water Flow Direction

**LOCUS MAP**




N W E S

0 100 200
Feet

1:2,400

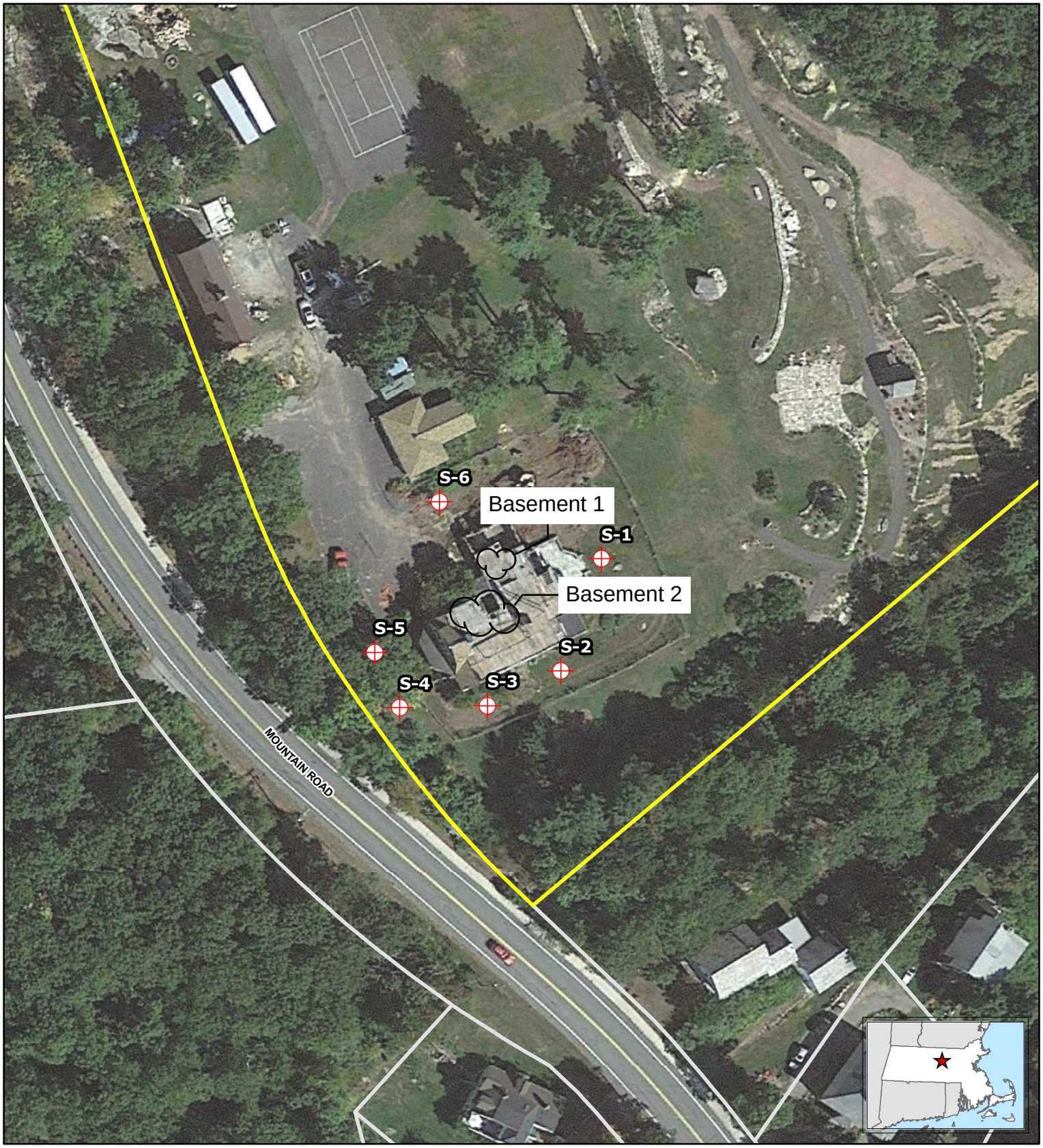
**NOTES**

1. Based on MassGIS Orthoimagery (2019)
2. Flow Accumulation based on MassGIS LiDAR Terrain Data (2015)
3. Stormwater Features mapped by Tighe & Bond (2021)

Princeton, Massachusetts

August 2021

Tighe&Bond




Proposed Soil Sample Location

Site Parcel

Parcel Boundary

N

1:900

0 75

Feet

Tighe&Bond

1. Map Imagery data ©2020 Google (Imagery Date: September 20, 2019)
2. Princeton parcels (FY2020) downloaded from MassGIS
and are approximate.

**FIGURE 3A**
**SOIL SAMPLE LOCATION PLAN**

30 Mountain Road
Princeton, Massachusetts

July 2021

V:\Projects\P\P0534\ErvinResidence_PrincetonMA\30MountainRoad_PrincetonMA_Ortho.mxd [Exported By: ABC, 1/25/2021, 10:47:49 AM]

P-534

Proposed Soil Sample Location

Site Parcel

Parcel Boundary

Tighe&Bond

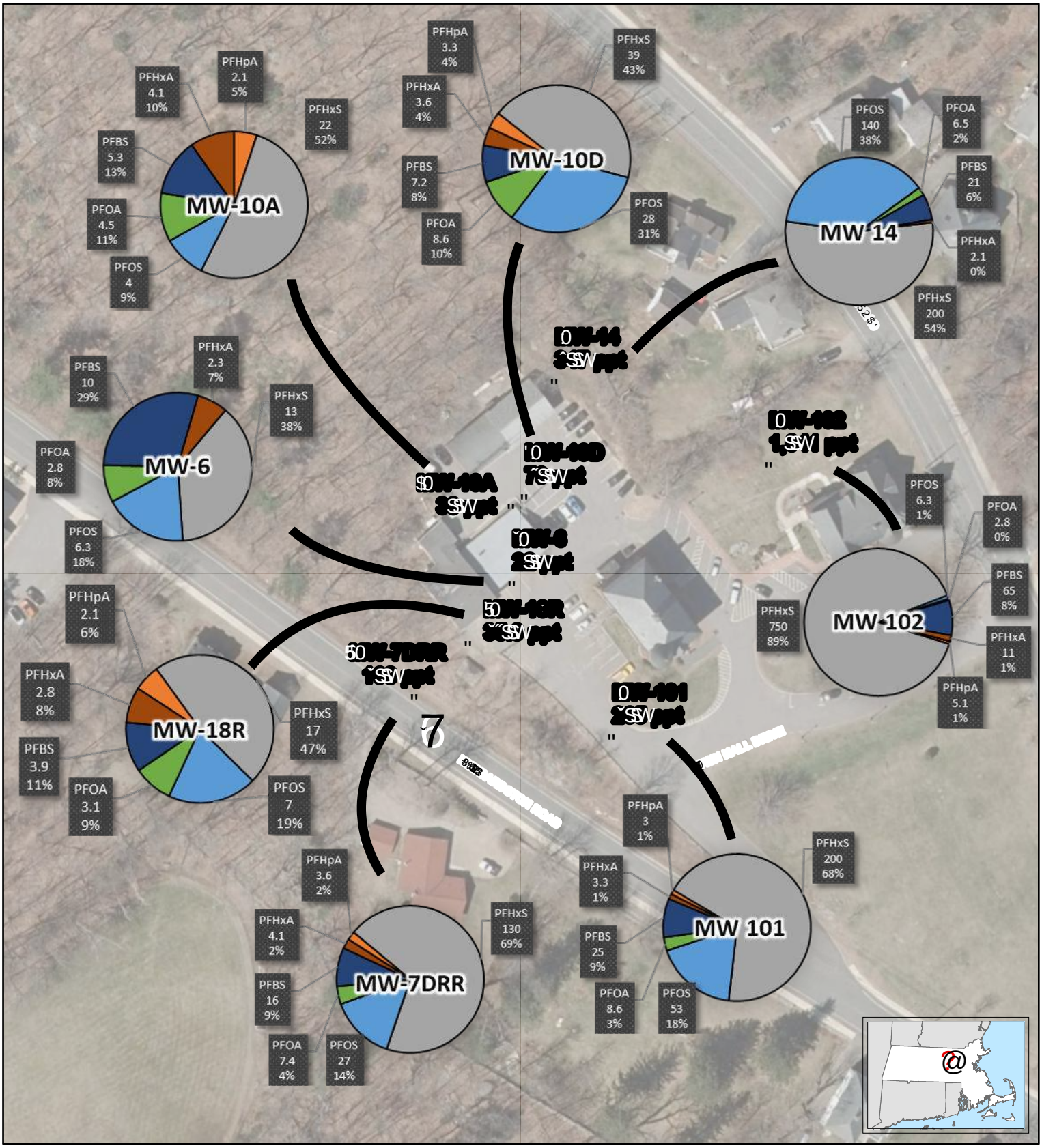
1. Based on MassGIS Color Orthophotography (2019).
2. Princeton parcels (FY2020) downloaded from MassGIS and are approximate.

N

**FIGURE 3B**
**SOIL SAMPLE LOCATION PLAN**

22 Mountain Road
Princeton, Massachusetts

July 2021


MW-10A
PFHpA 2.1 5%
PFHxA 4.1 10%
PFHxS 22 52%
PFBS 5.3 13%
PFOA 4.5 11%
PFOS 4 9%
MW-10D
PFHpA 3.3 4%
PFHxS 39 43%
PFHxA 3.6 4%
PFBS 7.2 8%
PFOA 8.6 10%
PFOS 28 31%
MW-14
PFOS 140 38%
PFOA 6.5 2%
PFBS 21 6%
PFHxA 2.1 0%
PFHxS 200 54%
MW-6
PFHxA 2.3 7%
PFBS 10 29%
PFHxS 13 38%
PFOA 2.8 8%
PFOS 6.3 18%
MW-102
PFOS 6.3 1%
PFOA 2.8 0%
PFBS 65 8%
PFHxS 750 89%
PFHxA 11 1%
PFHpA 5.1 1%
MW-18R
PFHpA 2.1 6%
PFHxA 2.8 8%
PFHxS 17 47%
PFBS 3.9 11%
PFOA 3.1 9%
PFOS 7 19%
MW-7DRR
PFHpA 3.6 2%
PFHxA 4.1 2%
PFHxS 130 69%
PFBS 16 9%
PFOA 7.4 4%
PFOS 27 14%
MW 101
PFHpA 3 1%
PFHxA 3.3 1%
PFHxS 200 68%
PFBS 25 9%
PFOA 8.6 3%
PFOS 53 18%

Tighe&Bond

# APPENDIX B

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | Old Town Hall Well |
|---|---|---|
| Well Depth (feet) | | UNKNOWN |
| Sampling Date | | 1/19/2021 |
| | | |
| ***EPA 537.1 (ng/L)*** | | |
| Perfluorobutanesulfonic acid (PFBS) | | 38 |
| Perfluorohexanoic acid (PFHxA) | | 11 |
| Perfluorohexanesulfonic acid (PFHxS) | | 250 |
| Perfluoroheptanoic acid (PFHpA) | | 4.8 |
| Perfluorooctanoic acid (PFOA) | | 17 |
| Perfluorooctanesulfonic acid (PFOS) | | 150 |
| Perfluorononanoic acid (PFNA) | | ND(1.82) |
| Perfluorodecanoic acid (PFDA) | | ND(1.82) |
| N-EtFOSAA | | ND(1.82) |
| Perfluoroundecanoic acid (PFUnA) | | ND(1.82) |
| N-MeFOSAA | | ND(1.82) |
| Perfluorododecanoic acid (PFDoA) | | ND(1.82) |
| Perfluorotridecanoic acid (PFTrDA) | | ND(1.82) |
| Perfluorotetradecanoic acid (PFTA) | | ND(1.82) |
| Total (All Compounds) | | 470.8 |
| Regulated Total | 20 | **421.8** |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Containment Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | Town Well (WELL-01G) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | | | | | | |
| Sampling Date | | 9/5/2019 | 9/27/2019 | 1/8/2020 | 6/23/2020 | 9/29/2020 | 9/29/2020 | 12/22/2020 | 2/17/2021 | 6/15/2021 | 8/10/2021 |
| | | | | | | | **RERUN** | | | | |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 26.9 | 17 | 31.9 | 16.1 | 39.5 | 42.9 | 48.6 | 41.6 | 34.5 | 14.0 |
| Perfluorohexanoic acid (PFHxA) | | ND (1.82) | ND (1.87) | 2.86 | 1.48 (J) | 2.92 | 4.51 | 5.1 | 5.45 | 4.14 | 1.72 (J) |
| Perfluorohexanesulfonic acid (PFHxS) | | 94.4 | 78.1 | 168 | 81.7 | 234 | 225 | 329 | 305 | 224 | 90.9 |
| Perfluoroheptanoic acid (PFHpA) | | ND (1.82) | ND (1.87) | 2.47 | 1.25 (J) | 1.30 (J) | 1.9 | 4.27 | 4.67 | 2.09 | 1.15 (J) |
| Perfluorooctanoic acid (PFOA) | | 3.92 | 3.18 | 9.52 | 4.48 | 8.4 | 12.3 | 15.9 | 14.6 | 10.8 | 5.32 |
| Perfluorooctanesulfonic acid (PFOS) | | 26.4 | 18.9 | 52.6 | 23.5 | 56.4 | 67.4 | 94.2 | 86.2 | 71 | 30 |
| Perfluorononanoic acid (PFNA) | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | 0.555 (J) | 0.985 (J) | 0.904 (J) | 1.17 (J) | 0.769 (J) | ND (1.80) |
| Perfluorodecanoic acid (PFDA) | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | ND (1.85) | ND (1.90) | ND (1.81) | ND (1.77) | ND (1.83) | ND (1.80) |
| N-EtFOSAA | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | ND (1.85) | ND (1.90) | ND (1.81) | ND (1.77) | ND (1.83) | ND (1.80) |
| Perfluoroundecanoic acid (PFUnA) | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | ND (1.85) | ND (1.90) | ND (1.81) | ND (1.77) | ND (1.83) | ND (1.80) |
| N-MeFOSAA | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | ND (1.85) | ND (1.90) | ND (1.81) | ND (1.77) | ND (1.83) | ND (1.80) |
| Perfluorododecanoic acid (PFDoA) | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | ND (1.85) | ND (1.90) | ND (1.81) | ND (1.77) | ND (1.83) | ND (1.80) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | ND (1.85) | ND (1.90) | ND (1.81) | ND (1.77) | ND (1.83) | ND (1.80) |
| Perfluorotetradecanoic acid (PFTA) | | ND (1.82) | ND (1.87) | ND (1.84) | ND (1.90) | ND (1.85) | ND (1.90) | ND (1.81) | ND (1.77) | ND (1.83) | ND (1.80) |
| Total (All Compounds) | | 151.6 | 117.2 | 264.9 | 127.1 | 341.9 | 354.5 | 497.5 | 458.1 | 346.9 | 141.7 |
| Regulated Total | 20 | **124.7** | **100.2** | **230.1** | **110.3** | **299.5** | **307.1** | **443.8** | **411.1** | **308.3** | **126.8** |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Containment Level

Values reported with a (J) qualifier are estimated values. If the reported J value is greater than or equal to 1/3 the MRL and < MRL"one-half the MRL is used for the concentration of that compound in the summation

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 9 Allen Hill Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/12/2020 | 7/23/2020 | 1/19/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 12 Allen Hill Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/14/2020 | 7/27/2020 | 1/19/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 2.2 | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.8 | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 4.2 | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 12.2 | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | 12.2 | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 15 Allen Hill Road | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 4/28/2020 | 10/1/2020 | 1/19/2021 | 4/23/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 19 Allen Hill Road | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 4/28/2020 | 10/1/2020 | 1/19/2021 | 4/21/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 20 Allen Hill Road | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | 400 | | | |
| Sampling Date | | 5/8/2020 | 10/2/2020 | 1/18/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3 | ND (2.0) | 2.5 | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 2.3 | ND (2.0) | 2.5 | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3 | ND (2.0) | 2.4 | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 8.3 | ND (2.0) | 7.4 | ND (2.0) |
| Regulated Total | 20 | 5.3 | ND (2.0) | 4.9 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 32 Allen Hill Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/2/2020 | 7/22/2020 | 1/22/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 33 Allen Hill Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 10/30/2020 | | 12/16/2020 | 4/20/2021 |
| | | | **DUPLICATE** | | |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 47 | 8 | 2.3 | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 47 | 8 | 2.3 | ND (2.0) |
| Regulated Total | 20 | **47** | 8 | 2.3 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 7 Boylston Ave | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | | | - | NOT RECORDED | | | 14,911 | | | 23,425 | | | 32,192 | | |
| Sampling Date | | 1/27/2020 | | | 3/1/2020 | 3/17/2020 | | | 5/1/2020 | | | 6/18/2020 | | | 7/29/2020 | | |
| | | | **DUPLICATE** | **FIELD BLANK** | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 3.6 | 3.7 | ND (2.0) | | 4.1 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | 4.3 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 16 | 17 | ND (2.0) | | 20 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) | 23 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.7 | ND (2.0) | 14 | | 2.8 | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 4.5 | 6.2 | 4.7 | | 6.2 | ND (2.0) | ND (2.0) | 3.3 | ND (2.0) | ND (2.0) | 4.9 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 26.8 | 26.9 | 18.7 | | 33.1 | ND (2.0) | ND (2.0) | 20.0 | ND (2.0) | ND (2.0) | 33.9 | ND (2.0) | ND (2.0) | 31.2 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **23.2** | **23.2** | **18.7** | | **29.0** | ND (2.0) | ND (2.0) | **17.8** | ND (2.0) | ND (2.0) | **29.6** | ND (2.0) | ND (2.0) | **27.1** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 7 Boylston Ave (continued) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 30,276 | | | 65,073 | | | 79,651 | | |
| Sampling Date | | 11/6/2020 | | | 2/22/2021 | | | 4/20/2021 | | |
| | | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 3.4 | ND (2.0) | ND (2.0) | 4.4 | ND (2.0) | ND (2.0) | 3.5 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 19 | ND (2.0) | ND (2.0) | 26 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | 3.1* | 2.1* | ND (2.0) | ND (2.0) | 2.1* | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.9 | ND (2.0) | ND (2.0) | 3 | ND (2.0) | ND (2.0) | 3.8 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 6.6 | ND (2.0) | ND (2.0) | 6.9 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 32.9 | ND (2.0) | ND (2.0) | 40.3 | ND (2.0) | ND (2.0) | 35.7 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **29.5** | ND (2.0) | ND (2.0) | **35.9** | ND (2.0) | ND (2.0) | **32.2** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level
* PFHpA also detected in both the field blank and trip blank, therefore the reported result is considered invalid. Confirmed as laboratory contaminate. Result is not included in total.

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 12 Boylston Ave | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 4,939 | | | 9,900 | | | 13,469 | | | 24,535 | | |
| Sampling Date | | 1/10/2020 | 3/20/2020 | 5/1/2020 | | | 6/23/2020 | | | 7/31/2020 | | | 11/6/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 9.1 | | 7.5 | ND (2.0) | ND (2.0) | 8.9 | ND (2.0) | ND (2.0) | 7.7 | ND (2.0) | ND (2.0) | 7.5 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 14 | | 14 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) | 17 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.7 | | 5.9 | ND (2.0) | ND (2.0) | 6.8 | ND (2.0) | ND (2.0) | 4.7 | ND (2.0) | ND (2.0) | 6 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 6.4 | | 5.7 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) | 5.9 | ND (2.0) | ND (2.0) | 6.6 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 35.2 | | 33.1 | ND (2.0) | ND (2.0) | 42.2 | ND (2.0) | ND (2.0) | 35.3 | ND (2.0) | ND (2.0) | 38.1 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **26.1** | | **25.6** | ND (2.0) | ND (2.0) | **31.2** | ND (2.0) | ND (2.0) | **27.6** | ND (2.0) | ND (2.0) | **30.6** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 12 Boylston Ave (Continued) | | | | | |
|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 33,116 | | | 50,561 | | |
| Sampling Date | | 1/29/2021 | | | 7/22/2021 | | |
| | | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 8.7 | ND (2.0) | ND (2.0) | 9.9 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | 3.6 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 18 | ND (2.0) | ND (2.0) | 27 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.5 | ND (2.0) | ND (2.0) | 7.6 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 6.2 | ND (2.0) | ND (2.0) | 8.7 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 38.4 | ND (2.0) | ND (2.0) | 56.8 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **29.7** | ND (2.0) | ND (2.0) | **43.3** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 13 Boylston Ave | | | | | |
|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | ~100' | | | | | |
| Sampling Date | | 1/8/2020 | 5/28/2020 | 10/7/2020 | 1/22/2021 | 4/26/2021 | 5/18/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.8 | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.8 | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.8 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 16 Boylston Ave | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | NA | | | | 0 | 260 | | |
| Sampling Date | | 1/9/2020 | 5/28/2020 | 10/7/2020 | 1/20/2021 | 3/23/2021 | 5/27/2021 | | |
| | | | | | | **POET INSTALLED** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 5.3 | 6.2 | 5 | 6.6 | | 5.5 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3.7 | 3.9 | 3.3 | 3.6 | | 6.2 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 4.7 | 5.2 | 6 | 9.4 | | 9.4 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | 2.6 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 8 | 8.9 | 8.2 | 8.9 | | 11 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 7.2 | 5.5 | 4.2 | 5 | | 4.6 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 28.9 | 29.7 | 26.7 | 33.5 | | 39.3 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | 19.9 | 19.6 | 18.4 | **23.3** | | **27.6** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Tota
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 17 Boylston Ave | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | |
| Sampling Date | | 1/8/2020 | 5/28/2020 | 10/7/2020 | 1/18/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | 2.3 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | 2.3 |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | 2.3 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 21 Boylston Ave | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/19/2020 | 7/22/2020 | 1/19/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 24 Boylston Ave | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | ~200' | | | | |
| Sampling Date | | 1/9/2020 | 5/29/2020 | 10/2/2020 | 1/19/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 30 Boylston Ave |
|---|---|---|
| Well Depth (feet) | | UNKOWN |
| Sampling Date | | 5/6/2021 |
| | | |
| ***EPA 537.1 (ng/L)*** | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.1 |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) |
| N-EtFOSAA | | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) |
| N-MeFOSAA | | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) |
| Total (All Compounds) | | 2.1 |
| Regulated Total | 20 | 2.1 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 32 Boylston Ave | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKOWN | | | |
| Sampling Date | | 5/28/2020 | 10/7/2020 | 1/21/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.7 | 3.3 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 2.9 | 2.3 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 6.6 | 5.6 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | 6.6 | 5.6 | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 40 Boylston Ave | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 4/28/2020 | 10/1/2020 | 1/20/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 |
| Perfluorooctanoic acid (PFOA) | | 5.3 | 4.6 | 6 | 7.5 |
| Perfluorooctanesulfonic acid (PFOS) | | 3.9 | 3.8 | 4.3 | 5.3 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 9.2 | 8.4 | 10.3 | 14.9 |
| Regulated Total | 20 | 9.2 | 8.4 | 10.3 | 14.9 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 29 Brooks Station |
|---|---|---|
| Well Depth (feet) | | UNKNOWN |
| Sampling Date | | 7/29/2021 |
| | | |
| ***EPA 537.1 (ng/L)*** | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) |
| N-EtFOSAA | | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) |
| N-MeFOSAA | | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) |
| Total (All Compounds) | | ND (2.0) |
| Regulated Total | 20 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 6 Connor Lane | | |
|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | |
| Sampling Date | | 8/31/2020 | 1/21/2021 | 4/20/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | 3.3 | 2.9 |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 2.3 | 2.9 |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | 5.6 | 5.8 |
| Regulated Total | 20 | ND (2.0) | 2.3 | 2.9 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 4 Goodnow Road | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 4/28/2020 | 10/1/2020 | 1/21/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 11 Gregory Hill Rd | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | |
| Sampling Date | | 1/22/2020 | 5/29/2020 | 10/1/2020 | 1/19/2021 | 4/21/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 13 Gregory Hill Road | | | | | |
|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | | |
| Sampling Date | | 1/22/2020 | 5/29/2020 | | 10/1/2020 | 1/19/2021 | 4/21/2021 |
| | | | | **DUPLICATE** | | | |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 14 Gregory Hill Rd | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | |
| Sampling Date | | 1/9/2020 | 5/29/2020 | 10/1/2020 | 1/20/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 2.6 | 2.9 | 3.6 | 2.7 | 3.9 |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | 2.7 | 2.7 | 2.2 |
| Perfluorohexanesulfonic acid (PFHxS) | | 3.7 | 5.2 | 11 | 4.4 | 7.6 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.2 | 3.4 | 3.6 | 2.2 | 3.4 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.5 | 2.7 | 3.7 | ND (2.0) | 2.7 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 12 | 14.2 | 21.9 | 9.3 | 17.6 |
| Regulated Total | 20 | 9.4 | 11.3 | 18.3 | 6.6 | 13.7 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| | Massachusetts Contingency Plan GW-1 Standard & MMCL | 15 Gregory Hill Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | | 5,368 | | | 68,471 | | | 104,009 | | | 189,140 | | |
| Sampling Date | | 1/13/2020 | 2/26/2020 | 3/11/2020 | | | 6/23/2020 | | | 7/31/2020 | | | 11/3/2020 | | |
| | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 2.7 | | 3.6 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 5.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.9 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 5.2 | | 6.6 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 4.7 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.1 | | 2.2 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 5.4 | | 5.4 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 6.5 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 26 | | 17.8 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 26.0 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **20.4** | | 14.2 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | **20.9** | ND (2.0) | ND (2.0) |

| | Massachusetts Contingency Plan GW-1 Standard & MMCL | 15 Gregory Hill Rd (Continued) | | | | | |
|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 199,350 | | | 200,005 | | |
| Sampling Date | | 1/29/2021 | | | 4/21/2021 | | |
| | | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 5 | ND (2.0) | ND (2.0) | 4.6 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 11 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.4 | ND (2.0) | ND (2.0) | 3.0 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 6.1 | ND (2.0) | ND (2.0) | 6.5 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 25.5 | ND (2.0) | ND (2.0) | 26.1 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **20.5** | ND (2.0) | ND (2.0) | **21.5** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 21 Gregory Hill Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/28/2020 | 9/18/2020 | 1/21/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 44 Gregory Hill Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/5/2020 | 7/22/2020 | 1/20/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 1 Hubbardston Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 865 | | | 1,311 | | | 3,896 | | | 6,577 | | |
| Sampling Date | | 1/8/2020 | 2/26/2020 | 3/11/2020 | | | 5/1/2020 | | | 6/18/2020 | | | 7/29/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 7 | | 5.7 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) | 6.5 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 22 | | 19 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 24 | ND (2.0) | ND (2.0) | 23 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.4 | | 3 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 6.1 | | 5.6 | ND (2.0) | ND (2.0) | 5.7 | ND (2.0) | ND (2.0) | 6.2 | ND (2.0) | ND (2.0) | 5.6 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 38.5 | | 33.3 | ND (2.0) | ND (2.0) | 36.2 | ND (2.0) | ND (2.0) | 39.6 | ND (2.0) | ND (2.0) | 37.9 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **31.5** | | **27.6** | ND (2.0) | ND (2.0) | **29.8** | ND (2.0) | ND (2.0) | **33.1** | ND (2.0) | ND (2.0) | **31.5** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 1 Hubbardston Rd | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 13,221 | | | 14,674 | | | 15,179 | | |
| Sampling Date | | 11/13/2020 | | | 1/29/2021 | | | 4/23/2021 | | |
| | | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 8.5 | ND (2.0) | ND (2.0) | 9.5 | ND (2.0) | ND (2.0) | 7.5 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 31 | ND (2.0) | ND (2.0) | 37 | ND (2.0) | ND (2.0) | 36 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3 | ND (2.0) | ND (2.0) | 3.7 | ND (2.0) | ND (2.0) | 5.3 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 5.7 | ND (2.0) | ND (2.0) | 8.2 | ND (2.0) | ND (2.0) | 9.5 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 48.2 | ND (2.0) | ND (2.0) | 60.5 | ND (2.0) | ND (2.0) | 60.4 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **39.7** | ND (2.0) | ND (2.0) | **48.9** | ND (2.0) | ND (2.0) | **50.8** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 5 Hubbardston Road | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 1,131 | | | 5,143 | | | 11,960 | | | 22,710 | | |
| Sampling Date | | 12/5/2019 | 1/28/2020 | 2/5/2020 | | | 3/5/2020 | | | 5/1/2020 | | | 6/30/2020 | | |
| Notes | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 8.4 | | 6.3 | ND (2.0) | ND (2.0) | 4.3 | ND (2.0) | ND (2.0) | 4.6 | ND (2.0) | ND (2.0) | 4.6 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 29 | | 25 | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | 17 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.9 | | 2.5 | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 7.3 | | 6.9 | ND (2.0) | ND (2.0) | 4.9 | ND (2.0) | ND (2.0) | 4.8 | ND (2.0) | ND (2.0) | 5.5 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 47.6 | | 40.7 | ND (2.0) | ND (2.0) | 22.9 | ND (2.0) | ND (2.0) | 27.3 | ND (2.0) | ND (2.0) | 29.7 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **39.2** | | **34.4** | ND (2.0) | ND (2.0) | **18.6** | ND (2.0) | ND (2.0) | **22.7** | ND (2.0) | ND (2.0) | **25.1** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 5 Hubbardston Road | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 27,069 | | | 39,213 | | | 47,979 | | | 58,197 | | |
| Sampling Date | | 8/5/2020 | | | 11/18/2020 | | | 2/5/2021 | | | 4/27/2021 | | |
| Notes | | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 7 | ND (2.0) | ND (2.0) | 7 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 27 | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | 16 | ND (2.0) | ND (2.0) | 30 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.5 | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 3.3 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 6.7 | ND (2.0) | ND (2.0) | 6.3 | ND (2.0) | ND (2.0) | 3.9 | ND (2.0) | ND (2.0) | 7.3 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 43.2 | ND (2.0) | ND (2.0) | 44.0 | ND (2.0) | ND (2.0) | 24.0 | ND (2.0) | ND (2.0) | 47.0 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **36.2** | ND (2.0) | ND (2.0) | **37.0** | ND (2.0) | ND (2.0) | **19.9** | ND (2.0) | ND (2.0) | **40.6** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 7 Hubbardston Rd | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | 400' | | | | |
| Sampling Date | | 12/5/2019 | 6/5/2020 | 10/1/2020 | 1/29/2021 | 4/21/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 2.3 | 3.1 | 3.4 | 4.9 | 4.2 |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 3.5 | 5.8 | 7.1 | 8.7 | 8.6 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.9 | 2.4 | 2.1 | 3.4 | 3.1 |
| Perfluorooctanesulfonic acid (PFOS) | | 3.3 | 3.5 | 3.2 | 3.6 | 3.7 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 12 | 14.8 | 15.8 | 20.6 | 19.6 |
| Regulated Total | 20 | 9.7 | 11.7 | 12.4 | 15.7 | 15.4 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 15 Hubbardston Road | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | Not Recorded | | | 3,771 | | | 6,855 | | | 8,913 | | |
| Sampling Date | | 12/5/2019 | 2/11/2020 | 2/26/2020 | | | 5/1/2020 | | | 6/18/2020 | | | 7/30/2020 | | |
| Notes | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 27 | | 17 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 20 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 110 | | 73 | ND (2.0) | ND (2.0) | 95 | ND (2.0) | ND (2.0) | 90 | ND (2.0) | ND (2.0) | 92 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 4.6 | | 3.5 | ND (2.0) | ND (2.0) | 4.2 | ND (2.0) | ND (2.0) | 3 | ND (2.0) | ND (2.0) | 3.9 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 18 | | 14 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) | 19 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 159.6 | | 107.5 | ND (2.0) | ND (2.0) | 141.2 | ND (2.0) | ND (2.0) | 132.0 | ND (2.0) | ND (2.0) | 134.9 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **132.6** | | **90.5** | ND (2.0) | ND (2.0) | **120.2** | ND (2.0) | ND (2.0) | **111.0** | ND (2.0) | ND (2.0) | **114.9** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 15 Hubbardston Road | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 13,958 | | | 18,399 | | | 22,074 | | |
| Sampling Date | | 11/6/2020 | | | 1/29/2021 | | | 4/26/2021 | | |
| Notes | | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 21 | ND (2.0) | ND (2.0) | 27 | ND (2.0) | ND (2.0) | 16 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 110 | ND (2.0) | ND (2.0) | 120 | ND (2.0) | ND (2.0) | 85 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 4 | ND (2.0) | ND (2.0) | 5 | ND (2.0) | ND (2.0) | 3.8 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 17 | ND (2.0) | ND (2.0) | 25 | ND (2.0) | ND (2.0) | 19 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 152.0 | ND (2.0) | ND (2.0) | 177.0 | ND (2.0) | ND (2.0) | 123.8 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **131.0** | ND (2.0) | ND (2.0) | **150.0** | ND (2.0) | ND (2.0) | **107.8** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 19 Hubbardston Rd | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | - | - | | | - | | - |
| Sampling Date | | 12/5/2019 | | 2/26/2020 | 6/5/2020 | | | 11/21/2020 | 1/23/2021 | 4/30/2021 |
| | | | **POET INSTALLED BY HOMEOWNER** | **EFFLUENT ONLY** | **INF** | **MID** | **EFF** | **INF** | **INF** | **INF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 2.9 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 3.1 | 2.7 | 2.2 |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 9.7 | | ND (2.0) | 5.8 | ND (2.0) | ND (2.0) | 13 | 9.3 | 6.7 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 12.6 | | ND (2.0) | 5.8 | ND (2.0) | ND (2.0) | 16.1 | 12 | 8.9 |
| Regulated Total | 20 | 9.7 | | ND (2.0) | 5.8 | ND (2.0) | ND (2.0) | 13 | 9.3 | 6.7 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 23 Hubbardston Rd | | | | | |
|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | | |
| Sampling Date | | 1/10/2020 | 1/27/2020 | 5/29/2020 | 10/2/2020 | 1/18/2021 | 4/22/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 4.9 | 5.0 | 4.1 | 2.6 | 3.9 | 4.7 |
| Perfluorooctanesulfonic acid (PFOS) | | 4.1 | 3.7 | 3.3 | 2.3 | 2.7 | 3.2 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 9.0 | 8.7 | 7.4 | 4.9 | 6.6 | 7.9 |
| Regulated Total | 20 | 9.0 | 8.7 | 7.4 | 4.9 | 6.6 | 7.9 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 33 Hubbardston Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/5/2020 | 7/23/2020 | 1/21/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 2.1 | ND (2.0) | 2.1 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.5 | 2.1 | ND (2.0) | 2.4 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 2.5 | 4.2 | ND (2.0) | 4.5 |
| Regulated Total | 20 | 2.5 | 4.2 | ND (2.0) | 4.5 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 35 Hubba |
|---|---|---|
| Well Depth (feet) | | UNKN |
| Sampling Date | | 11/11/2020 |
| | | |
| ***EPA 537.1 (ng/L)*** | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 7.5 |
| Perfluorooctanesulfonic acid (PFOS) | | 8.4 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) |
| N-EtFOSAA | | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) |
| N-MeFOSAA | | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) |
| Total (All Compounds) | | 15.9 |
| Regulated Total | 20 | 15.9 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 36 Hubbardston Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/6/2020 | 7/22/2020 | 1/21/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 5.4 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | 5.0 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | 10.4 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | 10.4 | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 39 Hubbardston Rd | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | 540 | | | 1,566 | | | 2,417 | | |
| Sampling Date | | 1/22/2021 | 3/12/2021 | 3/25/2021 | | | 5/3/2021 | | | 5/27/2021 | | |
| | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 3.1 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.4 | | 2.2 | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | | 9.6 | ND (2.0) | ND (2.0) | 9.1 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 3.4 | | 8.3 | ND (2.0) | ND (2.0) | 7.6 | ND (2.0) | ND (2.0) | 3.4 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 10.4 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 14 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 11 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 9.4 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 30.3 | | 20.1 | ND (2.0) | ND (2.0) | 18.8 | ND (2.0) | ND (2.0) | 28.9 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **24.8** | | 17.9 | ND (2.0) | ND (2.0) | 16.7 | ND (2.0) | ND (2.0) | 26.8 | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 42 Hubbardston Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | - | | | | | 3,096 | | | 7,975 | | | Not Recorded | | |
| Sampling Date | | 2/10/2020 | 7/23/2020 | | 1/19/2021 | 3/2/2021 | 3/25/2021 | | | 4/26/2021 | | | 6/3/2021 | | |
| | | | | **DUPLICATE** | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | 4.1 | | 2.3 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.3 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | 6 | | 3.1 | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 7.8 | 7.2 | 20 | | 14 | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | 7.9 | 8.5 | 12 | | 13 | ND (2.0) | ND (2.0) | 9.2 | ND (2.0) | ND (2.0) | 10 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | 15.7 | 15.7 | 44.2 | | 32.4 | ND (2.0) | ND (2.0) | 22.9 | ND (2.0) | ND (2.0) | 27.2 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | 15.7 | 15.7 | **38.0** | | **30.1** | ND (2.0) | ND (2.0) | **22.9** | ND (2.0) | ND (2.0) | **24.9** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 43 Hubbardston | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 2,655 | | | 4,953 | | | 7,349 | | | 11,146 | | |
| Sampling Date | | 12/12/2019 | 3/20/2020 | 5/8/2020 | | | 6/23/2020 | | | 7/31/2020 | | | 11/11/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3.5 | | 3.1 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) | 2.8 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 4.4 | | 4.4 | ND (2.0) | ND (2.0) | 4.6 | ND (2.0) | ND (2.0) | 4.5 | ND (2.0) | ND (2.0) | 3.4 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 15 | | 15 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | 14 | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 10 | | 10 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) | 9.9 | ND (2.0) | ND (2.0) | 9.3 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 33 | | 32.5 | ND (2.0) | ND (2.0) | 34.7 | ND (2.0) | ND (2.0) | 31.3 | ND (2.0) | ND (2.0) | 26.5 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **29** | | **29.4** | ND (2.0) | ND (2.0) | **31.6** | ND (2.0) | ND (2.0) | **28.4** | ND (2.0) | ND (2.0) | **23.7** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 43 Hubbardston | | | | | |
|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 15,057 | | | 18,056 | | |
| Sampling Date | | 2/5/2021 | | | 4/27/2021 | | |
| | | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3.2 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 5.3 | ND (2.0) | ND (2.0) | 5.1 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 15 | ND (2.0) | ND (2.0) | 17 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 13 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 36.5 | ND (2.0) | ND (2.0) | 37.2 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **33.3** | ND (2.0) | ND (2.0) | **34.1** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
olded values exceed the prposed Method 1 Standard
MCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 44 Hubbardston Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/10/2020 | 7/23/2020 | 1/19/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (4.0) | 2.2 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (4.0) | 2.1 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (4.0) | 7.1 | 3.3 | 2.8 |
| Perfluorooctanesulfonic acid (PFOS) | | ND (4.0) | 5.6 | 3.3 | 2.7 |
| Perfluorononanoic acid (PFNA) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (4.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (4.0) | 17 | 6.6 | 5.5 |
| Regulated Total | 20 | ND (4.0) | 14.8 | 6.6 | 5.5 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 46 Hubbardston Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | | | | |
| Sampling Date | | 2/12/2020 | 7/23/2020 | 1/22/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | 2.2 | 2.4 | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | 2.4 | 2.4 | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 6.2 | 8.8 | 6 | 6.1 |
| Perfluorooctanesulfonic acid (PFOS) | | 6 | 6.2 | 5.7 | 4.9 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 12.2 | 19.6 | 19.1 | 11 |
| Regulated Total | 20 | 12.2 | 17.4 | 14.1 | 11 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 48 Hubbardston Rd | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | | | | | |
| Sampling Date | | 2/12/2020 | 7/23/2020 | 1/22/2021 | 3/3/2021 | 4/19/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 52 Hubbardston Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | 15' | | | |
| Sampling Date | | 2/12/2020 | 9/18/2020 | 1/29/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 73 Hubbardston Rd | | |
|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | |
| Sampling Date | | 6/11/2020 | 10/2/2020 | 5/3/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 81 Hubbardston Rd | | |
|---|---|---|---|---|
| Well Depth (feet) | | 500 | | |
| Sampling Date | | 4/28/2020 | 10/2/2020 | 5/3/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 55 Merriam Road | |
|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | |
| Sampling Date | | 2/5/2021 | 4/26/2021 |
| | | | |
| ***EPA 537.1 (ng/L)*** | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 57 Merriam Road | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | | | | | |
| Sampling Date | | 4/28/2020 | 4/28/2020 | 10/1/2020 | | 1/21/2021 | | 2/24/2021 | | 4/26/2021 |
| | | | EFF | INF | EFF | INF | EFF | INF | EFF | INF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | 2.3 | - | 3.4* | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.5 | ND (2.0) | ND (2.0) | - | 6.7 | - | 5.1 | ND (2.0) | 4.6 |
| Perfluorooctanesulfonic acid (PFOS) | | 4.3 | ND (2.0) | ND (2.0) | - | 8.7 | - | 7.2 | ND (2.0) | 6.6 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | - | ND (2.0) | - | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 6.8 | ND (2.0) | ND (2.0) | - | 17.7 | - | 12.3 | ND (2.0) | 11.2 |
| Regulated Total | 20 | 6.8 | ND (2.0) | ND (2.0) | - | 17.7 | - | 12.3 | ND (2.0) | 11.2 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

* PFHpA also detected in both the field blank and trip blank, therefore the reported result is considered invalid. Confirmed as laboratory contaminate. Result is not included in total. Reference lab reports 21B0096_2 and 21B0997_2

