# City of Portsmouth Department of Public Works



### February 10, 2020 PEASE TRADEPORT WATER SUPPLY UPDATE

The City's engineering consultant continues to sample the performance of the activated carbon filters based on the amount of water treated. With the newly adopted New Hampshire Maximum Contaminant Levels (MCLs) for PFOA, PFOS, PFHxS and PFNA in place we are now sampling at the recommended lab detection limit which goes down to 2 ppt. Per NHDES, any sample with "estimated numbers below the reporting limit are considered non-detects." Due to the loss of the Haven Well, in order to meet the Pease Tradeport Water System demand, water from the Portsmouth water system is boosted into the Pease system and blended with the treated water from the Harrison and Smith wells. The following table provides a summary of the most recent treatment system testing results from samples taken on December 18, 2019.

#### PFAS Sampling for September 20, 2019

Sample Point	PFHxS	PFNA	PFOS	PFOA
NH MCLs (ppt)	18	11	15	12
Grafton Road	ND	ND	ND	ND
Treatment				

#### Notes:

"NH MCLs" are the New Hampshire Maximum Contaminant Levels (effective October 1, 2019). These levels are currently on hold for enforcement purposes due to an ongoing lawsuit.

#### **ONGOING WATER QUALITY MONITORING AND UPDATES**

The Air Force's consultant continues to perform routine sampling of the water supply wells in the Pease water system. In addition to these water supply wells, the Air Force's consultant samples other monitoring wells in the surrounding area to track the aquifer and monitor for any PFAS moving toward the supply wells. Currently, with the demonstration filters on line, the supply wells are sampled monthly and eleven monitoring wells are sampled quarterly. Sampling data is posted on the City's website once it has been validated by the Air Force's engineering consultant.

<sup>&</sup>quot;ND" is considered Non Detect. Per NHDES, "estimated numbers below the reporting limit are considered Non Detects."

Information is also posted on the City's website for the City of Portsmouth's PFAS sampling program.

All samples collected are analyzed BUREAU VERITAS laboratories (formerly Maxxam), the same laboratory that has been performing the Pease well PFAS analysis since 2014. Data for the Pease Well sampling is uploaded to the City's website when it is validated by the Air Force's consultant and sent to the City. A summary of the data for the Pease Well Carbon Treatment Demonstration Project is provided on the City's website.

#### FINAL TREATMENT SYSTEM CONSTRUCTION



Rendering of Proposed Drinking Water Treatment Facility Upgrade – Grafton Road

Construction of the final treatment system, which includes both resin and activated carbon filtration systems, began in April 2019. Demolition of older structures began at that time and continues. Recent work includes construction of the underground treated water storage tanks and associated site work around the building.



**Installation of New Carbon Filters** 



**New Building Under Construction** 

### SITE 8 INTERIM MITIGATION SYSTEM (excerpted from FORMER PEASE AIR FORCE BASE RESTORATION ADVISORY BOARD JANUARY 2020 UPDATE)

#### PFOS/PFOA FIELD WORK

- December monthly samples from the Smith, Harrison, Portsmouth, and Collins wells were collected on 4 December 2019.
- January monthly samples from the Smith, Harrison, Portsmouth, and Collins were collected on 21 January 2020.
- Quarterly AIMS Performance Monitoring Sampling at 17 groundwater monitoring wells was conducted on 4 and 5 December 2019.
- December AIMS and Site 8 IMS Performance Monitoring routine monthly groundwater elevation gauging events were conducted during the week of 9 December 2019.
- Quarterly Private Well Monitoring at 8 drinking water wells was conducted during the week of 9 December 2019.

#### AIRFIELD INTERIM MITIGATION SYSTEM

- Since startup in April 2019, the system has treated approximately 138,372,000 gallons of groundwater through 6 January 2020.
- The system was off from 18 November through 26 November 2019 for upgrades to process piping.
- The system operated for the month of December with shutdowns only for routine maintenance.
- Treated water being discharged is below detectable levels for PFOS and PFOA.

