

March 1, 2010

Mr. Scott Miller
Remedial Project Manager
United States Environmental Protection Agency
Region IV, Superfund North Florida Section
61 Forsyth Street, SW
Atlanta, Georgia 30303

Dear Scott:

DEP has reviewed the September 2009 Revised Comprehensive Groundwater Monitoring Sampling and Analysis Plan (CGMSAP) for the Koppers portion of the Cabot Carbon/Koppers site. We offer the following comments and recommendations for incorporation into the work plan.

In addition to the stated objectives for the CGMSAP (to monitor surficial aquifer hydraulic capture and for the Hawthorn "to ensure the stability of groundwater impacts"), a second objective should be to establish baseline conditions in each of the aquifers to (1) evaluate the need for active remedial measures and (2) to evaluate the effectiveness of those measures. Baseline sampling should include *concurrent* sampling of related groundwater contaminant concentrations and elevations from each aquifer or hydrologic unit to support evaluation of the combined effectiveness of the remedial actions prior to implementation of the source remedies.

We recommend the following changes to the proposed plan:

(1) The proposed analytes from SW 846 8270C are too limited and need to include all method listed parameters excluding PCBs and pesticides. Carcinogenic PAHs, 1-methylnaphthalene, 1,1-biphenyl, and daughter products of PAHs and PCP especially need to be included to understand the benefit/rates of natural processes. All detections should be reported and the method detection limits and practical quantitative limits (PQLs) should comply with DEP Chapter 62-160, F.A.C., and the 10-12-2004 "Guidance for the Selection of Analytical Methods and Evaluation of P.Q.L.s". Also, Tables 5-3, 5-4, and 5-6 incorrectly identify a range in Florida GCTL concentrations for each analyte, apparently to include the NADCs as a GCTL. NADCs are not GCTLs. Only the first value should be shown on these tables as the applicability of the NADCs is not a given but must be established.

(2) All metal analyses should be performed on unfiltered samples.

(3) Chromium groundwater analysis needs to be retained for those source areas that contain high chromium soil concentrations (e.g., greater than the Chapter 62-777 default leachability SCTL of 38 mg/kg, unless a site specific leaching value is established).

(4) The Surficial Aquifer monitoring network needs to be expanded to include wells interior to the property down gradient of the source areas and those areas with potentially

leachable soils. At a minimum the following wells should be added: M-28R (As, Cr, VOCs, and SVOCs-annual), M-32A/B (As, Cr, PCP, VOCs, and SVOCs-annual), M-15B (As, Cr, PCP, VOCs, and SVOCs-annual), M-12 (As, Cr, VOCs, and SVOCs-annual), and M-3BR (As, Cr, PCP, VOCs, and SVOCs-annual).

More surficial wells are needed for delineation particularly on the down gradient side of the source areas. We understand that this a work item separate from long-term trend monitoring; we offer these recommendations for delineation: (a) between the South Lagoon and Process Areas, (b) approximately 200' down gradient of the South Lagoon thumb, (c) NW side of the Process Area, (d) N side of the Process Area perhaps at FW-18B, (e) an A/B well pair at SS040 to evaluate arsenic leaching without influence of organics and northern edge of plume leaving the South Lagoon, (f) a "B"-depth well at M-12, and (g) an A/B well pair on the east side of the Koppers Ditch to evaluate leaching and DNAPL extent for the vertical barrier placement.

(5) The Hawthorn monitoring network needs to be expanded to include wells interior to the property and down gradient of the source areas: HG-13S, HG-12D, HG-10D, and HG-16D, to be sampled all for VOCs/SVOCs at least on an annual frequency. This will allow evaluation of the performance of a containment/treatment remedy in mitigating vertical migration into the lower HG and Floridan aquifer. Hawthorn well pairs are needed for two locations: one in the FW-19B/M-32AR/B area and another in the FW-13B/M-3A/3BR area, initially for semiannual sampling; to determine the down gradient extent of potential DNAPL and appropriate positioning of the source remedy. In addition, we recommend the installation of an Upper and Lower HG immediately east/northeast of the process area (at property boundary between HG-26D and HG-15S) which will serve as a final POC in that critical area. It does not appear that HG-27S/D pair is adequate to delineate extent of contamination down gradient of HG-21D. Therefore, we recommend a lower Hawthorn well located down gradient of HG-21D to establish the down gradient extent of 2,4-dimethylphenol.

(6) The Floridan Aquifer monitoring network needs to be expanded to include: FW-3 (As-Annual), FW-9 (As-Annual), and FW-7 (SVOCs and VOCs-Semiannual). Arsenic needs to be added to FW-10B, FW-11B, FW-15B, and FW-16B (Zone 1 only). FW-23B should be sampled semiannually as they are located on the north property line. We understood that an additional transect well FW-30B was to be installed during the current mobilization in the area east of the FW27B. Monitoring of this well would seem appropriate- either as a clean POC well or to monitor any movement within the plume as discussed conceptually at the recent FS meeting.

We continue to recommend an UTZ monitoring well in the northeast corner of the site to supplement FW-7, particularly if the recently proposed transect well FW 30B confirms groundwater contaminant levels above GCTLs. We also recommend TPOC UTZ monitoring wells off site to east consisting of 1 down gradient of FW16B to delineate the offsite extent and response to contingent onsite groundwater recovery in the Floridan aquifer, as well as a TPOC well down gradient of the area between FW- 17B and FW-5. We also recommend that at a minimum, the single screened FW wells be monitored for

water levels to track the relative groundwater elevations and any observed responses in contaminant concentrations or behavior.

(7) Monitoring frequency (Tables 2-1 through 2-3 and Figures 2-1 through 2-3)

It is not clear to what milestone Year 1 is referring.

The frequency of monitoring in the surficial aquifer appears to be independent of the status of the remedial action or discontinuation of the surficial recovery system. We understand that the details of performance monitoring will be outlined during design. However, it would seem prudent to monitor surficial performance wells/POC wells at least on a semi-annual basis initially during post-active remedial monitoring (PARM), as the apparent stability of the plume is affected by pumping. This includes M-33B located in the northern area where additional sources are suspect.

As noted previously by DEP and other stakeholders, offsite TPOC wells will likely be necessary to confirm the limited extent of the offsite surficial aquifer plume and that it is stable or shrinking, including replacement of ITW-21 to the east. (ITW-22 is too shallow to effectively monitor deeper dissolved plume.)

Hawthorn monitoring- Please clarify when Year 1 begins (quarterly monitoring). We recommend more than 1 year of semi-annual monitoring (as noted in previous FS comments) to ensure plume stability and support evaluation of the proposed natural attenuation monitoring or the need for contingent action during the 1st five years following construction of the source remedy.

Floridan monitoring- We recommend that the monitoring frequency for the POC wells be no less frequent than semi-annually for the 1st five years following construction of the source remedy, particularly those located on the east and north property boundaries. Note- FW-6 is not shown on Figure 2-3.

(8) Reporting- Please include electronic data tables that include all analytical results for all monitoring on CD.

(9) Please include separate maps showing all existing monitoring wells locations for each aquifer or hydrologic unit, not just those proposed for monitoring along with the screen intervals for each monitoring well as a work plan appendice, for future ease of reference.

Please call me at 850-245-8969 if you have any questions or would like to discuss these comments further.

Sincerely,

Kelsey A. Helton
DEP- Hazardous Waste Cleanup Section