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 58 Merriam Rd | |
|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | |
| Sampling Date | | 10/6/2020 | 1/21/2021 |
| | | | |
| ***EPA 537.1 (ng/L)*** | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 59 Merriam Rd | | |
|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | |
| Sampling Date | | 4/28/2020 | 10/1/2020 | 4/26/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 70 Merriam Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | 167 | | | |
| Sampling Date | | 4/28/2020 | 10/8/2020 | 1/22/2021 | 4/30/2021 |
| | | | | | |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 85 Merriam Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/26/2020 | 7/22/2020 | 1/21/2021 | 4/19/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | 2 | 2.0 |
| Perfluorooctanoic acid (PFOA) | | 4.1 | 5.1 | 4.8 | 5.9 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.7 | 2.9 | 3 | 3.2 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 6.8 | 8.0 | 9.8 | 11.1 |
| Regulated Total | 20 | 6.8 | 8.0 | 9.8 | 11.1 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 105 Merriam Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/28/2020 | 7/21/2020 | 1/20/2021 | 4/26/2021 |
| | | | | | |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 2 Mountain Rd | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | |
| Sampling Date | | 1/7/2020 | 6/5/2020 | 10/7/2020 | 1/22/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | 2 | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | 2.1 | ND (2.0) | 3.2 | 3.8 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | 2.1 | ND (2.0) | 5.2 | 3.8 |
| Regulated Total | 20 | ND (2.0) | 2.1 | ND (2.0) | 3.2 | 3.8 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 6 Mountain Road | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 1,557 | | | Not Recorded | | | 20,718 | | | 25,830 | | |
| Sampling Date | | 12/5/2019 | 1/28/2020 | 2/5/2020 | | | 3/5/2020 | | | 5/8/2020 | | | 6/23/2020 | | |
| Notes | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 8.4 | | 3.7 | ND (2.0) | ND (2.0) | 5.8 | ND (2.0) | ND (2.0) | 4.3 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 23 | | 12 | ND (2.0) | ND (2.0) | 17 | ND (2.0) | ND (2.0) | 14 | ND (2.0) | ND (2.0) | 16 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.4 | | 2.1 | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) | 8.2 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 4.7 | | 4.1 | ND (2.0) | ND (2.0) | 5 | ND (2.0) | ND (2.0) | 4 | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 3.2 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 38.5 | | 21.9 | ND (2.0) | ND (2.0) | 30.3 | ND (2.0) | ND (2.0) | 24.8 | ND (2.0) | ND (2.0) | 45.0 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **30.1** | | 18.2 | ND (2.0) | ND (2.0) | **24.5** | ND (2.0) | ND (2.0) | **20.5** | ND (2.0) | ND (2.0) | **38.4** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 6 Mountain Road | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 31,079 | | | Not Recorded | | | 71,731 | | | 84,195 | | |
| Sampling Date | | 7/29/2020 | | | 11/6/2020 | | | 2/5/2021 | | | 4/19/2021 | | |
| Notes | | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 3.7 | ND (2.0) | ND (2.0) | 5.5 | ND (2.0) | ND (2.0) | 6.6 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 13 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | 29 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 3.5 | ND (2.0) | ND (2.0) | 5.1 | ND (2.0) | ND (2.0) | 5.7 | ND (2.0) | ND (2.0) | 5.8 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 20.2 | ND (2.0) | ND (2.0) | 33.8 | ND (2.0) | ND (2.0) | 43.0 | ND (2.0) | ND (2.0) | 43.8 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | 16.5 | ND (2.0) | ND (2.0) | **28.3** | ND (2.0) | ND (2.0) | **36.4** | ND (2.0) | ND (2.0) | **37.4** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 10 Mountain Rd | | | | | |
|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | | |
| Sampling Date | | 12/5/2019 | 6/11/2020 | 10/7/2020 | 1/21/2021 | 2/15/2021 | 4/19/2021 |
| | | **RAW** | **RAW** | **RAW** | **RAW** | **TREATED** | **RAW** |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | 2.5 | ND (2.0) | 2.2 | ND (2.0) | 2.6 |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | 4.5 | 3.2 | 3.8 | ND (2.0) | 5.5 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 3.4 | ND (2.0) | 2.3 | ND (2.0) | 2.7 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.0 | 3.0 | ND (2.0) | 2.1 | ND (2.0) | 3.3 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 2.0 | 13.4 | 3.2 | 10.4 | ND (2.0) | 14.1 |
| Regulated Total | 20 | 2.0 | 10.9 | 3.2 | 8.2 | ND (2.0) | 11.5 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 14 Mountain Rd | | | | | |
|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | 500' | | | | | |
| Sampling Date | | 1/9/2020 | 1/22/2020 | 5/29/2020 | 11/11/2020 | 1/22/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 7.4 | 8.7 | 7.8 | 7.7 | 10 | 8.5 |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 30 | 35 | 33 | 34 | 46 | 42 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.6 | 2.3 | 3.3 | 2.5 | 3.6 | 3.3 |
| Perfluorooctanesulfonic acid (PFOS) | | 6.1 | 7.8 | 7 | 5.1 | 9.3 | 8.0 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 46.1 | 53.8 | 51.1 | 49.3 | 68.9 | 61.8 |
| Regulated Total | 20 | **38.7** | **45.1** | **43.3** | **41.6** | **58.9** | **53.3** |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 18 Mountain Road | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 229 | | | 1,237 | | | 5,737 | | | 11,780 | | |
| Sampling Date | | 1/10/2020 | 2/11/2020 | 2/14/2020 | | | 3/11/2020 | | | 5/1/2020 | | | 6/18/2020 | | |
| Notes | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 25 | | 20 | ND (2.0) | ND (2.0) | 27 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | 7.9 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3.4 | | 2.8 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 150 | | 110 | ND (2.0) | ND (2.0) | 160 | ND (2.0) | ND (2.0) | 88 | ND (2.0) | ND (2.0) | 44 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 6.4 | | 5.6 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) | 4.9 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 61.0 | | 50 | ND (2.0) | ND (2.0) | 61 | ND (2.0) | ND (2.0) | 36 | ND (2.0) | ND (2.0) | 24 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 245.8 | | 188.4 | ND (2.0) | ND (2.0) | 257.5 | ND (2.0) | ND (2.0) | 143.9 | ND (2.0) | ND (2.0) | 79.0 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **217.4** | | **165.6** | ND (2.0) | ND (2.0) | **227.4** | ND (2.0) | ND (2.0) | **128.9** | ND (2.0) | ND (2.0) | **71.1** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 18 Mountain Rd | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 20,025 | | | 27,827 | | | 34,958 | | | 39,421 | | |
| Sampling Date | | 7/29/2020 | | | 11/3/2020 | | | 1/29/2021 | | | 4/20/2021 | | |
| Notes | | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 6.8 | ND (2.0) | ND (2.0) | 4.8 | ND (2.0) | ND (2.0) | 10 | ND (2.0) | ND (2.0) | 24 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 42 | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | 55 | ND (2.0) | ND (2.0) | 160 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.4 | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) | 6.3 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 21 | ND (2.0) | ND (2.0) | 16 | ND (2.0) | ND (2.0) | 32 | ND (2.0) | ND (2.0) | 58 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 72.2 | ND (2.0) | ND (2.0) | 51.4 | ND (2.0) | ND (2.0) | 101.1 | ND (2.0) | ND (2.0) | 250.5 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **65.4** | ND (2.0) | ND (2.0) | **46.6** | ND (2.0) | ND (2.0) | **91.1** | ND (2.0) | ND (2.0) | **224.3** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 19 Mountain Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | NA | NA | - | | | 400 | | | 6,533 | | | 12,367 | | |
| Sampling Date | | 12/4/2019 | 1/10/2020 | 1/10/2020 | | | 1/17/2020 | | | 1/31/2020 | | | 3/3/2020 | | |
| Notes | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 32 | | 9.2 | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | 6.3 | ND (2.0) | ND (2.0) | 7.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 5.1 | | ND (2.0) | ND (2.0) | ND (2.0) | 4.4 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 220 | | 58 | ND (2.0) | ND (2.0) | 190 | ND (2.0) | ND (2.0) | 38 | ND (2.0) | ND (2.0) | 39 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 2.5 | | ND (2.0) | ND (2.0) | ND (2.0) | 2.3 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 11 | | 3.5 | ND (2.0) | ND (2.0) | 8.9 | ND (2.0) | ND (2.0) | 3 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 190 | | 48 | ND (2.0) | ND (2.0) | 140 | ND (2.0) | ND (2.0) | 32 | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 460.6 | | 118.7 | ND (2.0) | ND (2.0) | 373.6 | ND (2.0) | ND (2.0) | 79.3 | ND (2.0) | ND (2.0) | 77.2 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **421** | | **109.5** | ND (2.0) | ND (2.0) | **341.2** | ND (2.0) | ND (2.0) | **73** | ND (2.0) | ND (2.0) | **70.1** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 19 Mountain Rd | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 25,926 | | | 32,780 | | | 40,864 | | | 58,721 | | | 77,051 | | |
| Sampling Date | | 5/8/2020 | | | 6/18/2020 | | | 7/29/2020 | | | 11/3/2020 | | | 1/29/2021 | | |
| Notes | | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 11 | ND (2.0) | ND (2.0) | 42 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | 13 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.6 | ND (2.0) | ND (2.0) | 8 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 5.5 | ND (2.0) | ND (2.0) | 3.3 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 71 | ND (2.0) | ND (2.0) | 350 | ND (2.0) | ND (2.0) | 80 | ND (2.0) | ND (2.0) | 210 | ND (2.0) | ND (2.0) | 81 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | 3.7 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 4.2 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) | 4 | ND (2.0) | ND (2.0) | 9.9 | ND (2.0) | ND (2.0) | 6.2 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 44 | ND (2.0) | ND (2.0) | 230 | ND (2.0) | ND (2.0) | 55 | ND (2.0) | ND (2.0) | 150 | ND (2.0) | ND (2.0) | 71 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 132.8 | ND (2.0) | ND (2.0) | 645.7 | ND (2.0) | ND (2.0) | 151.0 | ND (2.0) | ND (2.0) | 405.9 | ND (2.0) | ND (2.0) | 176.6 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **119.2** | ND (2.0) | ND (2.0) | **595.7** | ND (2.0) | ND (2.0) | **139.0** | ND (2.0) | ND (2.0) | **372.4** | ND (2.0) | ND (2.0) | **160.3** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 19 Mountain Rd | | |
|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 92,089 | | |
| Sampling Date | | 4/22/2021 | | |
| Notes | | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 21 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 6.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 170 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 2.3 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 9.2 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 130 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 338.6 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **311.5** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 20 Mountain Road | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 295 | | | - | | | 13,640 | | | 16,740 | | |
| Sampling Date | | 1/10/2020 | 2/11/2020 | 2/14/2020 | | | 3/17/2020 | | | 6/18/2020 | | | 7/29/2020 | | |
| Notes | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 12 | | 14 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | 19 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | 2.1 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 60 | | 74 | ND (2.0) | ND (2.0) | 78 | ND (2.0) | ND (2.0) | 120 | ND (2.0) | ND (2.0) | 110 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.5 | | 4.1 | ND (2.0) | ND (2.0) | 4.2 | ND (2.0) | ND (2.0) | 5.2 | ND (2.0) | ND (2.0) | 4.3 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 22 | | 28 | ND (2.0) | ND (2.0) | 30 | ND (2.0) | ND (2.0) | 44 | ND (2.0) | ND (2.0) | 44 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 97.5 | | 122.2 | ND (2.0) | ND (2.0) | 127.2 | ND (2.0) | ND (2.0) | 190.9 | ND (2.0) | ND (2.0) | 176.3 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **86** | | **106.1** | ND (2.0) | ND (2.0) | **112.2** | ND (2.0) | ND (2.0) | **169.2** | ND (2.0) | ND (2.0) | **158.3** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 20 Mountain Road | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 25,895 | | | 31,955 | | | 39,074 | | |
| Sampling Date | | 11/18/2020 | | | 1/29/2021 | | | 4/26/2021 | | |
| Notes | | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 18 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) | 17 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.9 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 110 | ND (2.0) | ND (2.0) | 130 | ND (2.0) | ND (2.0) | 97 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 6.1 | ND (2.0) | ND (2.0) | 6.4 | ND (2.0) | ND (2.0) | 4.9 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 43 | ND (2.0) | ND (2.0) | 51 | ND (2.0) | ND (2.0) | 38 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 180.0 | ND (2.0) | ND (2.0) | 212.5 | ND (2.0) | ND (2.0) | 160.0 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **159.1** | ND (2.0) | ND (2.0) | **187.4** | ND (2.0) | ND (2.0) | **139.9** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 21 Mountain Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | NA | NA | 161 | | | 3,726 | | | 5,410 | | | 14,256 | | |
| Sampling Date | | 12/5/2020 | 1/21/2020 | 1/24/2020 | | | 1/31/2020 | | | 2/7/2020 | | | 3/17/2020 | | |
| Notes | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 8.2 | | 7.5 | ND (2.0) | ND (2.0) | 5.5 | ND (2.0) | ND (2.0) | 4.3 | ND (2.0) | ND (2.0) | 7.4 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.4 | | 2.0 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | 3.2 | ND (2.0) | ND (2.0) | 3 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 53 | | 47 | ND (2.0) | ND (2.0) | 37 | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | 46 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) | 3.2 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.4 | | 4.6 | ND (2.0) | ND (2.0) | 5.7 | ND (2.0) | ND (2.0) | 5.4 | ND (2.0) | ND (2.0) | 4.7 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 44 | | 37 | ND (2.0) | ND (2.0) | 35 | ND (2.0) | ND (2.0) | 26 | ND (2.0) | ND (2.0) | 35 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 113 | | 98.1 | ND (2.0) | ND (2.0) | 85.4 | ND (2.0) | ND (2.0) | 69.0 | ND (2.0) | ND (2.0) | 99.3 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **102.4** | | **88.6** | ND (2.0) | ND (2.0) | **77.7** | ND (2.0) | ND (2.0) | **61.5** | ND (2.0) | ND (2.0) | **88.9** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 21 Mountain Rd | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 28,173 | | | 63,830 | | | 78,724 | | | 112,079 | | | 135,525 | | |
| Sampling Date | | 5/8/2020 | | | 6/30/2020 | | | 7/31/2020 | | | 11/6/2020 | | | 2/5/2021 | | |
| Notes | | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 4 | ND (2.0) | ND (2.0) | 4.5 | ND (2.0) | ND (2.0) | 5.6 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) | 4.6 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.4 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 25 | ND (2.0) | ND (2.0) | 29 | ND (2.0) | ND (2.0) | 37 | ND (2.0) | ND (2.0) | 19 | ND (2.0) | ND (2.0) | 27 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.4 | ND (2.0) | ND (2.0) | 5.0 | ND (2.0) | ND (2.0) | 4.5 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) | 5.4 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 21 | ND (2.0) | ND (2.0) | 24 | ND (2.0) | ND (2.0) | 25 | ND (2.0) | ND (2.0) | 16 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 57.8 | ND (2.0) | ND (2.0) | 64.7 | ND (2.0) | ND (2.0) | 72.1 | ND (2.0) | ND (2.0) | 42.2 | ND (2.0) | ND (2.0) | 62.7 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **51.4** | ND (2.0) | ND (2.0) | **58** | ND (2.0) | ND (2.0) | **66.5** | ND (2.0) | ND (2.0) | **39.1** | ND (2.0) | ND (2.0) | **55.4** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 21 Mountain Rd | | |
|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 156,974 | | |
| Sampling Date | | 4/19/2021 | | |
| Notes | | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 3.2 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 23 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 4.5 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 18 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 48.7 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **45.5** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Tota
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standarc
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 22 Mountain Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 544 | | | 1,009 | | | 1,131 | | | 1,156 | | |
| Sampling Date | | 7/31/2020 | 9/3/2020 | 9/10/2020 | | | 11/18/2020 | | | 2/5/2021 | | | 4/19/2021 | | |
| | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 86 | | 85 | ND (2.0) | ND (2.0) | 29 | ND (2.0) | ND (2.0) | 85 | ND (2.0) | ND (2.0) | 85 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 8.7 | | 15 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | 13 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 490 | | 570 | ND (2.0) | ND (2.0) | 160 | ND (2.0) | ND (2.0) | 570 | ND (2.0) | ND (2.0) | 530 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 3.7 | | 5.8 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 5.8 | ND (2.0) | ND (2.0) | 5.6 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 16 | | 18 | ND (2.0) | ND (2.0) | 7.9 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) | 23 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 180 | | 170 | ND (2.0) | ND (2.0) | 79 | ND (2.0) | ND (2.0) | 170 | ND (2.0) | ND (2.0) | 220 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 784.4 | | 863.8 | ND (2.0) | ND (2.0) | 280 | ND (2.0) | ND (2.0) | 863.8 | ND (2.0) | ND (2.0) | 876.6 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **689.7** | | **763.8** | ND (2.0) | ND (2.0) | **246.9** | ND (2.0) | ND (2.0) | **763.8** | ND (2.0) | ND (2.0) | **778.6** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 29 Mountain Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | - | | | - | | | | - | 3,090 | | | - |
| Sampling Date | | 1/8/2020 | 2/24/2020 | 3/11/2020 | | | 5/8/2020 | | | | 6/3/2020 | 6/30/2020 | | | 7/14/2020 |
| | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **EFF DUPLICATE** | **EFF** | **INF** | **MID** | **EFF** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 9.6 | | 6.7 | ND (2.0) | ND (2.0) | 4 | ND (2.0) | 2.9 | 2 | ND (2.0) | 4.9 | ND (2.0) | 4.2 | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.5 | | 2 | ND (2.0) | ND (2.0) | 2 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 59 | | 41 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | 16 | 10 | ND (2.0) | 25 | ND (2.0) | 23 | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.3 | | 5.1 | ND (2.0) | ND (2.0) | 4.4 | ND (2.0) | 3.5 | 2.2 | ND (2.0) | 4.7 | ND (2.0) | 4.5 | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 53 | | 38 | ND (2.0) | ND (2.0) | 27 | ND (2.0) | 21 | 13 | ND (2.0) | 21 | ND (2.0) | 22 | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 129.4 | | 92.8 | ND (2.0) | ND (2.0) | 58.4 | ND (2.0) | 43.4 | 27.2 | ND (2.0) | 55.6 | ND (2.0) | 55.8 | ND (2.0) |
| Regulated Total | 20 | **117.3** | | **84.1** | ND (2.0) | ND (2.0) | **52.4** | ND (2.0) | **40.5** | **25.2** | ND (2.0) | **50.7** | ND (2.0) | **49.5** | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 29 Mountain Rd | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 5,301 | | | 25,532 | | | 32,996 | | |
| Sampling Date | | 7/29/2020 | | | 1/29/2021 | | | 4/20/2021 | | |
| | | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 5.2 | ND (2.0) | ND (2.0) | 3.8 | ND (2.0) | ND (2.0) | 4 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 30 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.8 | ND (2.0) | ND (2.0) | 3.9 | ND (2.0) | ND (2.0) | 4.7 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 22 | ND (2.0) | ND (2.0) | 16 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 61.0 | ND (2.0) | ND (2.0) | 44.7 | ND (2.0) | ND (2.0) | 48.7 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **55.8** | ND (2.0) | ND (2.0) | **40.9** | ND (2.0) | ND (2.0) | **44.7** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 30 Mountain Rd | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | - | - | 37 | | | 170 | | |
| Sampling Date | | 1/27/2020 | 6/5/2020 | 10/13/2020 | 2/15/2021 | 2/22/2021 | | | 4/26/2021 | | |
| | | | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | <2.0 | <2.0 | 3.2 | | 2.2 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | <2.0 | <2.0 | 2.9 | | 2.1 | ND (2.0) | ND (2.0) | 2.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 4.4 | 3.9 | 22 | | 16 | ND (2.0) | ND (2.0) | 13 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | 2.3 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 6.1 | 4.6 | 8.6 | | 8.1 | ND (2.0) | ND (2.0) | 6.9 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 5.4 | 4.1 | 16 | | 13 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 15.9 | 12.6 | 52.7 | | 41.4 | ND (2.0) | ND (2.0) | 36.2 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | 15.9 | 12.6 | **46.6** | | **37.1** | ND (2.0) | ND (2.0) | **31.9** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 30 Mountain Rd (Inn Well) |
|---|---|---|
| Well Depth | | 1,000+ |
| Sampling Date | | 5/25/2021 |
| | | |
| ***SOP-454 PFAS (ng/L)*** | | |
| Perfluorobutanesulfonic acid (PFBS) | | <2.0 |
| Perfluorohexanoic acid (PFHxA) | | <2.0 |
| Perfluorohexanesulfonic acid (PFHxS) | | 3.9 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 13 |
| Perfluorooctanesulfonic acid (PFOS) | | 110 |
| Perfluorononanoic acid (PFNA) | | 7.5 |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) |
| N-EtFOSAA | | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) |
| N-MeFOSAA | | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) |
| Perfluorobutanoic acid (PFBA) | | 3.9 |
| Perfluoropentanoic acid (PFPeA) | | 3.4 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | | ND (2.0) |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | | ND (2.0) |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | | ND (2.0) |
| Perfluoroheptanesulfonic acid (PFHpS) | | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | | ND (2.0) |
| Perfluorodecanesulfonic acid (PFDS) | | ND (2.0) |
| Perfluorooctanesulfonamide (FOSA) | | ND (2.0) |
| Perfluorononanesulfonic acid (PFNS) | | ND (2.0) |
| Perfluoro-1-hexanesulfonamide (FHxSA) | | ND (2.0) |
| Perfluoro-1-butanesulfonamide (FBSA) | | ND (2.0) |
| Perfluoro-5-oxahexanoic acid (PFMBA) | | ND (2.0) |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | | ND (2.0) |
| Perfluoropetanesulfonic acid (PFPeS) | | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | | ND (2.0) |
| Total (All Compounds) | | 141.7 |
| Regulated Total | 20 | **134.4** |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 33 Mountain Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/7/2020 | 7/22/2020 | 1/21/2021 | 4/16/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | 2.5 | 2.2 |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | 2.5 | 2.2 |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | 2.5 | 2.2 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 38 Mountain Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | | | | |
| Sampling Date | | 2/14/2020 | 7/21/2020 | 1/20/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 3 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 2.2 | 2.4 | 2.1 | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 2.2 | 5.4 | 2.1 | ND (2.0) |
| Regulated Total | 20 | 2.2 | 5.4 | 2.1 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 51 Mountain Rd | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 211 | | | | 1,080 | | | 3,312 | | | 11,491 | | |
| Sampling Date | | 2/12/2020 | 5/1/2020 | 5/28/2020 | | | | 6/23/2020 | | | 7/31/2020 | | | 11/11/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | EFF DUPLICATE | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 6.9 | | 6.1 | ND (2.0) | ND (2.0) | ND (2.0) | 5.1 | ND (2.0) | ND (2.0) | 6.8 | ND (2.0) | ND (2.0) | 6.6 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 9.5 | | 9.4 | ND (2.0) | ND (2.0) | ND (2.0) | 9.0 | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) | 9.2 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 29 | | 29 | ND (2.0) | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | 30 | ND (2.0) | ND (2.0) | 30 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 24 | | 23 | ND (2.0) | 2.9 | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 24 | ND (2.0) | ND (2.0) | 26 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (4.0) | | 3 | ND (2.0) | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) | ND (2.0) | 3.2 | ND (2.0) | ND (2.0) | 3.1 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 69.4 | | 70.5 | ND (2.0) | 2.9 | ND (2.0) | 65.7 | ND (2.0) | ND (2.0) | 75.0 | ND (2.0) | ND (2.0) | 74.9 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **62.5** | | **64.4** | ND (2.0) | 2.9 | ND (2.0) | **60.6** | ND (2.0) | ND (2.0) | **68.2** | ND (2.0) | ND (2.0) | **68.3** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 51 Mountain Rd | | |
|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 18,344 | | |
| Sampling Date | | 2/5/2021 | | |
| | | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 4.1 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 7.8 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 25 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 18 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | 2.2 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 57.1 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **53.0** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Tota
ND = Not detected above the lab reporting limits shown in parentheses
Bolded values exceed the prposed Method 1 Standar
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 54 Mountain Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | 15,502 | | | 42,195 | | | 59,957 | | | 108,792 | | |
| Sampling Date | | 2/26/2020 | 6/2/2020 | 6/22/2020 | | | 8/5/2020 | | | 9/2/2020 | | | 11/18/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 5.2 | | 5.0 | ND (2.0) | ND (2.0) | 4.2 | ND (2.0) | ND (2.0) | 4.3 | ND (2.0) | ND (2.0) | 5.7 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 7.6 | | 7.9 | ND (2.0) | ND (2.0) | 6.7 | ND (2.0) | ND (2.0) | 7.4 | ND (2.0) | ND (2.0) | 9.6 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 20 | | 24 | ND (2.0) | ND (2.0) | 23 | ND (2.0) | ND (2.0) | 24 | ND (2.0) | ND (2.0) | 27 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 18 | | 24 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) | 21 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (4.0) | | 2.5 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 50.8 | | 63.4 | ND (2.0) | ND (2.0) | 58.1 | ND (2.0) | ND (2.0) | 59.6 | ND (2.0) | ND (2.0) | 66.9 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **45.6** | | **58.4** | ND (2.0) | ND (2.0) | **53.9** | ND (2.0) | ND (2.0) | **55.3** | ND (2.0) | ND (2.0) | **61.2** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 54 Mountain Rd | | | | | |
|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 159,296 | | | 191,908 | | |
| Sampling Date | | 2/15/2021 | | | 4/23/2021 | | |
| | | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 4.7 | ND (2.0) | ND (2.0) | 6.8 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 8 | ND (2.0) | ND (2.0) | 10 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 23 | ND (2.0) | ND (2.0) | 32 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 23 | ND (2.0) | ND (2.0) | 30 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | 2.5 | ND (2.0) | ND (2.0) | 3.3 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 61.2 | ND (2.0) | ND (2.0) | 82.1 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **56.5** | ND (2.0) | ND (2.0) | **75.3** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 58 Mountain Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | | | 2,131 | | | 8,428 | | | 22,138 | | | 50,278 | | |
| Sampling Date | | 2/26/2020 | 7/7/2020 | 7/14/2020 | | | 7/31/2020 | | | 8/31/2020 | | | 11/6/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 19 | | 19 | ND (2.0) | ND (2.0) | 3.6 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 28 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 29 | | 31 | ND (2.0) | ND (2.0) | 6 | ND (2.0) | ND (2.0) | 94 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 89 | | 95 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) | 270 | ND (2.0) | ND (2.0) | 67 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 210 | | 230 | ND (2.0) | ND (2.0) | 35 | ND (2.0) | ND (2.0) | 19 | ND (2.0) | ND (2.0) | 130 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | 20 | | 20 | ND (2.0) | ND (2.0) | 3.5 | ND (2.0) | ND (2.0) | 5.7 | ND (2.0) | ND (2.0) | 14 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | 6.2 | | 6.9 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 4.2 | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (4.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 373.2 | | 401.9 | ND (2.0) | ND (2.0) | 66.1 | ND (2.0) | ND (2.0) | 431.7 | ND (2.0) | ND (2.0) | 244.2 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **354.2** | | **382.9** | ND (2.0) | ND (2.0) | **62.5** | ND (2.0) | ND (2.0) | **416.7** | ND (2.0) | ND (2.0) | **233.2** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 58 Mountain Rd | | | | | |
|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 66,979 | | | 81,707 | | |
| Sampling Date | | 2/5/2021 | | | 4/21/2021 | | |
| | | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 5 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 9 | ND (2.0) | ND (2.0) | 26 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 23 | ND (2.0) | ND (2.0) | 83 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 44 | ND (2.0) | ND (2.0) | 180 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | 6.3 | ND (2.0) | ND (2.0) | 16 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | 4.4 | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 87.7 | ND (2.0) | ND (2.0) | 324.4 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **82.7** | ND (2.0) | ND (2.0) | **309.4** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 64 Mountain Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | Not Recorded | | | 11,667 | | | 27,440 | | | 38,902 | | |
| Sampling Date | | 1/30/2020 | 2/18/2020 | 3/3/2020 | | | 5/8/2020 | | | 6/18/2020 | | | 7/29/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 14 | | 20 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) | 2 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 19 | | 23 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 34 | | 44 | ND (2.0) | ND (2.0) | 34 | ND (2.0) | ND (2.0) | 43 | ND (2.0) | ND (2.0) | 5.3 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 22 | | 20 | ND (2.0) | ND (2.0) | 15 | ND (2.0) | ND (2.0) | 20 | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | 2.5 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | 2.3 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 89 | | 109.5 | ND (2.0) | ND (2.0) | 84.2 | ND (2.0) | ND (2.0) | 105.3 | ND (2.0) | ND (2.0) | 12.4 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **75** | | **89.5** | ND (2.0) | ND (2.0) | **69.2** | ND (2.0) | ND (2.0) | **87.3** | ND (2.0) | ND (2.0) | 10.3 | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 64 Mountain Rd | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 75,168 | | | 86,631 | | | 97,368 | | |
| Sampling Date | | 11/6/2020 | | | 1/29/2021 | | | 4/21/2021 | | |
| | | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 14 | ND (2.0) | ND (2.0) | 18 | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 18 | ND (2.0) | ND (2.0) | 24 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 43 | ND (2.0) | ND (2.0) | 53 | ND (2.0) | ND (2.0) | 19 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 16 | ND (2.0) | ND (2.0) | 22 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | 3.1 | ND (2.0) | ND (2.0) | 5.1 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 94.1 | ND (2.0) | ND (2.0) | 124.5 | ND (2.0) | ND (2.0) | 54.0 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **80.1** | ND (2.0) | ND (2.0) | **104.1** | ND (2.0) | ND (2.0) | **43.0** | ND (2.0) | ND (2.0) |

Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**POET System Monitoring**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 5 Prospect Street | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | NA | NA | 127 | | | 182 | | | 188 | | | 47,737 | | |
| Sampling Date | | 1/13/2020 | 1/21/2020 | 1/24/2020 | | | 1/31/2020 | | | 2/7/2020 | | | 6/18/2020 | | |
| Notes | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 9.4 | | 2.4 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 32 | | 6.6 | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) | 7 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 6.2 | | 3 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.8 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 47.6 | | 12.0 | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) | 12.2 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **38.2** | | 9.6 | ND (2.0) | ND (2.0) | 2.5 | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) | 9.8 | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 5 Prospect Street | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 47,737 | | | 70,000 | | | 156,306 | | | 174,265 | | | 188,495 | |
| Sampling Date | | 6/18/2020 | | | 7/27/2020 | | | 11/6/2020 | | | 1/29/2021 | | | 4/19/2021 | |
| Notes | | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 2.4 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | 2.3 | ND (2.0) | ND (2.0) | 4.6 | ND (2.0) | ND (2.0) | 4.2 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 7 | ND (2.0) | ND (2.0) | 5.6 | ND (2.0) | ND (2.0) | 6 | ND (2.0) | ND (2.0) | 14 | ND (2.0) | ND (2.0) | 17 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 2.8 | ND (2.0) | ND (2.0) | 2.6 | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 12.2 | ND (2.0) | ND (2.0) | 10.4 | ND (2.0) | ND (2.0) | 10.7 | ND (2.0) | ND (2.0) | 24.9 | ND (2.0) | ND (2.0) | 27.5 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | 9.8 | ND (2.0) | ND (2.0) | 8.2 | ND (2.0) | ND (2.0) | 8.4 | ND (2.0) | ND (2.0) | **20.3** | ND (2.0) | ND (2.0) | **23.3** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 7 Prospect St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | | | | | | 6,662 | | |
| Sampling Date | | 12/9/2019 | 6/5/2020 | 10/16/2020 | 1/19/2021 | 4/23/2021 | 6/23/2021 | 7/22/2021 | | |
| | | | | | | | **POET INSTALLED** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 3.1 | 2.7 | 2.9 | 3.4 | 3.7 | | 3.6 | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | 13 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 8.8 | 11 | 11 | 11 | 15 | | 16 | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 4.5 | 6 | 5.2 | 5 | 6.9 | | 7.8 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 16.4 | 19.7 | 19.1 | 19.4 | 25.6 | | 40.4 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | 13.3 | 17.0 | 16.2 | 16.0 | **21.9** | | **23.8** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 11 Prospect St | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Well Depth (feet) | | ~137' | | | | | | |
| Sampling Date | | 1/8/2020 | 2/20/2020 | | | 9/10/2020 | 1/28/2021 | 4/21/2021 |
| | | | **INF** | **MID** | **EFF** | **INF** | **INF** | **INF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 2.1 | 3.3 | ND (2.0) | ND (2.0) | 3.4 | 4.7 | 5.8 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 2.3 | 2.5 | ND (2.0) | ND (2.0) | 3.7 | 3.5 | 4.1 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 4.4 | 5.8 | ND (2.0) | ND (2.0) | 7.1 | 8.2 | 9.9 |
| Regulated Total | 20 | 4.4 | 5.8 | ND (2.0) | ND (2.0) | 7.1 | 8.2 | 9.9 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 16 Prospect St | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | 255' | | | | |
| Sampling Date | | 1/22/2020 | 6/5/2020 | 10/8/2020 | 1/20/2021 | 4/22/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 17 Prospect St | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | |
| Sampling Date | | 1/8/2020 | 6/5/2020 | 10/8/2020 | 1/19/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 2.8 | ND (2.0) | 2.0 | 2.0 | 2.4 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 2.8 | ND (2.0) | 2.0 | 2.0 | 2.4 |
| Regulated Total | 20 | 2.8 | ND (2.0) | 2.0 | 2.0 | 2.4 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 18 Prospect St | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | |
| Sampling Date | | 1/8/2020 | 6/5/2020 | 10/8/2020 | 1/22/2021 | 4/19/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.0 | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.0 | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | 2.0 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 21 Prospect St | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/5/2020 | 7/22/2020 | 1/29/2021 | 4/19/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 26 Prospect St | | |
|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | |
| Sampling Date | | 2/6/2020 | 7/23/2020 | 3/3/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | 2.4 |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | 2.4 |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | 2.4 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 41 Prospect Street | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | - | | 164,724 | | | Not Recorded | | | 167,619 | | |
| Sampling Date | | 5/15/2020 | 10/13/2020 | 12/22/2021 | 12/30/2020 | | | 2/15/2021 | | | 3/25/2021 | | |
| | | | | **EXISTING POET ACTIVE** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | 2.6 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | 4.6 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 14 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | 9.9 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | 31.1 | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | **28.5** | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 41 Prospect Street | | |
|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 169,007 | | |
| Sampling Date | | 4/21/2021 | | |
| | | INF | MID | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 2 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | | | | |
| Sampling Date | | 2/19/2020 | 11/30/2021 | 1/21/2021 | 4/21/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 7 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | | | | |
| Sampling Date | | 2/28/2020 | 7/21/2020 | 1/21/2021 | 4/21/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | 2.7 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.3 | 3.2 | 2.5 | 3.2 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 2.3 | 5.9 | 2.5 | 5.9 |
| Regulated Total | 20 | 2.3 | 5.9 | 2.5 | 5.9 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 8 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | | | | |
| Sampling Date | | 2/28/2020 | 7/21/2020 | 1/21/2021 | 4/21/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.9 | 4.1 | 3.9 | 5.4 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.5 | 3.1 | 2.4 | 3.6 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 6.4 | 7.2 | 6.3 | 9.0 |
| Regulated Total | 20 | 6.4 | 7.2 | 6.3 | 9.0 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 11 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | | | | |
| Sampling Date | | 2/14/2020 | 7/22/2021 | 1/21/2021 | 4/22/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.7 | 3.1 | 2.3 | 3.7 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.3 | 3.1 | 2.1 | 2.9 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 5.0 | 6.2 | 4.4 | 6.6 |
| Regulated Total | 20 | 5.0 | 6.2 | 4.4 | 6.6 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 12 Radford Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | - | | 879 | | | 1,943 | | | 3,465 | | | 6,539 | | |
| Sampling Date | | 5/1/2020 | 6/16/2020 | 6/30/2020 | | | 7/31/2020 | | | 8/31/2020 | | | 11/3/2020 | | |
| | | | POET INSTALLED | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.4 | | 2.7 | ND (2.0) | ND (2.0) | 2.3 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 3.2 | | 3.2 | ND (2.0) | ND (2.0) | 3.3 | ND (2.0) | ND (2.0) | 4.2 | ND (2.0) | ND (2.0) | 3.7 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 11 | | 9.8 | ND (2.0) | ND (2.0) | 11 | ND (2.0) | ND (2.0) | 13 | ND (2.0) | ND (2.0) | 13 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 8.3 | | 7.5 | ND (2.0) | ND (2.0) | 8.9 | ND (2.0) | ND (2.0) | 8.5 | ND (2.0) | ND (2.0) | 8.7 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 24.9 | | 23.2 | ND (2.0) | ND (2.0) | 25.5 | ND (2.0) | ND (2.0) | 28.6 | ND (2.0) | ND (2.0) | 28.1 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **22.5** | | **20.5** | ND (2.0) | ND (2.0) | **23.2** | ND (2.0) | ND (2.0) | **25.7** | ND (2.0) | ND (2.0) | **25.4** | ND (2.0) | ND (2.0) |

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 12 Radford Rd | | | | | |
|---|---|---|---|---|---|---|---|
| Flow Meter Reading (gallons) | | 9,916 | | | 15,126 | | |
| Sampling Date | | 1/29/2021 | | | 4/23/2021 | | |
| | | INF | MID | EFF | INF | MID | EFF |
| ***EPA 537.1 (ng/L)*** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3.4 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 5.1 | ND (2.0) | ND (2.0) | 4.1 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 14 | ND (2.0) | ND (2.0) | 14 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 10 | ND (2.0) | ND (2.0) | 9.9 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 32.5 | ND (2.0) | ND (2.0) | 30.9 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **29.1** | ND (2.0) | ND (2.0) | **28.0** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 13 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 3/4/2020 | 7/21/2020 | 1/22/2021 | 4/21/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 15 Radford Rd | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Meter Reading (Gallons) | | - | - | 381 | | | 1,947 | | | 4,504 | | | 7,391 | | |
| Sampling Date | | 9/18/2020 | 10/21/2020 | 10/30/2020 | | | 12/4/2020 | | | 2/5/2021 | | | 4/21/2021 | | |
| | | | **POET INSTALLED** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** | **INF** | **MID** | **EFF** |
| ***EPA 537.1 (ng/L)*** | | | | | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3 | | 2.2 | ND (2.0) | ND (2.0) | 2.4 | ND (2.0) | ND (2.0) | 2.9 | ND (2.0) | ND (2.0) | 2.7 | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 4.3 | | 3.4 | ND (2.0) | ND (2.0) | 3.2 | ND (2.0) | ND (2.0) | 4.3 | ND (2.0) | ND (2.0) | 3.8 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 15 | | 12 | ND (2.0) | ND (2.0) | 14 | ND (2.0) | ND (2.0) | 12 | ND (2.0) | ND (2.0) | 13 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 11 | | 8.8 | ND (2.0) | ND (2.0) | 8.9 | ND (2.0) | ND (2.0) | 9 | ND (2.0) | ND (2.0) | 8.2 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 33.3 | | 26.4 | ND (2.0) | ND (2.0) | 28.5 | ND (2.0) | ND (2.0) | 28.2 | ND (2.0) | ND (2.0) | 27.7 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **30.3** | | **24.2** | ND (2.0) | ND (2.0) | **26.1** | ND (2.0) | ND (2.0) | **25.3** | ND (2.0) | ND (2.0) | **25.0** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 18 Radford | | |
|---|---|---|---|---|
| Well Depth (feet) | | | | |
| Sampling Date | | 9/18/2020 | 1/29/2021 | 4/26/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | 2.0 | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | 2.7 | 2.2 |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | 2.3 | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.2 | 6.5 | 6 |
| Perfluorooctanesulfonic acid (PFOS) | | 4.3 | 5.0 | 3.7 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 9.5 | 18.5 | 11.9 |
| Regulated Total | 20 | **9.5** | **13.8** | **9.7** |
| | | | | |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 23 Radford Rd | | |
|---|---|---|---|---|
| Well Depth (feet) | | | | |
| Sampling Date | | 7/22/2020 | 1/22/2021 | 4/26/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | 2.8 | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 2.2 | 2.4 | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 2.8 | 3 | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | 2.3 | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 6.5 | 6.4 | 5.2 |
| Perfluorooctanesulfonic acid (PFOS) | | 5.5 | 5.7 | 4.1 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 17.0 | 22.6 | 9.3 |
| Regulated Total | 20 | 14.8 | 17.4 | 9.3 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 28 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 1/30/2020 | 7/21/2020 | 1/21/2021 | 4/26/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | 2.1 | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 2.7 | ND (2.0) | ND (2.0) | 2.2 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 5.4 | 4.6 | 4.8 | 6.2 |
| Perfluorooctanesulfonic acid (PFOS) | | 7 | 4.0 | 3.8 | 5.5 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 17.2 | 8.6 | 8.6 | 13.9 |
| Regulated Total | 20 | 15.1 | 8.6 | 8.6 | 13.9 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 29 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 3/17/2020 | 7/21/2020 | 1/21/2021 | 4/22/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.2 | 2.4 | 3.3 | 3.3 |
| Perfluorooctanesulfonic acid (PFOS) | | 3.5 | 2.8 | 3.3 | 3.4 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 6.7 | 5.2 | 6.6 | 6.7 |
| Regulated Total | 20 | 6.7 | 5.2 | 6.6 | 6.7 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 33 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 5/29/2020 | 10/8/2020 | 1/29/2021 | 4/19/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | 2.2 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 37 Radford Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | 70' | | | |
| Sampling Date | | 4/28/2020 | 10/8/2020 | 1/20/2021 | 4/20/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | 2.6 | 2.8 |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 2.1 | 2.5 | 2.5 | 2.2 |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 2.1 | 2.5 | 5.1 | 5.0 |
| Regulated Total | 20 | 2.1 | 2.5 | 5.1 | 5.0 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 7 Thompson Road |
|---|---|---|
| Well Depth (feet) | | |
| Sampling Date | | 5/6/2021 |
| | | |
| ***EPA 537.1 (ng/L)*** | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) |
| N-EtFOSAA | | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) |
| N-MeFOSAA | | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) |
| Total (All Compounds) | | ND (2.0) |
| Regulated Total | 20 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 1 Worcester Rd | | |
|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | |
| Sampling Date | | 1/7/2020 | 6/11/2020 | 12/16/2020 |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | 2.5 | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | 2.5 | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | 2.5 | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 10 Worcester Rd | | | | |
|---|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | | |
| Sampling Date | | 1/9/2020 | 6/11/2020 | 10/16/2020 | 1/21/2021 | 4/19/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 3.8 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 8 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 3.6 | 3.0 | ND (2.0) | 3.2 | 3.1 |
| Perfluorooctanesulfonic acid (PFOS) | | 2.3 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | 2.7 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 20.4 | 3.0 | ND (2.0) | 3.2 | 3.1 |
| Regulated Total | 20 | 16.6 | 3.0 | ND (2.0) | 3.2 | 3.1 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 15 Worcester Rd | | |
|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | |
| Sampling Date | | 3/6/2020 | 7/21/2020 | 1/29/2021 |
| | | | | |
| ***EPA 537.1 (ng/L)*** | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | 2.1 |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | 2.2 |
| Perfluorooctanoic acid (PFOA) | | 3.1 | 3.1 | 4 |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 3.1 | 3.1 | 8.3 |
| Regulated Total | 20 | 3.1 | 3.1 | 6.2 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 16 Worcester Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/5/2020 | 7/29/2020 | 1/19/2021 | 4/23/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 2.2 | 2.6 | ND (2.0) | 4.2 |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 2.2 | 2.6 | ND (2.0) | 4.2 |
| Regulated Total | 20 | 2.2 | 2.6 | ND (2.0) | 4.2 |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 17 Worcester Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/10/2020 | 7/21/2020 | 1/22/2021 | 4/22/2021 |
| | | | | | |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 20 Worcester Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | | | | |
| Sampling Date | | 3/17/2020 | 7/21/2020 | 1/20/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

**TABLE 1**
**PFAS Drinking Water Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 23 Worcester Rd | | | |
|---|---|---|---|---|---|
| Well Depth (feet) | | UNKNOWN | | | |
| Sampling Date | | 2/5/2020 | 7/21/2020 | 1/29/2021 | 4/27/2021 |
| ***EPA 537.1 (ng/L)*** | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-EtFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed  Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

| POET SYSTEM STATUS | | |
|---|---|---|
| **Locations >20 ppt** | **System Status** | **Date Installed** |
| 7 Boylston | POET INSTALLED | 3/1/2020 |
| 12 Boylston | POET INSTALLED | 3/20/2020 |
| 16 Boylston | POET INSTALLED | 3/23/2021 |
| 15 Gregory Hill | POET INSTALLED | 2/26/2020 |
| 1 Hubbardston | POET INSTALLED | 2/26/2020 |
| 5 Hubbardston | POET INSTALLED | 1/28/2020 |
| 15 Hubbardston | POET INSTALLED | 2/10/2020 |
| 39 Hubbardston | POET INSTALLED | 3/12/2021 |
| 42 Hubbardston | POET INSTALLED | 3/2/2021 |
| 43 Hubbardston | POET INSTALLED | 3/20/2020 |
| 6 Mountain | POET INSTALLED | 1/28/2020 |
| 14 Mountain | NEEDS A POET | |
| 18 Mountain | LARGE POET INSTALLED | 2/10/2020 |
| 19 Mountain | LARGE POET INSTALLED | 1/10/2020 |
| 20 Mountain | POET INSTALLED | 2/11/2020 |
| 21 Mountain | POET INSTALLED | 1/21/2020 |
| 22 Mountain | POET INSTALLED | 9/3/2020 |
| 29 Mountain | POET INSTALLED | 2/24/2020 |
| 30 Mountain | POET INSTALLED | 2/15/2021 |
| 51 Mountain | POET INSTALLED | 5/1/2020 |
| 54 Mountain | POET INSTALLED | 6/2/2020 |
| 58 Mountain | POET INSTALLED | 7/7/2020 |
| 64 Mountain | POET INSTALLED | 2/18/2020 |
| 5 Prospect | POET INSTALLED | 1/21/2020 |
| 7 Prospect | POET INSTALLED | 6/23/2021 |
| 41 Prospect | EXISTING POET | NA |
| 12 Radford | POET INSTALLED | 6/12/2020 |
| 15 Radford | POET INSTALLED | 10/21/2020 |

Tighe&Bond

## APPENDIX C

Appendix C will be submitted to MassDEP under separate cover due to file size limitations

**TABLE C-1**
**Public Notification Schedule**
**Princeton, Massachusetts**
**RTN 2-21072**

| APRIL 2021 SAMPLING | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Location** | **Date Sampled** | **Date Data Received** | **Enviro Data** | **Final Letter Due Date** | **Date Final Letter Sent** | **MassDEP Submittal Status** |
| 33 Mountain | 4/16/2021 | 5/5/2021 | YES | 6/4/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 85 Merriam | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 12 Allen Hill | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 20 Allen Hill | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 32 Allen Hill | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 7 Boylston | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 9/2021 IRA Status |
| 40 Boylston | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 6 Connor | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 11 Gregory Hill | 4/21/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 13 Gregory Hill | 4/21/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 14 Gregory Hill | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 7 Hubbardston | 4/21/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 48 Hubbardston | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 6 Mountain | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 10 Mountain | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 14 Mountain | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 18 Mountain | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 21 Mountain | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 22 Mountain | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 29 Mountain | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 5 Prospect | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 17 Prospect | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 18 Prospect | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 21 Prospect | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 41 Prospect | 4/21/2021 | 5/10/2021 | YES | 6/9/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 2 Radford | 4/21/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 7 Radford | 4/21/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 8 Radford | 4/21/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 33 Radford | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 9/2021 IRA Status |
| 37 Radford | 4/20/2021 | 5/10/2021 | YES | 6/9/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 10 Worcester | 4/19/2021 | 5/10/2021 | YES | 6/9/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 33 Allen Hill | 4/20/2021 | 5/12/2021 | YES | 6/11/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 4 Goodnow | 4/20/2021 | 5/12/2021 | YES | 6/11/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 15 Gregory Hill | 4/21/2021 | 5/12/2021 | YES | 6/11/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 13 Radford | 4/21/2021 | 5/12/2021 | YES | 6/11/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 15 Radford | 4/21/2021 | 5/12/2021 | YES | 6/11/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 19 Allen Hill | 4/21/2021 | 5/14/2021 | YES | 6/13/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 23 Hubbardston | 4/22/2021 | 5/14/2021 | YES | 6/13/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 58 Mountain | 4/21/2021 | 5/14/2021 | YES | 6/13/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 64 Mountain | 4/21/2021 | 5/14/2021 | YES | 6/13/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 16 Prospect | 4/22/2021 | 5/14/2021 | YES | 6/13/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 17 Worcester | 4/22/2021 | 5/14/2021 | YES | 6/13/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 13 Boylston | 4/26/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 21 Boylston | 4/26/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 1 Hubbardston | 4/23/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 33 Hubbardston | 4/26/2021 | 5/17/2021 | YES | 6/16/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 52 Hubbardston | 4/26/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 59 Merriam | 4/26/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 19 Mountain | 4/22/2021 | 5/17/2021 | YES | 6/16/2021 | 6/2/2021 | Submitted with 9/2021 IRA Status |
| 54 Mountain | 4/23/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 7 Prospect | 4/23/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 11 Prospect | 4/21/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 11 Radford | 4/22/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 12 Radford | 4/23/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 29 Radford | 4/22/2021 | 5/17/2021 | YES | 6/16/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 15 Allen Hill | 4/23/2021 | 5/18/2021 | YES | 6/17/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 17 Boylston | 4/27/2021 | 5/18/2021 | YES | 6/17/2021 | 5/27/2021 | Submitted with 6/2021 Quarterly Status |
| 24 Boylston | 4/27/2021 | 5/18/2021 | YES | 6/17/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 16 Worcester | 4/23/2021 | 5/18/2021 | YES | 6/17/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 9 Allen Hil | 4/27/2021 | 5/19/2021 | YES | 6/18/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 32 Boylston | 4/27/2021 | 5/19/2021 | YES | 6/18/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 51 Mountain | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 21 Gregory Hill | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 44 Gregory Hill | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 5 Hubbardston | 4/27/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 35 Hubbardston | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 43 Hubbardston | 4/27/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 30 Mountain | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 28 Radford | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 1 Worcester | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 15 Worcseter | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 20 Worcester | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 23 Worcester | 4/26/2021 | 5/20/2021 | YES | 6/19/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 18 Radford | 4/26/2021 | 5/21/2021 | YES | 6/20/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 36 Hubbardston | 4/27/2021 | 5/21/2021 | YES | 6/20/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 23 Radford | 4/26/2021 | 5/21/2021 | YES | 6/20/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 38 Mountain | 4/27/2021 | 5/21/2021 | YES | 6/20/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 30 Boylston | 5/6/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 15 Hubbardston | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 19 Hubbardston | 4/30/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 39 Hubbardston | 5/3/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 42 Hubbardston | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 46 Hubbardston | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 73 Hubbardston | 5/3/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 81 Hubbardston | 5/3/2021 | 5/24/2021 | YES | 6/23/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 70 Merriam | 4/30/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 105 Merriam | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 2 Mountain | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 20 Mountain | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 7 Thompson | 5/6/2021 | 5/24/2021 | YES | 6/23/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 44 Hubbardston | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 55 Merriam | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 57 Merriam | 4/26/2021 | 5/24/2021 | YES | 6/23/2021 | 6/14/2021 | Submitted with 9/2021 IRA Status |
| 13 Boylston (RESAMPLE) | 5/18/2021 | 6/2/2021 | YES | 7/2/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 39 Hubbardston | 5/27/2021 | 6/9/2021 | YES | 7/9/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 16 Boylston | 5/27/2021 | 6/14/2021 | YES | 7/14/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |
| 42 Hubbardston | 6/3/2021 | 6/22/2021 | YES | 7/22/2021 | 7/16/2021 | Submitted with 9/2021 IRA Status |

| JULY 2021 SAMPLING | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Location** | **Date Sampled** | **Date Data Received** | **Enviro Data** | **Final Letter Due Date** | **Date Final Letter Sent** | **MassDEP Submittal Status** |
| 12 Boylston | 7/22/2021 | 8/5/2021 | YES | 9/4/2021 | 8/10/2021 | Submitted with 9/2021 IRA Status |
| 29 Brooks Station | 7/24/2021 | 8/10/2021 | YES | 9/9/2021 | 8/26/2021 | Submitted with 9/2021 IRA Status |
| 7 Prospect | 7/22/2021 | 8/5/2021 | YES | 9/4/2021 | 8/10/2021 | Submitted with 9/2021 IRA Status |

Tighe&Bond

# APPENDIX D

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

July 2, 2021

The First Congregational
Church of Princeton
Attn: Harry Pape, President
14 Mountain Rd
Princeton, MA 01541
churchoffice@firstchurchprinceton.org

Re: PWS Town: Princeton
PWS Name: Princeton First Congregational Church
PWS ID #: 2241006 - TNC; RO #: 165561
Program: System Modification WS23A
Action: **Approval**
MassDEP Trans. #: X287731

Dear Mr. Pape:

The Central Regional Office of the Massachusetts Department of Environmental Protection ("MassDEP"), Drinking Water Program (DWP) received a permit application WS23A - Approval to Construct Treatment Facility < 40,000 gallons per day (gpd) dated April 22, 2021. The application is for the construction of a new Per- and Polyfluoroalkyl Substances (PFAS) water treatment system at the First Congregational Church in Princeton, Massachusetts. The WS23 application submittal was filed on behalf of The First Congregational Church of Princeton by Tighe & Bond Engineers of Westfield, MA. Supplemental information was received by MassDEP via email on June 15, 2021.

