

Ms. Alyssa Sellwood, P.E.
Complex Sites Project Manager, Remediation and Redevelopment Program
State of Wisconsin Department of Natural Resources
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Date: February 17, 2023
BRRTS No.: 02-38-580694
Our Ref: 30128984
Subject: Fish Tissue and Surface Water Sampling Update,
Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI

Dear Ms. Sellwood,

On March 8, 2022 the Wisconsin Department of Natural Resources (WDNR) provided feedback on Tyco's Fish Tissue and Surface Water Sampling Work Plan submitted November 2020. WDNR requested that Tyco collect fish tissue samples from privately owned ponds identified as SW-41 and SW-42 in addition to collecting additional information from a third privately owned pond identified as SW-19. Tyco did not evaluate fish in Ditch B in accordance with WDNR feedback which stated "Tyco does not need to evaluate fish in Ditch B at this time. Resident fish are not known to inhabit this and other drainage ditches near the Site".

Interactions with Property Owners

On May 7, 2022, Arcadis contacted the owner of SW-19 to inquire about the uses of the pond and whether they would be willing to have Tyco test their water and fish for per- and polyfluoroalkyl substances (PFAS). The owner at that time indicated that they do not fish from that pond, did not intend to fish from the pond, and they were not interested in sampling. Arcadis contacted the owner again on September 28, 2022, and the owner confirmed they do not fish from that pond, did not intend to fish from the pond, and they were still not interested in sampling.

On September 28, 2022, Arcadis contacted the owner of SW-41 to inquire about the uses of the pond and whether they would be willing to have Tyco test their water and fish for PFAS. The owner indicated that there are no fish in their pond and they were not interested in sampling.

On September 28, 2022, Arcadis contacted the owner of SW-42 to inquire about the uses of the pond and whether they would be willing to have Tyco test their water and fish for PFAS. The owner indicated the pond was not currently used for fishing, but it had previously been stocked with bullhead that they would like to have sampled. The owner did not recall exactly when the pond had been stocked, and because the pond is not actively used for fishing, the owner was unsure whether any fish remained in the pond. The owner agreed to allow Arcadis to send an ecologist to the pond to determine whether there were still fish in the pond.

Field Work

Arcadis sent an ecologist to SW-42 to observe the pond and evaluate whether fish might be present on October 5, 2022. The Arcadis ecologist indicated that adult sized game fish were not likely to live in the pond. Limited habitat and structure within the pond might support some small fish or minnows along with amphibians or reptiles, but not fish of edible size. Additionally, the size and apparent depth of the pond would likely freeze over during winters and reduce the availability of dissolved oxygen to a point that it would not support fish. No fish were observed during the site visit.

Despite no evidence of fish from a visit to the pond, Arcadis sent field technicians to fish and sample the pond on October 27, 2022. Again, no fish were observed or caught using a hook and line technique. A surface water sample was collected and sent to an independent laboratory for analysis.

Surface water sampling results are summarized in the table below and the report from the laboratory is attached to this letter.

Surface Water Results

Surface water standards established by the State of Wisconsin under Certified Rule WY-23-19 are:

- 8 nanograms per liter (ng/L) of PFOS for all waters except those that cannot naturally support fish and do not have downstream waters that support fish
- 20 ng/L of PFOA in waters classified as public water supplies under ch. NR 104, Wis. Adm. Code
- 95 ng/L of PFOA for other surface waters

Because none of the ponds in question are used for drinking water, the applicable standard is 95 ng/L of PFOA. Because SW-42 cannot naturally support fish and does not have downstream waters that support fish, there is no applicable PFOS standard. Because SW-41 was identified by the homeowner as not naturally supporting fish, but not independently field confirmed by Arcadis, it may be subject to the 8 ng/L criteria for PFOS. Regardless, previous sampling results were below any potentially applicable criteria. The third pond (SW-19) is presumed to support fish and therefore subject to the 8 ng/L criteria for PFOS.

SW-42 sampling results were consistent with previous results for the pond and below any applicable standards. The table below summarizes current and historical surface water results from ponds discussed in this letter including the most recent sampling from SW-42.

	Date	PFOA (ng/L)	PFOS (ng/L)
Pond	Applicable Criteria ¹	95	8 ¹
SW-19	5/30/2018	250	16
SW-19	6/26/2018	240	21
SW-19	9/28/2018	270	17
SW-41	12/18/2020	23	7
SW-42	12/16/2020	7.7	10
SW-42	10/27/2022	5.2	9.2

¹ Only applicable to SW-19

Conclusion

The latest analytical data from SW-42 is consistent with previous results and below any applicable standards in Wisconsin. Arcadis did not see any fish or signs of fish in multiple visits to SW-42. The owners of SW-41 indicated

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there were no fish in their pond, and previous sampling conducted at this location contained PFAS concentrations below applicable standards. The owners of SW-19 indicated they did not wish to have their pond or fish sampled for PFAS. As such, no fish samples or additional water samples were collected as part of this effort.

Sincerely,
Arcadis U.S., Inc.



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Project Communications Manager

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CC. D. Nelson
S. Wahl

Attachments

Figure 1 – Surface Water Sampling Locations
Table 1 – Surface Water Sampling Results
Laboratory Report