

## Mueller, Stephen D - DNR

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**From:** Mueller, Stephen D - DNR  
**Sent:** Wednesday, February 13, 2019 10:03 AM  
**To:** Greg Johnson; jjohnson@Geosyntec.com  
**Cc:** Mueller, Stephen D - DNR  
**Subject:** Milwaukee Die Casting groundwater SIWP

Good morning Greg & Jeremiah-

I completed my review of the site investigation workplan and presented it to a Peer Review Group on January 17, 2019. In addition, we had a later follow-up meeting regarding site activities. Please address the following:

- Please provide the utility assessment information -- types, sizes, depths, locations, etc., relative to the site geology and including city information regarding backfill materials -- before we can approve the SIWP. Make sure to include all the underground utilities, including the 72" diameter M.I.S. to the east of the MDC property. Former wells GMMW-6, GMMW-200, and temporary wells GM-17 thru GM-22 were all installed to the east of the sewers/utility trenches and were reported clean. We need to know if the trenches are intercepting the residual groundwater contamination and thereby allowing migration to the north and/or south. Several of proposed wells MW-8 thru MW-11 (or additional wells) should intercept the trenches to evaluate this concern, especially at the north and south ends of the site.
- The proposed locations for MW-5 & MW-6 are on the TSCA Cap and should be moved to the east enough to avoid the cap and deep areas of the excavation that have been filled with clean or relatively clean soil. (All proposed new wells should be monitoring residual groundwater contamination/conditions, not clean fill.)
- The proposed location of MW-1/PZ-1 makes sense if the former UST was the source of the high CVOCs in former GMMW-104. However, the source may be releases from the degreasing area inside the former building and, therefore, the proposed MW-1/PZ-1 location may not be adequate for evaluating the CVOC plume behavior. An additional downgradient well or several may be required in the future.
- Please show on cross-sections the proposed water table monitoring well and, especially, piezometer screen intervals relative to site geology and utility trenches.
- To reduce chances of cross-connection with surface air, RR800 (2018 guidance) directs that soil-gas (SG) probes should be installed at least 3-4 ft bgs, if not deeper, depending on depth to groundwater saturated soils, and set within utility corridors. (The SIWP proposed 5 ft bgs; historical water levels in former wells on the west side of the MDC property ranged from 5-13 ft bgs.) Preferably, the SG probes will intersect utility trench backfill far enough from surface exposures (e.g., sewer grates, manholes) to avoid cross-connection effects.
- Include PCBs (unfiltered & filtered) and SVOCs (incl., 1,4-dioxane) in the initial two rounds of groundwater sample analysis. Discuss proper PCB filtering methods and materials with the lab to avoid sorption problems.

Thank you in advance for the information. Until then, completion of the SIWP review has been paused. Please contact me if you questions, comments, or concerns.

Steve

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**Stephen D. Mueller**

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