

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

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January 11, 2023

Mr. George Meyers, Supervisor
Town of New Windsor
555 Union Avenue
New Windsor, New York 12553

Re: New Windsor Public Water Supply Well PFAS Sample Results
Butterhill Wellfield, New Windsor (T), Orange County

Dear Supervisor Meyers:

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the **December 8, 2022** sampling of the temporary granular activated carbon (GAC) water treatment system by DEC representatives that was installed at the Town of New Windsor (Town) Butterhill Wellfield located at 181 Forge Hill Road.

No PFOS or PFOA was detected in the Butterhill temporary GAC-treated water. Effective August 26, 2021, the NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

The samples were analyzed for polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) utilizing EPA Method 533. Data received for the PFAS analysis has been attached.

During this event, sampling for PFAS was conducted at 29 locations.

- pre-treatment (combined raw untreated water), which has a "BH20221208PRE-GAC" identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20221208-1N-25" identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20221208-1N-50" identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20221208-1N-75" identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 2), which has a "BH20221208-2N-25" identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 2), which has a "BH20221208-2N-50" identifier in the Client Sample ID;


- 75 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20221208-2N-75” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20221208-3N-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20221208-3N-50” identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20221208-3N-75” identifier in the Client Sample ID;
- Butterhill Well No.1 raw untreated water; which has a “BH20221208-1RAW” identifier in the Client Sample ID;
- Butterhill Well No.2 raw untreated water; which has a “BH20221208-2RAW” identifier in the Client Sample ID;
- Butterhill Well No.3 raw untreated water; which has a “BH20221208-3RAW” identifier in the Client Sample ID;
- Post-treatment (treated water after all GAC trains), which has a “BH20221208POST-GAC” identifier in the Client Sample ID.
- mid-treatment (after the first GAC canister in Pair Train No. 1 and prior to the second GAC canister in Pair Train No.1), which has a “BH20221208-1 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 1), which has a “BH20221208-1 POST” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 2 and prior to the second GAC canister in Pair Train No.2), which has a “BH20221208-2 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 2), which has a “BH20221208-2 POST” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 3 and prior to the second GAC canister in Pair Train No.3), which has a “BH20221208-3 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 3), which has a “BH20221208-3 POST” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20221208-1S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20221208-1S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20221208-1S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20221208-2S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20221208-2S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20221208-2S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20221208-3S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20221208-3S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20221208-3S-75” identifier in the Client Sample ID;

The 29 locations sampled (and their associated identifiers) are depicted in Figure 1.

Please note that the next GAC OM sampling event will be scheduled around December 2022.

If you have any technical questions regarding the analytical results or on the operation and performance of the GAC treatment system, please feel free to contact me or Dana Bryant, P.E., Arcadis (DEC's Project Engineer) at (518) 250-7347 or dana.bryant@arcadis.com . For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Todd Rollend at (518) 365-3333. For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Steve Gladding, P.E., Ph.D of the NYSDOH Bureau of Water Supply Protection at (518) 402-7650; email: steven.gladding@health.ny.gov .