Project Background and Description

The First Congregational Church of Princeton is a transient non-community (TNC) public water system (PWS) in the Town of Princeton, Massachusetts. The PWS serves the church, which also leases space for a seasonal daycare. The PWS obtains its water from a bedrock well, Well 01G, located alongside the building. Water enters the building and passes a water meter, a sample tap, and a 90-gallon bladder tank before connecting to the building plumbing. The water is currently not treated.

Samples from Well 01G have shown elevated levels of per- and polyfluoroalkyl substances (PFAS) exceeding MassDEP's Maximum Contaminant Limit (MCL) of 20 nanograms per liter (ng/L) for PFAS6 (PFOA, PFOS, PFHpA, PFHxS, PFDA, PFNA). The combined concentration of the six PFAS contaminants from Well 01G were 46.1 ng/L on January 9, 2020, and 53.8 ng/L on January 22, 2020.

**This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.**
**TTY# MassRelay Service 1-800-439-2370**
MassDEP Website: www.mass.gov/dep

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This WS23A application is for the installation of a water treatment system to address the elevated PFAS. The treatment system will be installed in the utility room adjacent to area containing the existing PWS components. The water line will be modified immediately after the water meter, branching between one line that will direct water to the adjacent room and a normally-closed bypass to the existing piping. The water line will run through the wall, pass a new raw water sample tap, pressure gauge, and check valve. Water will then be treated using a 1-micron cartridge sediment filter with a normally-closed bypass, a pressure gauge, an emergency chemical injection port, and a sample tap. Water will then be treated by a pair of lead/lag granular activated carbon (GAC) vessels, each containing six cubic feet of Calgon Filtrasorb 600 media. Each vessel will provide a 9-minute empty bed contact time (EBCT). A sample tap and pressure gauge will be installed after each vessel and a flow restrictor will be installed after the second GAC vessel to restrict flow to 5 gallons per minute. Water will be monitored at the midpoint between the two GAC vessels. Upon reaching 20 ng/L of PFAS6 at the midpoint, the media in the lead vessel will be replaced and the order of vessels will be switched.

A normally closed bypass line will be present to isolate the GAC filters. Following the GAC treatment and normally-open isolation valves, a second emergency chemical injection port will be installed. Water will then be directed back through the wall into the same room as the water meter, pass another smooth nose sample tap, and then connect to the former line. Space was left for a potential future UV unit if disinfection becomes necessary after the GAC filters. Installation of a UV unit will not be included in the project.

Permit Review and Approval

MassDEP, based on your engineer's certification and signature, is of the opinion that the project has been designed in accordance with modern water works engineering principles and practices, and hereby approves the proposed water treatment plant. Pursuant to MassDEP's authority under 310 CMR 22.04(7) to require that each supplier of water operate and maintain its system in a manner that ensures the delivery of safe drinking water to consumers, this permit is made subject to the conditions set forth below.

General Permit Conditions

1. Compliance with MassDEP Approvals – The Supplier of Water shall conduct activities in accordance with the approved plans, reports, and other submissions, except as may be modified by the conditions set forth in this approval. No material changes in the design or activities described in the approved documents shall be performed without prior written MassDEP approval.

2. Compliance with Other Approvals – The activities at this Public Water System shall be performed in compliance with all other applicable local, state, and federal laws and regulations. This approval does not relieve the owner or operator of this Public Water System from complying with all other applicable local, state, and federal requirements, licenses and permits.

3. Duty to Mitigate – The Supplier of Water shall remedy and shall act to prevent all potential and actual adverse impacts to public health or the environment resulting from noncompliance with the terms or conditions of this approval.

4. Duty to Provide Information – The Supplier of Water shall furnish to MassDEP, within a reasonable time, any information MassDEP may request, and which is deemed by MassDEP to be relevant in determining compliance with permits, regulations, guidelines and policies.

Specific Permit Conditions

1. Operation & Maintenance Manual – The Supplier of Water shall submit to MassDEP an Operation and Maintenance (O&M) Manual for the operation of the new water treatment plant. This O&M Manual shall include operation of each unit, all equipment installed, and preventative maintenance required. The O&M Manual shall also address procedures to follow during media changeout events. A copy of the O&M Manual shall be kept on-site.

2. Emergency Response Plan – Upon completion of the project, the Supplier of Water shall revise their Emergency Response Plan to include all new system components and submit to MassDEP a revised Emergency Response Plan Checklist.

3. Water Quality Sampling – Prior to the final activation inspection, the Supplier of Water shall conduct PFAS start up sampling for activation approval and routine monitoring as determined by the Department. Start-up samples shall be collected for total coliform bacteria and Volatile Organic Compounds (VOCs) in the finished water and for PFAS from the midpoint of the PFAS treatment and in the finished water. All water quality analyses must be conducted by a Massachusetts certified laboratory using approved methods and achieving required quality control (QC). Reports shall be submitted to MassDEP in an appropriate format (MassDEP form or eDEP) along with the laboratory analysis report and associated QC. Special sample data from operational monitoring shall also be submitted to MassDEP.

4. Laboratory Water Quality Sampling for PFAS – Startup PFAS samples shall be collected and analyzed using EPA method 537 (14 compounds) or method 537.1 (18 compounds) and all contaminants in the scope of either method shall be reported. Reporting limits of 2 parts per trillion (ppt) or lower for each of the following (6) PFAS compounds, PFOS, PFOA, PFNA, PFHxS, PFHpA and PFDA is required. All other contaminants must be reported at this level or, if not achievable, at the lowest feasible Minimum Reporting Level (MRL). The test shall be performed by a Massachusetts certified laboratory (see list available at https://www.mass.gov/doc/laboratories-approved-for-testing-for-pfas-chemicals/download). Results of the analytical testing must be reported on the MassDEP Per- and Polyfluoroalkyl Substances report form and the laboratory quality control

documents shall be included (surrogate recoveries and the results of the ongoing quality control results for the extraction batch that includes the sample – including LRB, LFB, LFSM and either a FD or LFSMD as specified in the method).

5. Future Media Changeouts – All GAC media used shall be certified to meet ANSI/NSF-61 standards. If a different GAC media is used during future changeout events, the Supplier of Water shall notify MassDEP and submit documentation prior to installation.

6. Future Treatment Modifications – The Supplier of Water shall submit a permit application for MassDEP's review and approval prior to the installation of any treatment modification, including a UV disinfection unit.

7. Water Treatment Plant Rating – In accordance with 310 CMR 22.11B, the water treatment plant shall be classified as a I-T treatment system. The Supplier of Water shall ensure that this water treatment plant is operated by an operator with a grade I-T license or higher.

8. Cross Connection Survey– A cross-connection survey of the new water treatment plant shall be conducted in accordance with the requirements of 310 CMR 22.22(13), and submit the cross-connection survey report to MassDEP prior to the activation inspection.

9. Construction Certification - The Supplier of Water shall submit to MassDEP, prior to the final inspection, a copy of the Massachusetts Professional Engineer's certification letter/report on the installation of the water treatment plant and its compliance with the WS23A approval and with MassDEP's regulations, guidelines, and policies. The Engineer's certification shall also include a final set of as-built plans that show any changes from the submitted and approved plan.

10. Final Inspection – MassDEP must be notified upon completion of the construction of this project, so that MassDEP personnel may conduct the final inspection of the facility. Please allow at least ten (10) working days for MassDEP personnel to conduct the final inspection. MassDEP's written activation approval must be obtained prior to placing the project in service.

Thank you, and if you have any questions or comments regarding this matter, please feel free to contact Kate Conoby of the Drinking Water Program at 508-849-4027, or you may also contact me at 508-849-4036.

Sincerely,

Robert A. Bostwick

Robert A. Bostwick
Section Chief
Drinking Water Program

ecc: Drinking Water Program, BWR, MassDEP – Boston, CERO
Kelly Momberger, Paula Caron, Andrea Lemerise, DWP, MassDEP – CERO
Frank Niles, DWP, MassDEP – Boston
Dave Papale, Certified Operator, davep@watermaintsvc.com
Jeffery Arps, Tighe & Bond, jlarps@tighebond.com
Terri Longtine, Princeton Board of Health, tlongtine@town.princeton.ma.us

Tighe&Bond

# APPENDIX E

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2143633 |
| Client: | White Water Inc.<br>253B Worcester Road<br>Charlton, MA 01507 |
| ATTN: | Andrew Donnelly |
| Phone: | (888) 377-7678 |
| Project Name: | PRINCETON TOWN CAMPUS |
| Project Number: | 2241017 |
| Report Date: | 08/23/21 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** 2241017

**Lab Number:** L2143633
**Report Date:** 08/23/21

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2143633-01 | TC001G WELL 1 | DW | 6 TOWN HALL DRIVE, PRINCETON, MA 01541 | 08/10/21 11:05 | 08/13/21 |
| L2143633-02 | TC001G WELL 1 FB | DW | 6 TOWN HALL DRIVE, PRINCETON, MA 01541 | 08/10/21 00:00 | 08/13/21 |

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2143633 |
| **Project Number:** | 2241017 | **Report Date:** | 08/23/21 |

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2143633 |
| **Project Number:** | 2241017 | **Report Date:** | 08/23/21 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by EPA 537.1

The WG1535615-3 MS recovery, performed on L2143633-01, is outside the 70-130% acceptance criteria for perfluoroheptanoic acid (pfhpa) (67%) due to possible matrix interference. All other supporting QC were within acceptable limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 08/23/21

# ORGANICS

# SEMIVOLATILES

**Project Name:** PRINCETON TOWN CAMPUS **Lab Number:** L2143633

**Project Number:** 2241017 **Report Date:** 08/23/21

## SAMPLE RESULTS

Lab ID: L2143633-01
Client ID: TC001G WELL 1
Sample Location: 6 TOWN HALL DRIVE, PRINCETON, MA 01541

Date Collected: 08/10/21 11:05
Date Received: 08/13/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 08/17/21 10:10
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/16/21 16:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab** | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | 14.0 | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorohexanoic Acid (PFHxA) | 1.72 | J | ng/l | 1.80 | 0.600 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| Perfluoroheptanoic Acid (PFHpA) | 1.15 | J | ng/l | 1.80 | 0.600 | 1 |
| Perfluorohexanesulfonic Acid (PFHxS) | 90.9 | | ng/l | 1.80 | 0.600 | 1 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorooctanoic Acid (PFOA) | 5.32 | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorononanoic Acid (PFNA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorooctanesulfonic Acid (PFOS) | 30.0 | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 1.80 | 0.600 | 1 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 1.80 | 0.600 | 1 |
| PFAS, Total (6) | 126 | | ng/l | 1.80 | 0.600 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 85 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 89 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 88 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 97 | | 70-130 |

**Project Name:** PRINCETON TOWN CAMPUS **Lab Number:** L2143633

**Project Number:** 2241017 **Report Date:** 08/23/21

## SAMPLE RESULTS

Lab ID: L2143633-02
Client ID: TC001G WELL 1 FB
Sample Location: 6 TOWN HALL DRIVE, PRINCETON, MA 01541

Date Collected: 08/10/21 00:00
Date Received: 08/13/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 08/17/21 10:19
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/16/21 16:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab** | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorohexanoic Acid (PFHxA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluoroheptanoic Acid (PFHpA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | | ng/l | 1.83 | 0.610 | 1 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorooctanoic Acid (PFOA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorononanoic Acid (PFNA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorooctanesulfonic Acid (PFOS) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 1.83 | 0.610 | 1 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 1.83 | 0.610 | 1 |
| PFAS, Total (6) | ND | | ng/l | 1.83 | 0.610 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 84 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 95 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 83 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 89 | | 70-130 |

**Project Name:** PRINCETON TOWN CAMPUS **Lab Number:** L2143633

**Project Number:** 2241017 **Report Date:** 08/23/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 133,537.1
Analytical Date: 08/17/21 09:53
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/16/21 16:07

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab for sample(s): 01-02 Batch: WG1535615-1 | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorohexanoic Acid (PFHxA) | ND | | ng/l | 2.00 | 0.668 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluoroheptanoic Acid (PFHpA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | | ng/l | 2.00 | 0.668 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorooctanoic Acid (PFOA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorononanoic Acid (PFNA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorooctanesulfonic Acid (PFOS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 2.00 | 0.668 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 2.00 | 0.668 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 2.00 | 0.668 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 2.00 | 0.668 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 2.00 | 0.668 |
| PFAS, Total (6) | ND | | ng/l | 2.00 | 0.668 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 85 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 101 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 89 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 91 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** 2241017
**Lab Number:** L2143633
**Report Date:** 08/23/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1535615-2 | | | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | 94 | | - | | 70-130 | - | | 30 |
| Perfluorohexanoic Acid (PFHxA) | 85 | | - | | 70-130 | - | | 30 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | 89 | | - | | 70-130 | - | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | 96 | | - | | 70-130 | - | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | 94 | | - | | 70-130 | - | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | 100 | | - | | 70-130 | - | | 30 |
| Perfluorooctanoic Acid (PFOA) | 95 | | - | | 70-130 | - | | 30 |
| Perfluorononanoic Acid (PFNA) | 91 | | - | | 70-130 | - | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | 84 | | - | | 70-130 | - | | 30 |
| Perfluorodecanoic Acid (PFDA) | 95 | | - | | 70-130 | - | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | 101 | | - | | 70-130 | - | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | 86 | | - | | 70-130 | - | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | 102 | | - | | 70-130 | - | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | 98 | | - | | 70-130 | - | | 30 |
| Perfluorododecanoic Acid (PFDoA) | 105 | | - | | 70-130 | - | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | 96 | | - | | 70-130 | - | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | 107 | | - | | 70-130 | - | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | 127 | | - | | 70-130 | - | | 30 |

# Lab Control Sample Analysis

**Batch Quality Control**

**Project Name:** PRINCETON TOWN CAMPUS

**Project Number:** 2241017

**Lab Number:** L2143633

**Report Date:** 08/23/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1535615-2 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 90 | | | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 104 | | | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 92 | | | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 97 | | | | 70-130 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** PRINCETON TOWN CAMPUS

***Project Number:*** 2241017

***Lab Number:*** L2143633

***Report Date:*** 08/23/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535615-3 QC Sample: L2143633-01 Client ID: TC001G WELL 1 | | | | | | | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | 14.0 | 127 | 136 | 96 | | - | - | | 70-130 | - | | 30 |
| Perfluorohexanoic Acid (PFHxA) | 1.72J | 143 | 122 | 85 | | - | - | | 70-130 | - | | 30 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | 143 | 113 | 79 | | - | - | | 70-130 | - | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | 1.15J | 143 | 96.7 | **67** | Q | - | - | | 70-130 | - | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | 90.9 | 131 | 205 | 87 | | - | - | | 70-130 | - | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | 135 | 126 | 93 | | - | - | | 70-130 | - | | 30 |
| Perfluorooctanoic Acid (PFOA) | 5.32 | 143 | 146 | 98 | | - | - | | 70-130 | - | | 30 |
| Perfluorononanoic Acid (PFNA) | ND | 143 | 135 | 94 | | - | - | | 70-130 | - | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | 30.0 | 133 | 148 | 89 | | - | - | | 70-130 | - | | 30 |
| Perfluorodecanoic Acid (PFDA) | ND | 143 | 129 | 90 | | - | - | | 70-130 | - | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | 134 | 135 | 101 | | - | - | | 70-130 | - | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | 143 | 140 | 98 | | - | - | | 70-130 | - | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | ND | 143 | 138 | 96 | | - | - | | 70-130 | - | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | 143 | 151 | 105 | | - | - | | 70-130 | - | | 30 |
| Perfluorododecanoic Acid (PFDoA) | ND | 143 | 139 | 97 | | - | - | | 70-130 | - | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | 135 | 128 | 94 | | - | - | | 70-130 | - | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | 143 | 149 | 104 | | - | - | | 70-130 | - | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | ND | 143 | 184 | 128 | | - | - | | 70-130 | - | | 30 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** PRINCETON TOWN CAMPUS

***Project Number:*** 2241017

***Lab Number:*** L2143633

***Report Date:*** 08/23/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535615-3 QC Sample: L2143633-01 Client ID: TC001G WELL 1 | | | | | | | | | | | | |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 103 | | | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 87 | | | | 70-130 |
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 88 | | | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 90 | | | | 70-130 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** 2241017

**Lab Number:** L2143633
**Report Date:** 08/23/21

Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535615-4 QC Sample: L2100462-64 Client ID: DUP Sample

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Perfluorobutanesulfonic Acid (PFBS) | 2.45 | 2.49 | ng/l | 2 | | 30 |
| Perfluorohexanoic Acid (PFHxA) | 2.19 | 2.19 | ng/l | 0 | | 30 |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA) | ND | ND | ng/l | NC | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | 1.78J | 1.82J | ng/l | NC | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | 2.00 | 2.08 | ng/l | 4 | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | ND | ng/l | NC | | 30 |
| Perfluorooctanoic Acid (PFOA) | 7.90 | 8.03 | ng/l | 2 | | 30 |
| Perfluorononanoic Acid (PFNA) | ND | ND | ng/l | NC | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | 9.19 | 9.04 | ng/l | 2 | | 30 |
| Perfluorodecanoic Acid (PFDA) | ND | ND | ng/l | NC | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | ND | ng/l | NC | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | ND | ng/l | NC | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | ND | ND | ng/l | NC | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | ND | ng/l | NC | | 30 |
| Perfluorododecanoic Acid (PFDoA) | ND | ND | ng/l | NC | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | ND | ng/l | NC | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | ND | ng/l | NC | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | ND | ND | ng/l | NC | | 30 |
| PFOA/PFOS, Total | 17.1 | 17.1 | ng/l | 0 | | 30 |
| PFAS, Total (5) | 20.9J | 21.0J | ng/l | NC | | 30 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** 2241017

**Lab Number:** L2143633
**Report Date:** 08/23/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535615-4 QC Sample: L2100462-64 Client ID: DUP Sample | | | | | | |
| PFAS, Total (6) | 19.1 | 19.2 | ng/l | 0 | | 30 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 86 | | 86 | | 70-130 |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA) | 88 | | 90 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 83 | | 83 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 96 | | 97 | | 70-130 |

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** 2241017

**Lab Number:** L2143633
**Report Date:** 08/23/21

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2143633-01A | Plastic 250ml Trizma preserved | A | NA | | 4.4 | Y | Absent | | A2-MA-537.1(14) |
| L2143633-01B | Plastic 250ml Trizma preserved | A | NA | | 4.4 | Y | Absent | | A2-MA-537.1(14) |
| L2143633-02A | Plastic 250ml Trizma preserved | A | NA | | 4.4 | Y | Absent | | A2-MA-537.1(14) |

*Values in parentheses indicate holding time in days

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** 2241017
**Lab Number:** L2143633
**Report Date:** 08/23/21

## PFAS PARAMETER SUMMARY

| Parameter | Acronym | CAS Number |
|---|---|---|
| PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs) | | |
| Perfluorooctadecanoic Acid | PFODA | 16517-11-6 |
| Perfluorohexadecanoic Acid | PFHxDA | 67905-19-5 |
| Perfluorotetradecanoic Acid | PFTA | 376-06-7 |
| Perfluorotridecanoic Acid | PFTrDA | 72629-94-8 |
| Perfluorododecanoic Acid | PFDoA | 307-55-1 |
| Perfluoroundecanoic Acid | PFUnA | 2058-94-8 |
| Perfluorodecanoic Acid | PFDA | 335-76-2 |
| Perfluorononanoic Acid | PFNA | 375-95-1 |
| Perfluorooctanoic Acid | PFOA | 335-67-1 |
| Perfluoroheptanoic Acid | PFHpA | 375-85-9 |
| Perfluorohexanoic Acid | PFHxA | 307-24-4 |
| Perfluoropentanoic Acid | PFPeA | 2706-90-3 |
| Perfluorobutanoic Acid | PFBA | 375-22-4 |
| PERFLUOROALKYL SULFONIC ACIDS (PFSAs) | | |
| Perfluorododecanesulfonic Acid | PFDoDS | 79780-39-5 |
| Perfluorodecanesulfonic Acid | PFDS | 335-77-3 |
| Perfluorononanesulfonic Acid | PFNS | 68259-12-1 |
| Perfluorooctanesulfonic Acid | PFOS | 1763-23-1 |
| Perfluoroheptanesulfonic Acid | PFHpS | 375-92-8 |
| Perfluorohexanesulfonic Acid | PFHxS | 355-46-4 |
| Perfluoropentanesulfonic Acid | PFPeS | 2706-91-4 |
| Perfluorobutanesulfonic Acid | PFBS | 375-73-5 |
| FLUOROTELOMERS | | |
| 1H,1H,2H,2H-Perfluorododecanesulfonic Acid | 10:2FTS | 120226-60-0 |
| 1H,1H,2H,2H-Perfluorodecanesulfonic Acid | 8:2FTS | 39108-34-4 |
| 1H,1H,2H,2H-Perfluorooctanesulfonic Acid | 6:2FTS | 27619-97-2 |
| 1H,1H,2H,2H-Perfluorohexanesulfonic Acid | 4:2FTS | 757124-72-4 |
| PERFLUOROALKANE SULFONAMIDES (FASAs) | | |
| Perfluorooctanesulfonamide | FOSA | 754-91-6 |
| N-Ethyl Perfluorooctane Sulfonamide | NEtFOSA | 4151-50-2 |
| N-Methyl Perfluorooctane Sulfonamide | NMeFOSA | 31506-32-8 |
| PERFLUOROALKANE SULFONYL SUBSTANCES | | |
| N-Ethyl Perfluorooctanesulfonamido Ethanol | NEtFOSE | 1691-99-2 |
| N-Methyl Perfluorooctanesulfonamido Ethanol | NMeFOSE | 24448-09-7 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid | NEtFOSAA | 2991-50-6 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid | NMeFOSAA | 2355-31-9 |
| PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS | | |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid | HFPO-DA | 13252-13-6 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid | ADONA | 919005-14-4 |
| CHLORO-PERFLUOROALKYL SULFONIC ACIDS | | |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | 11Cl-PF3OUdS | 763051-92-9 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid | 9Cl-PF3ONS | 756426-58-1 |
| PERFLUOROETHER SULFONIC ACIDS (PFESAs) | | |
| Perfluoro(2-Ethoxyethane)Sulfonic Acid | PFEESA | 113507-82-7 |
| PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs) | | |
| Perfluoro-3-Methoxypropanoic Acid | PFMPA | 377-73-1 |
| Perfluoro-4-Methoxybutanoic Acid | PFMBA | 863090-89-5 |
| Nonafluoro-3,6-Dioxaheptanoic Acid | NFDHA | 151772-58-6 |

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2143633 |
| **Project Number:** | 2241017 | **Report Date:** | 08/23/21 |

## GLOSSARY

***Acronyms***

| | |
|---|---|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)<br><br>Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2143633 |
| **Project Number:** | 2241017 | **Report Date:** | 08/23/21 |

***Footnotes***

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

***Terms***

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

**B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2143633 |
| **Project Number:** | 2241017 | **Report Date:** | 08/23/21 |

***Data Qualifiers***

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2143633 |
| **Project Number:** | 2241017 | **Report Date:** | 08/23/21 |

## REFERENCES

133 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537.1, EPA/600/R-18/352. Version 1.0, November 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522, EPA 537.1.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L21 3633

# WhiteWater
WATER & WASTEWATER SOLUTIONS

253B Worcester Road, Charlton MA 01507 Phone: (888) 377-7678 Fax: (508) 248-2895

- [x] ROUTINE SAMPLE
- [ ] REPEAT SAMPLE
- [ ] 24 HR RUSH?
- [ ] SPECIAL SAMPLE
- [ ] WAF SAMPLE
- [ ] PRESEASON SAMPLE

**SPECIAL NOTES:**
PFAS Quarterly per client

**METER READINGS:** Cu Ft. or Gal
296790

**PWS ID #:** 2241017 **PWS CLASS:** TNC **JOB/SO #:**
**PWS NAME:** Princeton Town Campus
**PWS ADDRESS:** 6 Town Hall Drive, Princeton, MA 01541
**PWS PHONE #:** (978) 464 2100
**DATE COLLECTED:** 8/10/21
Is the source treated? YES NO
Sample after treatment? YES NO

| LOCATION CODE | SAMPLE LOCATION | SAMPLE TYPE | TIME | CHLORINE RESIDUAL | PFAS | | | | | NOTES (# of Bottles) |
|---|---|---|---|---|---|---|---|---|---|---|
| TC001G | Well 1 | Finish | 1105 | NA | ✓ | | | | | 2 |
| | | | | | | | Plus 2 Field Blank | | | |
| | | | | | | | | Total = 4 | | |

| Custody Transfer | Name & Signature | DATE | TIME |
|---|---|---|---|
| Sampler: | William Hibbs | 8/10/21 | 1105 |
| Relinquished by: | Wills Hibbs | 8/10/21 | 1400 |
| Received by: | W. Donnelli AAL | 8/13/21 | 14:00 |
| Relinquished by: | W. Donnelli | 8/13/21 | 16:15 |
| Received by: | | 8/13/21 | 1615 |

**PLEASE EMAIL THIS REPORT WITH RESULTS & INVOICE TO:** ADonnelly@RHWhite.com and CAstephen@RHWhite.com

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2133010 |
| Client: | White Water Inc.<br>253B Worcester Road<br>Charlton, MA 01507 |
| ATTN: | Andrew Donnelly |
| Phone: | (888) 377-7678 |
| Project Name: | PRINCETON TOWN CAMPUS |
| Project Number: | Not Specified |
| Report Date: | 06/27/21 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** Not Specified

**Lab Number:** L2133010
**Report Date:** 06/27/21

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2133010-01 | WELL 1 | DW | 6 TOWN HALL DRIVE, PRINCETON, MA 01541 | 06/15/21 12:30 | 06/17/21 |
| L2133010-02 | FIELD BLANK | DW | 6 TOWN HALL DRIVE, PRINCETON, MA 01541 | 06/15/21 12:30 | 06/17/21 |

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2133010 |
| **Project Number:** | Not Specified | **Report Date:** | 06/27/21 |

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2133010 |
| **Project Number:** | Not Specified | **Report Date:** | 06/27/21 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 06/27/21

# ORGANICS

# SEMIVOLATILES

**Project Name:** PRINCETON TOWN CAMPUS **Lab Number:** L2133010

**Project Number:** Not Specified **Report Date:** 06/27/21

## SAMPLE RESULTS

Lab ID: L2133010-01
Client ID: WELL 1
Sample Location: 6 TOWN HALL DRIVE, PRINCETON, MA 01541

Date Collected: 06/15/21 12:30
Date Received: 06/17/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 06/23/21 12:49
Analyst: LV

Extraction Method: EPA 537.1
Extraction Date: 06/22/21 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab** | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | 34.5 | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorohexanoic Acid (PFHxA) | 4.14 | | ng/l | 1.83 | 0.611 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| Perfluoroheptanoic Acid (PFHpA) | 2.09 | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorohexanesulfonic Acid (PFHxS) | 224 | | ng/l | 1.83 | 0.611 | 1 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorooctanoic Acid (PFOA) | 10.8 | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorononanoic Acid (PFNA) | 0.769 | J | ng/l | 1.83 | 0.611 | 1 |
| Perfluorooctanesulfonic Acid (PFOS) | 71.0 | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 1.83 | 0.611 | 1 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 1.83 | 0.611 | 1 |
| PFAS, Total (6) | 308 | | ng/l | 1.83 | 0.611 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 95 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 97 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 100 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 90 | | 70-130 |

**Project Name:** PRINCETON TOWN CAMPUS **Lab Number:** L2133010

**Project Number:** Not Specified **Report Date:** 06/27/21

## SAMPLE RESULTS

Lab ID: L2133010-02
Client ID: FIELD BLANK
Sample Location: 6 TOWN HALL DRIVE, PRINCETON, MA 01541

Date Collected: 06/15/21 12:30
Date Received: 06/17/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 06/23/21 12:57
Analyst: LV

Extraction Method: EPA 537.1
Extraction Date: 06/22/21 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab** | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorohexanoic Acid (PFHxA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluoroheptanoic Acid (PFHpA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | | ng/l | 1.90 | 0.634 | 1 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorooctanoic Acid (PFOA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorononanoic Acid (PFNA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorooctanesulfonic Acid (PFOS) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 1.90 | 0.634 | 1 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 1.90 | 0.634 | 1 |
| PFAS, Total (6) | ND | | ng/l | 1.90 | 0.634 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 92 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 93 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 101 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 90 | | 70-130 |

**Project Name:** PRINCETON TOWN CAMPUS **Lab Number:** L2133010

**Project Number:** Not Specified **Report Date:** 06/27/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 133,537.1
Analytical Date: 06/23/21 09:30
Analyst: LV

Extraction Method: EPA 537.1
Extraction Date: 06/22/21 12:34

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab for sample(s): 01-02 Batch: WG1515356-1 | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorohexanoic Acid (PFHxA) | ND | | ng/l | 2.00 | 0.668 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluoroheptanoic Acid (PFHpA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | | ng/l | 2.00 | 0.668 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorooctanoic Acid (PFOA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorononanoic Acid (PFNA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorooctanesulfonic Acid (PFOS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 2.00 | 0.668 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 2.00 | 0.668 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 2.00 | 0.668 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 2.00 | 0.668 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 2.00 | 0.668 |
| PFAS, Total (6) | ND | | ng/l | 2.00 | 0.668 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 92 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 95 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 104 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 85 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** Not Specified

**Lab Number:** L2133010
**Report Date:** 06/27/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1515356-2 | | | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | 120 | | - | | 70-130 | - | | 30 |
| Perfluorohexanoic Acid (PFHxA) | 105 | | - | | 70-130 | - | | 30 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | 115 | | - | | 70-130 | - | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | 112 | | - | | 70-130 | - | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | 122 | | - | | 70-130 | - | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | 113 | | - | | 70-130 | - | | 30 |
| Perfluorooctanoic Acid (PFOA) | 115 | | - | | 70-130 | - | | 30 |
| Perfluorononanoic Acid (PFNA) | 120 | | - | | 70-130 | - | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | 107 | | - | | 70-130 | - | | 30 |
| Perfluorodecanoic Acid (PFDA) | 111 | | - | | 70-130 | - | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | 113 | | - | | 70-130 | - | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | 100 | | - | | 70-130 | - | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | 106 | | - | | 70-130 | - | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | 110 | | - | | 70-130 | - | | 30 |
| Perfluorododecanoic Acid (PFDoA) | 112 | | - | | 70-130 | - | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | 103 | | - | | 70-130 | - | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | 111 | | - | | 70-130 | - | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | 100 | | - | | 70-130 | - | | 30 |

# Lab Control Sample Analysis

**Batch Quality Control**

**Project Name:** PRINCETON TOWN CAMPUS

**Project Number:** Not Specified

**Lab Number:** L2133010

**Report Date:** 06/27/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1515356-2 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 93 | | | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 96 | | | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 97 | | | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 92 | | | | 70-130 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** PRINCETON TOWN CAMPUS

***Project Number:*** Not Specified

***Lab Number:*** L2133010

***Report Date:*** 06/27/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1515356-3 WG1515356-4 QC Sample: L2132630-01 Client ID: MS Sample | | | | | | | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | 3.19 | 32.4 | 41.3 | 118 | | 38.8 | 113 | | 70-130 | 6 | | 30 |
| Perfluorohexanoic Acid (PFHxA) | 4.44 | 36.5 | 41.4 | 101 | | 41.6 | 104 | | 70-130 | 0 | | 30 |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA) | ND | 36.5 | 41.0 | 112 | | 40.5 | 114 | | 70-130 | 1 | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | 1.50J | 36.5 | 39.6 | 108 | | 39.7 | 112 | | 70-130 | 0 | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | 0.991J | 33.4 | 37.7 | 113 | | 36.1 | 111 | | 70-130 | 4 | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | 34.4 | 31.1 | 90 | | 28.6 | 85 | | 70-130 | 8 | | 30 |
| Perfluorooctanoic Acid (PFOA) | 5.10 | 36.5 | 44.4 | 108 | | 44.3 | 110 | | 70-130 | 0 | | 30 |
| Perfluorononanoic Acid (PFNA) | 0.918J | 36.5 | 44.6 | 122 | | 42.6 | 120 | | 70-130 | 5 | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | 6.72 | 33.9 | 40.1 | 98 | | 36.4 | 90 | | 70-130 | 10 | | 30 |
| Perfluorodecanoic Acid (PFDA) | ND | 36.5 | 34.0 | 93 | | 31.4 | 88 | | 70-130 | 8 | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | 34 | 35.8 | 105 | | 34.6 | 104 | | 70-130 | 3 | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | 36.5 | 32.1 | 88 | | 30.1 | 85 | | 70-130 | 6 | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | ND | 36.5 | 36.4 | 100 | | 35.2 | 99 | | 70-130 | 3 | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | 36.5 | 33.9 | 93 | | 34.3 | 96 | | 70-130 | 1 | | 30 |
| Perfluorododecanoic Acid (PFDoA) | ND | 36.5 | 35.8 | 98 | | 36.1 | 101 | | 70-130 | 1 | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | 34.4 | 31.3 | 91 | | 30.3 | 90 | | 70-130 | 3 | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | 36.5 | 37.3 | 102 | | 37.1 | 104 | | 70-130 | 1 | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | ND | 36.5 | 35.3 | 97 | | 37.3 | 105 | | 70-130 | 6 | | 30 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** PRINCETON TOWN CAMPUS

***Project Number:*** Not Specified

***Lab Number:*** L2133010

***Report Date:*** 06/27/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1515356-3 WG1515356-4 QC Sample: L2132630-01 Client ID: MS Sample | | | | | | | | | | | | |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA) | 95 | | 99 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 86 | | 82 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 94 | | 81 | | 70-130 |
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 90 | | 93 | | 70-130 |

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:** Not Specified

**Lab Number:** L2133010
**Report Date:** 06/27/21

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2133010-01A | Plastic 250ml Trizma preserved | A | NA | | 2.9 | Y | Absent | | A2-MA-537.1(14) |
| L2133010-01B | Plastic 250ml Trizma preserved | A | NA | | 2.9 | Y | Absent | | A2-MA-537.1(14) |
| L2133010-02A | Plastic 250ml Trizma preserved | A | NA | | 2.9 | Y | Absent | | A2-MA-537.1(14) |

*Values in parentheses indicate holding time in days

**Project Name:** PRINCETON TOWN CAMPUS
**Project Number:**

**Lab Number:** L2133010
**Report Date:** 06/27/21

## PFAS PARAMETER SUMMARY

| Parameter | Acronym | CAS Number |
|---|---|---|
| PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs) | | |
| Perfluorooctadecanoic Acid | PFODA | 16517-11-6 |
| Perfluorohexadecanoic Acid | PFHxDA | 67905-19-5 |
| Perfluorotetradecanoic Acid | PFTA | 376-06-7 |
| Perfluorotridecanoic Acid | PFTrDA | 72629-94-8 |
| Perfluorododecanoic Acid | PFDoA | 307-55-1 |
| Perfluoroundecanoic Acid | PFUnA | 2058-94-8 |
| Perfluorodecanoic Acid | PFDA | 335-76-2 |
| Perfluorononanoic Acid | PFNA | 375-95-1 |
| Perfluorooctanoic Acid | PFOA | 335-67-1 |
| Perfluoroheptanoic Acid | PFHpA | 375-85-9 |
| Perfluorohexanoic Acid | PFHxA | 307-24-4 |
| Perfluoropentanoic Acid | PFPeA | 2706-90-3 |
| Perfluorobutanoic Acid | PFBA | 375-22-4 |
| PERFLUOROALKYL SULFONIC ACIDS (PFSAs) | | |
| Perfluorododecanesulfonic Acid | PFDoDS | 79780-39-5 |
| Perfluorodecanesulfonic Acid | PFDS | 335-77-3 |
| Perfluorononanesulfonic Acid | PFNS | 68259-12-1 |
| Perfluorooctanesulfonic Acid | PFOS | 1763-23-1 |
| Perfluoroheptanesulfonic Acid | PFHpS | 375-92-8 |
| Perfluorohexanesulfonic Acid | PFHxS | 355-46-4 |
| Perfluoropentanesulfonic Acid | PFPeS | 2706-91-4 |
| Perfluorobutanesulfonic Acid | PFBS | 375-73-5 |
| FLUOROTELOMERS | | |
| 1H,1H,2H,2H-Perfluorododecanesulfonic Acid | 10:2FTS | 120226-60-0 |
| 1H,1H,2H,2H-Perfluorodecanesulfonic Acid | 8:2FTS | 39108-34-4 |
| 1H,1H,2H,2H-Perfluorooctanesulfonic Acid | 6:2FTS | 27619-97-2 |
| 1H,1H,2H,2H-Perfluorohexanesulfonic Acid | 4:2FTS | 757124-72-4 |
| PERFLUOROALKANE SULFONAMIDES (FASAs) | | |
| Perfluorooctanesulfonamide | FOSA | 754-91-6 |
| N-Ethyl Perfluorooctane Sulfonamide | NEtFOSA | 4151-50-2 |
| N-Methyl Perfluorooctane Sulfonamide | NMeFOSA | 31506-32-8 |
| PERFLUOROALKANE SULFONYL SUBSTANCES | | |
| N-Ethyl Perfluorooctanesulfonamido Ethanol | NEtFOSE | 1691-99-2 |
| N-Methyl Perfluorooctanesulfonamido Ethanol | NMeFOSE | 24448-09-7 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid | NEtFOSAA | 2991-50-6 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid | NMeFOSAA | 2355-31-9 |
| PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS | | |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid | HFPO-DA | 13252-13-6 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid | ADONA | 919005-14-4 |
| CHLORO-PERFLUOROALKYL SULFONIC ACIDS | | |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | 11Cl-PF3OUdS | 763051-92-9 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid | 9Cl-PF3ONS | 756426-58-1 |
| PERFLUOROETHER SULFONIC ACIDS (PFESAs) | | |
| Perfluoro(2-Ethoxyethane)Sulfonic Acid | PFEESA | 113507-82-7 |
| PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs) | | |
| Perfluoro-3-Methoxypropanoic Acid | PFMPA | 377-73-1 |
| Perfluoro-4-Methoxybutanoic Acid | PFMBA | 863090-89-5 |
| Nonafluoro-3,6-Dioxaheptanoic Acid | NFDHA | 151772-58-6 |

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2133010 |
| **Project Number:** | Not Specified | **Report Date:** | 06/27/21 |

## GLOSSARY

***Acronyms***

| | |
|---|---|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)<br><br>Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2133010 |
| **Project Number:** | Not Specified | **Report Date:** | 06/27/21 |

### *Footnotes*

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### *Terms*

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### *Data Qualifiers*

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

**B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2133010 |
| **Project Number:** | Not Specified | **Report Date:** | 06/27/21 |

***Data Qualifiers***

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | PRINCETON TOWN CAMPUS | **Lab Number:** | L2133010 |
| **Project Number:** | Not Specified | **Report Date:** | 06/27/21 |

## REFERENCES

133 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537.1, EPA/600/R-18/352. Version 1.0, November 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522, EPA 537.1.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:06272119:44

L2133010

# WhiteWater

WATER & WASTEWATER SOLUTIONS

253B Worcester Road, Charlton MA 01507 Phone: (888) 377-7678 Fax: (508) 248-2895

- [x] ROUTINE SAMPLE
- [ ] SPECIAL SAMPLE
- [ ] REPEAT SAMPLE
- [ ] WAF SAMPLE
- [ ] 24 HR RUSH?
- [ ] PRESEASON SAMPLE

**PWS ID #:** 2241017 **PWS CLASS:** TNC **JOB/SO #:**

**PWS NAME:** Princeton Town Campus

**PWS ADDRESS:** 6 Town Hall Drive, Princeton, MA 01541

**PWS PHONE #:** (978) 464 2100

**DATE COLLECTED:** 6/15/21

Is the source treated? YES (NO)

Sample after treatment? YES (NO)

**SPECIAL NOTES:**

PFAS Quarterly per client

Run Field Blank

**METER READINGS:** Cu Ft. or (Gal)

0283280

| LOCATION CODE | SAMPLE LOCATION | SAMPLE TYPE | TIME | CHLORINE RESIDUAL | PFAS | | | | | NOTES (# of Bottles) |
|---|---|---|---|---|---|---|---|---|---|---|
| TC001G | Well 1 | Finish | 1230 | NA | ✓ | | | | | 2 |
| | | | | | | | | | Plus | 2 Field Blank |
| | | | | | | | | | | |
| | | | | | | | | Total = 4 | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| Custody Transfer | Name & Signature | DATE | TIME |
|---|---|---|---|
| Sampler: | William Hibbs | 6/15/21 | 1230 |
| Relinquished by: | Willy Hibbs | 6/15/21 | 1400 |
| Received by: | T. Huddleson HUDDLESON AAC | 6/17/21 | 1200 |
| Relinquished by: | T. Huddleson | 6/17/21 | 1400 |
| Received by: | Ellen MCA | 6/17/21 | 1400 |

**PLEASE EMAIL THIS REPORT WITH RESULTS & INVOICE TO:** ADonnelly@RHWhite.com and CAstephen@RHWhite.com

Tighe&Bond

# APPENDIX F

**TABLE X**
**PFAS Surface Water Runoff Summary**
**Princeton, Massachusetts**
**RTN 2-21072**

| Parameter | Massachusetts Contingency Plan GW-1 Standard & MMCL | 30 Mountain Runoff | | | 41 Prospect Runoff | |
|---|---|---|---|---|---|---|
| Sampling Date | | 2/27/2020 | 4/22/2021 | 7/12/2021 | 4/22/2021 | 7/12/2021 |
| ***PFAS (ng/L)*** | | | | | | |
| Perfluorobutanoic acid (PFBA) | | - | - | 16 | - | ND (2.0) |
| Perfluorobutanesulfonic acid (PFBS) | | 58 | 20 | 42 | ND (2.0) | ND (2.0) |
| Perfluoropentanoic acid (PFPeA) | | - | - | 19 | - | ND (2.0) |
| Perfluorohexanoic acid (PFHxA) | | 88 | 24 | 40 | ND (2.0) | ND (2.0) |
| 11Cl-PF3OUdS (F53B Minor) | | - | ND (2.0) | ND (2.0) | - | ND (2.0) |
| 9Cl-PF3ONS (F53B Major) | | - | ND (2.0) | ND (2.0) | - | ND (2.0) |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | | - | ND (2.0) | ND (2.0) | - | ND (2.0) |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | | - | ND (2.0) | ND (2.0) | - | ND (2.0) |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluorodecanoic acid (PFDA) | | 6.2 | 2.2 | 2.4 | ND (2.0) | ND (2.0) |
| Perfluorododecanoic acid (PFDoA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluoroheptanesulfonic acid (PFHpS) | | - | - | 43 | - | ND (2.0) |
| N-EtFOSAA | | 3.1 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| N-MeFOSAA | | 3.9 | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotetradecanoic acid (PFTA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Perfluorotridecanoic acid (PFTrDA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluorodecanesulfonic acid (PFDS) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluorooctanesulfonamide (FOSA) | | - | - | 2.5 | - | ND (2.0) |
| Perfluorononanesulfonic acid (PFNS) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluoro-1-hexanesulfonamide (FHxSA) | | - | - | 36 | - | ND (2.0) |
| Perfluoro-1-butanesulfonamide (FBSA) | | - | - | 12 | - | ND (2.0) |
| Perfluorohexanesulfonic acid (PFHxS) | | 710 | 350 | 620 | ND (2.0) | ND (2.0) |
| Perfluoro-4-oxapentanoic acid (PFMPA) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluoro-5-oxahexanoic acid (PFMBA) | | - | - | ND (2.0) | - | ND (2.0) |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluoropetanesulfonic acid (PFPeS) | | - | - | 53 | - | ND (2.0) |
| Perfluoroundecanoic acid (PFUnA) | | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | | - | - | ND (2.0) | - | ND (2.0) |
| Perfluoroheptanoic acid (PFHpA) | | 23 | 6.2 | 16 | ND (2.0) | ND (2.0) |
| Perfluorooctanoic acid (PFOA) | | 100 | 32 | 48 | ND (2.0) | ND (2.0) |
| Perfluorooctanesulfonic acid (PFOS) | | 2800 | 2100 | 2000 | ND (2.0) | ND (2.0) |
| Perfluorononanoic acid (PFNA) | | 3.1 | ND (2.0) | 3.9 | ND (2.0) | ND (2.0) |
| Total (All Compounds) | | 3,795.3 | 2,534.4 | 2,953.8 | ND (2.0) | ND (2.0) |
| Regulated Total | 20 | **3,642.3** | **2,490.4** | **2,690.3** | ND (2.0) | ND (2.0) |

NOTES:
Gray colored cells indicate those 6 compounds included in the regulated PFAS Total
- = indicates that the compound was not analyzed
ND = Not detected above the lab reporting limits shown in parentheses.
Bolded values exceed the prposed Method 1 Standard
MMCL is Massachusetts Maximun Contaminant Level

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August 2, 2021

Michael Scherer
Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303

Project Location: 41 Prospect, Princeton, MA
Client Job Number:
Project Number: P-0534
Laboratory Work Order Number: 21G0851

Enclosed are results of analyses for samples received by the laboratory on July 15, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

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

Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303
ATTN: Michael Scherer

REPORT DATE: 8/2/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: P-0534

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21G0851

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

PROJECT LOCATION: 41 Prospect, Princeton, MA

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| 41 Prospect Run Off | 21G0851-01 | Storm Water | | SOP-454 PFAS | |
| Field Blank | 21G0851-02 | Storm Water | | SOP-454 PFAS | |
| Trip Blank | 21G0851-03 | Storm Water | | SOP-454 PFAS | |

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**CASE NARRATIVE SUMMARY**

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

**SOP-454 PFAS**

**Qualifications:**

**S-26**

Surrogate outside of control limits.

