From: Tom.Perina@CH2M.com
To: bradley.barquest@utc.com
Cc: Chavira, Raymond; John.Dolegowski@CH2M.com; Kerang.Sun@CH2M.com; Don.Lee@tetratech.com
Subject: RE: Baseline Water Quality Sampling Work Plan, PVOU SZ-North
Date: Friday, December 13, 2013 11:38:06 AM
Attachments: EPA Low Flow Sampling-April 1996.pdf

Brad,

Below are our comments on the *Revised Baseline Sampling Work Plan, Puente Valley Operable Unit, Shallow Zone North of Puente Creek, Interim Remedial Design/Remedial Action, Los Angeles, California,* prepared for United Technologies Corporation (UTC) by Tetra Tech GEO (TT GEO), dated December 11, 2013. As you and I discussed this morning, UTC will conduct the sampling in accordance with these comments. Per Ray's earlier message today, UTC will proceed with the sampling.

1. **Sampling of SZ-North Extraction Wells**. Use a "splitter" on the discharge line (i.e. a T-fitting attached to the discharge line to which a smaller diameter tube and valve are attached to regulate the flow rate into the bottles during sampling) in order to obtain good quality groundwater samples during well purging and sampling. This will permit the pump to continue pumping at the same rate during purging and sampling (The concern is that with reducing the flow rate by choking down a valve on the discharge line, pump cavitation could compromise the samples of VOCs and dissolved gasses). Based on our discussion today, UTC will use a sampling rig equipped with a 50-gpm pump and "splitter" type sampling port so the sampling procedure will satisfy this comment.
2. **Planning for Collection and Storage of Well Purge Water**. No details have been provided for collection and storage of the purge water; the main concern is about the large quantities of purge water from the extraction wells. Based on our discussion today, UTC will transport all purge water to Baker tank(s) placed at the Amar Street property and no tanks will be stored at the well locations.
3. **Low Flow Sampling.** The low-flow sampling technique should follow the procedures detailed in Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures, EPA/540/S-95/504 (April 1996); see attached. Reference this guidance in future documents.
4. **MS/MSD Sample**. A matrix spike/matrix spike duplicate (MS/MSD) has not been included in the list of QA/QC samples for this sampling event. Please add one MS/MSD to the request for analysis table.
5. **Metals Samples.** Field filtration of the metals samples is required by the use of an in-line 0.45-micron sample filter. Perchlorate samples require the use of the sterile field filtration with a 0.2-micron filter. Please add these details to the Request for Analysis Table and verify that the filters (and syringe, if necessary) will be available for the field filtration.

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From: Lee, Don [mailto:Don.Lee@tetratech.com]
Sent: Wednesday, December 11, 2013 3:59 PM
To: Chavira, Raymond
Cc: Bradley.Barquest@utc.com; Parsons, Scott; Tom Perina (tom.perina@ch2m.com); Kerang.Sun@CH2M.com
Subject: Baseline Water Quality Sampling Work Plan, PVOU SZ

Ray,

Please find attached a revised Baseline Water Quality Sampling Work Plan associated with the PVOU SZ extraction wells, and the reinjection area monitoring wells and piezometer located at and adjacent to the 13811 Amar Road property. As Brad Barquest (UTC) discussed with Tom Perina (CH2MHill) we have opted to develop and collect discrete samples from each of the extraction wells rather than utilizing the composite approach previously contemplated. We believe this extraction well sampling approach will provide data that is more representative of actual groundwater conditions than the previously contemplated sampling approach. As such all samples collected from the identified extraction wells, monitoring wells and Amar Road piezometer will be discrete samples.

With respect to scheduling, we have made arrangement to begin sampling the extraction wells on Monday, December 16, 2013, pending receipt of EPA's approval of the attached Baseline Water Quality Sampling Work Plan. We will complete the sampling of the extraction wells before moving to the reinjection area wells (i.e., MW8-1, MW8-2 and MW8-3, and piezometer P-1), as we are currently waiting receipt of the MW8-1, MW8-2 and MW8-3 access permits from LA County.

We plan on start sampling extraction wells S-5 and S-6, and proceed upgradient from there. We will provide daily updates with work performed and a schedule of which wells will be sampled the following day. We will also keep you informed as to the status of the LA County access permits for MW8-1, MW8-2 and MW8-3.

Please call if you have any questions.

Regards,
Don

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