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Cc: [Binder, Rick](#)
Subject: Revision 1 of the SAP for Subsurface PCB Investigation at Mirro
Date: Friday, August 18, 2017 12:47:45 PM
Attachments: [Revision 1 SAP - PCBs in Soil at Mirro.pdf](#)

Team:

Attached is Revision 1 of the SSSAP for the subsurface PCB investigation at Mirro. (Tauren, your complete hard copy is in the mail today).

Of note, the greatest revision is the phasing of the investigation (see Section 3.3 for details) vs. trying to complete the investigation while the impacted concrete remained in place as initially proposed. The main reason for this alteration is to target soil sampling to areas of greatest indication (visual/olfactory/etc) of impact. Additionally, removing the surface concrete will provide access to subsurface structures that may be present. Although the probability is low, if concrete structures (footing walls/etc) are encountered with apparent impacts (i.e. staining, odor, etc), the porous materials will be sampled per the Stantec 2016 SAP for evaluation of PCBs in subsurface porous building materials.

For reference, below are my responses to comments provided by Tauren on 8/7/17. My comments are in blue text.

Some revisions for the SAP:

- Soil samples results should also be compared to non-industrial direct contact as well as industrial direct contact.
 - Soil sample results will be compared to all RCLs under NR 720 as well as action levels in 40 CFR 761.61; see revision to Section 3.2, 3rd and 5th paragraphs (p. 9 of PDF file).
- The title in Table 3 is for Area 8, I believe it should be for the loading dock, so please revise the title.
 - The title for Table 3 is updated, see p. 21 of the PDF file.
- For the sampling beneath the concrete, it would be good to also collect at a sample interval directly above the water table whether or not the sample beneath the concrete is >25 ppm. It is understood that additional sampling will be needed for the site and more work may be done for PCBs based on final land use, so would you rather do the sampling directly above the water table now or in the follow up investigation?
 - We are proposing a phased approach which will include evaluation of soil quality at depth. The location and number of borings proposed are illustrated on Figures 3 and 4. However, as noted in Section 5 and Section 3.3 (p. 10), the final locations and sample intervals may change based on the results of the first phase of work. Any adjustments (additions, subtractions, locations, etc.) will be discussed with you prior to initiation of the subsurface work. As summarized in Section 4, the deeper soil borings will be completed initially as 1" -d temp wells (lithology is sand) for sampling purposes and to screen for LNAPL above the water table.

A few questions:

- Should the SB and TW sample IDs be changed to something else, since there are already samples collected with the same sample IDs? May be easier for reporting purposes.
 - Unfortunately, the nomenclature of previous consultants has not been consistent, and we are not entirely confident the locations of some borings are correct.

Although previous data is reasonable for establishing a general understanding of previous Site conditions, I would suggest that data be seen as historic (some dating back to 2009) as Site conditions have changed significantly since then. I'd like to propose a simplified nomenclature (top of P. 8); however, we could add area to this so the sample ID is something like "Area 8 SB-1 (0-0.25)" – similar to how we named samples from porous media.

- Is a PID with a 11.7ev lamp going to be used in place of a 10.6ev lamp to ensure field screening picks up the chlorinated solvents?
 - See revision to Section 3.3 on p. 7. A PID with an 11.7 eV lamp is useful in detecting some fairly large/obscure organics (compared to 10.6, which can detect PCE/TCE and daughter products); however, in the absence of detailed Site use records – it is reasonable to use an 11.7 during this phase of investigation to provide for a more comprehensive screening of soil. We will need to work with a rental company to procure this instrument as the bulbs have a very short lifespan and we do not keep them onhand.
- Sampling for VOCs and PAHs is limited just for this part of the investigation because the main driver and point of sampling under the loading dock and area 8 is primarily for PCBs with the understanding that follow up investigation will be conducted, correct?
 - The primary objective is to evaluate subsurface PCB impacts. Those impacts, if present, were likely due to mobilization with a petroleum solvent (or in transformer oil); and therefore, it's reasonable to expect PAHs and/or VOCs to be present with PCBs, if present. From this work, the full Site Investigation can be further developed/conducted. If field conditions suggest additional constituents may be of concern, an adjustment may be needed in the field. We will be prepared for a variety of contingencies during field work to maximize data-density.

Please do not hesitate to call with any follow-up questions.

Sincerely,

Harris Byers

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