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

**M2PFTA**
21G0851-01[41 Prospect Run Off]

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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

**6:2 Fluorotelomersulfonic acid (6:2**
S061786-CCV2

**8:2 Fluorotelomersulfonic acid (8:2**
S061786-CCV2

**N-MeFOSAA**
S061786-CCV2

The results of analyses reported only relate to samples submitted to Con-Test, a Pace 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

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

Project Location: 41 Prospect, Princeton, MA  Sample Description:  Work Order: 21G0851

Date Received: 7/15/2021

**Field Sample #: 41 Prospect Run Off**  Sampled: 7/12/2021 14:00

**Sample ID: 21G0851-01**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| N-EtFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| N-MeFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:01 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 80.8 | 50-150 | | 7/31/21 17:01 |
| M2-4:2FTS | 109 | 50-150 | | 7/31/21 17:01 |
| **M2PFTA** | **49.1** * | 50-150 | S-26 | 7/31/21 17:01 |
| M2-8:2FTS | 141 | 50-150 | | 7/31/21 17:01 |
| MPFBA | 92.1 | 50-150 | | 7/31/21 17:01 |
| M3HFPO-DA | 76.3 | 50-150 | | 7/31/21 17:01 |
| M6PFDA | 95.8 | 50-150 | | 7/31/21 17:01 |
| M3PFBS | 70.8 | 50-150 | | 7/31/21 17:01 |

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

Project Location: 41 Prospect, Princeton, MA  Sample Description:  Work Order: 21G0851

Date Received: 7/15/2021

**Field Sample #: 41 Prospect Run Off**  Sampled: 7/12/2021 14:00

**Sample ID: 21G0851-01**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 93.3 | 50-150 | | | | | 7/31/21 17:01 | |
| M2-6:2FTS | | 120 | 50-150 | | | | | 7/31/21 17:01 | |
| M5PFPeA | | 61.7 | 50-150 | | | | | 7/31/21 17:01 | |
| M5PFHxA | | 84.7 | 50-150 | | | | | 7/31/21 17:01 | |
| M3PFHxS | | 79.9 | 50-150 | | | | | 7/31/21 17:01 | |
| M4PFHpA | | 74.3 | 50-150 | | | | | 7/31/21 17:01 | |
| M8PFOA | | 94.5 | 50-150 | | | | | 7/31/21 17:01 | |
| M8PFOS | | 89.1 | 50-150 | | | | | 7/31/21 17:01 | |
| M9PFNA | | 97.8 | 50-150 | | | | | 7/31/21 17:01 | |
| MPFDoA | | 78.4 | 50-150 | | | | | 7/31/21 17:01 | |
| d5-NEtFOSAA | | 94.8 | 50-150 | | | | | 7/31/21 17:01 | |
| d3-NMeFOSAA | | 93.6 | 50-150 | | | | | 7/31/21 17:01 | |

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

Project Location: 41 Prospect, Princeton, MA  Sample Description:  Work Order: 21G0851

Date Received: 7/15/2021

**Field Sample #: Field Blank**  Sampled: 7/12/2021 14:00

**Sample ID: 21G0851-02**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| N-EtFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| N-MeFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 17:30 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 98.1 | 50-150 | | 7/31/21 17:30 |
| M2-4:2FTS | 86.1 | 50-150 | | 7/31/21 17:30 |
| M2PFTA | 82.9 | 50-150 | | 7/31/21 17:30 |
| M2-8:2FTS | 132 | 50-150 | | 7/31/21 17:30 |
| MPFBA | 100 | 50-150 | | 7/31/21 17:30 |
| M3HFPO-DA | 92.1 | 50-150 | | 7/31/21 17:30 |
| M6PFDA | 109 | 50-150 | | 7/31/21 17:30 |
| M3PFBS | 101 | 50-150 | | 7/31/21 17:30 |

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

Project Location: 41 Prospect, Princeton, MA  Sample Description:  Work Order: 21G0851

Date Received: 7/15/2021

**Field Sample #: Field Blank**  Sampled: 7/12/2021 14:00

**Sample ID: 21G0851-02**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M7PFUnA | 98.9 | 50-150 | | 7/31/21 17:30 |
| M2-6:2FTS | 96.1 | 50-150 | | 7/31/21 17:30 |
| M5PFPeA | 101 | 50-150 | | 7/31/21 17:30 |
| M5PFHxA | 99.8 | 50-150 | | 7/31/21 17:30 |
| M3PFHxS | 97.2 | 50-150 | | 7/31/21 17:30 |
| M4PFHpA | 96.1 | 50-150 | | 7/31/21 17:30 |
| M8PFOA | 106 | 50-150 | | 7/31/21 17:30 |
| M8PFOS | 103 | 50-150 | | 7/31/21 17:30 |
| M9PFNA | 110 | 50-150 | | 7/31/21 17:30 |
| MPFDoA | 92.3 | 50-150 | | 7/31/21 17:30 |
| d5-NEtFOSAA | 96.6 | 50-150 | | 7/31/21 17:30 |
| d3-NMeFOSAA | 98.5 | 50-150 | | 7/31/21 17:30 |

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

Project Location: 41 Prospect, Princeton, MA  Sample Description:  Work Order: 21G0851

Date Received: 7/15/2021

**Field Sample #: Trip Blank**  Sampled: 7/12/2021 08:00

**Sample ID: 21G0851-03**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| N-EtFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| N-MeFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:00 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 91.7 | 50-150 | | 7/31/21 18:00 |
| M2-4:2FTS | 83.4 | 50-150 | | 7/31/21 18:00 |
| M2PFTA | 79.1 | 50-150 | | 7/31/21 18:00 |
| M2-8:2FTS | 103 | 50-150 | | 7/31/21 18:00 |
| MPFBA | 95.0 | 50-150 | | 7/31/21 18:00 |
| M3HFPO-DA | 96.1 | 50-150 | | 7/31/21 18:00 |
| M6PFDA | 100 | 50-150 | | 7/31/21 18:00 |
| M3PFBS | 101 | 50-150 | | 7/31/21 18:00 |

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Project Location: 41 Prospect, Princeton, MA  Sample Description:  Work Order: 21G0851

Date Received: 7/15/2021

**Field Sample #: Trip Blank**  Sampled: 7/12/2021 08:00

**Sample ID: 21G0851-03**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | | | | | |
|---|---|---|---|---|---|---|---|---|
| M7PFUnA | 88.2 | 50-150 | | | | | | 7/31/21 18:00 |
| M2-6:2FTS | 88.5 | 50-150 | | | | | | 7/31/21 18:00 |
| M5PFPeA | 96.0 | 50-150 | | | | | | 7/31/21 18:00 |
| M5PFHxA | 93.7 | 50-150 | | | | | | 7/31/21 18:00 |
| M3PFHxS | 97.9 | 50-150 | | | | | | 7/31/21 18:00 |
| M4PFHpA | 87.0 | 50-150 | | | | | | 7/31/21 18:00 |
| M8PFOA | 96.4 | 50-150 | | | | | | 7/31/21 18:00 |
| M8PFOS | 99.6 | 50-150 | | | | | | 7/31/21 18:00 |
| M9PFNA | 97.6 | 50-150 | | | | | | 7/31/21 18:00 |
| MPFDoA | 86.6 | 50-150 | | | | | | 7/31/21 18:00 |
| d5-NEtFOSAA | 81.0 | 50-150 | | | | | | 7/31/21 18:00 |
| d3-NMeFOSAA | 82.0 | 50-150 | | | | | | 7/31/21 18:00 |

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## Sample Extraction Data

**Prep Method: SOP 454-PFAAS** **Analytical Method: SOP-454 PFAS**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 21G0851-01 [41 Prospect Run Off] | B285986 | 250 | 1.00 | 07/20/21 |
| 21G0851-02 [Field Blank] | B285986 | 250 | 1.00 | 07/20/21 |
| 21G0851-03 [Trip Blank] | B285986 | 250 | 1.00 | 07/20/21 |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B285986 - SOP 454-PFAAS** | | | | | | | | | | |
| **Blank (B285986-BLK1)** | | | | Prepared: 07/20/21 Analyzed: 07/22/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | | | | | | | |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | | | | | | | |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | | | | | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | | | | | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | | | | | | | |
| N-EtFOSAA | ND | 2.0 | ng/L | | | | | | | |
| N-MeFOSAA | ND | 2.0 | ng/L | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | | | | | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | | | | | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | | | | | | | |
| Surrogate: M8FOSA | *29.2* | | ng/L | 40.0 | | 73.0 | 50-150 | | | |
| Surrogate: M2-4:2FTS | *34.2* | | ng/L | 37.5 | | 91.2 | 50-150 | | | |
| Surrogate: M2PFTA | *23.7* | | ng/L | 40.0 | | 59.2 | 50-150 | | | |
| Surrogate: M2-8:2FTS | *33.5* | | ng/L | 38.4 | | 87.3 | 50-150 | | | |
| Surrogate: MPFBA | *37.9* | | ng/L | 40.0 | | 94.7 | 50-150 | | | |
| Surrogate: M3HFPO-DA | *36.8* | | ng/L | 40.0 | | 92.0 | 50-150 | | | |
| Surrogate: M6PFDA | *33.7* | | ng/L | 40.0 | | 84.3 | 50-150 | | | |
| Surrogate: M3PFBS | *34.6* | | ng/L | 37.3 | | 92.7 | 50-150 | | | |
| Surrogate: M7PFUnA | *27.4* | | ng/L | 40.0 | | 68.5 | 50-150 | | | |
| Surrogate: M2-6:2FTS | *33.9* | | ng/L | 38.0 | | 89.0 | 50-150 | | | |
| Surrogate: M5PFPeA | *34.4* | | ng/L | 40.0 | | 85.9 | 50-150 | | | |
| Surrogate: M5PFHxA | *35.2* | | ng/L | 40.0 | | 88.0 | 50-150 | | | |
| Surrogate: M3PFHxS | *36.0* | | ng/L | 37.9 | | 95.0 | 50-150 | | | |
| Surrogate: M4PFHpA | *37.5* | | ng/L | 40.0 | | 93.7 | 50-150 | | | |
| Surrogate: M8PFOA | *37.1* | | ng/L | 40.0 | | 92.7 | 50-150 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B285986 - SOP 454-PFAAS** | | | | | | | | | | |
| **Blank (B285986-BLK1)** | | | | Prepared: 07/20/21 Analyzed: 07/22/21 | | | | | | |
| Surrogate: M8PFOS | *36.6* | | ng/L | 38.4 | | 95.3 | 50-150 | | | |
| Surrogate: M9PFNA | *37.7* | | ng/L | 40.0 | | 94.3 | 50-150 | | | |
| Surrogate: MPFDoA | *24.8* | | ng/L | 40.0 | | 62.0 | 50-150 | | | |
| Surrogate: d5-NEtFOSAA | *24.8* | | ng/L | 40.0 | | 61.9 | 50-150 | | | |
| Surrogate: d3-NMeFOSAA | *28.0* | | ng/L | 40.0 | | 70.0 | 50-150 | | | |

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**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 is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| 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. |
| S-26 | Surrogate outside of control limits. |
| V-20 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SOP-454 PFAS in Water*** | |
| Perfluorobutanoic acid (PFBA) | NH-P |
| Perfluorobutanesulfonic acid (PFBS) | NH-P |
| Perfluoropentanoic acid (PFPeA) | NH-P |
| Perfluorohexanoic acid (PFHxA) | NH-P |
| 11Cl-PF3OUdS (F53B Minor) | NH-P |
| 9Cl-PF3ONS (F53B Major) | NH-P |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | NH-P |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | NH-P |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | NH-P |
| Perfluorodecanoic acid (PFDA) | NH-P |
| Perfluorododecanoic acid (PFDoA) | NH-P |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NH-P |
| Perfluoroheptanesulfonic acid (PFHpS) | NH-P |
| N-EtFOSAA | NH-P |
| N-MeFOSAA | NH-P |
| Perfluorotetradecanoic acid (PFTA) | NH-P |
| Perfluorotridecanoic acid (PFTrDA) | NH-P |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | NH-P |
| Perfluorodecanesulfonic acid (PFDS) | NH-P |
| Perfluorooctanesulfonamide (FOSA) | NH-P |
| Perfluorononanesulfonic acid (PFNS) | NH-P |
| Perfluoro-1-hexanesulfonamide (FHxSA) | NH-P |
| Perfluoro-1-butanesulfonamide (FBSA) | NH-P |
| Perfluorohexanesulfonic acid (PFHxS) | NH-P |
| Perfluoro-4-oxapentanoic acid (PFMPA) | NH-P |
| Perfluoro-5-oxahexanoic acid (PFMBA) | NH-P |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | NH-P |
| Perfluoropetanesulfonic acid (PFPeS) | NH-P |
| Perfluoroundecanoic acid (PFUnA) | NH-P |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | NH-P |
| Perfluoroheptanoic acid (PFHpA) | NH-P |
| Perfluorooctanoic acid (PFOA) | NH-P |
| Perfluorooctanesulfonic acid (PFOS) | NH-P |
| Perfluorononanoic acid (PFNA) | NH-P |

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Con-Test, a Pace 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 | 06/30/2022 |
| CT | Connecticut Department of Publilc Health | PH-0165 | 12/31/2022 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2022 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2022 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2021 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2021 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2022 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2022 |
| VT | Vermont Department of Health Lead Laboratory | LL720741 | 07/30/2022 |
| ME | State of Maine | MA00100 | 06/9/2023 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2021 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2021 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2022 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2021 |
| PA | Commonwealth of Pennsylvania DEP | 68-05812 | 06/30/2022 |
| MI | Dept. of Env, Great Lakes, and Energy | 9100 | 09/6/2021 |

21G0851

con-test ANALYTICAL LABORATORY

http://www.contestlabs.com

Doc # 381 Rev 2_06262019

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

| | |
|---|---|
| Company Name: | Tighe & Bond |
| Address: | 120 Front Street, Worcester, MA 01608 |
| Phone: | 508-754-2201 |
| Project Name: | Princeton Residential Well Sampling |
| Project Location: | Princeton, MA |
| Project Number: | P-0534 |
| Project Manager: | M. Scherer |
| Con-Test Quote Name/Number: | |
| Invoice Recipient: | Tighe & Bond |
| Sampled By: | M. Scherer |

**Requested Turnaround Time**: 7-Day ☐ 10-Day ☑ PFAS 10-Day (std) ☐ Due Date:

**Rush-Approval Required**: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐

**Dissolved Metals Samples**: ○ Field Filtered ○ Lab to Filter

**Orthophosphate Samples**: ○ Field Filtered ○ Lab to Filter

**Data Delivery**: Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

| Con-Test Work Order# | Client Sample ID / Description | Beginning Date/Time | Ending Date/Time | COMP/GRAB | [1]Matrix Code | Conc Code | VIALS | GLASS | PLASTIC | BACTERIA | ENCORE | PFOS Isotope Dilution method (AA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 41 Prospect Runoff | 7/12/21 | 1400 | GRAB | SW | U | | | 2 | | | X |
| 2 | Field Blank | ↓ | 1400 | ↓ | ↓ | ↓ | | | 1 | | | X |
| 3 | Trip Blank | ↓ | 0800 | ↓ | ↓ | ↓ | | | 1 | | | X |

[2] Preservation Code

Courier Use Only
Total Number Of:
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

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) _____

[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) _____

| | |
|---|---|
| Relinquished by: (signature) | Date/Time: 7/12/21 1700 |
| Received by: (signature) | Date/Time: 7/14/21 1700 |
| Relinquished by: (signature) | Date/Time: 7/14/21 5:03 |
| Received by: (signature) | Date/Time: 7/15/21 1700 |
| Relinquished by: (signature) | Date/Time: |
| Received by: (signature) | Date/Time: |
| Relinquished by: (signature) | Date/Time: |
| Received by: (signature) | Date/Time: |

Client Comments: Please Report Expanded list of 34 Compounds

**Detection Limit Requirements**: MA ____ CT ____ Other: ____

**Special Requirements**:
☑ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ 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

**Project Entity**: Government ☐ Municipality ☐ MWRA ☐ WRTA ☐ Federal ☐ 21 J ☐ School ☐ City ☐ Brownfield ☐ MBTA ☐

Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

PCB ONLY: ☐ Soxhlet ☐ Non Soxhlet

Lab 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.



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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** Tighe + Bond

**Received By** [illegible] Date 2/15/21 Time 1708

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 # 3 Actual Temp - 5.3
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 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? n/a MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? ____ On COC? ____
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 | 4 | 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:**

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August 2, 2021

Michael Scherer
Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303

Project Location: 30 Mountain, Princeton, MA
Client Job Number:
Project Number: P-0534
Laboratory Work Order Number: 21G0852

Enclosed are results of analyses for samples received by the laboratory on July 15, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

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Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303
ATTN: Michael Scherer

REPORT DATE: 8/2/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: P-0534

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21G0852

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

PROJECT LOCATION: 30 Mountain, Princeton, MA

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| 30 Mountain Run Off | 21G0852-01 | Storm Water | | SOP-454 PFAS | |

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**CASE NARRATIVE SUMMARY**

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

**SOP-454 PFAS**

**Qualifications:**

**PF-16**

Surrogate recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.

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

**M2-4:2FTS**
21G0852-01[30 Mountain Run Off]

**M2-6:2FTS**
21G0852-01[30 Mountain Run Off]

**M2-8:2FTS**
21G0852-01[30 Mountain Run Off]

**S-26**

Surrogate outside of control limits.

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

**M2PFTA**
21G0852-01[30 Mountain Run Off]

**M7PFUnA**
21G0852-01[30 Mountain Run Off]

**M8FOSA**
21G0852-01[30 Mountain Run Off]

**MPFDoA**
21G0852-01[30 Mountain Run Off]

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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

**6:2 Fluorotelomersulfonic acid (6:2**
S061786-CCV2

**8:2 Fluorotelomersulfonic acid (8:2**
S061786-CCV2

**N-MeFOSAA**
S061786-CCV2

The results of analyses reported only relate to samples submitted to Con-Test, a Pace 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

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

Project Location: 30 Mountain, Princeton, MA  Sample Description:  Work Order: 21G0852

Date Received: 7/15/2021

**Field Sample #: 30 Mountain Run Off**  Sampled: 7/12/2021 13:30

**Sample ID: 21G0852-01**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 16 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | 42 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoropentanoic acid (PFPeA) | 19 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorohexanoic acid (PFHxA) | 40 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorodecanoic acid (PFDA) | 2.4 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | 43 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| N-EtFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| N-MeFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorooctanesulfonamide (FOSA) | 2.5 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 36 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | 12 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | 620 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | 53 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluoroheptanoic acid (PFHpA) | 16 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorooctanoic acid (PFOA) | 48 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 2000 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |
| Perfluorononanoic acid (PFNA) | 3.9 | 2.0 | ng/L | 1 | | SOP-454 PFAS | 7/20/21 | 7/31/21 18:31 | JFC |

| Surrogates | % Recovery | | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|---|
| **M8FOSA** | **14.5** | * | 50-150 | S-26 | 7/31/21 18:31 |
| **M2-4:2FTS** | **253** | * | 50-150 | PF-16 | 7/31/21 18:31 |
| **M2PFTA** | **4.25** | * | 50-150 | S-26 | 7/31/21 18:31 |
| **M2-8:2FTS** | **258** | * | 50-150 | PF-16 | 7/31/21 18:31 |
| MPFBA | 95.7 | | 50-150 | | 7/31/21 18:31 |
| M3HFPO-DA | 71.9 | | 50-150 | | 7/31/21 18:31 |
| M6PFDA | 66.9 | | 50-150 | | 7/31/21 18:31 |
| M3PFBS | 106 | | 50-150 | | 7/31/21 18:31 |

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Project Location: 30 Mountain, Princeton, MA  Sample Description:  Work Order: 21G0852

Date Received: 7/15/2021

**Field Sample #: 30 Mountain Run Off**  Sampled: 7/12/2021 13:30

**Sample ID: 21G0852-01**

Sample Matrix: Storm Water

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

| Analyte | Results | RL | | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | | **Recovery Limits** | | **Flag/Qual** | | | | |
| **M7PFUnA** | | **46.1** | * | 50-150 | | S-26 | | | 7/31/21 18:31 | |
| **M2-6:2FTS** | | **359** | * | 50-150 | | PF-16 | | | 7/31/21 18:31 | |
| M5PFPeA | | 62.1 | | 50-150 | | | | | 7/31/21 18:31 | |
| M5PFHxA | | 82.9 | | 50-150 | | | | | 7/31/21 18:31 | |
| M3PFHxS | | 97.8 | | 50-150 | | | | | 7/31/21 18:31 | |
| M4PFHpA | | 58.0 | | 50-150 | | | | | 7/31/21 18:31 | |
| M8PFOA | | 86.6 | | 50-150 | | | | | 7/31/21 18:31 | |
| M8PFOS | | 73.5 | | 50-150 | | | | | 7/31/21 18:31 | |
| M9PFNA | | 61.7 | | 50-150 | | | | | 7/31/21 18:31 | |
| **MPFDoA** | | **17.1** | * | 50-150 | | S-26 | | | 7/31/21 18:31 | |
| d5-NEtFOSAA | | 54.7 | | 50-150 | | | | | 7/31/21 18:31 | |
| d3-NMeFOSAA | | 52.6 | | 50-150 | | | | | 7/31/21 18:31 | |

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## Sample Extraction Data

**Prep Method: SOP 454-PFAAS** **Analytical Method: SOP-454 PFAS**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 21G0852-01 [30 Mountain Run Off] | B285986 | 250 | 1.00 | 07/20/21 |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B285986 - SOP 454-PFAAS** | | | | | | | | | | |
| **Blank (B285986-BLK1)** | | | | Prepared: 07/20/21 Analyzed: 07/22/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | | | | | | | |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | | | | | | | |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | | | | | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | | | | | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | | | | | | | |
| N-EtFOSAA | ND | 2.0 | ng/L | | | | | | | |
| N-MeFOSAA | ND | 2.0 | ng/L | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | | | | | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | | | | | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | | | | | | | |
| Surrogate: M8FOSA | *29.2* | | ng/L | 40.0 | | 73.0 | 50-150 | | | |
| Surrogate: M2-4:2FTS | *34.2* | | ng/L | 37.5 | | 91.2 | 50-150 | | | |
| Surrogate: M2PFTA | *23.7* | | ng/L | 40.0 | | 59.2 | 50-150 | | | |
| Surrogate: M2-8:2FTS | *33.5* | | ng/L | 38.4 | | 87.3 | 50-150 | | | |
| Surrogate: MPFBA | *37.9* | | ng/L | 40.0 | | 94.7 | 50-150 | | | |
| Surrogate: M3HFPO-DA | *36.8* | | ng/L | 40.0 | | 92.0 | 50-150 | | | |
| Surrogate: M6PFDA | *33.7* | | ng/L | 40.0 | | 84.3 | 50-150 | | | |
| Surrogate: M3PFBS | *34.6* | | ng/L | 37.3 | | 92.7 | 50-150 | | | |
| Surrogate: M7PFUnA | *27.4* | | ng/L | 40.0 | | 68.5 | 50-150 | | | |
| Surrogate: M2-6:2FTS | *33.9* | | ng/L | 38.0 | | 89.0 | 50-150 | | | |
| Surrogate: M5PFPeA | *34.4* | | ng/L | 40.0 | | 85.9 | 50-150 | | | |
| Surrogate: M5PFHxA | *35.2* | | ng/L | 40.0 | | 88.0 | 50-150 | | | |
| Surrogate: M3PFHxS | *36.0* | | ng/L | 37.9 | | 95.0 | 50-150 | | | |
| Surrogate: M4PFHpA | *37.5* | | ng/L | 40.0 | | 93.7 | 50-150 | | | |
| Surrogate: M8PFOA | *37.1* | | ng/L | 40.0 | | 92.7 | 50-150 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B285986 - SOP 454-PFAAS** | | | | | | | | | | |
| **Blank (B285986-BLK1)** | | | | Prepared: 07/20/21 Analyzed: 07/22/21 | | | | | | |
| Surrogate: M8PFOS | *36.6* | | ng/L | 38.4 | | 95.3 | 50-150 | | | |
| Surrogate: M9PFNA | *37.7* | | ng/L | 40.0 | | 94.3 | 50-150 | | | |
| Surrogate: MPFDoA | *24.8* | | ng/L | 40.0 | | 62.0 | 50-150 | | | |
| Surrogate: d5-NEtFOSAA | *24.8* | | ng/L | 40.0 | | 61.9 | 50-150 | | | |
| Surrogate: d3-NMeFOSAA | *28.0* | | ng/L | 40.0 | | 70.0 | 50-150 | | | |

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**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 is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| 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-16 | Surrogate recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side. |
| S-26 | Surrogate outside of control limits. |
| V-20 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SOP-454 PFAS in Water*** | |
| Perfluorobutanoic acid (PFBA) | NH-P |
| Perfluorobutanesulfonic acid (PFBS) | NH-P |
| Perfluoropentanoic acid (PFPeA) | NH-P |
| Perfluorohexanoic acid (PFHxA) | NH-P |
| 11Cl-PF3OUdS (F53B Minor) | NH-P |
| 9Cl-PF3ONS (F53B Major) | NH-P |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | NH-P |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | NH-P |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | NH-P |
| Perfluorodecanoic acid (PFDA) | NH-P |
| Perfluorododecanoic acid (PFDoA) | NH-P |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NH-P |
| Perfluoroheptanesulfonic acid (PFHpS) | NH-P |
| N-EtFOSAA | NH-P |
| N-MeFOSAA | NH-P |
| Perfluorotetradecanoic acid (PFTA) | NH-P |
| Perfluorotridecanoic acid (PFTrDA) | NH-P |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | NH-P |
| Perfluorodecanesulfonic acid (PFDS) | NH-P |
| Perfluorooctanesulfonamide (FOSA) | NH-P |
| Perfluorononanesulfonic acid (PFNS) | NH-P |
| Perfluoro-1-hexanesulfonamide (FHxSA) | NH-P |
| Perfluoro-1-butanesulfonamide (FBSA) | NH-P |
| Perfluorohexanesulfonic acid (PFHxS) | NH-P |
| Perfluoro-4-oxapentanoic acid (PFMPA) | NH-P |
| Perfluoro-5-oxahexanoic acid (PFMBA) | NH-P |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | NH-P |
| Perfluoropetanesulfonic acid (PFPeS) | NH-P |
| Perfluoroundecanoic acid (PFUnA) | NH-P |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | NH-P |
| Perfluoroheptanoic acid (PFHpA) | NH-P |
| Perfluorooctanoic acid (PFOA) | NH-P |
| Perfluorooctanesulfonic acid (PFOS) | NH-P |
| Perfluorononanoic acid (PFNA) | NH-P |

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

Con-Test, a Pace 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 | 06/30/2022 |
| CT | Connecticut Department of Publilc Health | PH-0165 | 12/31/2022 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2022 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2022 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2021 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2021 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2022 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2022 |
| VT | Vermont Department of Health Lead Laboratory | LL720741 | 07/30/2022 |
| ME | State of Maine | MA00100 | 06/9/2023 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2021 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2021 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2022 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2021 |
| PA | Commonwealth of Pennsylvania DEP | 68-05812 | 06/30/2022 |
| MI | Dept. of Env, Great Lakes, and Energy | 9100 | 09/6/2021 |

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con-test ANALYTICAL LABORATORY

http://www.contestlabs.com

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 2_06262019

Page 1 of 1

| | |
|---|---|
| Company Name: | Tighe & Bond |
| Address: | 120 Front Street, Worcester, MA 01608 |
| Phone: | 508-754-2201 |
| Project Name: | Princeton Residential Well Sampling |
| Project Location: | Princeton, MA |
| Project Number: | P-0534 |
| Project Manager: | M. Scherer |
| Con-Test Quote Name/Number: | |
| Invoice Recipient: | Tighe & Bond |
| Sampled By: | M. Scherer |

**Requested Turnaround Time**: 7-Day ☐ 10-Day ☑ PFAS 10-Day (std) ☐ Due Date:

**Rush-Approval Required**: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐

**Dissolved Metals Samples**: ○ Field Filtered ○ Lab to Filter

**Orthophosphate Samples**: ○ Field Filtered ○ Lab to Filter

**Data Delivery**: Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

| Con-Test Work Order# | Client Sample ID / Description | Beginning Date/Time | Ending Date/Time | COMP/GRAB | [1] Matrix Code | Conc Code | VIALS | GLASS | PLASTIC | BACTERIA | ENCORE | PFOS Isotope Dilution method (AA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 Mountain Runoff | 7/2/21 | 1330 | GRAB | SW | U | | | 2 | | | X |

[2] Preservation Code

Courier Use Only
Total Number Of:
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

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[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)

| Relinquished by: (signature) | Date/Time: 7/12/21 1700 |
|---|---|
| Received by: (signature) | Date/Time: 7/14 1700 |
| Relinquished by: (signature) | Date/Time: 7/14 508 |
| Received by: (signature) 5.3 | Date/Time: 7/15/21 1700 |
| Relinquished by: (signature) | Date/Time: |
| Received by: (signature) | Date/Time: |
| Relinquished by: (signature) | Date/Time: |
| Received by: (signature) | Date/Time: |

Client Comments: Please Report Expanded list of 34 Compounds

**Detection Limit Requirements**: MA; CT; Other:

**Special Requirements**: ☑ MA MCP Required; MCP Certification Form Required; ☐ CT RCP Required; RCP Certification Form Required; ☐ 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

MEWC and AIHA LAP LLC Accredited

Project Entity: Government ☐ Municipality ☐ MWRA ☐ WRTA ☐ Federal ☐ 21 J ☐ School ☐ City ☐ Brownfield ☐ MBTA ☐

Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

PCB ONLY: ☐ Soxhlet ☐ Non Soxhlet

Lab 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** Tighe + Bond

**Received By** [illegible] Date 7/15/21 Time 1708

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 # 3 Actual Temp - 5.3 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 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? n/a MS/MSD? F

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

Were trip blanks received? ____ On COC? ____

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 | 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:**

Tighe&Bond

# APPENDIX G

**Standard Operating Procedure (SOP)**
**PFAS Sample Collection and Handling for Soil**
**November 2020**

**Soil Sampling Preparation**
The sample handler must wash their hands prior to sampling and wear nitrile gloves while filling and sealing laboratory provided sample bottles. It is further recommended that the sample handler not wear new or unwashed clothing, and no treated clothing (water or stain-resistant). Non-synthetic clothing is preferred while collecting samples. PFAS contamination during sampling can occur from several common sources, such as food packaging and personal care products. Proper hand washing and use of nitrile gloves will aid in minimizing this type of accidental contamination. The Michigan Department of Environmental Quality (MDEQ) has compiled a PFAS Field Sampling Reference Guide that contains a comprehensive list of acceptable materials for PFAS sampling and is appended to this SOP.

**Standard Procedures**
Any item that will directly contact soil, including but not limited to: shovels, trowels, spoons, bowls, hand augers, buckets, direct push equipment or split spoon samplers, has a high likelihood of cross-contamination occurring if the proper decontamination procedures are not followed. These items should be known to be PFAS free prior to sampling or through use of equipment blanks.

**Recommended Equipment**
Soil sampling with a soil recovery probe fitted with a single-use PFAS free plastic liner is recommended when possible.

**Decontamination**
It is common with soil sampling that the equipment is decontaminated at the conclusion of the sampling event. If the previous user of the equipment is not known, and it is unclear how the equipment was handled (especially rental equipment), decontaminate the equipment prior to sampling.

For all non-dedicated sampling equipment that will be in contact with soils, the following items, materials, and procedures should be considered prior to decontamination:

- Do <u>not</u> use Decon 90® detergent for equipment decontamination
- Laboratory supplied PFAS-free deionized water is preferred for decontamination.
- Alconox®, Liquinox®, and Citranox® detergents can be used for equipment decontamination.
- Sampling equipment can be scrubbed using a polyethylene or polyvinyl chloride (PVC) brush to remove particulates.
- All non-dedicated equipment should be triple rinsed with PFAS-free water.
- The use of municipal drinking water should be avoided for decontamination purposes unless it is known to be PFAS free by laboratory analysis. Laboratory-provided water is preferred.

**Sampling**
Label sample containers prior to sample collection using <u>ball point pen only</u>. Permanent marker (Sharpie® or similar) should not be used.

Decontaminate non-dedicated sample equipment following the guidelines provided in this SOP prior to sample collection and between each discrete sample. If sampling is completed using a soil probe (direct push method) with a dedicated plastic liner and recovery of soil from the liner requires being cut with a utility knife to access the core, either use a fresh disposable blade or decontaminate the blade between

uses. Wearing clean nitrile gloves, transfer the sample from the sampling equipment into a laboratory-provided sample container.

**Equipment Blanks**
One equipment blank should be collected per sampling event or for every 10 samples collected. The equipment blank is collected by pouring PFAS-free water over the decontaminated and triple-rinsed non-dedicated sampling equipment and capturing the water as it flows off the equipment directly into the laboratory sample container. Prior to collecting the equipment blank, the equipment should be decontaminated and triple-rinsed, in accordance with the procedures presented in this SOP. The equipment blank should be transferred to the laboratory for the same analysis as the soil samples.

**Rinsate Water Blank**
Laboratory analysis of the rinse water used during decontamination procedures should be considered (ideally prior to use in the field) if the water cannot be certified as PFAS-free.

**Transfer to Laboratory**
All samples must be placed on ice (no gel or other freezer packs) and relinquished to the laboratory using proper chain of custody procedures and protocols.

J:\P\P0534 Princeton PSB\PFAS 2019\SOP\PFAS Soil Sampling SOP.docx

Michigan Department of Environmental Quality

# MDEQ PFAS Sampling Quick Reference Field Guide[1]

## All Items Used During Sampling Event

| ● Prohibited |
|---|
| • Items or materials that contain fluoropolymers such as<br>○ Polytetrafluoroethylene (PTFE), that includes the trademarks Teflon® and Hostaflon®<br>○ Polyvinylidene fluoride (PVDF), that includes the trademark Kynar®<br>○ Polycholotrifluoroethylene (PCTFE), that includes the trademark Neoflon ®<br>○ Ethylene-tetrafluoro-ethylene (ETFE), that includes the trademark Tefzel®<br>○ Fluorinated ethylene propylene (FEP), that includes the trademarks Teflon® FEP and Hostaflon® FEP<br>• Items or materials that contain any other fluoropolymer |

## Pumps, Tubing, and Sampling Equipment

| ● Prohibited | ■ Allowable | ▲ Needs Screening[2] |
|---|---|---|
| • Items or materials containing any fluoropolymer (potential items include tubing, valves, or pipe thread seal tape) | • High-density polyethylene (HDPE)<br>• Low-density polyethylene (LDPE) tubing<br>• Polypropylene<br>• Silicone<br>• Stainless-steel<br>• Any items used to secure sampling bottles made from:<br>○ Natural rubber<br>○ Nylon (cable ties)<br>○ Uncoated metal springs<br>○ Polyethylene | • Any items or materials that will come into direct contact with the sample that have **not** been verified to be PFAS-free<br>○ Do not assume that any sampling items or materials are PFAS-free based on composition alone |

## Sample Storage and Preservation

| ● Prohibited | ■ Allowable | ▲ Needs Screening[2] |
|---|---|---|
| • Polytetrafluoroethylene (PTFE): Teflon® lined bottles or caps | • Glass jars[4]<br>• Laboratory-provided PFAS-Free bottles:<br>○ HDPE or polypropylene<br>• Regular wet ice<br>• Thin HDPE sheeting<br>• LDPE resealable storage bags (i.e. Ziploc®) that will not contact the sample media[6] | • Aluminium foil[4]<br>• Chemical or blue ice[5]<br>• Plastic storage bags other than those listed as ■ Allowable<br>• Low-density polyethylene (LDPE) bottles |

## Field Documentation

| ● Prohibited | ■ Allowable | ▲ Needs Screening[2] |
|---|---|---|
| • Clipboards coated with PFAS<br>• Notebooks made with PFAS treated paper<br>• PFAS treated loose paper<br>• PFAS treated adhesive paper products | • Loose paper (non-waterproof, non-recycled)<br>• Rite in the Rain® notebooks<br>• Aluminium, polypropylene, or Masonite field clipboards<br>• Ballpoint pens, pencils, and Fine or Ultra-Fine Point Sharpie® markers | • Plastic clipboards, binders, or spiral hard cover notebooks<br>• All markers not listed as ■ Allowable<br>• Post-It® Notes or other adhesive paper products<br>• Waterproof field books |

## Decontamination

| ● Prohibited | ■ Allowable | ▲ Needs Screening[2] |
|---|---|---|
| • Decon 90®<br>• PFAS treated paper towel | • Alconox®, Liquinox®, or Citranox®<br>• Triple rinse with PFAS-free deionized water<br>• Cotton cloth or untreated paper towel | • Municipal water<br>• Recycled paper towels or chemically treated paper towels |

## Clothing, Boots, Rain Gear, and PPE

| ● Prohibited | ■ Allowable | ▲Needs Screening[2] |
|---|---|---|
| • New or unwashed clothing<br>• Anything made of or with:<br>○ Gore-Tex™ or other water-resistant synthetics<br>• Anything applied with or recently washed with:<br>○ Fabric softeners<br>○ Fabric protectors, including UV protection<br>○ Insect resistant chemicals<br>○ Water, dirt, and/or stain resistant chemicals | • Powderless nitrile gloves<br>• Well-laundered synthetic or 100% cotton clothing, with most recent launderings not using fabric softeners<br>• Made of or with:<br>○ Polyurethane<br>○ Polyvinyl chloride (PVC)<br>○ Wax coated fabrics<br>○ Rubber / Neoprene<br>○ Uncoated Tyvek® | • Latex gloves<br>• Water and/or dirt resistant leather gloves<br>• Any special gloves required by a HASP<br>• Tyvek® suits, clothing that contains Tyvek®, or coated Tyvek® |

## Food and Beverages

| ● Prohibited | ■ Allowable |
|---|---|
| • No food should be consumed in the staging or sampling areas, including pre-packaged food or snacks.<br>■ If consuming food on-site becomes necessary, move to the staging area and remove PPE. After eating, wash hands thoroughly and put on new PPE. | • Brought and consumed only outside the vicinity of the sampling area:<br>○ Bottled water<br>○ Hydration drinks (i.e. Gatorade®, Powerade®) |

## Personal Care Products (PCPs) - for day of sample collection[6]

| ● Prohibited | ■ Allowable | ▲Needs Screening[2] |
|---|---|---|
| • Any PCPs[6], sunscreen, and insect repellent applied in the sampling area. | PCPs[6], sunscreens, and insect repellents applied in the staging area, away from sampling bottles and equipment followed by thoroughly washing hands:<br>**PCPs[6]:**<br>• Cosmetics, deodorants/antiperspirants, moisturizers, hand creams, and other PCPs[6]<br>**Sunscreens:**<br>• Banana Boat® for Men Triple Defense Continuous Spray Sunscreen SPF 30<br>• Banana Boat® Sport Performance Coolzone Broad Spectrum SPF 30<br>• Banana Boat® Sport Performance Sunscreen Lotion Broad Spectrum SPF 30<br>• Banana Boat® Sport Performance Sunscreen Stick SPF 50<br>• Coppertone® Sunscreen Lotion Ultra Guard Broad Spectrum SPF 50<br>• Coppertone® Sport High Performance AccuSpray Sunscreen SPF 30<br>• Coppertone® Sunscreen Stick Kids SPF 55<br>• L'Oréal® Silky Sheer Face Lotion 50<br>• Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 50<br>• Meijer® Sunscreen Continuous Spray Broad Spectrum SPF 30<br>• Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 15, 30 and 50<br>• Meijer® Wet Skin Kids Sunscreen Continuous Spray Broad Spectrum SPF 70<br>• Neutrogena® Beach Defense Water+Sun Barrier Lotion SPF 70<br>• Neutrogena® Beach Defense Water+Sun Barrier Spray Broad Spectrum SPF 30<br>• Neutrogena® Pure & Free Baby Sunscreen Broad Spectrum SPF 60+<br>• Neutrogena® UltraSheer Dry-Touch Sunscreen Broad Spectrum SPF 30<br>**Insect Repellents:**<br>• OFF® Deep Woods<br>• Sawyer® Permethrin | • Products other than those listed as ■Allowable |

[1] This table is not considered to be a complete listing of prohibited or allowable materials. All materials should be evaluated prior to use during sampling. The manufacturers of various products should be contacted in order to determine if PFAS was used in the production of any particular product.