Sincerely,



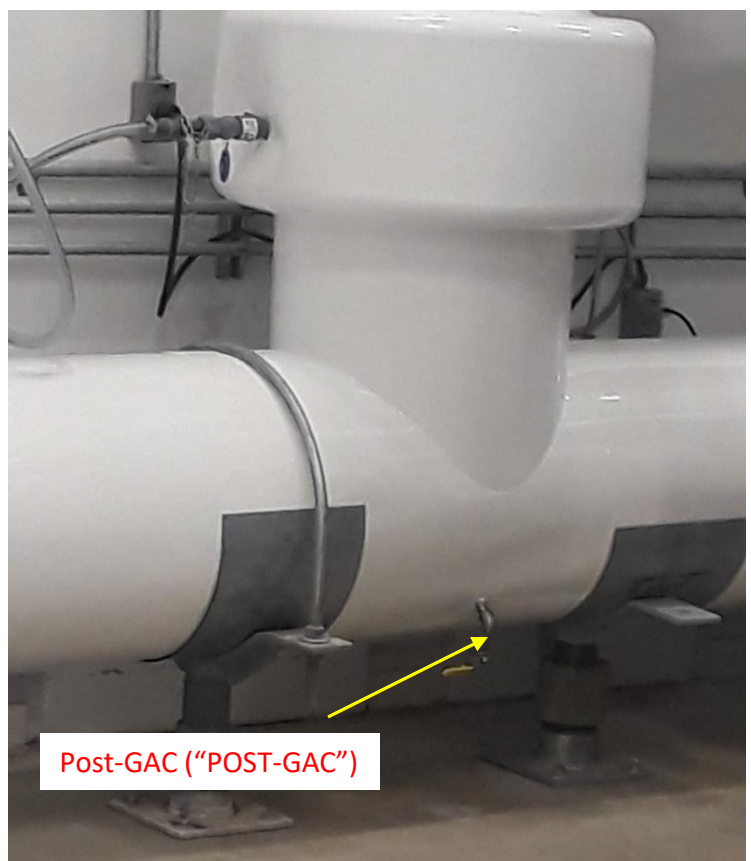
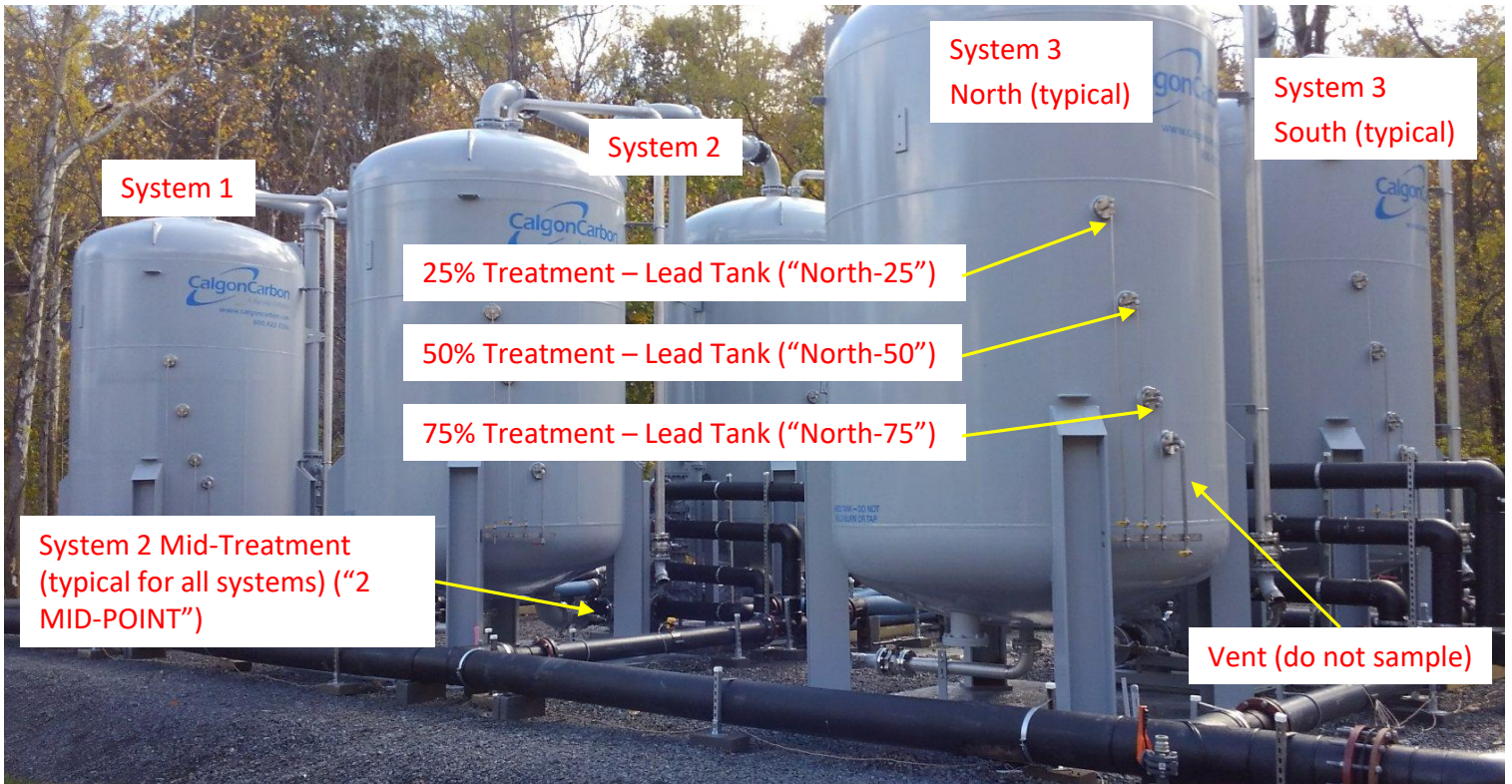
David J. Chiusano
Environmental Engineer/Project Manager
Remedial Section A, Remedial Bureau E
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Enclosures

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M. Andersen, OCDOH
D. Bryant, Arcadis
F. Fina, Aztech
M. Cruden, NYSDEC-DER
B. Rung, NYSDEC-DER
D. Bendell, Region 3 RHWRE

Figure 1
Sampling Locations

Butterhill Plant Temporary GAC Treatment System



- 25%, 50%, 75% Treatment sample locations repeated on the current Lag “South” Tanks.
- Post-treatment samples for each individual System can be collected after each Lag Tank, mirrored sample location to MID-POINT sample location on Lead Tanks.

