UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD (SR-6J)
CHICAGO, IL 60604-3590

November 21, 2018

Summary of request: On June 29, 2018, the PRPs (City of Tomah and International Paper) proposed to modify the current OU2 groundwater monitoring program based on hydrogeological data and groundwater quality trends since 2000. They propose to abandon five monitoring wells: MW9A, MW9B, MW9C, MW13 A, MW13 B and adjust sampling of MW11 B to every five years. The wells network is part of the Remedy in the 2003 Record of Decision for OU2.

The wells at MW nest 9 and MW nest 13 serve a few purposes as these wells: (i) are required to determine whether MNA clean-up has met the Remedial Action Objectives (RAOs) and (ii) Provide the data needed to impose the Continuing obligations (ICs) that have been placed on the Pleuss properties.

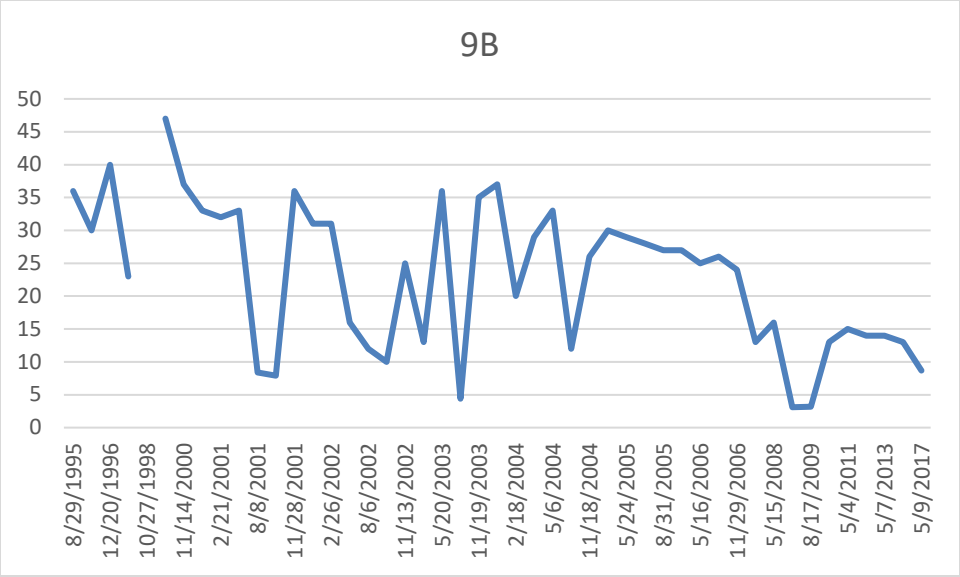
Currently wells 9B, 13A and 13B exceed Wisconsin Enforcement Standards (WECS) in the WAC NR 140. The 2003 ROD requires that: "**Continued monitoring is required to ensure that the Remedial Action Objectives** for OU-2 are met. These include:

1) Protect human health and the environment from exposure to contaminated groundwater;
2) Protect existing and future residential water supplies from potential migration of VOC impacted groundwater; and
3) Reduce contaminant concentrations in groundwater to meet state groundwater standards within the aquifer in a reasonable time frame."

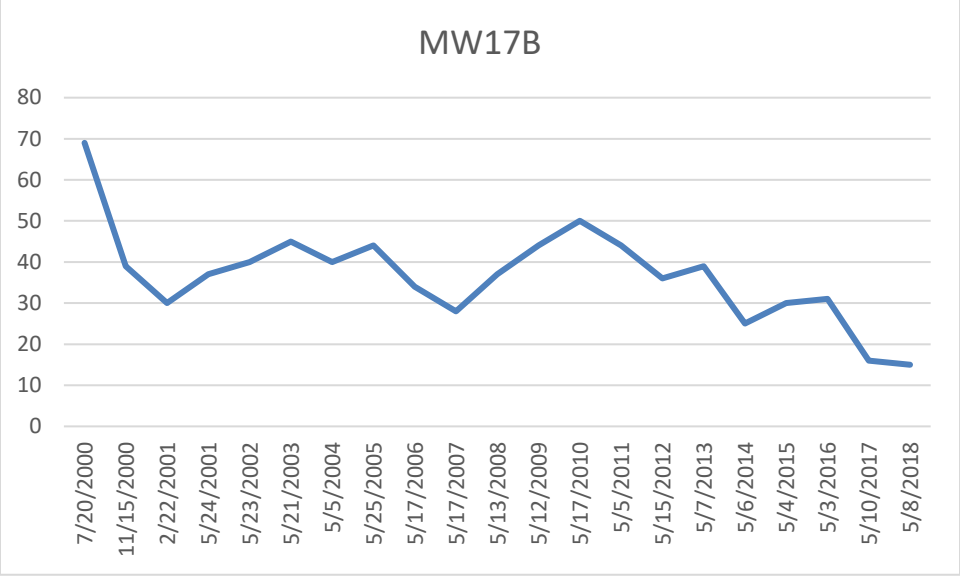
REVIEW:

1. MW9A is only used for hydrologic monitoring as long-term sampling indicated more than 50% nondetect. Based on chemical data and hydrologic flowpaths, it is acceptable to abandon this well.