[2] Equipment blank samples should be taken to verify these products are PFAS-free prior to use during sampling.

[3] **For surface water foam samples:** LDPE storage bags may be used in the sampling of foam on surface waters. In this instance, it is allowable for the LDPE bag to come into direct contact with the sample media.

[4] **For fish and other wildlife samples:** Depending on the project objectives, glass jars and aluminum foil might be used for PFAS sampling. PFAS has been found to bind to glass and if the sample is stored in a glass jar, a rinse of the jar is required during the sample analysis. PFAS are sometimes used as a protective layer for some aluminum foils. An equipment blank sample should be collected prior to any aluminum foil use.

[5] Regular ice is recommended as there are concerns that chemical and blue ice may not cool and maintain the sample at or below 42.8˚F (6°C) (as determined by EPA 40 CFR 136 – NPDES) during collection and through transit to the laboratory.

[6] Based on evidence, avoidance of PCPs is considered to be precautionary because none have been documented as having cross-contaminated samples due to their use. However, if used, application of PCPs must be done at the staging area and away from sampling bottles and equipment, and hands must be thoroughly washed after the use of any PCPs prior to sampling.

●- Prohibited ■- Allowable ▲- Needs Screening

Tighe&Bond

# APPENDIX H

**PFAS Soil Sampling Summary**
**22 Mountain Road**
**Princeton, Massachusetts**

| Parameter | Reportable Concentrations (RCs) | MCP - Method 1 Standards | SAMPLING LOCATION (22 MOUNTAIN ROAD) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RCS-1 | S-1/GW-1 | S-1 | S-1 (DUP) | S-2 | S-3 | S-4 | S-5 | S-6 | S-7 | S-8 | S-9 |
| Sampling Date | | | 7/29/2021 | 7/29/2021 | 7/29/2021 | 7/29/2021 | 7/29/2021 | 7/29/2021 | 7/29/2021 | 7/29/2021 | 7/29/2021 | 7/29/2021 |
| Sample Depth (inches) | | | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 |
| ***SOP-466 PFAS (µg/kg dry)*** | | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ~ | ~ | 0.91 | 0.72 | 0.6 | 0.58 | 0.48 | 0.48 | 1.3 | 1.3 | 0.59 | 0.67 |
| Perfluorobutanesulfonic acid (PFBS) | ~ | ~ | 0.4 | 0.27 | 0.6 | 0.25 | 0.086 | 0.22 | 0.66 | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoropentanoic acid (PFPeA) | ~ | ~ | 0.97 | 0.71 | 0.38 | 0.24 | 0.29 | 0.2 | 0.79 | 0.48 | 0.23 | 0.13 |
| Perfluorohexanoic acid (PFHxA) | ~ | ~ | 3.4 | 2.3 | 0.48 | ND (0.64) | 0.35 | 0.23 | 0.85 | 0.43 | 0.26 | 0.17 |
| 11Cl-PF3OUdS (F53B Minor) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| 9Cl-PF3ONS (F53B Major) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluorododecanoic acid (PFDoA) | ~ | ~ | 0.09 | ND (0.56) | 0.12 | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoroheptanesulfonic acid (PFHpS) | ~ | ~ | 1.3 | 0.9 | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| N-EtFOSAA | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| N-MeFOSAA | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluorotetradecanoic acid (PFTA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluorotridecanoic acid (PFTrDA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluorodecanesulfonic acid (PFDS) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | 0.35 |
| Perfluorooctanesulfonamide (FOSA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluorononanesulfonic acid (PFNS) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ~ | ~ | 0.76 | 0.6 | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | 0.26 | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoro-1-butanesulfonamide (FBSA) | ~ | ~ | 0.24 | 0.18 | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoropetanesulfonic acid (PFPeS) | ~ | ~ | 0.45 | 0.3 | 0.62 | 0.24 | ND (0.55) | 0.15 | 0.82 | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoroundecanoic acid (PFUnA) | ~ | ~ | 0.15 | 0.17 | 0.27 | 0.3 | ND (0.55) | 0.094 | ND (0.60) | ND (0.62) | ND (0.49) | 0.12 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ~ | ~ | ND (0.53) | ND (0.56) | ND (0.57) | ND (0.64) | ND (0.55) | ND (0.50) | ND (0.60) | ND (0.62) | ND (0.49) | ND (0.49) |
| Perfluoroheptanoic acid (PFHpA) | 0.5 | 0.5 | **0.65** | 0.48 | 0.38 | 0.31 | 0.3 | 0.32 | **0.92** | **0.62** | 0.25 | 0.21 |
| Perfluorooctanoic acid (PFOA) | 0.72 | 0.72 | **1.4** | **0.91** | **1.7** | 0.71 | **1.1** | **1.5** | **3.5** | **2.6** | 0.69 | 0.43 |
| Perfluorooctanesulfonic acid (PFOS) | 2 | 2 | **17** | **13** | **3.1** | 1.7 | 0.88 | 1.7 | **2.6** | 1.7 | 1.4 | **2** |
| Perfluorononanoic acid (PFNA) | 0.32 | 0.32 | ND (0.53) * | 0.098 | **0.68** | **0.49** | 0.19 | **0.57** | **0.8** | **1.1** | **0.46** | **0.53** |
| Perfluorodecanoic acid (PFDA) | 0.3 | 0.3 | 0.16 | 0.14 | **0.31** | 0.26 | ND (0.55) * | 0.15 | 0.15 | 0.19 | 0.17 | ND (0.49) * |
| Perfluorohexanesulfonic acid (PFHxS) | 0.3 | 0.3 | **14** | **8.9** | **3.3** | **1** | 0.22 | **0.63** | **5** | ND (0.62) * | ND (0.49) * | ND (0.49) * |

NOTES:
Gray colored cells indicate those compounds that are regulated by MassDEP
ND = Not detected above the lab reporting limits shown in parentheses.
~ indicates that no current standard or RC for those compounds
Bolded values exceed Method 1 Standard/RCS-1 Value
An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more of the regulatory criteria.

**PFAS Soil Sampling Summary**
**30 Mountain Road**
**Princeton, Massachusetts**

| Parameter | Reportable Concentrations (RCs) | MCP - Method 1 Standards | SAMPLING LOCATION | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | RCS-1 | S-1/GW-1 | Basement-1 | Basement-2 | S-1 | S-2 | S-3 | S-4 | S-4 (Dup) | S-5 | S-6 |
| Sampling Date | | | 5/25/2021 | 5/25/2021 | 5/25/2021 | 5/25/2021 | 5/25/2021 | 5/25/2021 | 5/25/2021 | 5/25/2021 | 5/25/2021 |
| Sample Depth (inches) | | | 0-2 | 0-2 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 | 0-6 |
| ***SOP-466 PFAS (µg/kg dry)*** | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorobutanesulfonic acid (PFBS) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoropentanoic acid (PFPeA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorohexanoic acid (PFHxA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| 11Cl-PF3OUdS (F53B Minor) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| 9Cl-PF3ONS (F53B Major) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ~ | ~ | ND (2.5) | ND (2.1) | ND (2.0) | ND (2.3) | ND (2.3) | ND (2.0) | ND (2.1) | ND (1.8) | ND (1.9) |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorododecanoic acid (PFDoA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoroheptanesulfonic acid (PFHpS) | ~ | ~ | 1.7 | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| N-EtFOSAA | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| N-MeFOSAA | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorotetradecanoic acid (PFTA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorotridecanoic acid (PFTrDA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorodecanesulfonic acid (PFDS) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorooctanesulfonamide (FOSA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorononanesulfonic acid (PFNS) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ~ | ~ | 3.2 | 2.1 | ND (0.99) | 1.9 | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoro-1-butanesulfonamide (FBSA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoropetanesulfonic acid (PFPeS) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoroundecanoic acid (PFUnA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ~ | ~ | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluoroheptanoic acid (PFHpA) | 0.5 | 0.5 | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorooctanoic acid (PFOA) | 0.72 | 0.72 | **2.9** | ND (1.1) | ND (0.99) | **1.4** | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorooctanesulfonic acid (PFOS) | 2 | 2 | **120** | **59** | 1.1 | **100** | **27** | **9.8** | **11** | **3.5** | ND (0.97) |
| Perfluorononanoic acid (PFNA) | 0.32 | 0.32 | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorodecanoic acid (PFDA) | 0.3 | 0.3 | ND (1.2) | ND (1.1) | ND (0.99) | ND (1.1) | ND (1.1) | ND (1.0) | ND (1.1) | ND (0.92) | ND (0.97) |
| Perfluorohexanesulfonic acid (PFHxS) | 0.3 | 0.3 | **4.5** | **1.6** | ND (0.99) | **5.2** | **5.6** | **1.6** | **2.1** | ND (0.92) | ND (0.97) |

NOTES:
Gray colored cells indicate those compounds that are regulated by MassDEP
ND = Not detected above the lab reporting limits shown in parentheses.
~ indicates that no current standard or RC for those compounds
Bolded values exceed Method 1 Standard/RCS-1 Value

con-test®
A Pace Analytical® Laboratory

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

August 19, 2021

Michael Scherer
Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303

Project Location: 22 Mountain, Princeton, MA
Client Job Number:
Project Number: P-0534
Laboratory Work Order Number: 21G1719

Enclosed are results of analyses for samples received by the laboratory on July 29, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

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

Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303
ATTN: Michael Scherer

REPORT DATE: 8/19/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: P-0534

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21G1719

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

PROJECT LOCATION: 22 Mountain, Princeton, MA

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| S-1 | 21G1719-01 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-2 | 21G1719-02 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-3 | 21G1719-03 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-4 | 21G1719-04 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-5 | 21G1719-05 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-6 | 21G1719-06 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-7 | 21G1719-07 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-8 | 21G1719-08 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-9 | 21G1719-09 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| EQUIPMENT Blank | 21G1719-10 | Water | | SOP-454 PFAS | |
| Field Blank | 21G1719-11 | Water | | SOP-454 PFAS | |
| RINSE WATER/DECON | 21G1719-12 | Water | | SOP-454 PFAS | |
| Trip Blank | 21G1719-13 | Water | | SOP-454 PFAS | |
| S-1 (DUPLICATE) | 21G1719-14 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |

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**CASE NARRATIVE SUMMARY**

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

REVISED REPORT 08-19-2: Per client request the PFAS results have been reported to the MDL.

**SOP-454 PFAS**

**Qualifications:**

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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

**Perfluoroheptanesulfonic acid (PFI**
S062481-CCV4

**SOP-466 PFAS**

**Qualifications:**

**MS-12**

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

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

**Perfluorooctanesulfonic acid (PFO**
21G1719-01[S-1], B287163-MS1, B287163-MSD1

**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 & Samples(s) Qualified:**

**N-EtFOSAA**
B287163-MS1

**Perfluorohexanesulfonic acid (PFH**
21G1719-01[S-1], B287163-MS1

**Perfluorohexanoic acid (PFHxA)**
21G1719-01[S-1], B287163-MS1

**PF-17**

Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.

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

**M2-6:2FTS**
21G1719-05[S-5]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace 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

con-test® A Pace Analytical® Laboratory

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

Project Location: 22 Mountain, Princeton, MA Sample Description: Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-1** Sampled: 7/29/2021 09:15

**Sample ID: 21G1719-01**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.91 | 0.53 | 0.071 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | 0.40 | 0.53 | 0.081 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.97 | 0.53 | 0.081 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorohexanoic acid (PFHxA) | 3.4 | 0.53 | 0.099 | µg/kg dry | 1 | MS-22 | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.53 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.53 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.53 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.53 | 0.26 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.53 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.16 | 0.53 | 0.068 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorododecanoic acid (PFDoA) | 0.090 | 0.53 | 0.081 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.53 | 0.087 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | 1.3 | 0.53 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| N-EtFOSAA | ND | 0.53 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| N-MeFOSAA | ND | 0.53 | 0.097 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.53 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.53 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.53 | 0.098 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.53 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.53 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.53 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 0.76 | 0.53 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | 0.24 | 0.53 | 0.17 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | 14 | 0.53 | 0.085 | µg/kg dry | 1 | MS-22 | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.53 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.53 | 0.098 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.53 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | 0.45 | 0.53 | 0.078 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoroundecanoic acid (PFUnA) | 0.15 | 0.53 | 0.097 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.53 | 0.082 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.65 | 0.53 | 0.077 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorooctanoic acid (PFOA) | 1.4 | 0.53 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 17 | 0.53 | 0.072 | µg/kg dry | 1 | MS-12 | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 0.53 | 0.087 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:30 | BLH |

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

Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-1**
Sampled: 7/29/2021 09:15

**Sample ID: 21G1719-01**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 71.0 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-2**  Sampled: 7/29/2021 09:30

**Sample ID: 21G1719-02**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.60 | 0.57 | 0.076 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | 0.60 | 0.57 | 0.087 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.38 | 0.57 | 0.087 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorohexanoic acid (PFHxA) | 0.48 | 0.57 | 0.11 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.57 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.57 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.57 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.57 | 0.27 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.57 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.31 | 0.57 | 0.073 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorododecanoic acid (PFDoA) | 0.12 | 0.57 | 0.087 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.57 | 0.094 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.57 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| N-EtFOSAA | ND | 0.57 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| N-MeFOSAA | ND | 0.57 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.57 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.57 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.57 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.57 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.57 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.57 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.57 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.57 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | 3.3 | 0.57 | 0.091 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.57 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.57 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.57 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | 0.62 | 0.57 | 0.084 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoroundecanoic acid (PFUnA) | 0.27 | 0.57 | 0.10 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.57 | 0.089 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.38 | 0.57 | 0.082 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorooctanoic acid (PFOA) | 1.7 | 0.57 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 3.1 | 0.57 | 0.077 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |
| Perfluorononanoic acid (PFNA) | 0.68 | 0.57 | 0.094 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:38 | BLH |

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

Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-2**
Sampled: 7/29/2021 09:30

**Sample ID: 21G1719-02**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 70.3 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-3**  Sampled: 7/29/2021 09:45

**Sample ID: 21G1719-03**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.58 | 0.64 | 0.085 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | 0.25 | 0.64 | 0.098 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.24 | 0.64 | 0.098 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 0.64 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.64 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.64 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.64 | 0.20 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.64 | 0.31 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.64 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.26 | 0.64 | 0.082 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.64 | 0.098 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.64 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.64 | 0.19 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| N-EtFOSAA | ND | 0.64 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| N-MeFOSAA | ND | 0.64 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.64 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.64 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.64 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.64 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.64 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.64 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.64 | 0.19 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.64 | 0.20 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | 1.0 | 0.64 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.64 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.64 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.64 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | 0.24 | 0.64 | 0.094 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoroundecanoic acid (PFUnA) | 0.30 | 0.64 | 0.12 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.64 | 0.099 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.31 | 0.64 | 0.092 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorooctanoic acid (PFOA) | 0.71 | 0.64 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 1.7 | 0.64 | 0.087 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |
| Perfluorononanoic acid (PFNA) | 0.49 | 0.64 | 0.11 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:45 | BLH |

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

Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-3**
Sampled: 7/29/2021 09:45

**Sample ID: 21G1719-03**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 60.3 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-4**  Sampled: 7/29/2021 10:00

**Sample ID: 21G1719-04**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.48 | 0.55 | 0.073 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | 0.086 | 0.55 | 0.084 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.29 | 0.55 | 0.084 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorohexanoic acid (PFHxA) | 0.35 | 0.55 | 0.10 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.55 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.55 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.55 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.55 | 0.26 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.55 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 0.55 | 0.070 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.55 | 0.084 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.55 | 0.090 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.55 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| N-EtFOSAA | ND | 0.55 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| N-MeFOSAA | ND | 0.55 | 0.099 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.55 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.55 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.55 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.55 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.55 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.55 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.55 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.55 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | 0.22 | 0.55 | 0.087 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.55 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.55 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.55 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.55 | 0.080 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.55 | 0.099 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.55 | 0.085 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.30 | 0.55 | 0.079 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorooctanoic acid (PFOA) | 1.1 | 0.55 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 0.88 | 0.55 | 0.074 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |
| Perfluorononanoic acid (PFNA) | 0.19 | 0.55 | 0.090 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:52 | BLH |

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

Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-4**
Sampled: 7/29/2021 10:00

**Sample ID: 21G1719-04**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 72.3 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-5**  Sampled: 7/29/2021 10:15

**Sample ID: 21G1719-05**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.48 | 0.50 | 0.067 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | 0.22 | 0.50 | 0.077 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.20 | 0.50 | 0.077 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorohexanoic acid (PFHxA) | 0.23 | 0.50 | 0.094 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.50 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.50 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.50 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.50 | 0.24 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.50 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.15 | 0.50 | 0.065 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.50 | 0.077 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.50 | 0.083 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.50 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| N-EtFOSAA | ND | 0.50 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| N-MeFOSAA | ND | 0.50 | 0.092 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.50 | 0.096 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.50 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.50 | 0.093 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.50 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.50 | 0.099 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.50 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.50 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.50 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | 0.63 | 0.50 | 0.081 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.50 | 0.095 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.50 | 0.093 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.50 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | 0.15 | 0.50 | 0.074 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoroundecanoic acid (PFUnA) | 0.094 | 0.50 | 0.092 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.50 | 0.078 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.32 | 0.50 | 0.073 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorooctanoic acid (PFOA) | 1.5 | 0.50 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 1.7 | 0.50 | 0.068 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |
| Perfluorononanoic acid (PFNA) | 0.57 | 0.50 | 0.083 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 18:59 | BLH |

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

Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-5**
Sampled: 7/29/2021 10:15

**Sample ID: 21G1719-05**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 74.7 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA Sample Description: Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-6** Sampled: 7/29/2021 10:30

**Sample ID: 21G1719-06**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 1.3 | 0.60 | 0.080 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | 0.66 | 0.60 | 0.093 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.79 | 0.60 | 0.093 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorohexanoic acid (PFHxA) | 0.85 | 0.60 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.60 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.60 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.60 | 0.19 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.60 | 0.29 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.60 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.15 | 0.60 | 0.078 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.60 | 0.093 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.60 | 0.099 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.60 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| N-EtFOSAA | ND | 0.60 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| N-MeFOSAA | ND | 0.60 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.60 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.60 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.60 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.60 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.60 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.60 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 0.26 | 0.60 | 0.18 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.60 | 0.19 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | 5.0 | 0.60 | 0.097 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.60 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.60 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.60 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | 0.82 | 0.60 | 0.089 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.60 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.60 | 0.094 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.92 | 0.60 | 0.087 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorooctanoic acid (PFOA) | 3.5 | 0.60 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 2.6 | 0.60 | 0.082 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |
| Perfluorononanoic acid (PFNA) | 0.80 | 0.60 | 0.099 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:14 | BLH |

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

Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-6**
Sampled: 7/29/2021 10:30

**Sample ID: 21G1719-06**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 66.4 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA Sample Description: Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-7** Sampled: 7/29/2021 10:45

**Sample ID: 21G1719-07**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 1.3 | 0.62 | 0.083 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.62 | 0.095 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.48 | 0.62 | 0.095 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorohexanoic acid (PFHxA) | 0.43 | 0.62 | 0.12 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.62 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.62 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.62 | 0.20 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.62 | 0.30 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.62 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.19 | 0.62 | 0.080 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.62 | 0.095 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.62 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.62 | 0.19 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| N-EtFOSAA | ND | 0.62 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| N-MeFOSAA | ND | 0.62 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.62 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.62 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.62 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.62 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.62 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.62 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.62 | 0.19 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.62 | 0.20 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.62 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.62 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.62 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.62 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.62 | 0.091 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.62 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.62 | 0.097 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.62 | 0.62 | 0.090 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorooctanoic acid (PFOA) | 2.6 | 0.62 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 1.7 | 0.62 | 0.084 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |
| Perfluorononanoic acid (PFNA) | 1.1 | 0.62 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:21 | BLH |

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Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-7**
Sampled: 7/29/2021 10:45

**Sample ID: 21G1719-07**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 65.7 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-8**  Sampled: 7/29/2021 11:00

**Sample ID: 21G1719-08**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.59 | 0.49 | 0.066 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.49 | 0.076 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.23 | 0.49 | 0.076 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorohexanoic acid (PFHxA) | 0.26 | 0.49 | 0.092 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.49 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.49 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.49 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.49 | 0.24 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.49 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.17 | 0.49 | 0.064 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.49 | 0.076 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.49 | 0.081 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.49 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| N-EtFOSAA | ND | 0.49 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| N-MeFOSAA | ND | 0.49 | 0.090 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.49 | 0.094 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.49 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.49 | 0.091 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.49 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.49 | 0.096 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.49 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.49 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.49 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.49 | 0.079 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.49 | 0.093 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.49 | 0.091 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.49 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.49 | 0.072 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.49 | 0.090 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.49 | 0.077 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.25 | 0.49 | 0.071 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorooctanoic acid (PFOA) | 0.69 | 0.49 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 1.4 | 0.49 | 0.067 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |
| Perfluorononanoic acid (PFNA) | 0.46 | 0.49 | 0.081 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:28 | BLH |

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Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-8**
Sampled: 7/29/2021 11:00

**Sample ID: 21G1719-08**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 76.7 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA Sample Description: Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-9** Sampled: 7/29/2021 11:15

**Sample ID: 21G1719-09**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.67 | 0.49 | 0.066 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.49 | 0.075 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.13 | 0.49 | 0.075 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorohexanoic acid (PFHxA) | 0.17 | 0.49 | 0.092 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.49 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.49 | 0.12 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.49 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.49 | 0.24 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.49 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 0.49 | 0.063 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.49 | 0.075 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.49 | 0.081 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.49 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| N-EtFOSAA | ND | 0.49 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| N-MeFOSAA | ND | 0.49 | 0.090 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.49 | 0.094 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.49 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.49 | 0.091 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | 0.35 | 0.49 | 0.11 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.49 | 0.096 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.49 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.49 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.49 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.49 | 0.079 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.49 | 0.093 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.49 | 0.091 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.49 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.49 | 0.072 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoroundecanoic acid (PFUnA) | 0.12 | 0.49 | 0.090 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.49 | 0.076 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.21 | 0.49 | 0.071 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorooctanoic acid (PFOA) | 0.43 | 0.49 | 0.14 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 2.0 | 0.49 | 0.067 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |
| Perfluorononanoic acid (PFNA) | 0.53 | 0.49 | 0.081 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:35 | BLH |

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

Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-9**
Sampled: 7/29/2021 11:15

**Sample ID: 21G1719-09**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 78.6 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: EQUIPMENT Blank**  Sampled: 7/29/2021 09:45

**Sample ID: 21G1719-10**

Sample Matrix: Water

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.8 | 1.0 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.8 | 0.39 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 2.8 | 0.55 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 2.8 | 0.54 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.8 | 0.90 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 2.8 | 0.54 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.8 | 0.49 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.8 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.8 | 0.85 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 2.8 | 0.68 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 2.8 | 0.62 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.8 | 0.32 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.8 | 1.3 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| N-EtFOSAA | ND | 2.8 | 0.88 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| N-MeFOSAA | ND | 2.8 | 1.1 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.8 | 0.51 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.8 | 0.39 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.8 | 0.39 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.8 | 0.45 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.8 | 0.59 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.8 | 0.23 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.8 | 0.43 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.8 | 0.27 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.8 | 0.47 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.8 | 0.58 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.8 | 0.48 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.8 | 0.51 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.8 | 0.36 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.8 | 0.51 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.8 | 0.39 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.8 | 0.48 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 2.8 | 0.95 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.8 | 0.84 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 2.8 | 0.48 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:32 | BLH |

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Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: Field Blank**  Sampled: 7/29/2021 10:00

**Sample ID: 21G1719-11**

Sample Matrix: Water

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.9 | 0.71 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.9 | 0.27 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 1.9 | 0.37 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 1.9 | 0.37 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.9 | 0.61 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 1.9 | 0.37 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.9 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 1.9 | 0.23 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.9 | 0.58 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 1.9 | 0.47 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 1.9 | 0.42 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.9 | 0.22 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.9 | 0.89 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| N-EtFOSAA | ND | 1.9 | 0.60 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| N-MeFOSAA | ND | 1.9 | 0.72 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.9 | 0.35 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.9 | 0.26 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.9 | 0.27 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.9 | 0.31 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.9 | 0.40 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.9 | 0.16 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 1.9 | 0.30 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.9 | 0.18 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 1.9 | 0.32 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.9 | 0.40 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.9 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.9 | 0.35 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.9 | 0.25 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.9 | 0.35 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.9 | 0.26 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.9 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 1.9 | 0.65 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 1.9 | 0.57 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 1.9 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:39 | BLH |

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

Project Location: 22 Mountain, Princeton, MA Sample Description: Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: RINSE WATER/DECON** Sampled: 7/29/2021 10:00

**Sample ID: 21G1719-12**

Sample Matrix: Water

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.8 | 0.67 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.8 | 0.25 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 1.8 | 0.35 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 1.8 | 0.35 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.8 | 0.58 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 1.8 | 0.35 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.8 | 0.31 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 1.8 | 0.22 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.8 | 0.55 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 1.8 | 0.44 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 1.8 | 0.40 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.8 | 0.21 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.8 | 0.85 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| N-EtFOSAA | ND | 1.8 | 0.57 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| N-MeFOSAA | ND | 1.8 | 0.69 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.8 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.8 | 0.25 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.8 | 0.25 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.8 | 0.29 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.8 | 0.38 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.8 | 0.15 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 1.8 | 0.28 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.8 | 0.17 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 1.8 | 0.31 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.8 | 0.38 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.8 | 0.31 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.8 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.8 | 0.23 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.8 | 0.33 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.8 | 0.25 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.8 | 0.31 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 1.8 | 0.61 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 1.8 | 0.54 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 1.8 | 0.31 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 18:46 | BLH |

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

Project Location: 22 Mountain, Princeton, MA  Sample Description:  Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: Trip Blank**  Sampled: 7/29/2021 00:00

**Sample ID: 21G1719-13**

Sample Matrix: Water

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.9 | 0.69 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.9 | 0.26 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 1.9 | 0.36 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 1.9 | 0.36 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.9 | 0.60 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 1.9 | 0.36 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.9 | 0.32 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 1.9 | 0.22 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.9 | 0.56 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 1.9 | 0.46 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 1.9 | 0.41 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.9 | 0.22 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.9 | 0.87 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| N-EtFOSAA | ND | 1.9 | 0.59 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| N-MeFOSAA | ND | 1.9 | 0.71 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.9 | 0.34 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.9 | 0.26 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.9 | 0.26 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.9 | 0.30 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.9 | 0.39 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.9 | 0.16 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 1.9 | 0.29 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.9 | 0.18 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 1.9 | 0.31 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.9 | 0.39 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.9 | 0.32 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.9 | 0.34 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.9 | 0.24 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.9 | 0.34 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.9 | 0.26 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.9 | 0.32 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 1.9 | 0.63 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 1.9 | 0.56 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 1.9 | 0.32 | ng/L | 1 | | SOP-454 PFAS | 7/30/21 | 8/16/21 19:01 | BLH |

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

Project Location: 22 Mountain, Princeton, MA Sample Description: Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-1 (DUPLICATE)** Sampled: 7/29/2021 09:15

**Sample ID: 21G1719-14**

Sample Matrix: Soil

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

| Analyte | Results | RL | DL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | 0.72 | 0.56 | 0.074 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | 0.27 | 0.56 | 0.086 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoropentanoic acid (PFPeA) | 0.71 | 0.56 | 0.086 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorohexanoic acid (PFHxA) | 2.3 | 0.56 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.56 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 0.56 | 0.14 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.56 | 0.18 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.56 | 0.27 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.56 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorodecanoic acid (PFDA) | 0.14 | 0.56 | 0.072 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 0.56 | 0.086 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.56 | 0.092 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.90 | 0.56 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| N-EtFOSAA | ND | 0.56 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| N-MeFOSAA | ND | 0.56 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.56 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.56 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.56 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.56 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.56 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.56 | 0.15 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 0.60 | 0.56 | 0.17 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | 0.18 | 0.56 | 0.18 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | 8.9 | 0.56 | 0.089 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.56 | 0.11 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.56 | 0.10 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.56 | 0.13 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | 0.30 | 0.56 | 0.082 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoroundecanoic acid (PFUnA) | 0.17 | 0.56 | 0.10 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.56 | 0.087 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluoroheptanoic acid (PFHpA) | 0.48 | 0.56 | 0.081 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorooctanoic acid (PFOA) | 0.91 | 0.56 | 0.16 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | 13 | 0.56 | 0.076 | µg/kg dry | 1 | | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |
| Perfluorononanoic acid (PFNA) | 0.098 | 0.56 | 0.092 | µg/kg dry | 1 | J | SOP-466 PFAS | 7/30/21 | 8/3/21 19:42 | BLH |

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Project Location: 22 Mountain, Princeton, MA
Sample Description:
Work Order: 21G1719

Date Received: 7/29/2021

**Field Sample #: S-1 (DUPLICATE)**
Sampled: 7/29/2021 09:15

**Sample ID: 21G1719-14**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 73.2 | | % Wt | 1 | | SM 2540G | 8/13/21 | 8/16/21 11:29 | JML |

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## Sample Extraction Data

**Prep Method: % Solids** **Analytical Method: SM 2540G**

| Lab Number [Field ID] | Batch | Date |
|---|---|---|
| 21G1719-01 [S-1] | B288200 | 08/13/21 |
| 21G1719-02 [S-2] | B288200 | 08/13/21 |
| 21G1719-03 [S-3] | B288200 | 08/13/21 |
| 21G1719-04 [S-4] | B288200 | 08/13/21 |
| 21G1719-05 [S-5] | B288200 | 08/13/21 |
| 21G1719-06 [S-6] | B288200 | 08/13/21 |
| 21G1719-07 [S-7] | B288200 | 08/13/21 |
| 21G1719-08 [S-8] | B288200 | 08/13/21 |
| 21G1719-09 [S-9] | B288200 | 08/13/21 |
| 21G1719-14 [S-1 (DUPLICATE)] | B288200 | 08/13/21 |

**Prep Method: SOP 454-PFAAS** **Analytical Method: SOP-454 PFAS**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 21G1719-10 [EQUIPMENT Blank] | B287200 | 179 | 1.00 | 07/30/21 |
| 21G1719-11 [Field Blank] | B287200 | 263 | 1.00 | 07/30/21 |
| 21G1719-12 [RINSE WATER/DECON] | B287200 | 277 | 1.00 | 07/30/21 |
| 21G1719-13 [Trip Blank] | B287200 | 269 | 1.00 | 07/30/21 |

**Prep Method: SOP 465-PFAAS** **Analytical Method: SOP-466 PFAS**

| Lab Number [Field ID] | Batch | Initial [g] | Final [mL] | Date |
|---|---|---|---|---|
| 21G1719-01 [S-1] | B287163 | 5.98 | 5.00 | 07/30/21 |
| 21G1719-02 [S-2] | B287163 | 5.62 | 5.00 | 07/30/21 |
| 21G1719-03 [S-3] | B287163 | 5.83 | 5.00 | 07/30/21 |
| 21G1719-04 [S-4] | B287163 | 5.71 | 5.00 | 07/30/21 |
| 21G1719-05 [S-5] | B287163 | 5.97 | 5.00 | 07/30/21 |
| 21G1719-06 [S-6] | B287163 | 5.61 | 5.00 | 07/30/21 |
| 21G1719-07 [S-7] | B287163 | 5.51 | 5.00 | 07/30/21 |
| 21G1719-08 [S-8] | B287163 | 5.95 | 5.00 | 07/30/21 |
| 21G1719-09 [S-9] | B287163 | 5.82 | 5.00 | 07/30/21 |
| 21G1719-14 [S-1 (DUPLICATE)] | B287163 | 5.51 | 5.00 | 07/30/21 |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B287163 - SOP 465-PFAAS** | | | | | | | | | | |
| **Blank (B287163-BLK1)** | | | | Prepared: 07/30/21 Analyzed: 08/03/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 0.39 | µg/kg wet | | | | | | | |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.39 | µg/kg wet | | | | | | | |
| 9Cl-PF3ONS (F53B Major) | ND | 0.39 | µg/kg wet | | | | | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 0.39 | µg/kg wet | | | | | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.39 | µg/kg wet | | | | | | | |
| N-EtFOSAA | ND | 0.39 | µg/kg wet | | | | | | | |
| N-MeFOSAA | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.39 | µg/kg wet | | | | | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.39 | µg/kg wet | | | | | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 0.39 | µg/kg wet | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 0.39 | µg/kg wet | | | | | | | |
| **LCS (B287163-BS1)** | | | | Prepared: 07/30/21 Analyzed: 08/03/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | 2.37 | 0.40 | µg/kg wet | 2.23 | | 106 | 71-135 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 2.09 | 0.40 | µg/kg wet | 1.97 | | 106 | 72-128 | | | |
| Perfluoropentanoic acid (PFPeA) | 2.42 | 0.40 | µg/kg wet | 2.23 | | 109 | 69-132 | | | |
| Perfluorohexanoic acid (PFHxA) | 2.37 | 0.40 | µg/kg wet | 2.23 | | 106 | 70-132 | | | |
| 11Cl-PF3OUdS (F53B Minor) | 1.79 | 0.40 | µg/kg wet | 2.10 | | 85.1 | 50-150 | | | |
| 9Cl-PF3ONS (F53B Major) | 2.25 | 0.40 | µg/kg wet | 2.08 | | 108 | 50-150 | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 2.00 | 0.40 | µg/kg wet | 2.10 | | 95.4 | 50-150 | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | 1.89 | 0.40 | µg/kg wet | 2.23 | | 84.8 | 50-150 | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | 2.45 | 0.40 | µg/kg wet | 2.14 | | 115 | 65-137 | | | |
| Perfluorodecanoic acid (PFDA) | 2.08 | 0.40 | µg/kg wet | 2.23 | | 93.2 | 69-133 | | | |
| Perfluorododecanoic acid (PFDoA) | 2.32 | 0.40 | µg/kg wet | 2.23 | | 104 | 69-135 | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 1.93 | 0.40 | µg/kg wet | 1.98 | | 97.1 | 50-150 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B287163 - SOP 465-PFAAS** | | | | | | | | | | | |
| **LCS (B287163-BS1)** | | | | Prepared: 07/30/21 Analyzed: 08/03/21 | | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | 2.38 | 0.40 | µg/kg wet | 2.13 | | 112 | | 70-132 | | | |
| N-EtFOSAA | 2.86 | 0.40 | µg/kg wet | 2.23 | | 129 | | 61-139 | | | |
| N-MeFOSAA | 2.73 | 0.40 | µg/kg wet | 2.23 | | 123 | | 63-144 | | | |
| Perfluorotetradecanoic acid (PFTA) | 2.25 | 0.40 | µg/kg wet | 2.23 | | 101 | | 69-133 | | | |
| Perfluorotridecanoic acid (PFTrDA) | 2.36 | 0.40 | µg/kg wet | 2.23 | | 106 | | 66-139 | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | 2.38 | 0.40 | µg/kg wet | 2.09 | | 114 | | 62-145 | | | |
| Perfluorodecanesulfonic acid (PFDS) | 2.41 | 0.40 | µg/kg wet | 2.15 | | 112 | | 59-134 | | | |
| Perfluorooctanesulfonamide (FOSA) | 2.34 | 0.40 | µg/kg wet | 2.23 | | 105 | | 67-137 | | | |
| Perfluorononanesulfonic acid (PFNS) | 2.37 | 0.40 | µg/kg wet | 2.14 | | 111 | | 69-125 | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 2.21 | 0.40 | µg/kg wet | 2.23 | | 99.0 | | 50-150 | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | 2.68 | 0.40 | µg/kg wet | 2.23 | | 120 | | 50-150 | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 2.16 | 0.40 | µg/kg wet | 2.04 | | 106 | | 67-130 | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 2.28 | 0.40 | µg/kg wet | 2.23 | | 102 | | 50-150 | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 2.08 | 0.40 | µg/kg wet | 2.23 | | 93.2 | | 50-150 | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | 2.80 | 0.40 | µg/kg wet | 2.12 | | 132 | | 64-140 | | | |
| Perfluoropetanesulfonic acid (PFPeS) | 2.04 | 0.40 | µg/kg wet | 2.09 | | 97.6 | | 73-123 | | | |
| Perfluoroundecanoic acid (PFUnA) | 2.40 | 0.40 | µg/kg wet | 2.23 | | 108 | | 64-136 | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 2.19 | 0.40 | µg/kg wet | 2.23 | | 98.5 | | 50-150 | | | |
| Perfluoroheptanoic acid (PFHpA) | 2.25 | 0.40 | µg/kg wet | 2.23 | | 101 | | 71-131 | | | |
| Perfluorooctanoic acid (PFOA) | 2.28 | 0.40 | µg/kg wet | 2.23 | | 102 | | 69-133 | | | |
| Perfluorooctanesulfonic acid (PFOS) | 2.16 | 0.40 | µg/kg wet | 2.06 | | 105 | | 68-136 | | | |
| Perfluorononanoic acid (PFNA) | 2.52 | 0.40 | µg/kg wet | 2.23 | | 113 | | 72-129 | | | |
| **Matrix Spike (B287163-MS1)** | | **Source: 21G1719-01** | | Prepared: 07/30/21 Analyzed: 08/03/21 | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 4.44 | 0.53 | µg/kg dry | 2.95 | 0.912 | 120 | | 71-135 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 3.43 | 0.53 | µg/kg dry | 2.61 | 0.398 | 116 | | 72-128 | | | |
| Perfluoropentanoic acid (PFPeA) | 4.49 | 0.53 | µg/kg dry | 2.95 | 0.972 | 119 | | 69-132 | | | |
| **Perfluorohexanoic acid (PFHxA)** | 7.56 | 0.53 | µg/kg dry | 2.95 | 3.37 | **142** | * | 70-132 | | | MS-22 |
| 11Cl-PF3OUdS (F53B Minor) | 2.55 | 0.53 | µg/kg dry | 2.78 | ND | 92.0 | | 50-150 | | | |
| 9Cl-PF3ONS (F53B Major) | 3.13 | 0.53 | µg/kg dry | 2.75 | ND | 114 | | 50-150 | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 2.63 | 0.53 | µg/kg dry | 2.78 | ND | 94.8 | | 50-150 | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | 2.66 | 0.53 | µg/kg dry | 2.95 | ND | 90.1 | | 50-150 | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | 3.68 | 0.53 | µg/kg dry | 2.83 | ND | 130 | | 65-137 | | | |
| Perfluorodecanoic acid (PFDA) | 2.97 | 0.53 | µg/kg dry | 2.95 | 0.161 | 95.2 | | 69-133 | | | |
| Perfluorododecanoic acid (PFDoA) | 3.29 | 0.53 | µg/kg dry | 2.95 | 0.0897 | 108 | | 69-135 | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 2.54 | 0.53 | µg/kg dry | 2.62 | ND | 96.7 | | 50-150 | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | 4.90 | 0.53 | µg/kg dry | 2.82 | 1.28 | 128 | | 70-132 | | | |
| **N-EtFOSAA** | 4.13 | 0.53 | µg/kg dry | 2.95 | ND | **140** | * | 61-139 | | | MS-22 |
| N-MeFOSAA | 3.75 | 0.53 | µg/kg dry | 2.95 | ND | 127 | | 63-144 | | | |
| Perfluorotetradecanoic acid (PFTA) | 3.16 | 0.53 | µg/kg dry | 2.95 | ND | 107 | | 69-133 | | | |
| Perfluorotridecanoic acid (PFTrDA) | 3.15 | 0.53 | µg/kg dry | 2.95 | ND | 107 | | 66-139 | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | 3.25 | 0.53 | µg/kg dry | 2.76 | ND | 118 | | 62-145 | | | |
| Perfluorodecanesulfonic acid (PFDS) | 3.37 | 0.53 | µg/kg dry | 2.84 | ND | 119 | | 59-134 | | | |
| Perfluorooctanesulfonamide (FOSA) | 3.32 | 0.53 | µg/kg dry | 2.95 | ND | 112 | | 67-137 | | | |
| Perfluorononanesulfonic acid (PFNS) | 3.37 | 0.53 | µg/kg dry | 2.83 | ND | 119 | | 69-125 | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 3.81 | 0.53 | µg/kg dry | 2.95 | 0.763 | 103 | | 50-150 | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | 3.77 | 0.53 | µg/kg dry | 2.95 | 0.237 | 120 | | 50-150 | | | |
| **Perfluorohexanesulfonic acid (PFHxS)** | 19.7 | 0.53 | µg/kg dry | 2.70 | 13.6 | **223** | * | 67-130 | | | MS-22 |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 3.06 | 0.53 | µg/kg dry | 2.95 | ND | 104 | | 50-150 | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 2.75 | 0.53 | µg/kg dry | 2.95 | ND | 93.3 | | 50-150 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B287163 - SOP 465-PFAAS** | | | | | | | | | | | |
| **Matrix Spike (B287163-MS1)** | | **Source: 21G1719-01** | | Prepared: 07/30/21 Analyzed: 08/03/21 | | | | | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | 3.67 | 0.53 | µg/kg dry | 2.80 | ND | 131 | | 64-140 | | | |
| Perfluoropetanesulfonic acid (PFPeS) | 3.39 | 0.53 | µg/kg dry | 2.77 | 0.448 | 106 | | 73-123 | | | |
| Perfluoroundecanoic acid (PFUnA) | 3.40 | 0.53 | µg/kg dry | 2.95 | 0.152 | 110 | | 64-136 | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 2.94 | 0.53 | µg/kg dry | 2.95 | ND | 99.6 | | 50-150 | | | |
| Perfluoroheptanoic acid (PFHpA) | 3.89 | 0.53 | µg/kg dry | 2.95 | 0.649 | 110 | | 71-131 | | | |
| Perfluorooctanoic acid (PFOA) | 4.68 | 0.53 | µg/kg dry | 2.95 | 1.39 | 112 | | 69-133 | | | |
| **Perfluorooctanesulfonic acid (PFOS)** | 24.9 | 0.53 | µg/kg dry | 2.72 | 16.7 | **302** | * | 68-136 | | | MS-12 |
| Perfluorononanoic acid (PFNA) | 3.66 | 0.53 | µg/kg dry | 2.95 | ND | 124 | | 72-129 | | | |
| **Matrix Spike Dup (B287163-MSD1)** | | **Source: 21G1719-01** | | Prepared: 07/30/21 Analyzed: 08/03/21 | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 4.01 | 0.55 | µg/kg dry | 3.05 | 0.912 | 102 | | 71-135 | 10.1 | 30 | |
| Perfluorobutanesulfonic acid (PFBS) | 3.01 | 0.55 | µg/kg dry | 2.69 | 0.398 | 96.8 | | 72-128 | 13.0 | 30 | |
| Perfluoropentanoic acid (PFPeA) | 4.02 | 0.55 | µg/kg dry | 3.05 | 0.972 | 99.9 | | 69-132 | 11.2 | 30 | |
| Perfluorohexanoic acid (PFHxA) | 6.60 | 0.55 | µg/kg dry | 3.05 | 3.37 | 106 | | 70-132 | 13.5 | 30 | |
| 11Cl-PF3OUdS (F53B Minor) | 2.39 | 0.55 | µg/kg dry | 2.87 | ND | 83.4 | | 50-150 | 6.47 | 30 | |
| 9Cl-PF3ONS (F53B Major) | 2.95 | 0.55 | µg/kg dry | 2.84 | ND | 104 | | 50-150 | 5.85 | 30 | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 2.40 | 0.55 | µg/kg dry | 2.87 | ND | 83.5 | | 50-150 | 9.34 | 30 | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | 2.58 | 0.55 | µg/kg dry | 3.05 | ND | 84.5 | | 50-150 | 3.05 | 30 | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | 2.95 | 0.55 | µg/kg dry | 2.93 | ND | 101 | | 65-137 | 22.2 | 30 | |
| Perfluorodecanoic acid (PFDA) | 2.83 | 0.55 | µg/kg dry | 3.05 | 0.161 | 87.4 | | 69-133 | 4.89 | 30 | |
| Perfluorododecanoic acid (PFDoA) | 2.94 | 0.55 | µg/kg dry | 3.05 | 0.0897 | 93.4 | | 69-135 | 11.3 | 30 | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 2.27 | 0.55 | µg/kg dry | 2.71 | ND | 83.5 | | 50-150 | 11.4 | 30 | |
| Perfluoroheptanesulfonic acid (PFHpS) | 4.56 | 0.55 | µg/kg dry | 2.91 | 1.28 | 113 | | 70-132 | 7.01 | 30 | |
| N-EtFOSAA | 3.94 | 0.55 | µg/kg dry | 3.05 | ND | 129 | | 61-139 | 4.95 | 30 | |
| N-MeFOSAA | 3.28 | 0.55 | µg/kg dry | 3.05 | ND | 107 | | 63-144 | 13.5 | 30 | |
| Perfluorotetradecanoic acid (PFTA) | 2.93 | 0.55 | µg/kg dry | 3.05 | ND | 96.2 | | 69-133 | 7.49 | 30 | |
| Perfluorotridecanoic acid (PFTrDA) | 2.82 | 0.55 | µg/kg dry | 3.05 | ND | 92.5 | | 66-139 | 11.2 | 30 | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | 2.93 | 0.55 | µg/kg dry | 2.85 | ND | 103 | | 62-145 | 10.2 | 30 | |
| Perfluorodecanesulfonic acid (PFDS) | 2.95 | 0.55 | µg/kg dry | 2.94 | ND | 101 | | 59-134 | 13.2 | 30 | |
| Perfluorooctanesulfonamide (FOSA) | 3.08 | 0.55 | µg/kg dry | 3.05 | ND | 101 | | 67-137 | 7.49 | 30 | |
| Perfluorononanesulfonic acid (PFNS) | 3.08 | 0.55 | µg/kg dry | 2.93 | ND | 105 | | 69-125 | 9.06 | 30 | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 3.50 | 0.55 | µg/kg dry | 3.05 | 0.763 | 89.9 | | 50-150 | 8.38 | 30 | |
| Perfluoro-1-butanesulfonamide (FBSA) | 3.49 | 0.55 | µg/kg dry | 3.05 | 0.237 | 107 | | 50-150 | 7.53 | 30 | |
| Perfluorohexanesulfonic acid (PFHxS) | 15.6 | 0.55 | µg/kg dry | 2.79 | 13.6 | 71.9 | | 67-130 | 22.8 | 30 | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 2.78 | 0.55 | µg/kg dry | 3.05 | ND | 91.1 | | 50-150 | 9.74 | 30 | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 2.51 | 0.55 | µg/kg dry | 3.05 | ND | 82.2 | | 50-150 | 9.31 | 30 | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | 3.45 | 0.55 | µg/kg dry | 2.90 | ND | 119 | | 64-140 | 6.13 | 30 | |
| Perfluoropetanesulfonic acid (PFPeS) | 3.05 | 0.55 | µg/kg dry | 2.87 | 0.448 | 90.8 | | 73-123 | 10.5 | 30 | |
| Perfluoroundecanoic acid (PFUnA) | 2.99 | 0.55 | µg/kg dry | 3.05 | 0.152 | 93.1 | | 64-136 | 12.7 | 30 | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 2.71 | 0.55 | µg/kg dry | 3.05 | ND | 88.9 | | 50-150 | 8.04 | 30 | |
| Perfluoroheptanoic acid (PFHpA) | 3.45 | 0.55 | µg/kg dry | 3.05 | 0.649 | 91.9 | | 71-131 | 12.0 | 30 | |
| Perfluorooctanoic acid (PFOA) | 4.28 | 0.55 | µg/kg dry | 3.05 | 1.39 | 95.0 | | 69-133 | 8.81 | 30 | |
| **Perfluorooctanesulfonic acid (PFOS)** | 21.9 | 0.55 | µg/kg dry | 2.82 | 16.7 | **186** | * | 68-136 | 12.8 | 30 | MS-12 |
| Perfluorononanoic acid (PFNA) | 3.35 | 0.55 | µg/kg dry | 3.05 | ND | 110 | | 72-129 | 8.85 | 30 | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B287200 - SOP 454-PFAAS** | | | | | | | | | | |
| **Blank (B287200-BLK1)** | | | | Prepared: 07/30/21 Analyzed: 08/04/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 1.9 | ng/L | | | | | | | |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.9 | ng/L | | | | | | | |
| 9Cl-PF3ONS (F53B Major) | ND | 1.9 | ng/L | | | | | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.9 | ng/L | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 1.9 | ng/L | | | | | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.9 | ng/L | | | | | | | |
| N-EtFOSAA | ND | 1.9 | ng/L | | | | | | | |
| N-MeFOSAA | ND | 1.9 | ng/L | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.9 | ng/L | | | | | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.9 | ng/L | | | | | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.9 | ng/L | | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 1.9 | ng/L | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 1.9 | ng/L | | | | | | | |
| **LCS (B287200-BS1)** | | | | Prepared: 07/30/21 Analyzed: 08/04/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | 7.76 | 2.0 | ng/L | 9.89 | | 78.4 | 73-129 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 6.80 | 2.0 | ng/L | 8.76 | | 77.6 | 72-130 | | | |
| Perfluoropentanoic acid (PFPeA) | 7.45 | 2.0 | ng/L | 9.89 | | 75.3 | 72-129 | | | |
| Perfluorohexanoic acid (PFHxA) | 7.53 | 2.0 | ng/L | 9.89 | | 76.1 | 72-129 | | | |
| 11Cl-PF3OUdS (F53B Minor) | 6.00 | 2.0 | ng/L | 9.32 | | 64.4 | 50-150 | | | |
| 9Cl-PF3ONS (F53B Major) | 7.55 | 2.0 | ng/L | 9.22 | | 81.9 | 50-150 | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 6.36 | 2.0 | ng/L | 9.32 | | 68.3 | 50-150 | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | 7.87 | 2.0 | ng/L | 9.89 | | 79.5 | 50-150 | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | 8.77 | 2.0 | ng/L | 9.50 | | 92.4 | 67-138 | | | |
| Perfluorodecanoic acid (PFDA) | 7.79 | 2.0 | ng/L | 9.89 | | 78.8 | 71-129 | | | |
| Perfluorododecanoic acid (PFDoA) | 7.55 | 2.0 | ng/L | 9.89 | | 76.3 | 72-134 | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 5.97 | 2.0 | ng/L | 8.81 | | 67.8 | 50-150 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B287200 - SOP 454-PFAAS** | | | | | | | | | | |
| **LCS (B287200-BS1)** | | | | Prepared: 07/30/21 Analyzed: 08/04/21 | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | 7.97 | 2.0 | ng/L | 9.45 | | 84.3 | 69-134 | | | |
| N-EtFOSAA | 9.47 | 2.0 | ng/L | 9.89 | | 95.7 | 61-135 | | | |
| N-MeFOSAA | 9.09 | 2.0 | ng/L | 9.89 | | 91.9 | 65-136 | | | |
| Perfluorotetradecanoic acid (PFTA) | 7.40 | 2.0 | ng/L | 9.89 | | 74.8 | 71-132 | | | |
| Perfluorotridecanoic acid (PFTrDA) | 7.21 | 2.0 | ng/L | 9.89 | | 72.9 | 65-144 | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | 7.40 | 2.0 | ng/L | 9.25 | | 79.9 | 63-143 | | | |
| Perfluorodecanesulfonic acid (PFDS) | 7.57 | 2.0 | ng/L | 9.55 | | 79.3 | 53-142 | | | |
| Perfluorooctanesulfonamide (FOSA) | 7.14 | 2.0 | ng/L | 9.89 | | 72.2 | 67-137 | | | |
| Perfluorononanesulfonic acid (PFNS) | 7.91 | 2.0 | ng/L | 9.50 | | 83.3 | 69-127 | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 5.74 | 2.0 | ng/L | 9.89 | | 58.0 | 50-150 | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | 7.48 | 2.0 | ng/L | 9.89 | | 75.6 | 50-150 | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 6.98 | 2.0 | ng/L | 9.05 | | 77.1 | 68-131 | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 7.07 | 2.0 | ng/L | 9.89 | | 71.5 | 50-150 | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 6.24 | 2.0 | ng/L | 9.89 | | 63.0 | 50-150 | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | 7.61 | 2.0 | ng/L | 9.40 | | 81.0 | 64-140 | | | |
| Perfluoropetanesulfonic acid (PFPeS) | 7.16 | 2.0 | ng/L | 9.30 | | 77.0 | 71-127 | | | |
| Perfluoroundecanoic acid (PFUnA) | 7.62 | 2.0 | ng/L | 9.89 | | 77.1 | 69-133 | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 6.74 | 2.0 | ng/L | 9.89 | | 68.2 | 50-150 | | | |
| Perfluoroheptanoic acid (PFHpA) | 8.53 | 2.0 | ng/L | 9.89 | | 86.3 | 72-130 | | | |
| Perfluorooctanoic acid (PFOA) | 7.38 | 2.0 | ng/L | 9.89 | | 74.6 | 71-133 | | | |
| Perfluorooctanesulfonic acid (PFOS) | 6.80 | 2.0 | ng/L | 9.15 | | 74.3 | 65-140 | | | |
| Perfluorononanoic acid (PFNA) | 7.85 | 2.0 | ng/L | 9.89 | | 79.3 | 69-130 | | | |