#### PUBLIC OUTREACH AND OTHER INFORMATION

The next Pease Restoration Advisory Board (RAB) meeting will be held at 6:00 pm on March 18, 2020 at the Pease office of the New Hampshire Department of Environmental Services. A copy of the December, 2019 RAB meeting presentation can be accessed on the City's website: http://files.cityofportsmouth.com/files/ww/PeaseRABmeeting12.2019.pdf

Testing for Pease completed their Non-target analysis of PFAS in addition to the 23 compounds that we are already sampling. The Air Force also participated utilizing water from the Site 8 Fire Training Center treatment system. A presentation was given by the lead investigator, Dr. Christopher Higgins, with the Colorado School of Mines during the last Restoration Advisory Board (RAB) meeting showing results. Their data confirmed the analysis trend from the ongoing monitoring and treatment of the Pease Wells. Their results also showed that the compounds they detected beyond what we test for were all removed by the carbon filters.

#### **NEW HAMPSHIRE PFAS REGULATIONS**

The state of New Hampshire's legislature's administrative rules committee approved drinking water standards for four Perfluorinated compounds (PFAS) compounds on July 18, 2019. These standards set maximum contaminant levels (MCLs) for public drinking water systems at the following levels:

- o Perfluorooctanoic acid (PFOA): 12 ppt
- o Perfluoroctane sulfonic acid (PFOS): 15 ppt
- o Perfluorononanoic acid (PFNA): 11 ppt
- Perfluorohexane sulfonic acid (PFHxS): 18 ppt
  - ppt = Parts per Trillion

The new standards took effect in October 2019. However, in December 2019 Merrimack Superior Court judge Richard McNamara ruled that New Hampshire will have to stop enforcing its strict new limits on PFAS chemicals at the end of the year due to ongoing lawsuit: "The legal issues raised by Plaintiffs' challenge are complex, the importance of public health is paramount and the expense imposed by the proposed rule is significant." Despite this ruling, the Pease International Tradeport drinking water system will continue to sample for compliance with these standards.

#### Additional information can be accessed at:

www.cityofportsmouth.com/publicworks/water/pease-tradeport-water-system

or by calling Al Pratt, Water Resources Manager, at: 603-520-0622 or Brian Goetz, Deputy Director of Public Works at: 603-766-1420

