7 March 2005

Mr. Robert Schultz
Alameda County Health Care Services

Subject : Addendum to Second Workplan
Wente Brothers Winery
5565 Tesla Road, Livermore CA

Dear Mr. Schultz :

As per our phone conversation today, we discussed two investigative options proposed in SOMA's second and third workplans. After reviewing SOMA's third workplan that disccussed the CPT/MIP option, you expressed a concern that this inmvestigative method would be too costly. You conveyed that you prefer the dual-wall direct-push technoloby (DPT) investigative approach instead.

SOMA is willing to proceed with your preferred investigation method that will involve the following procedure that we discussed during today's phone converation :

- Advance a pilot borehole with the dual-walled sampling system to identify water-bearing zones. To determine the depth of drilling, SOMA field personnel will field screen the sediment cores with a PID and will terminate the borehole where the water-bearing zone indicates near-background vapor levels.

- Near the pilot borehole, advance ~~a sampling~~ additional boreholes using either the dual-walled system or a 2-inch diameter macrocore system with hydropunch tool (non-dual-tube) and collect groundwater samples from each of the identified water-bearing zones. A separate borehole will be advanced for each water-bearing zone identified in the pilot borehole. After sampling is completed, the boreholes will be tremieed to surface grade with cement-bentonete grout.

SOMA has several concerns about your preferred mode of investigation that include shallow refusal due to dense and gravelly subsurface conditons and high probability of cross contamination below the dual-wall refusal depth. Due to the 3¼-inch diameter of the the dual-walled sampler and the anticipated gravelly subsurface conditions, SOMA is concerned that shallow refusal will limit the depth of sampling in the pilot borehole with the dual wall in place. Below the dual-wall refusal depth, the drilling rods have to be withdrawn to retrieve soil samples ~~during the sampling of each water-bearing zone~~following each 4 ft drive run. During the time that the rods are withdrawn, highly contaminated groundwater from the more contaminated upper water-bearing zone ~~will~~ may pour down the borehole and could potentially ~~into~~ enter a ~~the~~ lower zone ~~being sampled~~. ~~Non-representative~~ Accordingly, any groundwater samples ~~will be~~ collected using a hydropunch tool from beneath the apparent water table surface will be collected from dedicated boreholes *advanced to total depth without retraction of the tool* until the desired sampling depth is achieved. In a senstive groundwater basin such as the Livermore Valley, SOMA is very concerned that the water quality of the lower zones ~~will~~ could be degraded during drilling of the initial pilot borehole, if the dual-tube system is unable to advance to the depth necessary for suitable vertical characterization. Accordingly, SOMA may opt to use a hollow-stem auger drill rig equipped with a hydropunch tool. Many drillers offer combination geoprobe direct push capability with smaller diameter auger capability on the same rig. Depending on mobilization costs, a

sonic drill rig may be another alternative. In certain circumstances, it may be appropriate to mobilize to the site with a standard geoprobe rig and 1) attempt dual-tube drilling first then 2) if refusal is encountered, proceed with the pilot borehole using the macrocore system equipped with a piston sampler. A piston sampler prevents soil from the uncased borehole from entering the soil sampler and ensures the integrity of the soil samples. If SOMA decides to advance an uncased borehole beneath first encountered groundwater, SOMA will evaluate whether or not contaminated groundwater is entering the borehole, using the following protocol : between each 4 ft drill run, SOMA will use a water-level meter to inspect for groundwater in the borehole. Observations will be recorded on the boring log for each borehole. If ~~In addition, the combination of~~ 1) ~~potential~~ shallow refusal is encountered with the dual-tube system, 2) a combination rig is not selected/available, and 3) the geoprobe system risks contaminating a deeper zone by allowing either free product or large quantities of highly contaminated groundwater to migrate down the borehole, then SOMA will re-mobilizing with different drilling equipment, which -could substantially increase the expense of the initial field portion of this project.

Please call me at (925) 244-6600 if you have any questions.

Sincerely,

Mansour Sepehr, PE

cc : Aris Krimetz, Wente Brothers