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**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 is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| 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. |
| J | Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag). |
| MS-12 | Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated. |
| 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. |
| PF-17 | Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side. |
| V-20 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-1 (21G1719-01 )** | | | Lab File ID: 21G1719-01.d | | | Analyzed: 08/03/21 18:30 | | | |
| M8FOSA | 217262.8 | 4.060534 | 243,244.00 | 4.04455 | 89 | 50 - 150 | 0.0160 | +/-0.50 | |
| M2-4:2FTS | 91587.15 | 2.6531 | 133,406.00 | 2.644883 | 69 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 801799.5 | 4.41095 | 968,873.00 | 4.402833 | 83 | 50 - 150 | 0.0081 | +/-0.50 | |
| M2-8:2FTS | 70407.93 | 3.89105 | 87,401.00 | 3.8751 | 81 | 50 - 150 | 0.0159 | +/-0.50 | |
| MPFBA | 269872.1 | 1.133267 | 341,430.00 | 1.12495 | 79 | 50 - 150 | 0.0083 | +/-0.50 | |
| M3HFPO-DA | 128727.6 | 2.962217 | 163,330.00 | 2.945983 | 79 | 50 - 150 | 0.0162 | +/-0.50 | |
| M6PFDA | 384020.3 | 3.8836 | 436,107.00 | 3.875633 | 88 | 50 - 150 | 0.0080 | +/-0.50 | |
| M3PFBS | 100347.1 | 2.02765 | 122,777.00 | 2.019367 | 82 | 50 - 150 | 0.0083 | +/-0.50 | |
| M7PFUnA | 570676.9 | 4.033983 | 638,831.00 | 4.026 | 89 | 50 - 150 | 0.0080 | +/-0.50 | |
| M2-6:2FTS | 96575.27 | 3.525617 | 76,818.00 | 3.517633 | 126 | 50 - 150 | 0.0080 | +/-0.50 | |
| M5PFPeA | 300525.8 | 1.8411 | 361,973.00 | 1.8328 | 83 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 488881.3 | 2.73905 | 601,946.00 | 2.730883 | 81 | 50 - 150 | 0.0082 | +/-0.50 | |
| M3PFHxS | 71536.16 | 3.30035 | 89,712.00 | 3.292317 | 80 | 50 - 150 | 0.0080 | +/-0.50 | |
| M4PFHpA | 486065.6 | 3.268033 | 588,067.00 | 3.259967 | 83 | 50 - 150 | 0.0081 | +/-0.50 | |
| M8PFOA | 453105 | 3.54215 | 549,106.00 | 3.526183 | 83 | 50 - 150 | 0.0160 | +/-0.50 | |
| M8PFOS | 72143.7 | 3.72425 | 85,384.00 | 3.7163 | 84 | 50 - 150 | 0.0080 | +/-0.50 | |
| M9PFNA | 336812.8 | 3.72525 | 405,363.00 | 3.717283 | 83 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFDoA | 577383.6 | 4.177367 | 654,493.00 | 4.161233 | 88 | 50 - 150 | 0.0161 | +/-0.50 | |
| d5-NEtFOSAA | 147682.6 | 4.041467 | 177,010.00 | 4.033467 | 83 | 50 - 150 | 0.0080 | +/-0.50 | |
| d3-NMeFOSAA | 168903 | 3.961883 | 211,359.00 | 3.9539 | 80 | 50 - 150 | 0.0080 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-2 (21G1719-02 )** | | | Lab File ID: 21G1719-02.d | | | Analyzed: 08/03/21 18:38 | | | |
| M8FOSA | 223370 | 4.060517 | 243,244.00 | 4.04455 | 92 | 50 - 150 | 0.0160 | +/-0.50 | |
| M2-4:2FTS | 103639.6 | 2.6531 | 133,406.00 | 2.644883 | 78 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 911924.1 | 4.4191 | 968,873.00 | 4.402833 | 94 | 50 - 150 | 0.0163 | +/-0.50 | |
| M2-8:2FTS | 84073.52 | 3.891033 | 87,401.00 | 3.8751 | 96 | 50 - 150 | 0.0159 | +/-0.50 | |
| MPFBA | 284766.1 | 1.13325 | 341,430.00 | 1.12495 | 83 | 50 - 150 | 0.0083 | +/-0.50 | |
| M3HFPO-DA | 140014.6 | 2.9622 | 163,330.00 | 2.945983 | 86 | 50 - 150 | 0.0162 | +/-0.50 | |
| M6PFDA | 421695.3 | 3.883583 | 436,107.00 | 3.875633 | 97 | 50 - 150 | 0.0079 | +/-0.50 | |
| M3PFBS | 110948.9 | 2.02765 | 122,777.00 | 2.019367 | 90 | 50 - 150 | 0.0083 | +/-0.50 | |
| M7PFUnA | 605619.9 | 4.033983 | 638,831.00 | 4.026 | 95 | 50 - 150 | 0.0080 | +/-0.50 | |
| M2-6:2FTS | 113395.7 | 3.5256 | 76,818.00 | 3.517633 | 148 | 50 - 150 | 0.0080 | +/-0.50 | |
| M5PFPeA | 324410.4 | 1.8411 | 361,973.00 | 1.8328 | 90 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 543991.2 | 2.73905 | 601,946.00 | 2.730883 | 90 | 50 - 150 | 0.0082 | +/-0.50 | |
| M3PFHxS | 83625.55 | 3.300333 | 89,712.00 | 3.292317 | 93 | 50 - 150 | 0.0080 | +/-0.50 | |
| M4PFHpA | 542916.1 | 3.268033 | 588,067.00 | 3.259967 | 92 | 50 - 150 | 0.0081 | +/-0.50 | |
| M8PFOA | 510067.9 | 3.542133 | 549,106.00 | 3.526183 | 93 | 50 - 150 | 0.0160 | +/-0.50 | |
| M8PFOS | 75741.75 | 3.724233 | 85,384.00 | 3.7163 | 89 | 50 - 150 | 0.0079 | +/-0.50 | |
| M9PFNA | 377769.7 | 3.725233 | 405,363.00 | 3.717283 | 93 | 50 - 150 | 0.0079 | +/-0.50 | |
| MPFDoA | 636204 | 4.17735 | 654,493.00 | 4.161233 | 97 | 50 - 150 | 0.0161 | +/-0.50 | |
| d5-NEtFOSAA | 182814.5 | 4.04145 | 177,010.00 | 4.033467 | 103 | 50 - 150 | 0.0080 | +/-0.50 | |
| d3-NMeFOSAA | 230348.4 | 3.961867 | 211,359.00 | 3.9539 | 109 | 50 - 150 | 0.0080 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-3 (21G1719-03 )** | | | Lab File ID: 21G1719-03.d | | | Analyzed: 08/03/21 18:45 | | | |
| M8FOSA | 182480.2 | 4.060517 | 243,244.00 | 4.04455 | 75 | 50 - 150 | 0.0160 | +/-0.50 | |
| M2-4:2FTS | 77783.51 | 2.6531 | 133,406.00 | 2.644883 | 58 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 632209.8 | 4.410917 | 968,873.00 | 4.402833 | 65 | 50 - 150 | 0.0081 | +/-0.50 | |
| M2-8:2FTS | 52229.96 | 3.883067 | 87,401.00 | 3.8751 | 60 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFBA | 230273.1 | 1.13325 | 341,430.00 | 1.12495 | 67 | 50 - 150 | 0.0083 | +/-0.50 | |
| M3HFPO-DA | 113816.2 | 2.9622 | 163,330.00 | 2.945983 | 70 | 50 - 150 | 0.0162 | +/-0.50 | |
| M6PFDA | 336199.1 | 3.883583 | 436,107.00 | 3.875633 | 77 | 50 - 150 | 0.0079 | +/-0.50 | |
| M3PFBS | 89364.05 | 2.02765 | 122,777.00 | 2.019367 | 73 | 50 - 150 | 0.0083 | +/-0.50 | |
| M7PFUnA | 460852.6 | 4.033983 | 638,831.00 | 4.026 | 72 | 50 - 150 | 0.0080 | +/-0.50 | |
| M2-6:2FTS | 84801.84 | 3.525617 | 76,818.00 | 3.517633 | 110 | 50 - 150 | 0.0080 | +/-0.50 | |
| M5PFPeA | 256845.5 | 1.8328 | 361,973.00 | 1.8328 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 420732.8 | 2.73905 | 601,946.00 | 2.730883 | 70 | 50 - 150 | 0.0082 | +/-0.50 | |
| M3PFHxS | 65438.89 | 3.300333 | 89,712.00 | 3.292317 | 73 | 50 - 150 | 0.0080 | +/-0.50 | |
| M4PFHpA | 398460.4 | 3.268033 | 588,067.00 | 3.259967 | 68 | 50 - 150 | 0.0081 | +/-0.50 | |
| M8PFOA | 404155.6 | 3.542133 | 549,106.00 | 3.526183 | 74 | 50 - 150 | 0.0160 | +/-0.50 | |
| M8PFOS | 63964.66 | 3.724233 | 85,384.00 | 3.7163 | 75 | 50 - 150 | 0.0079 | +/-0.50 | |
| M9PFNA | 293718.2 | 3.725233 | 405,363.00 | 3.717283 | 72 | 50 - 150 | 0.0079 | +/-0.50 | |
| MPFDoA | 495768.2 | 4.169283 | 654,493.00 | 4.161233 | 76 | 50 - 150 | 0.0080 | +/-0.50 | |
| d5-NEtFOSAA | 133491.4 | 4.04145 | 177,010.00 | 4.033467 | 75 | 50 - 150 | 0.0080 | +/-0.50 | |
| d3-NMeFOSAA | 162220.1 | 3.961867 | 211,359.00 | 3.9539 | 77 | 50 - 150 | 0.0080 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-4 (21G1719-04 )** | | | Lab File ID: 21G1719-04.d | | | Analyzed: 08/03/21 18:52 | | | |
| M8FOSA | 184494.5 | 4.060534 | 243,244.00 | 4.04455 | 76 | 50 - 150 | 0.0160 | +/-0.50 | |
| M2-4:2FTS | 83506 | 2.644867 | 133,406.00 | 2.644883 | 63 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 724086.3 | 4.41095 | 968,873.00 | 4.402833 | 75 | 50 - 150 | 0.0081 | +/-0.50 | |
| M2-8:2FTS | 70273.02 | 3.883083 | 87,401.00 | 3.8751 | 80 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFBA | 239667.8 | 1.13325 | 341,430.00 | 1.12495 | 70 | 50 - 150 | 0.0083 | +/-0.50 | |
| M3HFPO-DA | 119117.9 | 2.954083 | 163,330.00 | 2.945983 | 73 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 334697.3 | 3.8836 | 436,107.00 | 3.875633 | 77 | 50 - 150 | 0.0080 | +/-0.50 | |
| M3PFBS | 89030.07 | 2.02765 | 122,777.00 | 2.019367 | 73 | 50 - 150 | 0.0083 | +/-0.50 | |
| M7PFUnA | 493189.9 | 4.033983 | 638,831.00 | 4.026 | 77 | 50 - 150 | 0.0080 | +/-0.50 | |
| M2-6:2FTS | 88144.41 | 3.525617 | 76,818.00 | 3.517633 | 115 | 50 - 150 | 0.0080 | +/-0.50 | |
| M5PFPeA | 262289.4 | 1.8328 | 361,973.00 | 1.8328 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 432680.5 | 2.73905 | 601,946.00 | 2.730883 | 72 | 50 - 150 | 0.0082 | +/-0.50 | |
| M3PFHxS | 66197.97 | 3.30035 | 89,712.00 | 3.292317 | 74 | 50 - 150 | 0.0080 | +/-0.50 | |
| M4PFHpA | 414455.8 | 3.26805 | 588,067.00 | 3.259967 | 70 | 50 - 150 | 0.0081 | +/-0.50 | |
| M8PFOA | 398569.7 | 3.542133 | 549,106.00 | 3.526183 | 73 | 50 - 150 | 0.0160 | +/-0.50 | |
| M8PFOS | 62044.99 | 3.72425 | 85,384.00 | 3.7163 | 73 | 50 - 150 | 0.0080 | +/-0.50 | |
| M9PFNA | 296419.6 | 3.725233 | 405,363.00 | 3.717283 | 73 | 50 - 150 | 0.0079 | +/-0.50 | |
| MPFDoA | 508207.5 | 4.1693 | 654,493.00 | 4.161233 | 78 | 50 - 150 | 0.0081 | +/-0.50 | |
| d5-NEtFOSAA | 130232.9 | 4.041467 | 177,010.00 | 4.033467 | 74 | 50 - 150 | 0.0080 | +/-0.50 | |
| d3-NMeFOSAA | 163535.6 | 3.961883 | 211,359.00 | 3.9539 | 77 | 50 - 150 | 0.0080 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-5 (21G1719-05 )** | | | Lab File ID: 21G1719-05.d | | | Analyzed: 08/03/21 18:59 | | | |
| M8FOSA | 203275 | 4.060534 | 243,244.00 | 4.04455 | 84 | 50 - 150 | 0.0160 | +/-0.50 | |
| M2-4:2FTS | 95502.04 | 2.6531 | 133,406.00 | 2.644883 | 72 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 820116.1 | 4.410933 | 968,873.00 | 4.402833 | 85 | 50 - 150 | 0.0081 | +/-0.50 | |
| M2-8:2FTS | 84985.21 | 3.883067 | 87,401.00 | 3.8751 | 97 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFBA | 268596.7 | 1.13325 | 341,430.00 | 1.12495 | 79 | 50 - 150 | 0.0083 | +/-0.50 | |
| M3HFPO-DA | 128915.8 | 2.962217 | 163,330.00 | 2.945983 | 79 | 50 - 150 | 0.0162 | +/-0.50 | |
| M6PFDA | 379397.7 | 3.8836 | 436,107.00 | 3.875633 | 87 | 50 - 150 | 0.0080 | +/-0.50 | |
| M3PFBS | 98311.89 | 2.02765 | 122,777.00 | 2.019367 | 80 | 50 - 150 | 0.0083 | +/-0.50 | |
| M7PFUnA | 562242 | 4.033983 | 638,831.00 | 4.026 | 88 | 50 - 150 | 0.0080 | +/-0.50 | |
| M2-6:2FTS | 116850.4 | 3.525617 | 76,818.00 | 3.517633 | 152 | 50 - 150 | 0.0080 | +/-0.50 | * |
| M5PFPeA | 287325.1 | 1.8411 | 361,973.00 | 1.8328 | 79 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 471068.2 | 2.73905 | 601,946.00 | 2.730883 | 78 | 50 - 150 | 0.0082 | +/-0.50 | |
| M3PFHxS | 69361.56 | 3.30035 | 89,712.00 | 3.292317 | 77 | 50 - 150 | 0.0080 | +/-0.50 | |
| M4PFHpA | 440140.5 | 3.268033 | 588,067.00 | 3.259967 | 75 | 50 - 150 | 0.0081 | +/-0.50 | |
| M8PFOA | 456276.7 | 3.542133 | 549,106.00 | 3.526183 | 83 | 50 - 150 | 0.0160 | +/-0.50 | |
| M8PFOS | 68045.35 | 3.72425 | 85,384.00 | 3.7163 | 80 | 50 - 150 | 0.0080 | +/-0.50 | |
| M9PFNA | 343743.2 | 3.72525 | 405,363.00 | 3.717283 | 85 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFDoA | 587127.7 | 4.17735 | 654,493.00 | 4.161233 | 90 | 50 - 150 | 0.0161 | +/-0.50 | |
| d5-NEtFOSAA | 158569.1 | 4.04145 | 177,010.00 | 4.033467 | 90 | 50 - 150 | 0.0080 | +/-0.50 | |
| d3-NMeFOSAA | 186242.5 | 3.961883 | 211,359.00 | 3.9539 | 88 | 50 - 150 | 0.0080 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-6 (21G1719-06 )** | | | Lab File ID: 21G1719-06.d | | | Analyzed: 08/03/21 19:14 | | | |
| M8FOSA | 207287.1 | 4.060517 | 243,244.00 | 4.060517 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 87556.3 | 2.6531 | 133,406.00 | 2.644867 | 66 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 764808.1 | 4.410917 | 968,873.00 | 4.410917 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 76472.19 | 3.891033 | 87,401.00 | 3.88305 | 87 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFBA | 266330.8 | 1.13325 | 341,430.00 | 1.13325 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 128422.6 | 2.9622 | 163,330.00 | 2.954083 | 79 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 385909.8 | 3.883583 | 436,107.00 | 3.883583 | 88 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 97700.9 | 2.02765 | 122,777.00 | 2.02765 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 522973.4 | 4.033967 | 638,831.00 | 4.033967 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 107849.5 | 3.525617 | 76,818.00 | 3.5256 | 140 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 286163.8 | 1.8411 | 361,973.00 | 1.8328 | 79 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 472812.2 | 2.73905 | 601,946.00 | 2.73905 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 73641.74 | 3.30035 | 89,712.00 | 3.300333 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 463958.5 | 3.268033 | 588,067.00 | 3.268033 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 458014 | 3.542133 | 549,106.00 | 3.542133 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 68617.05 | 3.724233 | 85,384.00 | 3.724233 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 336553.7 | 3.725233 | 405,363.00 | 3.725233 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 548663.8 | 4.17735 | 654,493.00 | 4.169267 | 84 | 50 - 150 | 0.0081 | +/-0.50 | |
| d5-NEtFOSAA | 145066.5 | 4.041433 | 177,010.00 | 4.041433 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 173416.8 | 3.961867 | 211,359.00 | 3.961867 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-7 (21G1719-07 )** | | | Lab File ID: 21G1719-07.d | | | Analyzed: 08/03/21 19:21 | | | |
| M8FOSA | 181062 | 4.060534 | 243,244.00 | 4.060517 | 74 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 81720.45 | 2.6531 | 133,406.00 | 2.644867 | 61 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 706421.3 | 4.410933 | 968,873.00 | 4.410917 | 73 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 63951.34 | 3.89105 | 87,401.00 | 3.88305 | 73 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFBA | 245516.3 | 1.13325 | 341,430.00 | 1.13325 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 114730 | 2.9622 | 163,330.00 | 2.954083 | 70 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 341131.1 | 3.883583 | 436,107.00 | 3.883583 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 88194.59 | 2.02765 | 122,777.00 | 2.02765 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 486472 | 4.033983 | 638,831.00 | 4.033967 | 76 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 91971.35 | 3.5256 | 76,818.00 | 3.5256 | 120 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 264823.1 | 1.8411 | 361,973.00 | 1.8328 | 73 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 431144.1 | 2.73905 | 601,946.00 | 2.73905 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 63747.98 | 3.300333 | 89,712.00 | 3.300333 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 419871.7 | 3.268033 | 588,067.00 | 3.268033 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 392455.6 | 3.542133 | 549,106.00 | 3.542133 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 61743.12 | 3.72425 | 85,384.00 | 3.724233 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 297662.9 | 3.725233 | 405,363.00 | 3.725233 | 73 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 499661.8 | 4.17735 | 654,493.00 | 4.169267 | 76 | 50 - 150 | 0.0081 | +/-0.50 | |
| d5-NEtFOSAA | 134976.2 | 4.04145 | 177,010.00 | 4.041433 | 76 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 156885 | 3.961867 | 211,359.00 | 3.961867 | 74 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-8 (21G1719-08 )** | | | Lab File ID: 21G1719-08.d | | | Analyzed: 08/03/21 19:28 | | | |
| M8FOSA | 205298.6 | 4.060517 | 243,244.00 | 4.060517 | 84 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 91677.2 | 2.6531 | 133,406.00 | 2.644867 | 69 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 759827.5 | 4.410917 | 968,873.00 | 4.410917 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 75331.64 | 3.891033 | 87,401.00 | 3.88305 | 86 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFBA | 262598.1 | 1.13325 | 341,430.00 | 1.13325 | 77 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 131681.8 | 2.9622 | 163,330.00 | 2.954083 | 81 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 370159.6 | 3.883583 | 436,107.00 | 3.883583 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 98212.09 | 2.02765 | 122,777.00 | 2.02765 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 533560.4 | 4.033967 | 638,831.00 | 4.033967 | 84 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 107477 | 3.5256 | 76,818.00 | 3.5256 | 140 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 286597.3 | 1.8411 | 361,973.00 | 1.8328 | 79 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 465892.5 | 2.73905 | 601,946.00 | 2.73905 | 77 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 70191.23 | 3.300333 | 89,712.00 | 3.300333 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 458120.2 | 3.268033 | 588,067.00 | 3.268033 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 432805.9 | 3.542133 | 549,106.00 | 3.542133 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 68182.85 | 3.724233 | 85,384.00 | 3.724233 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 339803.5 | 3.725233 | 405,363.00 | 3.725233 | 84 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 560155.8 | 4.17735 | 654,493.00 | 4.169267 | 86 | 50 - 150 | 0.0081 | +/-0.50 | |
| d5-NEtFOSAA | 147792.6 | 4.04145 | 177,010.00 | 4.041433 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 171953.1 | 3.961867 | 211,359.00 | 3.961867 | 81 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-9 (21G1719-09 )** | | | Lab File ID: 21G1719-09.d | | | Analyzed: 08/03/21 19:35 | | | |
| M8FOSA | 193194.1 | 4.060517 | 243,244.00 | 4.060517 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 95963.87 | 2.6531 | 133,406.00 | 2.644867 | 72 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 824215.1 | 4.410917 | 968,873.00 | 4.410917 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 94416.8 | 3.88305 | 87,401.00 | 3.88305 | 108 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 277937.7 | 1.13325 | 341,430.00 | 1.13325 | 81 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 129981.8 | 2.9622 | 163,330.00 | 2.954083 | 80 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 387042 | 3.883583 | 436,107.00 | 3.883583 | 89 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 103852.3 | 2.02765 | 122,777.00 | 2.02765 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 503753.3 | 4.033967 | 638,831.00 | 4.033967 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 96202.67 | 3.5256 | 76,818.00 | 3.5256 | 125 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 297100.2 | 1.8411 | 361,973.00 | 1.8328 | 82 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 479898.7 | 2.73905 | 601,946.00 | 2.73905 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 74672.38 | 3.300333 | 89,712.00 | 3.300333 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 472612.7 | 3.268033 | 588,067.00 | 3.268033 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 448539.8 | 3.542133 | 549,106.00 | 3.542133 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 73897.69 | 3.724233 | 85,384.00 | 3.724233 | 87 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 339830.8 | 3.725233 | 405,363.00 | 3.725233 | 84 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 628010.8 | 4.169283 | 654,493.00 | 4.169267 | 96 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 139265.2 | 4.041433 | 177,010.00 | 4.041433 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 190347.6 | 3.961867 | 211,359.00 | 3.961867 | 90 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-454 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **EQUIPMENT Blank (21G1719-10 )** | | | Lab File ID: 21G1719-10.d | | | Analyzed: 08/16/21 18:32 | | | |
| M8FOSA | 334768.2 | 4.036517 | 320,684.00 | 4.036517 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 66720.21 | 2.603583 | 131,064.00 | 2.603583 | 51 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 1311553 | 4.370283 | 1,158,456.00 | 4.370283 | 113 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 74974.02 | 3.842967 | 84,175.00 | 3.842967 | 89 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 533708.6 | 1.108317 | 511,624.00 | 1.108317 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 155061.9 | 2.921133 | 162,652.00 | 2.921133 | 95 | 50 - 150 | 0.0000 | +/-0.50 | |
| M6PFDA | 635074.3 | 3.84345 | 693,977.00 | 3.84345 | 92 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 154640.7 | 1.986217 | 153,439.00 | 1.986217 | 101 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 956667.9 | 3.993983 | 863,084.00 | 3.993983 | 111 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 52615.37 | 3.493333 | 66,612.00 | 3.493333 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 543098.8 | 1.79965 | 523,570.00 | 1.79965 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 818711.4 | 2.68875 | 786,202.00 | 2.68875 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 100089.4 | 3.2762 | 100,121.00 | 3.276217 | 100 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 805480.7 | 3.243783 | 803,096.00 | 3.243783 | 100 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 733012.3 | 3.51015 | 712,332.00 | 3.51015 | 103 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 112338.6 | 3.692083 | 117,685.00 | 3.692083 | 95 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 577281.6 | 3.693117 | 587,082.00 | 3.693117 | 98 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 1006694 | 4.128783 | 873,380.00 | 4.128783 | 115 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 231493.9 | 4.001467 | 203,824.00 | 4.001467 | 114 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 255744.9 | 3.921883 | 267,707.00 | 3.921883 | 96 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-454 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Field Blank (21G1719-11 )** | | | Lab File ID: 21G1719-11.d | | | Analyzed: 08/16/21 18:39 | | | |
| M8FOSA | 342010.5 | 4.036517 | 320,684.00 | 4.036517 | 107 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 84379.48 | 2.603583 | 131,064.00 | 2.603583 | 64 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 1262737 | 4.370283 | 1,158,456.00 | 4.370283 | 109 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 73745.25 | 3.842967 | 84,175.00 | 3.842967 | 88 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 537430.8 | 1.108317 | 511,624.00 | 1.108317 | 105 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 150528.2 | 2.921133 | 162,652.00 | 2.921133 | 93 | 50 - 150 | 0.0000 | +/-0.50 | |
| M6PFDA | 678005.8 | 3.84345 | 693,977.00 | 3.84345 | 98 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 156717.1 | 1.986217 | 153,439.00 | 1.986217 | 102 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 928038.1 | 3.993983 | 863,084.00 | 3.993983 | 108 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 52939.14 | 3.493333 | 66,612.00 | 3.493333 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 549660.9 | 1.79965 | 523,570.00 | 1.79965 | 105 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 820190.3 | 2.68875 | 786,202.00 | 2.68875 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 104208.1 | 3.276217 | 100,121.00 | 3.276217 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 824319.9 | 3.243783 | 803,096.00 | 3.243783 | 103 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 765940.8 | 3.51015 | 712,332.00 | 3.51015 | 108 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 115033.2 | 3.692083 | 117,685.00 | 3.692083 | 98 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 600976.3 | 3.693117 | 587,082.00 | 3.693117 | 102 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 975196.1 | 4.128783 | 873,380.00 | 4.128783 | 112 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 224386.4 | 4.00145 | 203,824.00 | 4.001467 | 110 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 251627.7 | 3.921883 | 267,707.00 | 3.921883 | 94 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-454 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **RINSE WATER/DECON (21G1719-12 )** | | | Lab File ID: 21G1719-12.d | | | Analyzed: 08/16/21 18:46 | | | |
| M8FOSA | 331644.4 | 4.036517 | 320,684.00 | 4.036517 | 103 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 102670.9 | 2.603583 | 131,064.00 | 2.603583 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 1235991 | 4.370283 | 1,158,456.00 | 4.370283 | 107 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 79571.94 | 3.842967 | 84,175.00 | 3.842967 | 95 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 538327.3 | 1.108317 | 511,624.00 | 1.108317 | 105 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 151058.2 | 2.921133 | 162,652.00 | 2.921133 | 93 | 50 - 150 | 0.0000 | +/-0.50 | |
| M6PFDA | 699306.8 | 3.84345 | 693,977.00 | 3.84345 | 101 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 160237.7 | 1.986217 | 153,439.00 | 1.986217 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 885517.7 | 3.993983 | 863,084.00 | 3.993983 | 103 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 51700.23 | 3.493333 | 66,612.00 | 3.493333 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 554165.8 | 1.79965 | 523,570.00 | 1.79965 | 106 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 833308.1 | 2.68875 | 786,202.00 | 2.68875 | 106 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 111265.7 | 3.2762 | 100,121.00 | 3.276217 | 111 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 834160.9 | 3.243783 | 803,096.00 | 3.243783 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 761488.6 | 3.51015 | 712,332.00 | 3.51015 | 107 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 118770.6 | 3.692067 | 117,685.00 | 3.692083 | 101 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 609544.7 | 3.693117 | 587,082.00 | 3.693117 | 104 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 922415.8 | 4.128783 | 873,380.00 | 4.128783 | 106 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 230075.8 | 4.00145 | 203,824.00 | 4.001467 | 113 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 267707.6 | 3.921883 | 267,707.00 | 3.921883 | 100 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-454 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Trip Blank (21G1719-13 )** | | | Lab File ID: 21G1719-13.d | | | Analyzed: 08/16/21 19:01 | | | |
| M8FOSA | 360558.2 | 4.036517 | 320,684.00 | 4.036517 | 112 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 137293.6 | 2.603583 | 131,064.00 | 2.603583 | 105 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 1293389 | 4.370283 | 1,158,456.00 | 4.370283 | 112 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 90987.71 | 3.842967 | 84,175.00 | 3.842967 | 108 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 555892.8 | 1.108317 | 511,624.00 | 1.108317 | 109 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 157546.2 | 2.921133 | 162,652.00 | 2.921133 | 97 | 50 - 150 | 0.0000 | +/-0.50 | |
| M6PFDA | 699089.7 | 3.84345 | 693,977.00 | 3.84345 | 101 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 164121.4 | 1.986217 | 153,439.00 | 1.986217 | 107 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 910922.3 | 3.993983 | 863,084.00 | 3.993983 | 106 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 73078.33 | 3.493333 | 66,612.00 | 3.493333 | 110 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 571172.8 | 1.79965 | 523,570.00 | 1.79965 | 109 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 862812 | 2.68875 | 786,202.00 | 2.68875 | 110 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 105328 | 3.2762 | 100,121.00 | 3.276217 | 105 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 847639.1 | 3.243783 | 803,096.00 | 3.243783 | 106 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 760361.9 | 3.51015 | 712,332.00 | 3.51015 | 107 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 114405.5 | 3.692067 | 117,685.00 | 3.692083 | 97 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 594519 | 3.693117 | 587,082.00 | 3.693117 | 101 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 1013430 | 4.128783 | 873,380.00 | 4.128783 | 116 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 228788.8 | 4.00145 | 203,824.00 | 4.001467 | 112 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 264487.1 | 3.921883 | 267,707.00 | 3.921883 | 99 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **S-1 (DUPLICATE) (21G1719-14 )** | | | Lab File ID: 21G1719-14.d | | | Analyzed: 08/03/21 19:42 | | | |
| M8FOSA | 212979.2 | 4.060517 | 243,244.00 | 4.060517 | 88 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 94053.18 | 2.6531 | 133,406.00 | 2.644867 | 71 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 825665.7 | 4.419116 | 968,873.00 | 4.410917 | 85 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2-8:2FTS | 78841.16 | 3.891033 | 87,401.00 | 3.88305 | 90 | 50 - 150 | 0.0080 | +/-0.50 | |
| MPFBA | 285496 | 1.13325 | 341,430.00 | 1.13325 | 84 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 140890.3 | 2.9622 | 163,330.00 | 2.954083 | 86 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 388094.7 | 3.883583 | 436,107.00 | 3.883583 | 89 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 102163.4 | 2.02765 | 122,777.00 | 2.02765 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 552204.3 | 4.033967 | 638,831.00 | 4.033967 | 86 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 103945 | 3.5256 | 76,818.00 | 3.5256 | 135 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 311521.4 | 1.8411 | 361,973.00 | 1.8328 | 86 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 502548.5 | 2.73905 | 601,946.00 | 2.73905 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 72880.48 | 3.300333 | 89,712.00 | 3.300333 | 81 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 485704.7 | 3.268033 | 588,067.00 | 3.268033 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 466977.9 | 3.542133 | 549,106.00 | 3.542133 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 70109.42 | 3.724233 | 85,384.00 | 3.724233 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 345255.7 | 3.725233 | 405,363.00 | 3.725233 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 599807.5 | 4.17735 | 654,493.00 | 4.169267 | 92 | 50 - 150 | 0.0081 | +/-0.50 | |
| d5-NEtFOSAA | 168466.6 | 4.041433 | 177,010.00 | 4.041433 | 95 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 197116.3 | 3.961867 | 211,359.00 | 3.961867 | 93 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Blank (B287163-BLK1 )** | | | Lab File ID: B287163-BLK1.d | | | Analyzed: 08/03/21 17:33 | | | |
| M8FOSA | 206041.5 | 4.04455 | 243,244.00 | 4.04455 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 124290 | 2.644867 | 133,406.00 | 2.644883 | 93 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 711089.1 | 4.402817 | 968,873.00 | 4.402833 | 73 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 83216.27 | 3.8751 | 87,401.00 | 3.8751 | 95 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 276667 | 1.12495 | 341,430.00 | 1.12495 | 81 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 133047.1 | 2.9541 | 163,330.00 | 2.945983 | 81 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 379871.3 | 3.875617 | 436,107.00 | 3.875633 | 87 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 100897.9 | 2.019367 | 122,777.00 | 2.019367 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 528387.9 | 4.026 | 638,831.00 | 4.026 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 108954.7 | 3.517633 | 76,818.00 | 3.517633 | 142 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 298688.1 | 1.8328 | 361,973.00 | 1.8328 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 494042.7 | 2.730867 | 601,946.00 | 2.730883 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 72148.66 | 3.292317 | 89,712.00 | 3.292317 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 469499.8 | 3.259967 | 588,067.00 | 3.259967 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 456282.8 | 3.526167 | 549,106.00 | 3.526183 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 68685.08 | 3.716283 | 85,384.00 | 3.7163 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 333569.6 | 3.717283 | 405,363.00 | 3.717283 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 553088 | 4.161217 | 654,493.00 | 4.161233 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 128101.5 | 4.033467 | 177,010.00 | 4.033467 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 152818.3 | 3.953883 | 211,359.00 | 3.9539 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **LCS (B287163-BS1 )** | | | Lab File ID: B287163-BS1.d | | | Analyzed: 08/03/21 17:26 | | | |
| M8FOSA | 187226.6 | 4.044533 | 243,244.00 | 4.04455 | 77 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 111226.4 | 2.644867 | 133,406.00 | 2.644883 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 653181.7 | 4.4028 | 968,873.00 | 4.402833 | 67 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 71609.02 | 3.875083 | 87,401.00 | 3.8751 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 240705.5 | 1.12495 | 341,430.00 | 1.12495 | 70 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 125183.1 | 2.954083 | 163,330.00 | 2.945983 | 77 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 319240.7 | 3.8756 | 436,107.00 | 3.875633 | 73 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 87225.83 | 2.019367 | 122,777.00 | 2.019367 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 459206.1 | 4.025983 | 638,831.00 | 4.026 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 87846.1 | 3.517633 | 76,818.00 | 3.517633 | 114 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 259557.1 | 1.832817 | 361,973.00 | 1.8328 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 432953 | 2.730867 | 601,946.00 | 2.730883 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 64811.69 | 3.292317 | 89,712.00 | 3.292317 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 423505.1 | 3.259967 | 588,067.00 | 3.259967 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 397506.8 | 3.52615 | 549,106.00 | 3.526183 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 61526.23 | 3.716283 | 85,384.00 | 3.7163 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 291710.6 | 3.717267 | 405,363.00 | 3.717283 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 484904.1 | 4.161217 | 654,493.00 | 4.161233 | 74 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 118913.1 | 4.03345 | 177,010.00 | 4.033467 | 67 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 142208 | 3.953883 | 211,359.00 | 3.9539 | 67 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix Spike (B287163-MS1 )** | | | Lab File ID: B287163-MS1.d | | | Analyzed: 08/03/21 17:40 | | | |
| M8FOSA | 173832.2 | 4.044533 | 243,244.00 | 4.04455 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 84018.02 | 2.644867 | 133,406.00 | 2.644883 | 63 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 699448.8 | 4.402783 | 968,873.00 | 4.402833 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 59891.75 | 3.875067 | 87,401.00 | 3.8751 | 69 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 232299 | 1.12495 | 341,430.00 | 1.12495 | 68 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 124835.1 | 2.954083 | 163,330.00 | 2.945983 | 76 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 330374.8 | 3.8756 | 436,107.00 | 3.875633 | 76 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 85375.49 | 2.019367 | 122,777.00 | 2.019367 | 70 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 453527.3 | 4.025967 | 638,831.00 | 4.026 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 75028.24 | 3.517617 | 76,818.00 | 3.517633 | 98 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 254599.4 | 1.8328 | 361,973.00 | 1.8328 | 70 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 424447.8 | 2.730867 | 601,946.00 | 2.730883 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 62332.36 | 3.2923 | 89,712.00 | 3.292317 | 69 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 408665.3 | 3.25995 | 588,067.00 | 3.259967 | 69 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 385178 | 3.52615 | 549,106.00 | 3.526183 | 70 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 58817.86 | 3.716267 | 85,384.00 | 3.7163 | 69 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 291927.1 | 3.71725 | 405,363.00 | 3.717283 | 72 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 480079.7 | 4.1612 | 654,493.00 | 4.161233 | 73 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 125616.2 | 4.03345 | 177,010.00 | 4.033467 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 150167.1 | 3.953867 | 211,359.00 | 3.9539 | 71 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-466 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix Spike Dup (B287163-MSD1 )** | | | Lab File ID: B287163-MSD1.d | | | Analyzed: 08/03/21 17:47 | | | |
| M8FOSA | 189454.3 | 4.04455 | 243,244.00 | 4.04455 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 96814.23 | 2.644867 | 133,406.00 | 2.644883 | 73 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 796250.2 | 4.402817 | 968,873.00 | 4.402833 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 76847.2 | 3.8751 | 87,401.00 | 3.8751 | 88 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 264356 | 1.12495 | 341,430.00 | 1.12495 | 77 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3HFPO-DA | 125924.4 | 2.954083 | 163,330.00 | 2.945983 | 77 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 370180.4 | 3.875617 | 436,107.00 | 3.875633 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 100231.6 | 2.019367 | 122,777.00 | 2.019367 | 82 | 50 - 150 | 0.0000 | +/-0.50 | |
| M7PFUnA | 527908.8 | 4.026 | 638,831.00 | 4.026 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 95240.22 | 3.517633 | 76,818.00 | 3.517633 | 124 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 288095.6 | 1.8328 | 361,973.00 | 1.8328 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 473982.7 | 2.730867 | 601,946.00 | 2.730883 | 79 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFHxS | 72026.51 | 3.292317 | 89,712.00 | 3.292317 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 468748.6 | 3.259967 | 588,067.00 | 3.259967 | 80 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 435116.8 | 3.53415 | 549,106.00 | 3.526183 | 79 | 50 - 150 | 0.0080 | +/-0.50 | |
| M8PFOS | 66592.98 | 3.716283 | 85,384.00 | 3.7163 | 78 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 328313.2 | 3.717283 | 405,363.00 | 3.717283 | 81 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 557157.8 | 4.161217 | 654,493.00 | 4.161233 | 85 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 143689.1 | 4.033467 | 177,010.00 | 4.033467 | 81 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 176099.3 | 3.953883 | 211,359.00 | 3.9539 | 83 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-454 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Blank (B287200-BLK1 )** | | | Lab File ID: B287200-BLK1.d | | | Analyzed: 08/04/21 17:56 | | | |
| M8FOSA | 269423.9 | 4.060517 | 248,493.00 | 4.060534 | 108 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 90875.3 | 2.644867 | 163,597.00 | 2.644867 | 56 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2PFTA | 1110183 | 4.410917 | 998,724.00 | 4.410933 | 111 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 80810.3 | 3.883067 | 115,617.00 | 3.883067 | 70 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 398557.2 | 1.133267 | 343,378.00 | 1.12495 | 116 | 50 - 150 | 0.0083 | +/-0.50 | |
| M3HFPO-DA | 143676.8 | 2.954083 | 145,394.00 | 2.9541 | 99 | 50 - 150 | 0.0000 | +/-0.50 | |
| M6PFDA | 563306.3 | 3.883583 | 474,510.00 | 3.883583 | 119 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 148749.1 | 2.02765 | 117,437.00 | 2.019367 | 127 | 50 - 150 | 0.0083 | +/-0.50 | |
| M7PFUnA | 781228 | 4.033983 | 674,016.00 | 4.033983 | 116 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 110394.4 | 3.525617 | 92,739.00 | 3.525617 | 119 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 445206.7 | 1.832817 | 358,286.00 | 1.832817 | 124 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFHxA | 715643.4 | 2.73905 | 574,512.00 | 2.730867 | 125 | 50 - 150 | 0.0082 | +/-0.50 | |
| M3PFHxS | 99738.84 | 3.30035 | 85,585.00 | 3.30035 | 117 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 691952.3 | 3.268033 | 581,590.00 | 3.268033 | 119 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 662530.6 | 3.53415 | 527,665.00 | 3.53415 | 126 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 98437.3 | 3.724233 | 81,051.00 | 3.72425 | 121 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 497652.8 | 3.725233 | 413,293.00 | 3.725233 | 120 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 789865.4 | 4.169283 | 669,015.00 | 4.169283 | 118 | 50 - 150 | 0.0000 | +/-0.50 | |
| d5-NEtFOSAA | 218192.3 | 4.04145 | 197,822.00 | 4.04145 | 110 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 258477 | 3.961867 | 226,465.00 | 3.961867 | 114 | 50 - 150 | 0.0000 | +/-0.50 | |