## Table 2 Summary of PFAS Analytical Results Demonstration Project December 2018 to December 2019

Demonstration Project  December 2018 to December 2019																													
Sample Location	Collection Date	Filter 1 Volume (MG)	Filter 1 Bed Volumes	Filter 2 Volume (MG)	Filter 2 Bed Volumes	6:2 Fluorotelomer sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl Perfluorooctane Sulfonamide (MEFOSA)	N-Methyl Perfluorooctane Sulfonamidoethanol (MEFOSE)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecane sulfonate (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoA)	Perfluoroheptane sulfonate (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (PFOSA)	Perfluorooctanesulfonic acid (PFOS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnA)	PFOS+PFOA
					NHDES MCL	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-	0.012	0.011	-	0.015	-	-	-	-	-
			Metho	d Detectio	n Limit (MDL)	0.0065	0.0055	0.0053	0.0049	0.0040	0.0061	0.0019	0.0066	0.0043	0.0066	0.0057	0.0036	0.0047	0.0040	0.0046	0.0053	0.0046	0.0058	0.0033	0.0036	0.0052	0.0032	0.0037	
			Report	ed Detectio	on Limit (RDL)	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	
												GAC	changed or	ut in both	vessels (11	/7/2018)													
Combined Raw	06-Dec-18	2.2	423	0.4	77	ND	ND	ND	ND	ND	ND	ND	0.0092 J	ND	ND	ND	ND	0.0140	J 0.0960	0.0360	0.0290	ND	ND	0.0470	0.0330	ND	ND	ND	0.0760
Filter 1- 25%	06-Dec-18	2.2	423	0.4	77	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Combined Raw	10-Jan-19	6.9	1,320	5.1	973	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0280	0.0100	0.0084 J	ND	ND	0.0160 J	0.0100 J	ND	ND	ND	0.0244 J
Filter 1- 25%	10-Jan-19	6.9	1,320	5.1	973	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Filter 2-100%	10-Jan-19	6.9	1,320	5.1	973	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Combined Raw	07-Feb-19	18.0	3,430	16.2	3,083	ND	ND	ND	ND	ND	ND	ND	0.0100 J	ND	ND	ND	ND	0.0130	J 0.0600	0.0220	0.0180 J	ND	ND	0.0270	0.0210	ND	ND	ND	0.0450 J
Filter 1- 25%	07-Feb-19	18.0	3,430	16.2	3,083	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Filter 2-100%	07-Feb-19	18.0	3,430	16.2	3,083	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Combined Raw	07-Mar-19	29.0	5,590	27.2	5,243	ND	ND	ND	ND	ND	ND	0.0084 J	0.0130 J	ND	ND	ND	ND	0.0160	J 0.0920	0.0320	0.0280	ND	ND	0.0420	0.0310	ND	ND	ND	0.0700
Filter 1- 25%	07-Mar-19	29.0	5,590	27.2	5,243	ND	ND	ND	ND	ND	ND	ND	0.0089 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Filter 2-100%	07-Mar-19	29.0	5,590	27.2	5,243	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0091 <b>ND</b>	ND L 0.0000	ND 0.0040	ND 0.0400	ND	ND	ND	ND 0.0040	ND	ND	ND	ND 0.0430 J
Combined Raw Filter 1- 25%	05-Apr-19 05-Apr-19	40.9 40.9	7,816 7,816	39.1 39.1	7,469 7,469	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	0.0091 J	J 0.0660 ND	0.0210 ND	0.0180 J	ND ND	ND ND	0.0250 ND	0.0210 0.0059 J	ND ND	ND ND	ND ND	0.0430 J
Filter 1- 50%	05-Apr-19	40.9	7,816	39.1	7,469	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0039 3 ND	ND	ND	ND	ND
Filter 2-100%	05-Apr-19	40.9	7,816	39.1	7,469	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Combined Raw	09-May-19	54.7	10,434	52.9	10,087	ND	ND	ND	ND	ND	ND	ND	0.0073 J	ND	ND	ND	ND	0.0095	J 0.0730	0.0240	0.0200	ND	ND	0.0280	0.0210	ND	ND	ND	0.0480 J