Town of New Windsor
Butterhill Wellfield Temporary GAC Operation and Maintenance PFOA and PFOS Sampling Results * (Parts Per Trillion (PPT)) Continued

Date	Analyte	GAC Pair 1 Mid-Point	GAC Pair 1 Post	GAC Pair 1 Lag 25%(South)	GAC Pair 1 Lag 50% (South)	GAC Pair 1 Lag 75%(South)	GAC Pair 2 Mid-Point	GAC Pair 2 Post	GAC Pair 2 Lag 25% (South)	GAC Pair 2 Lag 50%(South)	GAC Pair 2 Lag 75%(South)	GAC Pair 3 Mid-Point	GAC Pair 3 Post	GAC Pair 3 Lag 25%(South)	GAC Pair 3 Lag 50%(South)	GAC Pair 3 Lag 75%(South)	NYS MCLs ³
February 2020 (Well 2)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
March 2020 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
April 2020 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
May 2020 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
August 2020 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
December 2020 (Well 3)	PFOA	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	10 ³
	PFOS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	10 ³
March 2021 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
June 2021 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
September 2021 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
December 2021 (Well 3 ⁺⁺) ⁵	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	2.2	ND	ND	2.1	ND	ND	ND	ND	2.1	ND	ND	ND	ND	10 ³
March 2022 (Well 2)	PFOA	ND	ND	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
June 2022 (Well 2)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 ³
September 2022 (Well 3)	PFOA	3.7	ND	2.9	2.1	ND	3.5	ND	2.2	1.9	ND	3.2	ND	2.6	ND	ND	10 ³
	PFOS	3.9	ND	1.9	ND	ND	4.2	ND	ND	ND	ND	3.4	ND	ND	ND	ND	10 ³
December 2022 (Well 2) ^{**}	PFOA	ND	ND	2.8	ND	ND	ND	ND	2.7	ND	ND	ND	ND	2.5	ND	ND	10 ³
	PFOS	ND	ND	2.2	ND	ND	ND	ND	2.3	ND	ND	ND	ND	2.3	ND	ND	10 ³

Notes:

* Method 533 List Analysis

** At the time of sampling (12/08/2022), Production Well 2 was feeding the plant. Last GAC change completed in October 2022

1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
2. "ND" means non-detect. The analyte was not detected in the sample.
3. The NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.
4. NS: Not Sampled
5. Con-Test (a Pace Laboratory) began analyzing drinking water samples starting with December 2021 sampling event.

How to Read Your Laboratory Reports

PFOA and PFOS Results:

- Analyte is the term used to describe what the laboratory was testing for, in this case PFOS and PFOA.
- Conc. (ng/l) is your result for PFOS and PFOA. In your case, no PFOS and PFOA were detected, thus ND or “non-detect” or <2.0 ng/l was reported. (ng/l = ppt)
- RL = reporting limit or RDL = reportable detection limit is the lowest level at which this specific testing protocol and laboratory has confidence in measuring the given analyte.
- Qualifiers are added information to help understand the quality of the data. Often, if something about the results or the calibration of the testing equipment was irregular, it would be reported here.

All other columns represent laboratory quality control information. The laboratory calibrates its equipment against a precise quantity of the chemical in order to ensure that the equipment is functioning properly. Some laboratory reports may not have all this information.

- Labeled Standard or Surrogate is the lab’s specific name for an individual control sample.
- %R is the percent of the control sample that was detected by the equipment. A 100% reading represents perfect equipment alignment.
- LCL-UCL is the lower concentration limit (LCL) and upper concentration limit (UCL). The LCL represents the lowest acceptable %R value and the UCL represent the highest acceptable %R value required to ensure your result is accurate.
- Qualifiers: If a result quality control variance is noted or if the %R value of any of the control samples were outside the allowable range that would have been noted in this last column. This gives the analyst less confidence in the measured value.

The analysis for PFOS and PFOA is performed using modified EPA Method 537. The laboratory may report a detection of PFOS and PFOA down to approximately 2.0 nanograms per liter (ng/l) or parts per trillion (ppt).

Sec Goal is the EPA nomenclature for all contaminants that have regulatory levels set based on aesthetics (for example, taste or color). DOH recognizes these EPA secondary goals as primary standards and enforces its drinking water quality program accordingly.

- Date/Time represents the date and time of the analysis at the lab.
- By refers to the technician who ran the test.
- Reference indicates the EPA method used in the test.