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**INTERNAL STANDARD AREA AND RT SUMMARY**

**SOP-454 PFAS**

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **LCS (B287200-BS1 )** | | | Lab File ID: B287200-BS1.d | | | Analyzed: 08/04/21 17:49 | | | |
| M8FOSA | 259739.6 | 4.060534 | 248,493.00 | 4.060534 | 105 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-4:2FTS | 127613.8 | 2.653117 | 163,597.00 | 2.644867 | 78 | 50 - 150 | 0.0082 | +/-0.50 | |
| M2PFTA | 1116395 | 4.410933 | 998,724.00 | 4.410933 | 112 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-8:2FTS | 89507.59 | 3.883083 | 115,617.00 | 3.883067 | 77 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFBA | 379269.8 | 1.141567 | 343,378.00 | 1.12495 | 110 | 50 - 150 | 0.0166 | +/-0.50 | |
| M3HFPO-DA | 158150.1 | 2.962217 | 145,394.00 | 2.9541 | 109 | 50 - 150 | 0.0081 | +/-0.50 | |
| M6PFDA | 520665.8 | 3.8836 | 474,510.00 | 3.883583 | 110 | 50 - 150 | 0.0000 | +/-0.50 | |
| M3PFBS | 143115.1 | 2.02765 | 117,437.00 | 2.019367 | 122 | 50 - 150 | 0.0083 | +/-0.50 | |
| M7PFUnA | 787226.1 | 4.033983 | 674,016.00 | 4.033983 | 117 | 50 - 150 | 0.0000 | +/-0.50 | |
| M2-6:2FTS | 135640.5 | 3.525633 | 92,739.00 | 3.525617 | 146 | 50 - 150 | 0.0000 | +/-0.50 | |
| M5PFPeA | 429129.2 | 1.8411 | 358,286.00 | 1.832817 | 120 | 50 - 150 | 0.0083 | +/-0.50 | |
| M5PFHxA | 717895.8 | 2.73905 | 574,512.00 | 2.730867 | 125 | 50 - 150 | 0.0082 | +/-0.50 | |
| M3PFHxS | 100140.9 | 3.30035 | 85,585.00 | 3.30035 | 117 | 50 - 150 | 0.0000 | +/-0.50 | |
| M4PFHpA | 661836.6 | 3.26805 | 581,590.00 | 3.268033 | 114 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOA | 644471.6 | 3.534167 | 527,665.00 | 3.53415 | 122 | 50 - 150 | 0.0000 | +/-0.50 | |
| M8PFOS | 97901.34 | 3.72425 | 81,051.00 | 3.72425 | 121 | 50 - 150 | 0.0000 | +/-0.50 | |
| M9PFNA | 497527.7 | 3.72525 | 413,293.00 | 3.725233 | 120 | 50 - 150 | 0.0000 | +/-0.50 | |
| MPFDoA | 784348.6 | 4.177367 | 669,015.00 | 4.169283 | 117 | 50 - 150 | 0.0081 | +/-0.50 | |
| d5-NEtFOSAA | 212258.3 | 4.041467 | 197,822.00 | 4.04145 | 107 | 50 - 150 | 0.0000 | +/-0.50 | |
| d3-NMeFOSAA | 253285.8 | 3.961883 | 226,465.00 | 3.961867 | 112 | 50 - 150 | 0.0000 | +/-0.50 | |

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

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SOP-454 PFAS in Water*** | |
| Perfluorobutanoic acid (PFBA) | NH-P |
| Perfluorobutanesulfonic acid (PFBS) | NH-P |
| Perfluoropentanoic acid (PFPeA) | NH-P |
| Perfluorohexanoic acid (PFHxA) | NH-P |
| 11Cl-PF3OUdS (F53B Minor) | NH-P |
| 9Cl-PF3ONS (F53B Major) | NH-P |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | NH-P |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | NH-P |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | NH-P |
| Perfluorodecanoic acid (PFDA) | NH-P |
| Perfluorododecanoic acid (PFDoA) | NH-P |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NH-P |
| Perfluoroheptanesulfonic acid (PFHpS) | NH-P |
| N-EtFOSAA | NH-P |
| N-MeFOSAA | NH-P |
| Perfluorotetradecanoic acid (PFTA) | NH-P |
| Perfluorotridecanoic acid (PFTrDA) | NH-P |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | NH-P |
| Perfluorodecanesulfonic acid (PFDS) | NH-P |
| Perfluorooctanesulfonamide (FOSA) | NH-P |
| Perfluorononanesulfonic acid (PFNS) | NH-P |
| Perfluoro-1-hexanesulfonamide (FHxSA) | NH-P |
| Perfluoro-1-butanesulfonamide (FBSA) | NH-P |
| Perfluorohexanesulfonic acid (PFHxS) | NH-P |
| Perfluoro-4-oxapentanoic acid (PFMPA) | NH-P |
| Perfluoro-5-oxahexanoic acid (PFMBA) | NH-P |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | NH-P |
| Perfluoropetanesulfonic acid (PFPeS) | NH-P |
| Perfluoroundecanoic acid (PFUnA) | NH-P |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | NH-P |
| Perfluoroheptanoic acid (PFHpA) | NH-P |
| Perfluorooctanoic acid (PFOA) | NH-P |
| Perfluorooctanesulfonic acid (PFOS) | NH-P |
| Perfluorononanoic acid (PFNA) | NH-P |
| ***SOP-466 PFAS in Soil*** | |
| Perfluorobutanoic acid (PFBA) | NH-P |
| Perfluorobutanesulfonic acid (PFBS) | NH-P |
| Perfluoropentanoic acid (PFPeA) | NH-P |
| Perfluorohexanoic acid (PFHxA) | NH-P |
| 11Cl-PF3OUdS (F53B Minor) | NH-P |
| 9Cl-PF3ONS (F53B Major) | NH-P |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | NH-P |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | NH-P |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | NH-P |
| Perfluorodecanoic acid (PFDA) | NH-P |
| Perfluorododecanoic acid (PFDoA) | NH-P |

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

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SOP-466 PFAS in Soil*** | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NH-P |
| Perfluoroheptanesulfonic acid (PFHpS) | NH-P |
| N-EtFOSAA | NH-P |
| N-MeFOSAA | NH-P |
| Perfluorotetradecanoic acid (PFTA) | NH-P |
| Perfluorotridecanoic acid (PFTrDA) | NH-P |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | NH-P |
| Perfluorodecanesulfonic acid (PFDS) | NH-P |
| Perfluorooctanesulfonamide (FOSA) | NH-P |
| Perfluorononanesulfonic acid (PFNS) | NH-P |
| Perfluoro-1-hexanesulfonamide (FHxSA) | NH-P |
| Perfluoro-1-butanesulfonamide (FBSA) | NH-P |
| Perfluorohexanesulfonic acid (PFHxS) | NH-P |
| Perfluoro-4-oxapentanoic acid (PFMPA) | NH-P |
| Perfluoro-5-oxahexanoic acid (PFMBA) | NH-P |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | NH-P |
| Perfluoropetanesulfonic acid (PFPeS) | NH-P |
| Perfluoroundecanoic acid (PFUnA) | NH-P |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | NH-P |
| Perfluoroheptanoic acid (PFHpA) | NH-P |
| Perfluorooctanoic acid (PFOA) | NH-P |
| Perfluorooctanesulfonic acid (PFOS) | NH-P |
| Perfluorononanoic acid (PFNA) | NH-P |

Con-Test, a Pace 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 | 06/30/2022 |
| CT | Connecticut Department of Publilc Health | PH-0165 | 12/31/2022 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2022 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2022 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2021 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2021 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2022 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2022 |
| VT | Vermont Department of Health Lead Laboratory | LL720741 | 07/30/2022 |
| ME | State of Maine | MA00100 | 06/9/2023 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2021 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2021 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2022 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2022 |
| PA | Commonwealth of Pennsylvania DEP | 68-05812 | 06/30/2022 |
| MI | Dept. of Env, Great Lakes, and Energy | 9100 | 09/6/2021 |

2167719

http://www.contestlabs.com

Doc # 381 Rev 2_06262019

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 2

| | |
|---|---|
| Company Name: | Tighe & Bond |
| Address: | 120 Front Street, Worcester, MA 01608 |
| Phone: | 508-754-2201 |
| Project Name: | Princeton Residential ~~MW~~ Sampling |
| Project Location: | 22 Houghton, Princeton, MA |
| Project Number: | P-0534 |
| Project Manager: | M. Scherer |
| Con-Test Quote Name/Number: | |
| Invoice Recipient: | Tighe & Bond |
| Sampled By: | M. Scherer |

**Requested Turnaround Time**: 7-Day ☐ 10-Day ☑ PFAS 10-Day (std) ☐ Due Date:

**Rush-Approval Required**: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐

**Dissolved Metals Samples**: ○ Field Filtered ○ Lab to Filter

**Orthophosphate Samples**: ○ Field Filtered ○ Lab to Filter

**Data Delivery**: Format: PDF ☑ EXCEL ☑ Other: CLP Like Data Pkg Required: ☐ Email To: Fax To #:

ANALYSIS REQUESTED

| Con-Test Work Order# | Client Sample ID / Description | Beginning Date/Time | Ending Date/Time | COMP/GRAB | [1]Matrix Code | Conc Code | VIALS | GLASS | PLASTIC | BACTERIA | ENCORE | PFAS ISOTOPE DILUTION METH. | [2] Preservation Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S-1 | 7/29/21 | 0915 | GRAB | Sw | U | | | 1 | | | X | |
| 2 | S-2 | | 0930 | | | | | | | | | X | |
| 3 | S-3 | | 0945 | | | | | | | | | X | |
| 4 | S-4 | | 1000 | | | | | | | | | X | |
| 5 | S-5 | | 1015 | | | | | | | | | X | |
| 6 | S-6 | | 1030 | | | | | | | | | X | |
| 7 | S-7 | | 1045 | | | | | | | | | X | |
| 8 | S-8 | | 1100 | | | | | | | | | X | |
| 9 | S-9 | | 1115 | | | | | | | | | X | |
| 10 | Equipement Blank | 7/29/21 | 0945 | — | — | | | | | | | X | |

Courier Use Only: Total Number Of: 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

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) ___

[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) ___

| Relinquished by: (signature) | Date/Time: |
|---|---|
| [signature] | 7/29/21 1500 |
| Received by: (signature) | Date/Time: |
| [signature] Fedex | 7/29/21 4:26 PM |
| Relinquished by: (signature) | Date/Time: |
| [signature] Fedex | 7/29/21 6:02 PM |
| Received by: (signature) | Date/Time: |
| [signature] 2.0 | 7/29/21 1902 |
| Relinquished by: (signature) | Date/Time: |
| | |
| Received by: (signature) | Date/Time: |
| | |
| Relinquished by: (signature) | Date/Time: |
| | |
| Received by: (signature) | Date/Time: |
| | |

Client Comments:

**Detection Limit Requirements**: MA ___ CT ___ Other: ___

**Special Requirements**:
☑ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ 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

Project Entity: Government ☐ Municipality ☐ MWRA ☐ WRTA ☐ Federal ☐ 21 J ☐ School ☐ City ☐ Brownfield ☐ MBTA ☐

Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

PCB ONLY: ☐ Soxhlet ☐ Non Soxhlet

Lab 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.



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Doc # 381 Rev 2_06262019

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
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Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 2 of 2

| | |
|---|---|
| Company Name: | Tighe & Bond |
| Address: | 120 Front Street, Worcester, MA 01608 |
| Phone: | 508-754-2201 |
| Project Name: | Princeton Residential Well Sampling |
| Project Location: | 22 Mountain, Princeton, MA |
| Project Number: | P-0534 |
| Project Manager: | M. Scherer |
| Con-Test Quote Name/Number: | |
| Invoice Recipient: | Tighe & Bond |
| Sampled By: | M. Scherer |

**Requested Turnaround Time**: 7-Day ☐ 10-Day ☑ PFAS 10-Day (std) ☐ Due Date:

**Rush-Approval Required**: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐

**Dissolved Metals Samples**: ○ Field Filtered ○ Lab to Filter

**Orthophosphate Samples**: ○ Field Filtered ○ Lab to Filter

**Data Delivery**: Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

| Con-Test Work Order# | Client Sample ID / Description | Beginning Date/Time | Ending Date/Time | COMP/GRAB | [1]Matrix Code | Conc Code | VIALS | GLASS | PLASTIC | BACTERIA | ENCORE | Acetone/Methanol | PFAS Isotop Dilution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | Field Blank | 7/27/21 | 1000 | GRAB | ~~SW~~ | U | | | 1 | | | | X |
| 12 | Rinse Water/Decon | ↓ | 1000 | ↓ | — | ↓ | | | 1 | | | | X |
| 13 | Trip Blank | ↓ | — | ↓ | — | ↓ | | | 1 | | | | X |
| 14 | S-1 (Duplicate) | 7/27/21 | 0915 | ↓ | S | ↓ | | | 1 | | | | X |

Relinquished by: (signature) [signature] Date/Time: 7/29/21 1500
Received by: (signature) A. Fraser 7/29/21 Date/Time: 4:30 PM
Relinquished by: (signature) A. Fraser 7/29/21 Date/Time: 6:02 PM
Received by: (signature) [signature] Date/Time: 7/29/21 1400
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

Client Comments:

**Detection Limit Requirements**: MA; CT; Other:

**Special Requirements**:
☑ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ 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

Project Entity: Government ☐ Municipality ☐ MWRA ☐ WRTA ☐ Federal ☐ 21 J ☐ School ☐ City ☐ Brownfield ☐ MBTA ☐

Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

PCB ONLY: ☐ Soxhlet ☐ Non Soxhlet

Lab 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.

[2] Preservation Code

Courier Use Only

Total Number Of:
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

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[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)



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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** Tighe & Bond

**Received By** CA Date 7/29/21 Time 1802

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 # 2 Actual Temp - 2.0 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~~ T EGR On COC? ~~F~~ T

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 | 14 | 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:**

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June 23, 2021

Michael Scherer
Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303

Project Location: Princeton, MA
Client Job Number:
Project Number: P-0534
Laboratory Work Order Number: 21E1683

Enclosed are results of analyses for samples received by the laboratory on May 27, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

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Tighe & Bond, Inc. - Worcester
120 Front St.
Worcester, MA 01608-2303
ATTN: Michael Scherer

REPORT DATE: 6/23/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: P-0534

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21E1683

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

PROJECT LOCATION: Princeton, MA

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| S-1 | 21E1683-01 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-2 | 21E1683-02 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-3 | 21E1683-03 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-4 | 21E1683-04 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-4 (Dup) | 21E1683-05 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-5 | 21E1683-06 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| S-6 | 21E1683-07 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| Basement-1 | 21E1683-08 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| Basement-2 | 21E1683-09 | Soil | | SM 2540G | |
| | | | | SOP-466 PFAS | |
| TB-05252021 | 21E1683-10 | Trip Blank Water | | SOP-454 PFAS | |
| Field Blank | 21E1683-11 | Field Blank | | SOP-454 PFAS | |
| EQ Blank-1 (Probe) | 21E1683-12 | Equipment Blank Water | | SOP-454 PFAS | |
| EQ Blank-2 (Shovel) | 21E1683-13 | Equipment Blank Water | | SOP-454 PFAS | |

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**CASE NARRATIVE SUMMARY**

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

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**SM 2540G**

**Qualifications:**

**R-02**

Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

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

**% Solids**
21E1683-08[Basement-1], 21E1683-09[Basement-2], B283034-DUP7, B283034-DUP8

**SOP-454 PFAS**

**Qualifications:**

**PF-05**

Opening calibration verification was within control criteria. Closing calibration verification was outside of criteria and biased on the low side. Re-analysis yielded similar non-conformance.

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

**Perfluorooctanesulfonic acid (PFO**
S060436-CCV2

**V-05**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

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

**Hexafluoropropylene oxide dimer a**
S060797-CCV3

**N-EtFOSAA**
S060797-CCV3

**Perfluoroheptanesulfonic acid (PFI**
21E1683-10[TB-05252021], 21E1683-11[Field Blank], 21E1683-12[EQ Blank-1 (Probe)], 21E1683-13[EQ Blank-2 (Shovel)], S060797-CCV1

**Perfluoroheptanoic acid (PFHpA)**
S060797-CCV3

**Perfluorooctanesulfonamide (FOS/**
21E1683-10[TB-05252021], 21E1683-11[Field Blank], 21E1683-12[EQ Blank-1 (Probe)], 21E1683-13[EQ Blank-2 (Shovel)], S060797-CCV2, S060797-CCV3, S060797-CCV4

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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

**9Cl-PF3ONS (F53B Major)**
S060797-CCV2, S060797-CCV3, S060797-CCV4

**N-EtFOSAA**
S060436-CCV2

**Perfluorooctanesulfonic acid (PFO**
S060797-CCV1, S060797-CCV2

**SOP-466 PFAS**

**Qualifications:**

**E**

Reported result is estimated. Value reported over verified calibration range.

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

**Perfluorooctanesulfonic acid (PFO**
21E1683-08[Basement-1]

**L-01**

Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

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

**N-MeFOSAA**
B283716-BS1

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**S-26**

Surrogate outside of control limits.

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

**M2PFTA**

21E1683-02[S-2]

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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

**6:2 Fluorotelomersulfonic acid (6:2**

S060872-CCV1

**N-MeFOSAA**

S060872-CCV1, S060872-CCV2

The results of analyses reported only relate to samples submitted to Con-Test, a Pace 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

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

Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-1**
Sampled: 5/25/2021 09:20

**Sample ID: 21E1683-01**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| N-EtFOSAA | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| N-MeFOSAA | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 1.1 | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 0.99 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:28 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 71.4 | 50-150 | | 6/22/21 18:28 |
| M2-4:2FTS | 77.0 | 50-150 | | 6/22/21 18:28 |
| M2PFTA | 56.2 | 50-150 | | 6/22/21 18:28 |
| M2-8:2FTS | 116 | 50-150 | | 6/22/21 18:28 |
| MPFBA | 83.6 | 50-150 | | 6/22/21 18:28 |
| M3HFPO-DA | 63.7 | 50-150 | | 6/22/21 18:28 |
| M6PFDA | 67.1 | 50-150 | | 6/22/21 18:28 |
| M3PFBS | 97.9 | 50-150 | | 6/22/21 18:28 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-1** | Sampled: 5/25/2021 09:20

**Sample ID: 21E1683-01**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 65.5 | 50-150 | | | | | 6/22/21 18:28 | |
| M2-6:2FTS | | 111 | 50-150 | | | | | 6/22/21 18:28 | |
| M5PFPeA | | 82.1 | 50-150 | | | | | 6/22/21 18:28 | |
| M5PFHxA | | 77.7 | 50-150 | | | | | 6/22/21 18:28 | |
| M3PFHxS | | 93.5 | 50-150 | | | | | 6/22/21 18:28 | |
| M4PFHpA | | 79.9 | 50-150 | | | | | 6/22/21 18:28 | |
| M8PFOA | | 82.6 | 50-150 | | | | | 6/22/21 18:28 | |
| M8PFOS | | 81.3 | 50-150 | | | | | 6/22/21 18:28 | |
| M9PFNA | | 68.9 | 50-150 | | | | | 6/22/21 18:28 | |
| MPFDoA | | 65.3 | 50-150 | | | | | 6/22/21 18:28 | |
| d5-NEtFOSAA | | 102 | 50-150 | | | | | 6/22/21 18:28 | |
| d3-NMeFOSAA | | 104 | 50-150 | | | | | 6/22/21 18:28 | |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-1**
Sampled: 5/25/2021 09:20

**Sample ID: 21E1683-01**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 87.5 | | % Wt | 1 | | SM 2540G | 5/28/21 | 5/29/21 8:03 | GLH |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-2**
Sampled: 5/25/2021 09:40

**Sample ID: 21E1683-02**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.3 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| N-EtFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| N-MeFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 1.9 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | 5.2 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorooctanoic acid (PFOA) | 1.4 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 100 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 18:57 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 78.0 | 50-150 | | 6/22/21 18:57 |
| M2-4:2FTS | 76.5 | 50-150 | | 6/22/21 18:57 |
| **M2PFTA** | **43.8** * | 50-150 | S-26 | 6/22/21 18:57 |
| M2-8:2FTS | 123 | 50-150 | | 6/22/21 18:57 |
| MPFBA | 86.4 | 50-150 | | 6/22/21 18:57 |
| M3HFPO-DA | 63.9 | 50-150 | | 6/22/21 18:57 |
| M6PFDA | 74.3 | 50-150 | | 6/22/21 18:57 |
| M3PFBS | 95.3 | 50-150 | | 6/22/21 18:57 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-2** | Sampled: 5/25/2021 09:40

**Sample ID: 21E1683-02**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 73.5 | 50-150 | | | | | 6/22/21 18:57 | |
| M2-6:2FTS | | 118 | 50-150 | | | | | 6/22/21 18:57 | |
| M5PFPeA | | 83.9 | 50-150 | | | | | 6/22/21 18:57 | |
| M5PFHxA | | 81.1 | 50-150 | | | | | 6/22/21 18:57 | |
| M3PFHxS | | 97.7 | 50-150 | | | | | 6/22/21 18:57 | |
| M4PFHpA | | 80.9 | 50-150 | | | | | 6/22/21 18:57 | |
| M8PFOA | | 85.9 | 50-150 | | | | | 6/22/21 18:57 | |
| M8PFOS | | 83.0 | 50-150 | | | | | 6/22/21 18:57 | |
| M9PFNA | | 75.9 | 50-150 | | | | | 6/22/21 18:57 | |
| MPFDoA | | 72.2 | 50-150 | | | | | 6/22/21 18:57 | |
| d5-NEtFOSAA | | 105 | 50-150 | | | | | 6/22/21 18:57 | |
| d3-NMeFOSAA | | 99.4 | 50-150 | | | | | 6/22/21 18:57 | |

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

Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-2**
Sampled: 5/25/2021 09:40

**Sample ID: 21E1683-02**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 76.5 | | % Wt | 1 | | SM 2540G | 5/28/21 | 5/29/21 8:03 | GLH |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-3** | Sampled: 5/25/2021 10:00

**Sample ID: 21E1683-03**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.3 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| N-EtFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| N-MeFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | 5.6 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 27 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:27 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 80.2 | 50-150 | | 6/22/21 19:27 |
| M2-4:2FTS | 65.0 | 50-150 | | 6/22/21 19:27 |
| M2PFTA | 65.6 | 50-150 | | 6/22/21 19:27 |
| M2-8:2FTS | 98.1 | 50-150 | | 6/22/21 19:27 |
| MPFBA | 79.6 | 50-150 | | 6/22/21 19:27 |
| M3HFPO-DA | 58.8 | 50-150 | | 6/22/21 19:27 |
| M6PFDA | 75.3 | 50-150 | | 6/22/21 19:27 |
| M3PFBS | 83.0 | 50-150 | | 6/22/21 19:27 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-3** | Sampled: 5/25/2021 10:00

**Sample ID: 21E1683-03**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 74.0 | 50-150 | | | | | 6/22/21 19:27 | |
| M2-6:2FTS | | 84.7 | 50-150 | | | | | 6/22/21 19:27 | |
| M5PFPeA | | 79.6 | 50-150 | | | | | 6/22/21 19:27 | |
| M5PFHxA | | 74.9 | 50-150 | | | | | 6/22/21 19:27 | |
| M3PFHxS | | 85.4 | 50-150 | | | | | 6/22/21 19:27 | |
| M4PFHpA | | 74.2 | 50-150 | | | | | 6/22/21 19:27 | |
| M8PFOA | | 81.7 | 50-150 | | | | | 6/22/21 19:27 | |
| M8PFOS | | 83.2 | 50-150 | | | | | 6/22/21 19:27 | |
| M9PFNA | | 75.2 | 50-150 | | | | | 6/22/21 19:27 | |
| MPFDoA | | 85.6 | 50-150 | | | | | 6/22/21 19:27 | |
| d5-NEtFOSAA | | 88.8 | 50-150 | | | | | 6/22/21 19:27 | |
| d3-NMeFOSAA | | 77.5 | 50-150 | | | | | 6/22/21 19:27 | |

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

Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-3**
Sampled: 5/25/2021 10:00

**Sample ID: 21E1683-03**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 76.9 | | % Wt | 1 | | SM 2540G | 5/28/21 | 5/29/21 8:03 | GLH |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-4**
Sampled: 5/25/2021 10:20

**Sample ID: 21E1683-04**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| N-EtFOSAA | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| N-MeFOSAA | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | 1.6 | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 9.8 | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 1.0 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 19:56 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 88.4 | 50-150 | | 6/22/21 19:56 |
| M2-4:2FTS | 70.3 | 50-150 | | 6/22/21 19:56 |
| M2PFTA | 78.0 | 50-150 | | 6/22/21 19:56 |
| M2-8:2FTS | 88.4 | 50-150 | | 6/22/21 19:56 |
| MPFBA | 92.8 | 50-150 | | 6/22/21 19:56 |
| M3HFPO-DA | 70.7 | 50-150 | | 6/22/21 19:56 |
| M6PFDA | 92.5 | 50-150 | | 6/22/21 19:56 |
| M3PFBS | 89.8 | 50-150 | | 6/22/21 19:56 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-4** | Sampled: 5/25/2021 10:20

**Sample ID: 21E1683-04**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 83.7 | 50-150 | | | | | 6/22/21 19:56 | |
| M2-6:2FTS | | 82.3 | 50-150 | | | | | 6/22/21 19:56 | |
| M5PFPeA | | 96.1 | 50-150 | | | | | 6/22/21 19:56 | |
| M5PFHxA | | 87.0 | 50-150 | | | | | 6/22/21 19:56 | |
| M3PFHxS | | 87.8 | 50-150 | | | | | 6/22/21 19:56 | |
| M4PFHpA | | 88.1 | 50-150 | | | | | 6/22/21 19:56 | |
| M8PFOA | | 90.1 | 50-150 | | | | | 6/22/21 19:56 | |
| M8PFOS | | 87.8 | 50-150 | | | | | 6/22/21 19:56 | |
| M9PFNA | | 95.1 | 50-150 | | | | | 6/22/21 19:56 | |
| MPFDoA | | 87.7 | 50-150 | | | | | 6/22/21 19:56 | |
| d5-NEtFOSAA | | 104 | 50-150 | | | | | 6/22/21 19:56 | |
| d3-NMeFOSAA | | 93.9 | 50-150 | | | | | 6/22/21 19:56 | |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-4**
Sampled: 5/25/2021 10:20

**Sample ID: 21E1683-04**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 84.9 | | % Wt | 1 | | SM 2540G | 5/28/21 | 5/29/21 8:03 | GLH |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-4 (Dup)** | Sampled: 5/25/2021 10:20

**Sample ID: 21E1683-05**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| N-EtFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| N-MeFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | 2.1 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 11 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:26 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 73.4 | 50-150 | | 6/22/21 20:26 |
| M2-4:2FTS | 59.5 | 50-150 | | 6/22/21 20:26 |
| M2PFTA | 116 | 50-150 | | 6/22/21 20:26 |
| M2-8:2FTS | 66.3 | 50-150 | | 6/22/21 20:26 |
| MPFBA | 89.0 | 50-150 | | 6/22/21 20:26 |
| M3HFPO-DA | 64.1 | 50-150 | | 6/22/21 20:26 |
| M6PFDA | 115 | 50-150 | | 6/22/21 20:26 |
| M3PFBS | 83.0 | 50-150 | | 6/22/21 20:26 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-4 (Dup)** | Sampled: 5/25/2021 10:20

**Sample ID: 21E1683-05**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| M7PFUnA | 124 | 50-150 | | | | | | 6/22/21 20:26 | |
| M2-6:2FTS | 83.5 | 50-150 | | | | | | 6/22/21 20:26 | |
| M5PFPeA | 87.0 | 50-150 | | | | | | 6/22/21 20:26 | |
| M5PFHxA | 80.3 | 50-150 | | | | | | 6/22/21 20:26 | |
| M3PFHxS | 85.6 | 50-150 | | | | | | 6/22/21 20:26 | |
| M4PFHpA | 84.7 | 50-150 | | | | | | 6/22/21 20:26 | |
| M8PFOA | 89.8 | 50-150 | | | | | | 6/22/21 20:26 | |
| M8PFOS | 91.9 | 50-150 | | | | | | 6/22/21 20:26 | |
| M9PFNA | 92.4 | 50-150 | | | | | | 6/22/21 20:26 | |
| MPFDoA | 147 | 50-150 | | | | | | 6/22/21 20:26 | |
| d5-NEtFOSAA | 67.4 | 50-150 | | | | | | 6/22/21 20:26 | |
| d3-NMeFOSAA | 74.8 | 50-150 | | | | | | 6/22/21 20:26 | |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-4 (Dup)** | Sampled: 5/25/2021 10:20

**Sample ID: 21E1683-05**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 85.3 | | % Wt | 1 | | SM 2540G | 5/28/21 | 5/29/21 8:04 | GLH |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-5** | Sampled: 5/25/2021 10:40

**Sample ID: 21E1683-06**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 1.8 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| N-EtFOSAA | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| N-MeFOSAA | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 3.5 | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 0.92 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 20:55 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 93.1 | 50-150 | | 6/22/21 20:55 |
| M2-4:2FTS | 58.5 | 50-150 | | 6/22/21 20:55 |
| M2PFTA | 117 | 50-150 | | 6/22/21 20:55 |
| M2-8:2FTS | 82.8 | 50-150 | | 6/22/21 20:55 |
| MPFBA | 92.9 | 50-150 | | 6/22/21 20:55 |
| M3HFPO-DA | 60.5 | 50-150 | | 6/22/21 20:55 |
| M6PFDA | 126 | 50-150 | | 6/22/21 20:55 |
| M3PFBS | 75.8 | 50-150 | | 6/22/21 20:55 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-5** | Sampled: 5/25/2021 10:40

**Sample ID: 21E1683-06**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M7PFUnA | 121 | 50-150 | | 6/22/21 20:55 |
| M2-6:2FTS | 73.6 | 50-150 | | 6/22/21 20:55 |
| M5PFPeA | 87.7 | 50-150 | | 6/22/21 20:55 |
| M5PFHxA | 85.4 | 50-150 | | 6/22/21 20:55 |
| M3PFHxS | 80.0 | 50-150 | | 6/22/21 20:55 |
| M4PFHpA | 90.6 | 50-150 | | 6/22/21 20:55 |
| M8PFOA | 96.5 | 50-150 | | 6/22/21 20:55 |
| M8PFOS | 90.0 | 50-150 | | 6/22/21 20:55 |
| M9PFNA | 98.7 | 50-150 | | 6/22/21 20:55 |
| MPFDoA | 120 | 50-150 | | 6/22/21 20:55 |
| d5-NEtFOSAA | 92.7 | 50-150 | | 6/22/21 20:55 |
| d3-NMeFOSAA | 74.9 | 50-150 | | 6/22/21 20:55 |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-5**
Sampled: 5/25/2021 10:40

**Sample ID: 21E1683-06**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 93.3 | | % Wt | 1 | | SM 2540G | 5/28/21 | 5/29/21 8:04 | GLH |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-6** | Sampled: 5/25/2021 11:00

**Sample ID: 21E1683-07**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 1.9 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| N-EtFOSAA | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| N-MeFOSAA | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 0.97 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:25 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 94.5 | 50-150 | | 6/22/21 21:25 |
| M2-4:2FTS | 73.4 | 50-150 | | 6/22/21 21:25 |
| M2PFTA | 90.5 | 50-150 | | 6/22/21 21:25 |
| M2-8:2FTS | 87.3 | 50-150 | | 6/22/21 21:25 |
| MPFBA | 93.1 | 50-150 | | 6/22/21 21:25 |
| M3HFPO-DA | 73.7 | 50-150 | | 6/22/21 21:25 |
| M6PFDA | 95.4 | 50-150 | | 6/22/21 21:25 |
| M3PFBS | 96.2 | 50-150 | | 6/22/21 21:25 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-6** | Sampled: 5/25/2021 11:00

**Sample ID: 21E1683-07**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 84.8 | 50-150 | | | | | 6/22/21 21:25 | |
| M2-6:2FTS | | 89.4 | 50-150 | | | | | 6/22/21 21:25 | |
| M5PFPeA | | 101 | 50-150 | | | | | 6/22/21 21:25 | |
| M5PFHxA | | 88.6 | 50-150 | | | | | 6/22/21 21:25 | |
| M3PFHxS | | 86.7 | 50-150 | | | | | 6/22/21 21:25 | |
| M4PFHpA | | 90.5 | 50-150 | | | | | 6/22/21 21:25 | |
| M8PFOA | | 91.9 | 50-150 | | | | | 6/22/21 21:25 | |
| M8PFOS | | 86.3 | 50-150 | | | | | 6/22/21 21:25 | |
| M9PFNA | | 87.9 | 50-150 | | | | | 6/22/21 21:25 | |
| MPFDoA | | 101 | 50-150 | | | | | 6/22/21 21:25 | |
| d5-NEtFOSAA | | 113 | 50-150 | | | | | 6/22/21 21:25 | |
| d3-NMeFOSAA | | 104 | 50-150 | | | | | 6/22/21 21:25 | |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: S-6**
Sampled: 5/25/2021 11:00

**Sample ID: 21E1683-07**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 91.6 | | % Wt | 1 | | SM 2540G | 5/28/21 | 5/29/21 8:04 | GLH |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Basement-1** | Sampled: 5/25/2021 11:30

**Sample ID: 21E1683-08**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.5 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | 1.7 | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| N-EtFOSAA | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| N-MeFOSAA | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 3.2 | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | 4.5 | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorooctanoic acid (PFOA) | 2.9 | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 120 | 1.2 | µg/kg dry | 1 | E | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 1.2 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 21:55 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 83.5 | 50-150 | | 6/22/21 21:55 |
| M2-4:2FTS | 54.5 | 50-150 | | 6/22/21 21:55 |
| M2PFTA | 98.5 | 50-150 | | 6/22/21 21:55 |
| M2-8:2FTS | 101 | 50-150 | | 6/22/21 21:55 |
| MPFBA | 81.0 | 50-150 | | 6/22/21 21:55 |
| M3HFPO-DA | 51.9 | 50-150 | | 6/22/21 21:55 |
| M6PFDA | 100 | 50-150 | | 6/22/21 21:55 |
| M3PFBS | 72.2 | 50-150 | | 6/22/21 21:55 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Basement-1** | Sampled: 5/25/2021 11:30

**Sample ID: 21E1683-08**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M7PFUnA | 100 | 50-150 | | 6/22/21 21:55 |
| M2-6:2FTS | 83.4 | 50-150 | | 6/22/21 21:55 |
| M5PFPeA | 79.0 | 50-150 | | 6/22/21 21:55 |
| M5PFHxA | 72.7 | 50-150 | | 6/22/21 21:55 |
| M3PFHxS | 77.8 | 50-150 | | 6/22/21 21:55 |
| M4PFHpA | 72.6 | 50-150 | | 6/22/21 21:55 |
| M8PFOA | 85.0 | 50-150 | | 6/22/21 21:55 |
| M8PFOS | 92.2 | 50-150 | | 6/22/21 21:55 |
| M9PFNA | 88.0 | 50-150 | | 6/22/21 21:55 |
| MPFDoA | 124 | 50-150 | | 6/22/21 21:55 |
| d5-NEtFOSAA | 79.5 | 50-150 | | 6/22/21 21:55 |
| d3-NMeFOSAA | 72.0 | 50-150 | | 6/22/21 21:55 |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Basement-1**
Sampled: 5/25/2021 11:30

**Sample ID: 21E1683-08**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 69.1 | | % Wt | 1 | R-02 | SM 2540G | 5/28/21 | 5/29/21 8:04 | GLH |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Basement-2** | Sampled: 5/25/2021 11:30

**Sample ID: 21E1683-09**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorobutanesulfonic acid (PFBS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoropentanoic acid (PFPeA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorohexanoic acid (PFHxA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| 11Cl-PF3OUdS (F53B Minor) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| 9Cl-PF3ONS (F53B Major) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorodecanoic acid (PFDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorododecanoic acid (PFDoA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| N-EtFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| N-MeFOSAA | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorodecanesulfonic acid (PFDS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorooctanesulfonamide (FOSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorononanesulfonic acid (PFNS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 2.1 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorohexanesulfonic acid (PFHxS) | 1.6 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluoroheptanoic acid (PFHpA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorooctanoic acid (PFOA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorooctanesulfonic acid (PFOS) | 59 | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |
| Perfluorononanoic acid (PFNA) | ND | 1.1 | µg/kg dry | 1 | | SOP-466 PFAS | 6/7/21 | 6/22/21 22:24 | JFC |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 82.4 | 50-150 | | 6/22/21 22:24 |
| M2-4:2FTS | 54.7 | 50-150 | | 6/22/21 22:24 |
| M2PFTA | 104 | 50-150 | | 6/22/21 22:24 |
| M2-8:2FTS | 79.5 | 50-150 | | 6/22/21 22:24 |
| MPFBA | 82.4 | 50-150 | | 6/22/21 22:24 |
| M3HFPO-DA | 55.2 | 50-150 | | 6/22/21 22:24 |
| M6PFDA | 114 | 50-150 | | 6/22/21 22:24 |
| M3PFBS | 72.5 | 50-150 | | 6/22/21 22:24 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Basement-2** | Sampled: 5/25/2021 11:30

**Sample ID: 21E1683-09**

Sample Matrix: Soil

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 127 | 50-150 | | | | | 6/22/21 22:24 | |
| M2-6:2FTS | | 71.4 | 50-150 | | | | | 6/22/21 22:24 | |
| M5PFPeA | | 89.8 | 50-150 | | | | | 6/22/21 22:24 | |
| M5PFHxA | | 77.3 | 50-150 | | | | | 6/22/21 22:24 | |
| M3PFHxS | | 72.9 | 50-150 | | | | | 6/22/21 22:24 | |
| M4PFHpA | | 77.7 | 50-150 | | | | | 6/22/21 22:24 | |
| M8PFOA | | 79.4 | 50-150 | | | | | 6/22/21 22:24 | |
| M8PFOS | | 88.9 | 50-150 | | | | | 6/22/21 22:24 | |
| M9PFNA | | 97.0 | 50-150 | | | | | 6/22/21 22:24 | |
| MPFDoA | | 129 | 50-150 | | | | | 6/22/21 22:24 | |
| d5-NEtFOSAA | | 67.6 | 50-150 | | | | | 6/22/21 22:24 | |
| d3-NMeFOSAA | | 67.0 | 50-150 | | | | | 6/22/21 22:24 | |

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Project Location: Princeton, MA
Sample Description:
Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Basement-2**
Sampled: 5/25/2021 11:30

**Sample ID: 21E1683-09**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| % Solids | 80.5 | | % Wt | 1 | R-02 | SM 2540G | 5/28/21 | 5/29/21 8:04 | GLH |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: TB-05252021** | Sampled: 5/25/2021 08:00

**Sample ID: 21E1683-10**

Sample Matrix: Trip Blank Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| N-EtFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| N-MeFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:21 | BLH |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 105 | 50-150 | | 6/19/21 18:21 |
| M2-4:2FTS | 80.1 | 50-150 | | 6/19/21 18:21 |
| M2PFTA | 75.2 | 50-150 | | 6/19/21 18:21 |
| M2-8:2FTS | 97.3 | 50-150 | | 6/19/21 18:21 |
| MPFBA | 100 | 50-150 | | 6/19/21 18:21 |
| M3HFPO-DA | 99.5 | 50-150 | | 6/19/21 18:21 |
| M6PFDA | 93.8 | 50-150 | | 6/19/21 18:21 |
| M3PFBS | 102 | 50-150 | | 6/19/21 18:21 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: TB-05252021** | Sampled: 5/25/2021 08:00

**Sample ID: 21E1683-10**

Sample Matrix: Trip Blank Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 83.1 | 50-150 | | | | | 6/19/21 18:21 | |
| M2-6:2FTS | | 76.7 | 50-150 | | | | | 6/19/21 18:21 | |
| M5PFPeA | | 108 | 50-150 | | | | | 6/19/21 18:21 | |
| M5PFHxA | | 106 | 50-150 | | | | | 6/19/21 18:21 | |
| M3PFHxS | | 82.8 | 50-150 | | | | | 6/19/21 18:21 | |
| M4PFHpA | | 96.7 | 50-150 | | | | | 6/19/21 18:21 | |
| M8PFOA | | 95.1 | 50-150 | | | | | 6/19/21 18:21 | |
| M8PFOS | | 88.7 | 50-150 | | | | | 6/19/21 18:21 | |
| M9PFNA | | 94.2 | 50-150 | | | | | 6/19/21 18:21 | |
| MPFDoA | | 74.9 | 50-150 | | | | | 6/19/21 18:21 | |
| d5-NEtFOSAA | | 99.8 | 50-150 | | | | | 6/19/21 18:21 | |
| d3-NMeFOSAA | | 76.6 | 50-150 | | | | | 6/19/21 18:21 | |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Field Blank** | Sampled: 5/25/2021 10:45