Filter 1- 25%	09-May-19	54.7	10,434	52.9	10,087	ND	ND	ND	ND	ND	ND	ND	0.0097 J	ND	ND	ND	ND	ND	ND	0.0094	ND	ND	ND	ND	0.0170 J	ND	ND	ND	ND
Filter 1- 50%	09-May-19	54.7	10,434	52.9	10,087	ND	ND	ND	ND	ND	ND	ND	0.0083 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0048 J	ND	ND	ND	ND
Filter 2-100%	09-May-19	54.7	10,434	52.9	10,087	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
			Metho	d Detectio	n Limit (MDL)	0.00043	0.00047	-	-	-	-	0.00037	0.00045	0.00036	0.00018	0.00025	0.00063	0.00037	0.00033	0.00026	0.00023	0.00048	0.00031	0.00043	0.00048	0.00016	0.00030	0.00038	-
			Report	ed Detectio	on Limit (RDL)	0.004	0.004	-	-	-	-	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.002	0.002	0.002	0.002	0.002	-
Combined Raw	07-Jun-19	66.4	12,667	64.6	12,320	0.0007 J	ND	NA	NA	NA	NA	0.0043	0.0084	ND	ND	ND	0.0022	0.0100	0.0820	0.0240	0.0210	0.0009 J	ND	0.0330	0.0220	ND	ND	ND	0.0540
Filter 1- 25%	07-Jun-19	66.4	12,667	64.6	12,320	0.0006 J	ND	NA	NA	NA	NA	0.0017 J	0.0094	ND	ND	ND	ND	0.0040	0.0110	0.0140	0.0040	ND	ND	0.0021	0.0200	ND	ND	ND	0.0061
Filter 1- 50%	07-Jun-19	66.4	12,667	64.6	12,320	0.0005 J	ND	NA	NA	NA	NA	ND	0.0094	ND	ND	ND	ND	0.0008	J 0.0009 v	J 0.0047	0.0003 J	ND	ND	ND	0.0140	ND	ND	ND	ND
Filter 1- 75%	07-Jun-19	66.4	12,667	64.6	12,320	0.0005 J	ND	NA	NA	NA	NA	ND	0.0097	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0023	ND	ND	ND	ND
Filter 2-100%	07-Jun-19	66.4	12,667	64.6	12,320	0.0005 J	ND	NA	NA	NA	NA	ND	0.0022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Combined Raw	08-Jul-19		15,054	77.1	14,707	0.0006 J	ND	NA	NA	NA	NA	0.0042	0.0079	ND	ND	ND	0.0018 J		0.0740	0.0230	0.0220	0.0010 J	ND	0.0310	0.0220	ND	ND	ND	0.0530
Filter 1- 25%	08-Jul-19	78.9	15,054	77.1	14,707	ND	ND	NA	NA	NA	NA	0.0024	0.0074	ND	ND	ND	ND	0.0052	0.0240	0.0160	0.0087	ND	ND	0.0070	0.0190	ND	ND	ND	0.0157
Filter 1- 50%	08-Jul-19	78.9	15,054	77.1	14,707	ND	ND	NA	NA	NA	NA	0.0011 J	0.0082	ND	ND	ND	ND	0.0022	0.0043	0.0110	0.0024	ND	ND	0.0006 J	0.0170	ND	ND	ND	0.0030 J
Filter 1- 75%	08-Jul-19	78.9	15,054	77.1	14,707	ND	ND	NA	NA	NA	NA	ND	0.0093	ND	ND	ND	ND	ND	ND	0.0015	ND	ND	ND	ND	0.0110	ND	ND	ND	ND
Filter 1- 100%	08-Jul-19	78.9	15,054	77.1	14,707	ND	ND	NA	NA	NA	NA	ND	0.0087	ND	ND	ND	ND	ND	ND	0.0014	ND	ND	ND	ND	0.0084	ND	ND	ND	ND
Filter 2- 100%	08-Jul-19		15,054	77.1	14,707	ND	ND	NA	NA	NA	NA NA	ND	0.0057	ND	ND	ND	ND	ND	ND 0.0960	ND	ND 0.0330	ND 0.0000 J	ND	ND 0.0350	ND	ND	ND	ND	ND 0.0590
Combined Raw	15-Aug-19		17,980	92.4	17,633	ND	ND	NA	NA	NA NA	NA NA	0.0045	0.0079	ND	ND	ND	0.0021	0.0110	0.0860	0.0250	0.0230	0.0009 J	ND	0.0350	0.0240	ND	ND	ND	0.0580
Filter 1- 25% Filter 1- 50%	15-Aug-19 15-Aug-19	94.2	17,980	92.4 92.4	17,633	ND ND	ND ND	NA NA	NA NA	NA NA	NA NA	0.0031	0.0076	ND ND	ND ND	ND ND	0.0007 J	0.0064	0.0320	0.0190	0.0110	ND ND	ND ND	0.0087	0.0200	ND ND	ND ND	ND ND	0.0197
Filter 1- 75%	15-Aug-19		17,980 17,980	92.4	17,633 17,633	ND	ND	NA	NA NA	NA NA	NA NA	0.0022 0.0007 J	0.0080	ND	ND	ND	ND	0.0039	J ND	0.0160	0.0050 0.0005 J	ND	ND	0.0021 ND	0.0190	ND	ND	ND	0.0071 ND
Filter 1- 100%	15-Aug-19		17,980	92.4	17,633	ND	ND	NA	NA NA	NA NA	NA	0.0007 J	0.0088	ND	ND	ND	ND	0.0008	J ND	0.0078	0.0003 J	ND	ND	ND	0.0180	ND	ND	ND	ND ND
1 II.GI 1- 100 /0	10-Aug-19	J+.Z	17,900	32.4	17,000	IND	ND	1 1/-1	INA	INA	14/4	0.0007 3	0.0099	IND	ND	ND	ND	0.0010 3	ND	0.0000	0.0000 J	ND	ND	ND	0.0170	IND	ND	ND	ND

