

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E  
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March 15, 2023

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

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

Dear Supervisor George Meyers:

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the February 9, 2023 sampling of the granular activated carbon (GAC) water treatment system by DEC representatives that was installed on the Town of New Windsor (Town) Kroll Well located at 354 Mount Airy Road.

**No PFOS or PFOA was detected in the Kroll Well GAC-treated water. The NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.**

Specifically, the samples were analyzed for a total of twenty-five per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the 25 PFAS list analysis has been attached. During this event, sampling for the 25 PFAS list was conducted at 9 locations:

- pre-treatment (raw untreated water), which has a “RAW WATER” identifier in the Client Sample ID;
- 25 % treatment – lead tank (A-25 identifier);
- 50 % treatment – lead tank (A-50 identifier);
- 75 % treatment – lead tank (A-75 identifier);
- mid-treatment (after the first GAC canister and prior to the second GAC canister), which has a “MID POINT” identifier in the Client Sample ID;
- 25 % treatment – lag tank (B-25 identifier);
- 50 % treatment – lag tank (B-50 identifier);
- 75 % treatment – lag tank (B-75\_identifier); and
- post-treatment (after the entire treatment system), which has a “EFFLUENT” identifier in the Client Sample ID.

The 9 locations sampled (and their associated identifiers) are depicted in Figure 1. Please note that the next 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 Meghan Miller, EA Science and Technology (DEC's Project Engineer) at (315) 565-6557 or [mmiller@eaest.com](mailto:mmiller@eaest.com). For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Brian Neumann of Precision Environmental Services at (518) 441-1520 (cell). For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Steve Gladding of the NYSDOH Bureau of Water Supply Protection at (518) 402-7688.

Sincerely,



David J. Chiusano  
Environmental Engineer/Project Manager  
Remedial Section A, Remedial Bureau E  
Division of Environmental Remediation

Enclosures

- ec: w/enclosures
- D. Zagon, Town of New Windsor
  - J. Marina, Town of New Windsor
  - J. Egitto, Town of New Windsor
  - K. Rea, Town of New Windsor
  - J. Conrad, PVE LLC
  - C. Brown, PVE LLC
  - M. Weeks, MHE
  - K. Wheeler, NYSDOH
  - S. Gagnon, OCDOH
  - M. Andersen, OCDOH
  - M. Miller, EA Engineering
  - B. Neumann, PES
  - M. Cruden, NYSDEC
  - B. Rung, NYSDEC
  - D. Pollack, Region 3 DER

**Town of New Windsor**

**Kroll Well GAC Operation and Maintenance PFOA and PFOS Sampling Results \*\* (Parts Per Trillion (PPT))**

**(Last updated: February 2023)**

Date	Analyte	Result <sup>1</sup> Raw Water	Result A25	Result <sup>2</sup> A50	Result A75	Result Mid-Point	Result B25	Result B50	Result B75	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value	Proposed NYS MCLs
September 2019 (Based on 21 PFAS Analysis Data only)	PFOA	8.4	ND	6.1	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	14	ND	7.8	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
October 2019 (Based on 21 PFAS Analysis Data only)	PFOA	7.9	6.5	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	13	8.7	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
November 2019 (Based on 21 PFAS Analysis Data only)	PFOA	12	10	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	10	8.4	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
December 2019 (Based on 21 PFAS Analysis Data only)	PFOA	12	10	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	10	8.7	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
January 2020 (Based on 21 PFAS Analysis Data only)	PFOA	11	10	2.2	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	10	8.7	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
February 2020 (Based on 21 PFAS Analysis Data only)	PFOA	11	9.9	3.3	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	9.7	8.4	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>

**Notes:**

\*\* 21 PFAS List Analysis.

