



September 6, 2006

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By dehloptoxic at 9:06 am, Sep 08, 2006

Mr. Steven Plunkett
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Workplan Revisions
3635 13th Avenue
Oakland, California
Fuel Leak Case No. RO0000159
AEI Project No. 110803

Dear Plunkett:

These workplan revisions have been prepared relating to the fuel release at the above referenced property. The property has had a release of fuel hydrocarbons from a previous underground storage tank (UST) system. The investigation and remediation of the release is being performed under the oversight of Alameda County Environmental Health (ACEH). A letter dated July 10, 2006 provides technical comments to the *Remedial Investigation and Interim Corrective Action Plan*, dated July 19, 2004. That plan outlined several additional steps of site characterization and presented a scope of work to begin mitigation of the release.

AEI has prepared these responses to the technical comments on behalf of the property owner, Mr. John Williamson. The numbered responses below correspond to the numbered comments in the letter. The reader of this letter is referred to the July 10, 2006 letter for the original comments and to the July 19, 2004 document for the originally proposed scope of work and site specific conditions and data.

1. Soil borings will be continuously cored using direct push drilling methods. Soil samples will be logged and field screened in accordance with the ACEH comments, which are consistent with the methods outlined in the 2004 plan. Samples will be selected at depths of apparent impact, elevated PID readings, and to identify the bottom depth of impacted soil. We concur with the suggestion to sample an additional soil boring in the location suggested by ACEH, between boring SB-22 and existing well MW-1. This additional boring (labeled SB-23) is shown on the attached figure.

2. The existing monitoring wells were installed in 1994 as the first phase of site investigation. As such, they were constructed prior to having the data from the continuously cored borings performed later. The borings for those wells were sampled during hollow stem auger drilling with 1.5 foot core barrels sampled at 5 foot intervals. Although this is a standard practice, the resulting logs do not reveal small scale changes in the sediments. AEI agrees that short screen wells can provide groundwater samples more accurately representative of thinner

sections of saturated sediments. A review of logs from 2003 drilling indicates a saturated sandy sediment zone from approximately 15 to 22 feet in depth, with a thickness of ranging from approximately 3 to 6 feet. Clay sediments above this unit locally contained varying amounts of coarse grained material (in the 8 to 10 foot depth range) which may constitute a seasonally saturated zone. Although at the time of the 2003 drilling, groundwater could not be sampled in this shallower zone.

Two additional monitoring wells (MW-4 and MW-5) and possibly a third (MW-6) have been proposed. These wells will be constructed with a short (no more than 5 foot) screen and sand section. The exact interval will be based on the logs of the borings and results of soil and groundwater sample analyses. In order to adequately evaluate the findings from the soil boring work (SB-16 to SB-23), well installation activities will be scheduled several weeks after the soil borings. If boring logs provide justification for screen lengths greater than 10 feet, ACEH will be contacted with such information prior to well installation.

ACEH has suggested installation of two additional wells to be located in 13th Street. While AEI and Mr. Williamson agree that these wells would provide additional data, issues with permitting of wells in the City of Oakland public right of way have previously been communicated to ACEH. Permitting for a well in 13th Avenue has already been attempted at this site. Again, the City requires insurance from the property owner, not the consulting firm, to cover the project and well(s). Not all insurance carriers, including Mr. Williamson's, are willing to provide this coverage. It has been rumored that the City is changing this policy; however, during current projects on other sites, the requirement currently stands.

AEI will evaluate the possibility of installing a well on the property located across 13th Avenue. This property is occupied by a City of Oakland fire station so the insurance requirement may also be in force for that if the property is owned by the City.

Although we all agree that down-gradient monitoring is necessary, we do not agree with holding up the characterization and mitigation of the source area pollution while this issue is being evaluated. As the onsite investigation proceeds, AEI will apprise ACEH of any progress in obtaining permission to install appropriately placed down-gradient monitoring well(s).