**Sample ID: 21E1683-11**

Sample Matrix: Field Blank

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| N-EtFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| N-MeFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 18:50 | BLH |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 113 | 50-150 | | 6/19/21 18:50 |
| M2-4:2FTS | 81.0 | 50-150 | | 6/19/21 18:50 |
| M2PFTA | 89.2 | 50-150 | | 6/19/21 18:50 |
| M2-8:2FTS | 100 | 50-150 | | 6/19/21 18:50 |
| MPFBA | 108 | 50-150 | | 6/19/21 18:50 |
| M3HFPO-DA | 102 | 50-150 | | 6/19/21 18:50 |
| M6PFDA | 99.7 | 50-150 | | 6/19/21 18:50 |
| M3PFBS | 108 | 50-150 | | 6/19/21 18:50 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: Field Blank** | Sampled: 5/25/2021 10:45

**Sample ID: 21E1683-11**

Sample Matrix: Field Blank

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | | | | | |
|---|---|---|---|---|---|---|---|---|
| M7PFUnA | 98.5 | 50-150 | | | | | | 6/19/21 18:50 |
| M2-6:2FTS | 78.2 | 50-150 | | | | | | 6/19/21 18:50 |
| M5PFPeA | 111 | 50-150 | | | | | | 6/19/21 18:50 |
| M5PFHxA | 110 | 50-150 | | | | | | 6/19/21 18:50 |
| M3PFHxS | 97.7 | 50-150 | | | | | | 6/19/21 18:50 |
| M4PFHpA | 105 | 50-150 | | | | | | 6/19/21 18:50 |
| M8PFOA | 106 | 50-150 | | | | | | 6/19/21 18:50 |
| M8PFOS | 99.3 | 50-150 | | | | | | 6/19/21 18:50 |
| M9PFNA | 101 | 50-150 | | | | | | 6/19/21 18:50 |
| MPFDoA | 98.0 | 50-150 | | | | | | 6/19/21 18:50 |
| d5-NEtFOSAA | 100 | 50-150 | | | | | | 6/19/21 18:50 |
| d3-NMeFOSAA | 77.6 | 50-150 | | | | | | 6/19/21 18:50 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: EQ Blank-1 (Probe)** | Sampled: 5/25/2021 09:45

**Sample ID: 21E1683-12**

Sample Matrix: Equipment Blank Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| N-EtFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| N-MeFOSAA | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:20 | BLH |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 96.8 | 50-150 | | 6/19/21 19:20 |
| M2-4:2FTS | 82.8 | 50-150 | | 6/19/21 19:20 |
| M2PFTA | 99.3 | 50-150 | | 6/19/21 19:20 |
| M2-8:2FTS | 143 | 50-150 | | 6/19/21 19:20 |
| MPFBA | 106 | 50-150 | | 6/19/21 19:20 |
| M3HFPO-DA | 102 | 50-150 | | 6/19/21 19:20 |
| M6PFDA | 102 | 50-150 | | 6/19/21 19:20 |
| M3PFBS | 107 | 50-150 | | 6/19/21 19:20 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: EQ Blank-1 (Probe)** | Sampled: 5/25/2021 09:45

**Sample ID: 21E1683-12**

Sample Matrix: Equipment Blank Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | Date/Time Analyzed |
|---|---|---|---|---|
| M7PFUnA | 104 | 50-150 | | 6/19/21 19:20 |
| M2-6:2FTS | 97.8 | 50-150 | | 6/19/21 19:20 |
| M5PFPeA | 119 | 50-150 | | 6/19/21 19:20 |
| M5PFHxA | 111 | 50-150 | | 6/19/21 19:20 |
| M3PFHxS | 94.6 | 50-150 | | 6/19/21 19:20 |
| M4PFHpA | 102 | 50-150 | | 6/19/21 19:20 |
| M8PFOA | 102 | 50-150 | | 6/19/21 19:20 |
| M8PFOS | 91.1 | 50-150 | | 6/19/21 19:20 |
| M9PFNA | 101 | 50-150 | | 6/19/21 19:20 |
| MPFDoA | 101 | 50-150 | | 6/19/21 19:20 |
| d5-NEtFOSAA | 139 | 50-150 | | 6/19/21 19:20 |
| d3-NMeFOSAA | 72.1 | 50-150 | | 6/19/21 19:20 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: EQ Blank-2 (Shovel)** | Sampled: 5/25/2021 10:45

**Sample ID: 21E1683-13**

Sample Matrix: Equipment Blank Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoropentanoic acid (PFPeA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorohexanoic acid (PFHxA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| 9Cl-PF3ONS (F53B Major) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorodecanoic acid (PFDA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorododecanoic acid (PFDoA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.3 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| N-EtFOSAA | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| N-MeFOSAA | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.3 | ng/L | 1 | V-05 | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorooctanoic acid (PFOA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |
| Perfluorononanoic acid (PFNA) | ND | 2.3 | ng/L | 1 | | SOP-454 PFAS | 6/3/21 | 6/19/21 19:50 | BLH |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| M8FOSA | 106 | 50-150 | | 6/19/21 19:50 |
| M2-4:2FTS | 72.9 | 50-150 | | 6/19/21 19:50 |
| M2PFTA | 92.0 | 50-150 | | 6/19/21 19:50 |
| M2-8:2FTS | 105 | 50-150 | | 6/19/21 19:50 |
| MPFBA | 106 | 50-150 | | 6/19/21 19:50 |
| M3HFPO-DA | 101 | 50-150 | | 6/19/21 19:50 |
| M6PFDA | 99.2 | 50-150 | | 6/19/21 19:50 |
| M3PFBS | 99.8 | 50-150 | | 6/19/21 19:50 |

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Project Location: Princeton, MA | Sample Description: | Work Order: 21E1683

Date Received: 5/27/2021

**Field Sample #: EQ Blank-2 (Shovel)** | Sampled: 5/25/2021 10:45

**Sample ID: 21E1683-13**

Sample Matrix: Equipment Blank Water

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

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Surrogates** | | **% Recovery** | **Recovery Limits** | | **Flag/Qual** | | | | |
| M7PFUnA | | 99.1 | 50-150 | | | | | 6/19/21 19:50 | |
| M2-6:2FTS | | 70.0 | 50-150 | | | | | 6/19/21 19:50 | |
| M5PFPeA | | 111 | 50-150 | | | | | 6/19/21 19:50 | |
| M5PFHxA | | 107 | 50-150 | | | | | 6/19/21 19:50 | |
| M3PFHxS | | 88.1 | 50-150 | | | | | 6/19/21 19:50 | |
| M4PFHpA | | 98.6 | 50-150 | | | | | 6/19/21 19:50 | |
| M8PFOA | | 98.9 | 50-150 | | | | | 6/19/21 19:50 | |
| M8PFOS | | 90.1 | 50-150 | | | | | 6/19/21 19:50 | |
| M9PFNA | | 99.4 | 50-150 | | | | | 6/19/21 19:50 | |
| MPFDoA | | 101 | 50-150 | | | | | 6/19/21 19:50 | |
| d5-NEtFOSAA | | 122 | 50-150 | | | | | 6/19/21 19:50 | |
| d3-NMeFOSAA | | 73.9 | 50-150 | | | | | 6/19/21 19:50 | |

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## Sample Extraction Data

**Prep Method: % Solids** **Analytical Method: SM 2540G**

| Lab Number [Field ID] | Batch | Date |
|---|---|---|
| 21E1683-01 [S-1] | B283034 | 05/28/21 |
| 21E1683-02 [S-2] | B283034 | 05/28/21 |
| 21E1683-03 [S-3] | B283034 | 05/28/21 |
| 21E1683-04 [S-4] | B283034 | 05/28/21 |
| 21E1683-05 [S-4 (Dup)] | B283034 | 05/28/21 |
| 21E1683-06 [S-5] | B283034 | 05/28/21 |
| 21E1683-07 [S-6] | B283034 | 05/28/21 |
| 21E1683-08 [Basement-1] | B283034 | 05/28/21 |
| 21E1683-09 [Basement-2] | B283034 | 05/28/21 |

**Prep Method: SOP 454-PFAAS** **Analytical Method: SOP-454 PFAS**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 21E1683-10 [TB-05252021] | B283195 | 250 | 1.00 | 06/03/21 |
| 21E1683-11 [Field Blank] | B283195 | 250 | 1.00 | 06/03/21 |
| 21E1683-12 [EQ Blank-1 (Probe)] | B283195 | 250 | 1.00 | 06/03/21 |
| 21E1683-13 [EQ Blank-2 (Shovel)] | B283195 | 217 | 1.00 | 06/03/21 |

**Prep Method: SOP 465-PFAAS** **Analytical Method: SOP-466 PFAS**

| Lab Number [Field ID] | Batch | Initial [g] | Final [mL] | Date |
|---|---|---|---|---|
| 21E1683-01 [S-1] | B283716 | 5.80 | 10.0 | 06/07/21 |
| 21E1683-02 [S-2] | B283716 | 5.78 | 10.0 | 06/07/21 |
| 21E1683-03 [S-3] | B283716 | 5.68 | 10.0 | 06/07/21 |
| 21E1683-04 [S-4] | B283716 | 5.83 | 10.0 | 06/07/21 |
| 21E1683-05 [S-4 (Dup)] | B283716 | 5.52 | 10.0 | 06/07/21 |
| 21E1683-06 [S-5] | B283716 | 5.80 | 10.0 | 06/07/21 |
| 21E1683-07 [S-6] | B283716 | 5.64 | 10.0 | 06/07/21 |
| 21E1683-08 [Basement-1] | B283716 | 5.89 | 10.0 | 06/07/21 |
| 21E1683-09 [Basement-2] | B283716 | 5.88 | 10.0 | 06/07/21 |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B283195 - SOP 454-PFAAS** | | | | | | | | | | |
| **Blank (B283195-BLK1)** | | | | Prepared: 06/03/21 Analyzed: 06/07/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 2.0 | ng/L | | | | | | | |
| 11Cl-PF3OUdS (F53B Minor) | ND | 2.0 | ng/L | | | | | | | |
| 9Cl-PF3ONS (F53B Major) | ND | 2.0 | ng/L | | | | | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 2.0 | ng/L | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 2.0 | ng/L | | | | | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 2.0 | ng/L | | | | | | | |
| N-EtFOSAA | ND | 2.0 | ng/L | | | | | | | |
| N-MeFOSAA | ND | 2.0 | ng/L | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 2.0 | ng/L | | | | | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorodecanesulfonic acid (PFDS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanesulfonamide (FOSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorononanesulfonic acid (PFNS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 2.0 | ng/L | | | | | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.0 | ng/L | | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.0 | ng/L | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 2.0 | ng/L | | | | | | | |
| Surrogate: M8FOSA | *34.3* | | ng/L | 40.0 | | 85.8 | 50-150 | | | |
| Surrogate: M2-4:2FTS | *28.3* | | ng/L | 37.5 | | 75.4 | 50-150 | | | |
| Surrogate: M2PFTA | *33.1* | | ng/L | 40.0 | | 82.7 | 50-150 | | | |
| Surrogate: M2-8:2FTS | *29.3* | | ng/L | 38.4 | | 76.2 | 50-150 | | | |
| Surrogate: MPFBA | *34.3* | | ng/L | 40.0 | | 85.7 | 50-150 | | | |
| Surrogate: M3HFPO-DA | *31.2* | | ng/L | 40.0 | | 77.9 | 50-150 | | | |
| Surrogate: M6PFDA | *44.4* | | ng/L | 40.0 | | 111 | 50-150 | | | |
| Surrogate: M3PFBS | *32.7* | | ng/L | 37.3 | | 87.7 | 50-150 | | | |
| Surrogate: M7PFUnA | *43.8* | | ng/L | 40.0 | | 109 | 50-150 | | | |
| Surrogate: M2-6:2FTS | *27.7* | | ng/L | 38.0 | | 72.7 | 50-150 | | | |
| Surrogate: M5PFPeA | *49.9* | | ng/L | 40.0 | | 125 | 50-150 | | | |
| Surrogate: M5PFHxA | *37.2* | | ng/L | 40.0 | | 93.0 | 50-150 | | | |
| Surrogate: M3PFHxS | *34.5* | | ng/L | 37.9 | | 91.1 | 50-150 | | | |
| Surrogate: M4PFHpA | *38.3* | | ng/L | 40.0 | | 95.9 | 50-150 | | | |
| Surrogate: M8PFOA | *38.9* | | ng/L | 40.0 | | 97.1 | 50-150 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B283195 - SOP 454-PFAAS** | | | | | | | | | | |
| **Blank (B283195-BLK1)** | | | | Prepared: 06/03/21 Analyzed: 06/07/21 | | | | | | |
| Surrogate: M8PFOS | *42.0* | | ng/L | 38.4 | | 109 | 50-150 | | | |
| Surrogate: M9PFNA | *45.1* | | ng/L | 40.0 | | 113 | 50-150 | | | |
| Surrogate: MPFDoA | *42.3* | | ng/L | 40.0 | | 106 | 50-150 | | | |
| Surrogate: d5-NEtFOSAA | *38.6* | | ng/L | 40.0 | | 96.5 | 50-150 | | | |
| Surrogate: d3-NMeFOSAA | *35.0* | | ng/L | 40.0 | | 87.5 | 50-150 | | | |
| **LCS (B283195-BS1)** | | | | Prepared: 06/03/21 Analyzed: 06/07/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | 9.33 | 2.0 | ng/L | 10.0 | | 93.3 | 73-129 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 8.16 | 2.0 | ng/L | 8.85 | | 92.2 | 72-130 | | | |
| Perfluoropentanoic acid (PFPeA) | 8.52 | 2.0 | ng/L | 10.0 | | 85.2 | 72-129 | | | |
| Perfluorohexanoic acid (PFHxA) | 9.32 | 2.0 | ng/L | 10.0 | | 93.2 | 72-129 | | | |
| 11Cl-PF3OUdS (F53B Minor) | 8.32 | 2.0 | ng/L | 9.42 | | 88.3 | 50-150 | | | |
| 9Cl-PF3ONS (F53B Major) | 9.48 | 2.0 | ng/L | 9.32 | | 102 | 50-150 | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 10.4 | 2.0 | ng/L | 9.42 | | 110 | 50-150 | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | 8.80 | 2.0 | ng/L | 10.0 | | 88.0 | 50-150 | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | 9.56 | 2.0 | ng/L | 9.60 | | 99.6 | 67-138 | | | |
| Perfluorodecanoic acid (PFDA) | 8.75 | 2.0 | ng/L | 10.0 | | 87.5 | 71-129 | | | |
| Perfluorododecanoic acid (PFDoA) | 8.99 | 2.0 | ng/L | 10.0 | | 89.9 | 72-134 | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 7.65 | 2.0 | ng/L | 8.90 | | 86.0 | 50-150 | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | 9.49 | 2.0 | ng/L | 9.55 | | 99.4 | 69-134 | | | |
| N-EtFOSAA | 10.9 | 2.0 | ng/L | 10.0 | | 109 | 61-135 | | | |
| N-MeFOSAA | 10.6 | 2.0 | ng/L | 10.0 | | 106 | 65-136 | | | |
| Perfluorotetradecanoic acid (PFTA) | 9.03 | 2.0 | ng/L | 10.0 | | 90.3 | 71-132 | | | |
| Perfluorotridecanoic acid (PFTrDA) | 9.14 | 2.0 | ng/L | 10.0 | | 91.4 | 65-144 | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | 10.1 | 2.0 | ng/L | 9.35 | | 108 | 63-143 | | | |
| Perfluorodecanesulfonic acid (PFDS) | 8.41 | 2.0 | ng/L | 9.65 | | 87.2 | 53-142 | | | |
| Perfluorooctanesulfonamide (FOSA) | 9.40 | 2.0 | ng/L | 10.0 | | 94.0 | 67-137 | | | |
| Perfluorononanesulfonic acid (PFNS) | 7.00 | 2.0 | ng/L | 9.60 | | 72.9 | 69-127 | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 8.24 | 2.0 | ng/L | 10.0 | | 82.4 | 50-150 | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | 9.09 | 2.0 | ng/L | 10.0 | | 90.9 | 50-150 | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 7.88 | 2.0 | ng/L | 9.15 | | 86.1 | 68-131 | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 10.6 | 2.0 | ng/L | 10.0 | | 106 | 50-150 | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 8.06 | 2.0 | ng/L | 10.0 | | 80.6 | 50-150 | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | 11.6 | 2.0 | ng/L | 9.50 | | 122 | 64-140 | | | |
| Perfluoropetanesulfonic acid (PFPeS) | 8.08 | 2.0 | ng/L | 9.40 | | 85.9 | 71-127 | | | |
| Perfluoroundecanoic acid (PFUnA) | 8.72 | 2.0 | ng/L | 10.0 | | 87.2 | 69-133 | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 10.2 | 2.0 | ng/L | 10.0 | | 102 | 50-150 | | | |
| Perfluoroheptanoic acid (PFHpA) | 8.19 | 2.0 | ng/L | 10.0 | | 81.9 | 72-130 | | | |
| Perfluorooctanoic acid (PFOA) | 8.76 | 2.0 | ng/L | 10.0 | | 87.6 | 71-133 | | | |
| Perfluorooctanesulfonic acid (PFOS) | 7.87 | 2.0 | ng/L | 9.25 | | 85.1 | 65-140 | | | |
| Perfluorononanoic acid (PFNA) | 8.46 | 2.0 | ng/L | 10.0 | | 84.6 | 69-130 | | | |
| Surrogate: M8FOSA | *40.3* | | ng/L | 40.0 | | 101 | 50-150 | | | |
| Surrogate: M2-4:2FTS | *32.6* | | ng/L | 37.5 | | 86.8 | 50-150 | | | |
| Surrogate: M2PFTA | *39.5* | | ng/L | 40.0 | | 98.7 | 50-150 | | | |
| Surrogate: M2-8:2FTS | *35.5* | | ng/L | 38.4 | | 92.5 | 50-150 | | | |
| Surrogate: MPFBA | *37.0* | | ng/L | 40.0 | | 92.6 | 50-150 | | | |
| Surrogate: M3HFPO-DA | *36.2* | | ng/L | 40.0 | | 90.5 | 50-150 | | | |
| Surrogate: M6PFDA | *43.4* | | ng/L | 40.0 | | 108 | 50-150 | | | |
| Surrogate: M3PFBS | *37.1* | | ng/L | 37.3 | | 99.4 | 50-150 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B283195 - SOP 454-PFAAS** | | | | | | | | | | |
| **LCS (B283195-BS1)** | | | | Prepared: 06/03/21 Analyzed: 06/07/21 | | | | | | |
| Surrogate: M7PFUnA | *43.4* | | ng/L | 40.0 | | 109 | 50-150 | | | |
| Surrogate: M2-6:2FTS | *32.5* | | ng/L | 38.0 | | 85.3 | 50-150 | | | |
| Surrogate: M5PFPeA | *53.5* | | ng/L | 40.0 | | 134 | 50-150 | | | |
| Surrogate: M5PFHxA | *40.5* | | ng/L | 40.0 | | 101 | 50-150 | | | |
| Surrogate: M3PFHxS | *37.1* | | ng/L | 37.9 | | 97.7 | 50-150 | | | |
| Surrogate: M4PFHpA | *40.9* | | ng/L | 40.0 | | 102 | 50-150 | | | |
| Surrogate: M8PFOA | *42.1* | | ng/L | 40.0 | | 105 | 50-150 | | | |
| Surrogate: M8PFOS | *39.8* | | ng/L | 38.4 | | 104 | 50-150 | | | |
| Surrogate: M9PFNA | *43.7* | | ng/L | 40.0 | | 109 | 50-150 | | | |
| Surrogate: MPFDoA | *43.4* | | ng/L | 40.0 | | 108 | 50-150 | | | |
| Surrogate: d5-NEtFOSAA | *47.8* | | ng/L | 40.0 | | 120 | 50-150 | | | |
| Surrogate: d3-NMeFOSAA | *43.2* | | ng/L | 40.0 | | 108 | 50-150 | | | |
| **Batch B283716 - SOP 465-PFAAS** | | | | | | | | | | |
| **Blank (B283716-BLK1)** | | | | Prepared: 06/10/21 Analyzed: 06/22/21 | | | | | | |
| Perfluorobutanoic acid (PFBA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 0.89 | µg/kg wet | | | | | | | |
| 11Cl-PF3OUdS (F53B Minor) | ND | 0.89 | µg/kg wet | | | | | | | |
| 9Cl-PF3ONS (F53B Major) | ND | 0.89 | µg/kg wet | | | | | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | ND | 1.8 | µg/kg wet | | | | | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | ND | 0.89 | µg/kg wet | | | | | | | |
| N-EtFOSAA | ND | 0.89 | µg/kg wet | | | | | | | |
| N-MeFOSAA | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.89 | µg/kg wet | | | | | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorodecanesulfonic acid (PFDS) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorooctanesulfonamide (FOSA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorononanesulfonic acid (PFNS) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.89 | µg/kg wet | | | | | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoropetanesulfonic acid (PFPeS) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 0.89 | µg/kg wet | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 0.89 | µg/kg wet | | | | | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B283716 - SOP 465-PFAAS** | | | | | | | | | | | |
| **Blank (B283716-BLK1)** | | | | Prepared: 06/10/21 Analyzed: 06/22/21 | | | | | | | |
| Surrogate: M8FOSA | *7.29* | | µg/kg wet | 8.87 | | 82.2 | | 50-150 | | | |
| Surrogate: M2-4:2FTS | *6.27* | | µg/kg wet | 8.32 | | 75.4 | | 50-150 | | | |
| Surrogate: M2PFTA | *6.10* | | µg/kg wet | 8.87 | | 68.8 | | 50-150 | | | |
| Surrogate: M2-8:2FTS | *6.62* | | µg/kg wet | 8.52 | | 77.8 | | 50-150 | | | |
| Surrogate: MPFBA | *7.34* | | µg/kg wet | 8.87 | | 82.8 | | 50-150 | | | |
| Surrogate: M3HFPO-DA | *7.20* | | µg/kg wet | 8.87 | | 81.2 | | 50-150 | | | |
| Surrogate: M6PFDA | *6.01* | | µg/kg wet | 8.87 | | 67.8 | | 50-150 | | | |
| Surrogate: M3PFBS | *7.84* | | µg/kg wet | 8.27 | | 94.9 | | 50-150 | | | |
| Surrogate: M7PFUnA | *5.84* | | µg/kg wet | 8.87 | | 65.9 | | 50-150 | | | |
| Surrogate: M2-6:2FTS | *7.55* | | µg/kg wet | 8.44 | | 89.5 | | 50-150 | | | |
| Surrogate: M5PFPeA | *7.33* | | µg/kg wet | 8.87 | | 82.7 | | 50-150 | | | |
| Surrogate: M5PFHxA | *7.39* | | µg/kg wet | 8.87 | | 83.3 | | 50-150 | | | |
| Surrogate: M3PFHxS | *7.59* | | µg/kg wet | 8.41 | | 90.2 | | 50-150 | | | |
| Surrogate: M4PFHpA | *7.54* | | µg/kg wet | 8.87 | | 85.0 | | 50-150 | | | |
| Surrogate: M8PFOA | *6.39* | | µg/kg wet | 8.87 | | 72.0 | | 50-150 | | | |
| Surrogate: M8PFOS | *6.83* | | µg/kg wet | 8.51 | | 80.3 | | 50-150 | | | |
| Surrogate: M9PFNA | *6.32* | | µg/kg wet | 8.87 | | 71.2 | | 50-150 | | | |
| Surrogate: MPFDoA | *6.63* | | µg/kg wet | 8.87 | | 74.7 | | 50-150 | | | |
| Surrogate: d5-NEtFOSAA | *7.86* | | µg/kg wet | 8.87 | | 88.6 | | 50-150 | | | |
| Surrogate: d3-NMeFOSAA | *9.67* | | µg/kg wet | 8.87 | | 109 | | 50-150 | | | |
| **LCS (B283716-BS1)** | | | | Prepared: 06/10/21 Analyzed: 06/22/21 | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 2.15 | 0.88 | µg/kg wet | 2.21 | | 97.5 | | 71-135 | | | |
| Perfluorobutanesulfonic acid (PFBS) | 1.99 | 0.88 | µg/kg wet | 1.95 | | 102 | | 72-128 | | | |
| Perfluoropentanoic acid (PFPeA) | 1.98 | 0.88 | µg/kg wet | 2.21 | | 89.5 | | 69-132 | | | |
| Perfluorohexanoic acid (PFHxA) | 2.11 | 0.88 | µg/kg wet | 2.21 | | 95.4 | | 70-132 | | | |
| 11Cl-PF3OUdS (F53B Minor) | 2.63 | 0.88 | µg/kg wet | 2.08 | | 126 | | 50-150 | | | |
| 9Cl-PF3ONS (F53B Major) | 2.39 | 0.88 | µg/kg wet | 2.06 | | 116 | | 50-150 | | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 2.52 | 0.88 | µg/kg wet | 2.08 | | 121 | | 50-150 | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | 2.78 | 1.8 | µg/kg wet | 2.21 | | 126 | | 50-150 | | | |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | 1.95 | 0.88 | µg/kg wet | 2.12 | | 91.7 | | 65-137 | | | |
| Perfluorodecanoic acid (PFDA) | 2.16 | 0.88 | µg/kg wet | 2.21 | | 97.9 | | 69-133 | | | |
| Perfluorododecanoic acid (PFDoA) | 1.84 | 0.88 | µg/kg wet | 2.21 | | 83.1 | | 69-135 | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 1.72 | 0.88 | µg/kg wet | 1.97 | | 87.3 | | 50-150 | | | |
| Perfluoroheptanesulfonic acid (PFHpS) | 2.44 | 0.88 | µg/kg wet | 2.11 | | 115 | | 70-132 | | | |
| N-EtFOSAA | 2.17 | 0.88 | µg/kg wet | 2.21 | | 98.2 | | 61-139 | | | |
| **N-MeFOSAA** | 3.36 | 0.88 | µg/kg wet | 2.21 | | **152** | * | 63-144 | | | L-01 |
| Perfluorotetradecanoic acid (PFTA) | 2.16 | 0.88 | µg/kg wet | 2.21 | | 97.7 | | 69-133 | | | |
| Perfluorotridecanoic acid (PFTrDA) | 2.08 | 0.88 | µg/kg wet | 2.21 | | 93.9 | | 66-139 | | | |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | 2.06 | 0.88 | µg/kg wet | 2.07 | | 99.4 | | 62-145 | | | |
| Perfluorodecanesulfonic acid (PFDS) | 2.29 | 0.88 | µg/kg wet | 2.13 | | 108 | | 59-134 | | | |
| Perfluorooctanesulfonamide (FOSA) | 1.88 | 0.88 | µg/kg wet | 2.21 | | 85.1 | | 67-137 | | | |
| Perfluorononanesulfonic acid (PFNS) | 1.63 | 0.88 | µg/kg wet | 2.12 | | 77.1 | | 69-125 | | | |
| Perfluoro-1-hexanesulfonamide (FHxSA) | 2.30 | 0.88 | µg/kg wet | 2.21 | | 104 | | 50-150 | | | |
| Perfluoro-1-butanesulfonamide (FBSA) | 2.31 | 0.88 | µg/kg wet | 2.21 | | 105 | | 50-150 | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 2.08 | 0.88 | µg/kg wet | 2.02 | | 103 | | 67-130 | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 2.19 | 0.88 | µg/kg wet | 2.21 | | 99.0 | | 50-150 | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 2.02 | 0.88 | µg/kg wet | 2.21 | | 91.5 | | 50-150 | | | |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | 1.81 | 0.88 | µg/kg wet | 2.10 | | 86.2 | | 64-140 | | | |
| Perfluoropetanesulfonic acid (PFPeS) | 2.09 | 0.88 | µg/kg wet | 2.08 | | 101 | | 73-123 | | | |
| Perfluoroundecanoic acid (PFUnA) | 2.10 | 0.88 | µg/kg wet | 2.21 | | 94.9 | | 64-136 | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B283716 - SOP 465-PFAAS** | | | | | | | | | | |
| **LCS (B283716-BS1)** | | | | Prepared: 06/10/21 Analyzed: 06/22/21 | | | | | | |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 1.87 | 0.88 | µg/kg wet | 2.21 | | 84.8 | 50-150 | | | |
| Perfluoroheptanoic acid (PFHpA) | 2.08 | 0.88 | µg/kg wet | 2.21 | | 94.2 | 71-131 | | | |
| Perfluorooctanoic acid (PFOA) | 1.95 | 0.88 | µg/kg wet | 2.21 | | 88.1 | 69-133 | | | |
| Perfluorooctanesulfonic acid (PFOS) | 2.34 | 0.88 | µg/kg wet | 2.04 | | 114 | 68-136 | | | |
| Perfluorononanoic acid (PFNA) | 2.22 | 0.88 | µg/kg wet | 2.21 | | 100 | 72-129 | | | |
| Surrogate: M8FOSA | *7.56* | | µg/kg wet | 8.84 | | 85.5 | 50-150 | | | |
| Surrogate: M2-4:2FTS | *5.72* | | µg/kg wet | 8.29 | | 69.0 | 50-150 | | | |
| Surrogate: M2PFTA | *5.99* | | µg/kg wet | 8.84 | | 67.7 | 50-150 | | | |
| Surrogate: M2-8:2FTS | *6.76* | | µg/kg wet | 8.48 | | 79.7 | 50-150 | | | |
| Surrogate: MPFBA | *7.26* | | µg/kg wet | 8.84 | | 82.2 | 50-150 | | | |
| Surrogate: M3HFPO-DA | *6.07* | | µg/kg wet | 8.84 | | 68.7 | 50-150 | | | |
| Surrogate: M6PFDA | *6.89* | | µg/kg wet | 8.84 | | 78.0 | 50-150 | | | |
| Surrogate: M3PFBS | *7.20* | | µg/kg wet | 8.24 | | 87.5 | 50-150 | | | |
| Surrogate: M7PFUnA | *6.58* | | µg/kg wet | 8.84 | | 74.5 | 50-150 | | | |
| Surrogate: M2-6:2FTS | *7.35* | | µg/kg wet | 8.40 | | 87.5 | 50-150 | | | |
| Surrogate: M5PFPeA | *7.64* | | µg/kg wet | 8.84 | | 86.5 | 50-150 | | | |
| Surrogate: M5PFHxA | *6.91* | | µg/kg wet | 8.84 | | 78.2 | 50-150 | | | |
| Surrogate: M3PFHxS | *7.12* | | µg/kg wet | 8.38 | | 85.0 | 50-150 | | | |
| Surrogate: M4PFHpA | *7.14* | | µg/kg wet | 8.84 | | 80.8 | 50-150 | | | |
| Surrogate: M8PFOA | *7.29* | | µg/kg wet | 8.84 | | 82.5 | 50-150 | | | |
| Surrogate: M8PFOS | *6.79* | | µg/kg wet | 8.47 | | 80.1 | 50-150 | | | |
| Surrogate: M9PFNA | *6.40* | | µg/kg wet | 8.84 | | 72.4 | 50-150 | | | |
| Surrogate: MPFDoA | *7.04* | | µg/kg wet | 8.84 | | 79.6 | 50-150 | | | |
| Surrogate: d5-NEtFOSAA | *7.80* | | µg/kg wet | 8.84 | | 88.2 | 50-150 | | | |
| Surrogate: d3-NMeFOSAA | *7.46* | | µg/kg wet | 8.84 | | 84.4 | 50-150 | | | |

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**QUALITY CONTROL**

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B283034 - % Solids** | | | | | | | | | | | |
| **Blank (B283034-BLK1)** | | | | Prepared: 05/28/21 | Analyzed: 06/17/21 | | | | | | |
| % Solids | 0.00 | | % Wt | | | | | | | | |
| **Blank (B283034-BLK2)** | | | | Prepared: 05/28/21 | Analyzed: 06/17/21 | | | | | | |
| % Solids | 0.00 | | % Wt | | | | | | | | |
| **Duplicate (B283034-DUP3)** | | **Source: 21E1683-04** | | Prepared: 05/28/21 | Analyzed: 05/29/21 | | | | | | |
| % Solids | 85.8 | | % Wt | | 84.9 | | | 1.10 | | 5 | |
| **Duplicate (B283034-DUP4)** | | **Source: 21E1683-05** | | Prepared: 05/28/21 | Analyzed: 05/29/21 | | | | | | |
| % Solids | 85.3 | | % Wt | | 85.3 | | | 0.0886 | | 5 | |
| **Duplicate (B283034-DUP5)** | | **Source: 21E1683-06** | | Prepared: 05/28/21 | Analyzed: 05/29/21 | | | | | | |
| % Solids | 92.9 | | % Wt | | 93.3 | | | 0.458 | | 5 | |
| **Duplicate (B283034-DUP6)** | | **Source: 21E1683-07** | | Prepared: 05/28/21 | Analyzed: 05/29/21 | | | | | | |
| % Solids | 92.8 | | % Wt | | 91.6 | | | 1.36 | | 5 | |
| **Duplicate (B283034-DUP7)** | | **Source: 21E1683-08** | | Prepared: 05/28/21 | Analyzed: 05/29/21 | | | | | | |
| % Solids | 74.2 | | % Wt | | 69.1 | | | **7.11** | * | 5 | R-02 |
| **Duplicate (B283034-DUP8)** | | **Source: 21E1683-09** | | Prepared: 05/28/21 | Analyzed: 05/29/21 | | | | | | |
| % Solids | 75.8 | | % Wt | | 80.5 | | | **5.99** | * | 5 | R-02 |

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**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 is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| 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. |
| E | Reported result is estimated. Value reported over verified calibration range. |
| L-01 | Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side. |
| PF-05 | Opening calibration verification was within control criteria. Closing calibration verification was outside of criteria and biased on the low side. Re-analysis yielded similar non-conformance. |
| R-02 | Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep. |
| S-26 | Surrogate outside of control limits. |
| V-05 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound. |
| V-20 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SOP-454 PFAS in Water*** | |
| Perfluorobutanoic acid (PFBA) | NH-P |
| Perfluorobutanesulfonic acid (PFBS) | NH-P |
| Perfluoropentanoic acid (PFPeA) | NH-P |
| Perfluorohexanoic acid (PFHxA) | NH-P |
| 11Cl-PF3OUdS (F53B Minor) | NH-P |
| 9Cl-PF3ONS (F53B Major) | NH-P |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | NH-P |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | NH-P |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | NH-P |
| Perfluorodecanoic acid (PFDA) | NH-P |
| Perfluorododecanoic acid (PFDoA) | NH-P |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NH-P |
| Perfluoroheptanesulfonic acid (PFHpS) | NH-P |
| N-EtFOSAA | NH-P |
| N-MeFOSAA | NH-P |
| Perfluorotetradecanoic acid (PFTA) | NH-P |
| Perfluorotridecanoic acid (PFTrDA) | NH-P |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | NH-P |
| Perfluorodecanesulfonic acid (PFDS) | NH-P |
| Perfluorooctanesulfonamide (FOSA) | NH-P |
| Perfluorononanesulfonic acid (PFNS) | NH-P |
| Perfluoro-1-hexanesulfonamide (FHxSA) | NH-P |
| Perfluoro-1-butanesulfonamide (FBSA) | NH-P |
| Perfluorohexanesulfonic acid (PFHxS) | NH-P |
| Perfluoro-4-oxapentanoic acid (PFMPA) | NH-P |
| Perfluoro-5-oxahexanoic acid (PFMBA) | NH-P |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | NH-P |
| Perfluoropetanesulfonic acid (PFPeS) | NH-P |
| Perfluoroundecanoic acid (PFUnA) | NH-P |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | NH-P |
| Perfluoroheptanoic acid (PFHpA) | NH-P |
| Perfluorooctanoic acid (PFOA) | NH-P |
| Perfluorooctanesulfonic acid (PFOS) | NH-P |
| Perfluorononanoic acid (PFNA) | NH-P |
| ***SOP-466 PFAS in Soil*** | |
| Perfluorobutanoic acid (PFBA) | NH-P |
| Perfluorobutanesulfonic acid (PFBS) | NH-P |
| Perfluoropentanoic acid (PFPeA) | NH-P |
| Perfluorohexanoic acid (PFHxA) | NH-P |
| 11Cl-PF3OUdS (F53B Minor) | NH-P |
| 9Cl-PF3ONS (F53B Major) | NH-P |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | NH-P |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) | NH-P |
| 8:2 Fluorotelomersulfonic acid (8:2FTS A) | NH-P |
| Perfluorodecanoic acid (PFDA) | NH-P |
| Perfluorododecanoic acid (PFDoA) | NH-P |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SOP-466 PFAS in Soil*** | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NH-P |
| Perfluoroheptanesulfonic acid (PFHpS) | NH-P |
| N-EtFOSAA | NH-P |
| N-MeFOSAA | NH-P |
| Perfluorotetradecanoic acid (PFTA) | NH-P |
| Perfluorotridecanoic acid (PFTrDA) | NH-P |
| 4:2 Fluorotelomersulfonic acid (4:2FTS A) | NH-P |
| Perfluorodecanesulfonic acid (PFDS) | NH-P |
| Perfluorooctanesulfonamide (FOSA) | NH-P |
| Perfluorononanesulfonic acid (PFNS) | NH-P |
| Perfluoro-1-hexanesulfonamide (FHxSA) | NH-P |
| Perfluoro-1-butanesulfonamide (FBSA) | NH-P |
| Perfluorohexanesulfonic acid (PFHxS) | NH-P |
| Perfluoro-4-oxapentanoic acid (PFMPA) | NH-P |
| Perfluoro-5-oxahexanoic acid (PFMBA) | NH-P |
| 6:2 Fluorotelomersulfonic acid (6:2FTS A) | NH-P |
| Perfluoropetanesulfonic acid (PFPeS) | NH-P |
| Perfluoroundecanoic acid (PFUnA) | NH-P |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | NH-P |
| Perfluoroheptanoic acid (PFHpA) | NH-P |
| Perfluorooctanoic acid (PFOA) | NH-P |
| Perfluorooctanesulfonic acid (PFOS) | NH-P |
| Perfluorononanoic acid (PFNA) | NH-P |

Con-Test, a Pace 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 | 06/30/2022 |
| CT | Connecticut Department of Publilc Health | PH-0165 | 12/31/2022 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2022 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2022 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2021 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2021 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2022 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2022 |
| VT | Vermont Department of Health Lead Laboratory | LL720741 | 07/30/2022 |
| ME | State of Maine | MA00100 | 06/9/2023 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2021 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2021 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2022 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2021 |
| PA | Commonwealth of Pennsylvania DEP | 68-05812 | 06/30/2022 |
| MI | Dept. of Env, Great Lakes, and Energy | 9100 | 09/6/2021 |

Pace Analytical

# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

21E1683

**ALL SHADED AREAS are for LAB USE ONLY**

Company: Tighe & Bond

Address: 120 Front Street, Suite 7 Worcester, MA 01608

Billing Information: Tighe & Bond, 53 Southampton Road, Westfield, MA 01085

Report To: Michael Scherer

Email To: mjscherer@tighebond.com, jlrps@tighebond.com, kclewis@tighebond.com

Copy To: Jeff Arps

Site Collection Info/Address: Princeton

Customer Project Name/Number: Town of Princeton PFAS Release

State: MA County/City: /Princeton

Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Phone: 508-868-9707

Email: mjscherer@tighebond.com

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [✓] No

Collected By (print): MS/KL

Purchase Order #:

Quote #:

DW PWS ID #:

DW Location Code:

Collected By (signature):

Turnaround Date Required: 15 days

Immediately Packed on Ice: [✓] Yes [ ] No

Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: ____ [ ] Hold: ____

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: U/O

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Lab Project Manager:

Analyses: PFAS 537.1 (expanded 34 Compound List); PFAS 34 (Isotope Dilution)

Lab Profile/Line:

Lab Sample Receipt Checklist:

- Custody Seals Present/Intact Y N NA
- Custody Signatures Present Y N NA
- Collector Signature Present Y N NA
- Bottles Intact Y N NA
- Correct Bottles Y N NA
- Sufficient Volume Y N NA
- Samples Received on Ice Y N NA
- VOA - Headspace Acceptable Y N NA
- USDA Regulated Soils Y N NA
- Samples in Holding Time Y N
- Residual Chlorine Present Y N NA
- Cl Strips: ____
- Sample pH Acceptable Y N NA
- pH Strips: ____
- Sulfide Present Y N NA
- Lead Acetate Strips: ____

LAB USE ONLY: Lab Sample # / Comments:

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res Cl | # of Ctns | PFAS 537.1 (expanded 34 Compound List) | PFAS 34 (Isotope Dilution) | Lab Sample # / Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S-1 | Soil | GRAB | 5/25/21 | 0920 | | | | 1 | | ✓ | 1 |
| S-2 | | | | 0940 | | | | 1 | | ✓ | 2 |
| S-3 | | | | 1000 | | | | 1 | | ✓ | 3 |
| S-4 | | | | 1020 | | | | 1 | | ✓ | 4 |
| S-4 (DUP) | | | | 1020 | | | | 1 | | ✓ | 5 |
| S-5 | | | | 1040 | | | | 1 | | ✓ | 6 |
| S-6 | | | | 1100 | | | | 1 | | ✓ | 7 |
| BASEMENT-1 | | COMP | | 1130 | | | | 1 | | ✓ | 8 |
| BASEMENT-2 | | COMP | | 1130 | | | | 1 | | ✓ | 9 |

Customer Remarks / Special Conditions / Possible Hazards: Please report 34 compound list

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: ____

Cooler 1 Temp Upon Receipt: ____ oC

Cooler 1 Therm Corr. Factor: ____ oC

Cooler 1 Corrected Temp: ____ oC

Comments: 5.2°C

| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |
|---|---|---|---|
| [signature] | 5/26/21 0800 | [signature] | 5/27/21 0800 |
| Relinquished by/Company: (Signature) | Date/Time: 5/27 6:57 | Received by/Company: (Signature) 5.2 | Date/Time: 5/27/21 1830 |
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |

MTJL LAB USE ONLY: Table #: ____ Acctnum: ____ Template: ____ Prelogin: ____ PM: ____ PB: ____

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 2



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Pace Analytical

# CHAIN-OF-CUSTODY Analytical Request Document

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LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

21E1683

**ALL SHADED AREAS are for LAB USE ONLY**

Company: Tighe & Bond

Billing Information: Tighe & Bond, 53 Southampton Road, Westfield, MA 01085

Address: 120 Front Street, Suite 7 Worcester, MA 01608

Report To: Michael Scherer

Email To: mjscherer@tighebond.com, jirps@tighebond.com, kclewis@tighebond.com

Copy To: Jeff Arps

Site Collection Info/Address: Princeton

Customer Project Name/Number: Town of Princeton PFAS Release

State: MA County/City: /Princeton Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Phone: 508-868-9707
Email: mjscherer@tighebond.com

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [✓] No

Collected By (print): MS/KL

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature):

Turnaround Date Required: 15 days

Immediately Packed on Ice: [✓] Yes [ ] No

Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: ____ [ ] Hold: ____

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: U/O

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Lab Project Manager:

Analyses

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res Cl | # of Ctns | PFAS 537.1 (expanded 34 Compound List) | PFAS 34 (Isotope Dilution) | Lab Profile/Line: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TB-05252021 | DI | Grab | 5/25/21 | 0800 | | | | 1 | | ✓ | 10 |
| Field Blank | | | | 1045 | | | | 1 | | ✓ | 11 |
| EQ Blank-1 (Probe) | ↓ | ↓ | | 0945 | | | | 1 | | ✓ | 12 |
| EQ Blank-2 (Shovel | | | | 1045 | | | | 1 | | ✓ | 13 |

Lab Sample Receipt Checklist:

| | | |
|---|---|---|
| Custody Seals Present/Intact | Y N | NA |
| Custody Signatures Present | Y N | NA |
| Collector Signature Present | Y N | NA |
| Bottles Intact | Y N | NA |
| Correct Bottles | Y N | NA |
| Sufficient Volume | Y N | NA |
| Samples Received on Ice | Y N | NA |
| VOA - Headspace Acceptable | Y N | NA |
| USDA Regulated Soils | Y N | NA |
| Samples in Holding Time | Y N | NA |
| Residual Chlorine Present | Y N | NA |
| Cl Strips: | | |
| Sample pH Acceptable | Y N | NA |
| pH Strips: | | |
| Sulfide Present | Y N | NA |
| Lead Acetate Strips: | | |

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
Please report 34 compound list

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: ____
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments: 5.2°C

Trip Blank Received: Y N NA
HCL MeOH TSP Other

| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |
|---|---|---|---|
| [signature] | 5/26/21 0800 | [signature] | 5/27/21 0800 |
| [signature] | 5/27 6:57 | [signature] 5.2 | 5/27/21 1857 |
| | | | |

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Non Conformance(s): YES / NO

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