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. MCL (Maximum Contaminant Level, mg/l) is the maximum permissible level of a contaminant in water delivered by a public water system.
4. Guidance: USEPA Drinking Water Health Advisory guidance value is currently 70 ppt.
5. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Town of New Windsor

Kroll Well GAC Operation and Maintenance PFOA and PFOS Sampling Results \*\* (Parts Per Trillion (PPT)) Continued

(Last updated: February 2023)

Date	Analyte	Result <sup>1</sup> Raw Water	Result A25	Result <sup>2</sup> A50	Result A75	Result Mid-Point	Result B25	Result B50	Result B75	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value	NYS MCLs
March 2020 (Based on 21 PFAS Analysis Data only)	PFOA	9.3	9.2	4.2	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	9.6	11	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
April 2020 (Based on 21 PFAS Analysis Data only)	PFOA	8.7	8.4	4.3	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	8.9	7.7	1.9	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
May 2020 (Based on 21 PFAS Analysis Data only)	PFOA	ND	7.9	4.8	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	11.0	7.7	2.0	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
August 2020 (Based on 21 PFAS Analysis Data only)	PFOA	9.4	9.2	6.8	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	11.0	11.0	4.5	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	<b>GAC CHANGE COMPLETED BY NYSDEC IN NOVEMBER 2020</b>											
February 2021 (Based on 21 PFAS Analysis Data only)	PFOA	7.5	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	6.7	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
May 2021 (Based on 21 PFAS Analysis Data only)	PFOA	9.1	5.7	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	7.4	2.6	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>

Notes:

\*\* 21 PFAS List Analysis.

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. MCL (Maximum Contaminant Level, mg/l) is the maximum permissible level of a contaminant in water delivered by a public water system.
4. Guidance: USEPA Drinking Water Health Advisory guidance value is 70 ppt.
5. Effective August 2020 the NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Town of New Windsor

Kroll Well GAC Operation and Maintenance PFOA and PFOS Sampling Results \*\*\* (Parts Per Trillion (PPT)) Continued

(Last updated: February 2023)

Date	Analyte	Result <sup>1</sup> Raw Water	Result A25	Result <sup>2</sup> A50	Result A75	Result Mid-Point	Result B25	Result B50	Result B75	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value	NYS MCLs
August 2021** (Based on 21 PFAS Analysis Data only)	PFOA	7.0	4.9	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	8.0	4.3	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
November 2021*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	7.6	6.4	3.6	0.72	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	9.4	6.1	1.8	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
March 2022*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	7.6	6.1	4.1	0.92	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	9.5	4.5	1.6	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
May 2022*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	7.4	7.9	4.6	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	7.3	3.9	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
August 2022*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	6.1	ND	4.8	2.1	ND	ND	ND	6.6	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	7.9	ND	ND	ND	ND	ND	ND	3.1	ND	70 <sup>4</sup>	10 <sup>5</sup>
<b>GAC CHANGE COMPLETED BY NYSDEC IN NOVEMBER-DECEMBER 2022</b>												
February 2023*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	17.0	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>
	PFOS	12.0	ND	ND	ND	ND	ND	ND	ND	ND	70 <sup>4</sup>	10 <sup>5</sup>

Notes:

\*\* 21 PFAS List Analysis

\*\*\* 25 PFAS List Analysis Via USEPA Method 533

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. MCL (Maximum Contaminant Level, mg/l) is the maximum permissible level of a contaminant in water delivered by a public water system.
4. Guidance: USEPA Drinking Water Health Advisory guidance value is 70 ppt.
5. Effective August 2020 the NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

## 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).

### **Inorganic Results:**

- Parameter is the same as “analyte” above – it is the chemical being tested.
- Result is the concentration of that chemical detected.
- RL/PQL is the lowest level at which the specific laboratory test can reliably quantify the concentration. Below that number, the result is considered unreliable.
- DIL is the number of times the sample was diluted (necessary because the test has a certain range that it is accurate for).
- Units: mg/l is milligrams per liter or parts per million; ug/l is micrograms per liter or parts per billion.
- DW MCL stands for drinking water (DW) and “maximum contaminant level” (MCL). All chemicals that have a “maximum contaminant level” (MCL) established for drinking water (DW) have a level reported in this column.

- 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.