

Results from surface water and sediment testing for perfluorinated compounds (PFCs) near former Chemfab facilities

Summary

On March 10th, 2016, the Department of Environmental Conservation (DEC) sampled surface waters and sediments from eleven different locations in North Bennington (9 sites) and Bennington (2 sites). The sampling targeted rivers, creeks, and ponds near the former Chemfab facility at 1030 Water Street in North Bennington, and near the old location of the Chemfab plant at 108 Northside Drive in Bennington.

Testing was performed to provide DEC with further data to evaluate the degree and extent of PFOA contamination.

Summary of Surface Water Sampling Results:

Press Release: [Update on Surface Water Testing Results in Bennington](#) (March 31, 2016)

Results from 10 surface water samples showed PFOA concentrations ranging from no detection (less than 7 parts per trillion) to 79 parts per trillion. The PFOA concentrations found in the waters tested are much lower than concentrations that could be harmful to freshwater organisms, and are much lower than levels that would be a risk to people who swim there.

Summary of Sediment Results:

Press Release: [Gov. Shumlin Provides Update on No. Bennington and Pownal Testing](#) (April 13, 2016)

Of seven sediment samples collected in early March, three sediment samples contained concentrations of PFOA from 1.2 to 2.4 ng/g (parts per billion), and four samples were found to be non-detect. The highest sediment concentration of PFOA (2.4 ppb) was found in the Walloomsac River, and is considerably lower than the concentration in sediment that would pose a risk to human health or the most sensitive aquatic species.

Data Tables

The following tables contain surface water and sediment results from testing for UCMR3 perfluorinated chemicals using EPA Method 537. The analysis was performed by Northern Lake Services (surface water) and Eurofin Lancaster Laboratory (sediment).

Table 1. Location of surface water and sediment sampling locations in North Bennington; targeting surface waters near Former ChemFab facility at 1030 Water Street. All sites sampled on March 10, 2016 by VTDEC. Surface water PFOA MRL 6.7 ng/L. Sediment PFOA LOQ varies w/% moisture from 0.54-1.3 ng/g. J = estimated value because the detected concentration was below the MRL or LOQ.

Location	Media	Surface water Results PFOA (ng/L = ppt)	Sediment Results PFOA (ng/g = ppb)
Paran Lake	Water /sediment	ND	ND
Bennington College Campus Pond	Water /sediment	PFOA 79.3 PFHpA 5.5 PFNA 6.8	1.5 (J)
Paran Creek Mill Pond 2 (above Nahanco Co)	Sediment	NA	ND
Paran Creek Mill Pond- 1A (by dam)	Water /sediment	16	ND
Paran Creek Mill Pond- 1B (mid-lot)	Sediment	NA	ND
Paran Creek Mill Pond- 1C (north-lot)	Water / sediment	18.1	1.2 (J)
Paran Creek (above 67A Bridge)	Water	37.6 (low flow) 22.9 (high flow)	NA
Walloomsac River- below Paran Creek	Water /sediment	8.6	2.4
Walloomsac River –Above Paran Creek	Water	8.9	NA

*Bennington College Campus Pond also contained 5.5 ng/L of PFHpA, and 6.8ng/L of PFNA.

Table 2. Location of surface water sampling locations in the vicinity of the Bennington Former ChemFab facility at 108 Northside Drive. All sites sampled on March 10, 2016 by VTDEC.
Surface water PFOA MRL is 6.7 ng/L.

Location	Media	Surface Water Results
		PFOA (ng/L)
Walloomsac River – Located above confluence with Roaring Brook	Water	ND
Walloomsac River – Located below confluence with Roaring Brook	Water	ND

Frequently Asked Questions

Why is the unit of measurement for sediments in parts per billion instead of parts per trillion?

Parts per billion (ng/g) is the standard unit for measuring PFOA concentrations in sediments. Sediment is a different medium than water and therefore requires a different scale of measurement.

Think about how kilometers or miles are used as a standard unit for expressing running distances. “I just ran a 5 kilometer race” makes a lot more sense to us than saying, “I just ran a 500,000 centimeter race!” Kilometers better quantify the distance. If the race course was off by 100 centimeters, it wouldn’t matter in the grand scheme of the race, because centimeters are not significant at this scale.

What is a Minimum Reporting Level (MRL) or Limit of Quantification (LOQ)?

A Minimum Reporting level (MRL) or Limit of Quantification (LOQ) is the lowest concentration of a substance that can be reported with a reasonable degree and accuracy and precision. MRLs and LOQs are equivalent terms. They are often referred to as “reporting limits.” Unfortunately, all laboratories do not use the same nomenclature.

Some of the surface water results are above 20 parts per trillion. Should I be concerned?

The Health Department states that the PFOA levels found in the water bodies are much lower than levels that would be a risk to people who swim there. Swimming and recreational activities are allowable.

More Information:

For questions regarding PFOA in Vermont, call 211 or visit <http://dec.vermont.gov>.
For health related questions, call the Vermont Department of Health at 1-800-439-8550 or visit <http://healthvermont.gov/enviro/pfoa.aspx>.