2. MW9B is sampled biennially and shows a decreasing trend. MW-11B is sampled biennially and has been nondetect and will continue to serve as a sentry well. Below is the trend data for MW9B.



Upgradient well MW17B has followed along similar decreasing trend lines. It is okay to temporarily remove MW9B from the monitoring well program as there are enough data to support defining the plume at MW17B and MW11B.



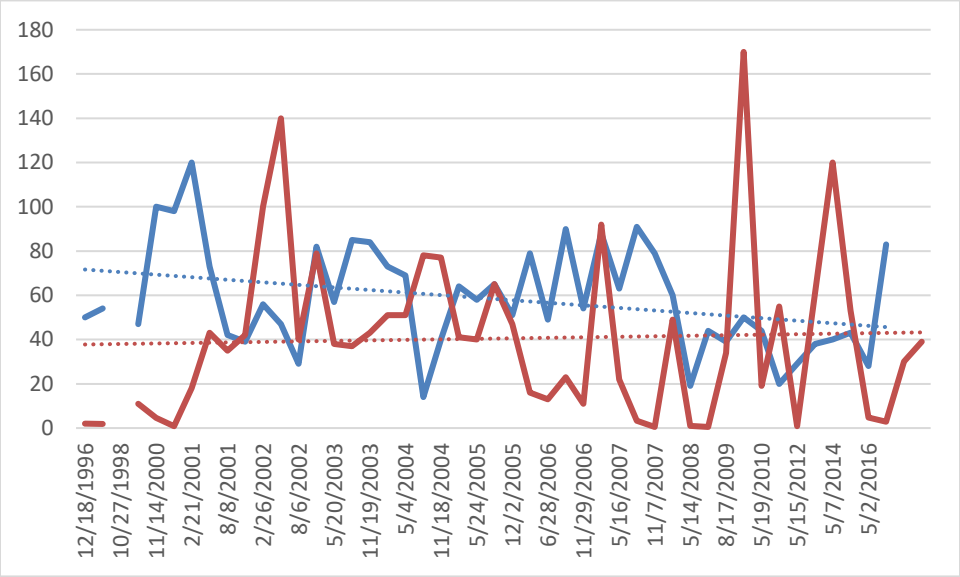
When MW17B achieves the RAOs for vinyl chloride, MW9B should be resampled to determine if it meets the RAOs before being abandoned. If MW9B does not meet the RAOs, then the PRPs, WDNR, and EPA can determine the appropriate monitoring frequency to demonstrate compliance with the RAOs in the 2003 ROD.

3. MW9C is sampled biennially and has been 100% non-detect in VC. It is agreed that this well can also be abandoned.

4. MW13A/MW13B are sampled annually and shows no trend and the most recent VC results were increases at 83 ug/L and 30 ug/L, respectively. PRP wants to abandon it because MW-21 and

MW14 nest already serve as sentry points for the plume expansion. Please note that the plume mass itself needs also to be understood and lines of evidence to support the degradation are needed for MNA analysis. The stability of the plume at these two wells will prolong the projected cleanup duration and this timeline needs to be understood. EPA does not recommend abandoning these wells and recommend continued annual sampling.

MW13A (blue) and MW13B (orange).



5. MW11B was also proposed to be reduced in sampling frequency to once per five years. The well has never detected any VC since 2000 and is located 950 feet downgradient from the Pleuss residential well. Maximum, minimum, and average groundwater velocity indicates that a five-year interval is probably okay. The five-year interval is acceptable but should be contingent on trends of MW17B. If concentrations in MW17B unexpectedly increase, then MW11B will need to be sampled biennially to ensure the safety of the Pleuss residential wells.

**Please note that the data from wells MW9B, MW13A and MW13B may also be necessary to support the continued need for the ICs (which are also a part of the remedy). The Wisconsin continuing obligations (COs) can only be imposed (or removed) if there is data to support the exceedance of the WECs. If there is a legal question in the future about why the COs remain are on the property, and or questions about when/how they can be removed, having the MW9B, MW13A and MW13Bs well in place will provide that data.