#### Table 2 **Summary of PFAS Analytical Results Demonstration Project** December 2018 to December 2019

Sample Location	Collection Date	Filter 1 Volume (MG)	Filter 1 Bed Volumes	Filter 2 Volume (MG)	Filter 2 Bed Volumes	6:2 Fluorotelomer sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl Perfluorooctane Sulfonamide (MEFOSA)	N-Methyl Perfluorooctane Sulfonamidoethanol (MEFOSE)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecane sulfonate (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoA)	Perfluoroheptane sulfonate (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (PFOSA)	Perfluorooctanesulfonic acid (PFOS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnA)	PFOS+PFOA
	1	1	_		NHDES MCL	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-	0.012	0.011	-	0.015	-	-	-	-	-
Filter 2- 25%	15-Aug-19	94.2	17,980	92.4	17,633	ND	ND	NA	NA	NA	NA	ND	0.0096	ND	ND	ND	ND	ND	ND	0.0011 J	ND	ND	ND	ND	0.0110	ND	ND	ND	ND
Filter 2- 100%	15-Aug-19	94.2	17,980	92.4	17,633	ND	ND	NA	NA	NA	NA	ND	0.0086	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0035	ND	ND	ND	ND
Combined Raw	20-Sep-19	108.7	20,752	106.9	20,405	ND	ND	NA	NA	NA	NA	0.0036	0.0082	ND	ND	ND	0.0016	0.0100	0.0830	0.0250	0.0240	ND	ND	0.0430	0.0220	ND	ND	ND	0.0670
Filter 1- 25%	20-Sep-19	108.7	20,752	106.9	20,405	ND	ND	NA	NA	NA	NA	0.0024	0.0073	ND	ND	ND	ND	0.0066	0.0380	0.0190	0.0110	ND	ND	0.0150	0.0190	ND	ND	ND	0.0260
Filter 1- 50%	20-Sep-19	108.7	20,752	106.9	20,405	ND	ND	NA	NA	NA	NA	0.0018 J	0.0078	ND	ND	ND	ND	0.0050	0.0190	0.0170	0.0063	ND	ND	0.0042	0.0190	ND	ND	ND	0.0105
Filter 1- 75%	20-Sep-19	108.7	20,752	106.9	20,405	ND	ND	NA	NA	NA	NA	0.0006 J	0.0092	ND	ND	ND	ND	0.0014	0.0020	0.0120	0.0007 J	ND	ND	ND	0.0210	ND	ND	ND	ND
Filter 1- 100%	20-Sep-19	108.7	20,752	106.9	20,405	ND	ND	NA	NA	NA	NA	ND	0.0080	ND	ND	ND	ND	0.0009	J 0.0017 J	0.0088	0.0006 J	ND	ND	ND	0.0180	ND	ND	ND	ND
Filter 2- 25%	20-Sep-19	108.7	20,752	106.9	20,405	ND	ND	NA	NA	NA	NA	ND	0.0088	ND	ND	ND	ND	ND	ND	0.0036	ND	ND	ND	ND	0.0160	ND	ND	ND	ND
Filter 2- 100%	20-Sep-19	108.7	20,752	106.9	20,405	ND	ND	NA	NA	NA	NA	ND	0.0095	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0079	ND	ND	ND	ND
					T	1	T		T	1			n Filter 1 (11	· · · · ·	<del></del>				T			T				1		1	
Combined Raw	18-Dec-19	12.1	2,387	142.8	27,258	ND	ND	NA	NA	NA	NA	0.0048	0.0095	ND	ND	ND	0.0027	0.0130	0.1000	0.0310	0.0280	0.0009 J	ND	0.0490	0.0290	ND	ND	ND	0.0770
Filter 2- 25%*	18-Dec-19	12.1	2,387	142.8	27,258	ND	ND	NA	NA	NA	NA	0.0019 J	0.0110	ND	ND	ND	ND	0.0038	0.0130	0.0170	0.0044	ND	ND	0.0022	0.0220	ND	ND	ND	0.0066
Filter 2- 50%*	18-Dec-19	12.1	2,387	142.8	27,258	ND	ND	NA	NA	NA	NA	ND	0.0088	ND	ND	ND	ND	ND	ND	0.0068	ND	ND	ND	ND	0.0200	ND	ND	ND	ND
Filter 2- 100%*	18-Dec-19	12.1	2,387	142.8	27,258	ND	DN	NA	NA	NA	NA	ND	0.0094	ND	ND	ND	ND	ND	ND	0.0018 J	DN	ND	ND	ND	0.0140	ND	DN	ND	ND
Filter 1- 25%*	18-Dec-19	12.1	2,387	142.8	27,258	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Filter 1- 50%*	18-Dec-19	12.1	2,387	142.8	27,258	ND	DN	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	DN	ND	ND	ND	ND	ND	DN	ND	ND
Filter 1- 75%*	18-Dec-19	12.1	2,387	142.8	27,258	ND	DID	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	DID	ND	ND	ND	ND	ND	DN	ND	ND
Filter 1- 100%*	18-Dec-19	12.1	2,387	142.8	27,258	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Rolling 12-month Average  Reported in ppt (ng/L)  Lag Filter Effluent					ND	ND	ND	ND	ND	ND	ND	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	

Grey text indicates the parameter was not analyzed or not detected. All concentrations in µg/L - micrograms per liter (ppb)

J - The result is an estimated value.

B - Detected in Blank.

USEPA - Environmental Protection Agency NA - Not Analysed or Not Applicable

ND - Not detected

— - No Health Advisory available

- Denotes 'B' value, detected in blank

- Denotes raw water influent sample - Denotes short chain compound

\* - Since November 15, 2019, Filter 2 has been operating in the lead position and Filter 1 has been operating in the lag position.