3. During drilling and sampling of the soil borings SB-16 to SB-23, discrete groundwater sampling will be attempted. If multiple saturated zones are observed during drilling to the target depth of approximately 25 to 30 feet, multiple discrete samples will be collected. It should be noted that only one definitely saturated zone was identified in the previous borings and the very low transmissivity required the use of temporary well casing as opposed to the preferable discrete sampler.

4. AEI agrees with the sample analytical suite presented in this comment. If results of sample analyses from the soil borings do not indicate impact by some of the fuel additives listed, removal of those from future sampling programs will be proposed. It should be noted that fuel additives have been analyzed for, with MTBE and TBA being the only ones detected (See *Groundwater Monitoring Report, 4th Quarter 2004*, dated October 29, 2004).

5. As requested, Department of Water Resources (DWR) and Alameda County Public Works (ACPWA) records will be reviewed and the results presented in the site conceptual model as part of the report.

6. AEI recommends that quarterly groundwater monitoring for the site be re-instated for the coming year at a minimum, to run through the course of the remedial investigation and interim corrective action. The first event (three existing wells) will be scheduled to occur prior to the soil borings, with the next subsequent event to include the proposed monitoring wells MW-4 and MW-5, +/- MW-6. The next monitoring event will include all of the analyses requested in Comment No. 4 above. Changes to the analytical suite may be recommended following monitoring of the newly installed wells.

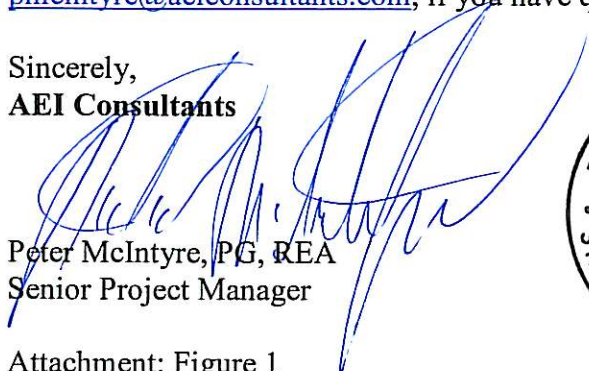
7. Locations of the proposed sparge wells (S-1 and S-2) were selected to be in areas indicated by previous investigations as having high concentrations of residual pollution and sufficiently close to either existing or proposed monitoring wells to evaluate the effectiveness of the proposed approach. AEI agrees that moving S-2 closer to MW-2 could provide quicker evidence of contaminant reduction. As additional investigation will be performed and the site conceptual model refined, modifications to the interim corrective action approach, including sparge well locations, will be including in the requested Soil and Groundwater Investigation Report (SWI).

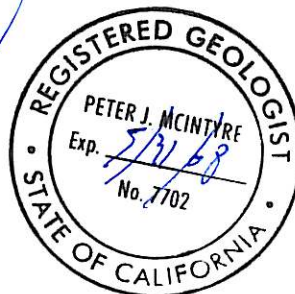
8. AEI agrees the use of the site conceptual model approach detailed in the letter and will incorporate it into the requested report.

Reporting AEI proposes that the SWI report be submitted following the soil borings (SB-16 to SB-23) and installation of the additional on-site monitoring wells. The report will include the requested additional discussion of preferential pathways, well survey, and monitoring, in a site conceptual model format. Data gaps will be identified and any adjustments to the proposed interim corrective action approach included, as warranted by the findings. The report will be submitted within 60 days of installation of the monitoring wells.

We look forward to your review and concurrence with these technical comment responses and appreciate your time on this matter. I can be reached at 925/283-6000, extension 104 or at pmcintyre@aeiconsultants.com, if you have questions or need any additional information.

Sincerely,
AEI Consultants


Peter McIntyre, PG, REA
Senior Project Manager



Attachment: Figure 1

References:

ACEH: Letter dated July 10, 2006

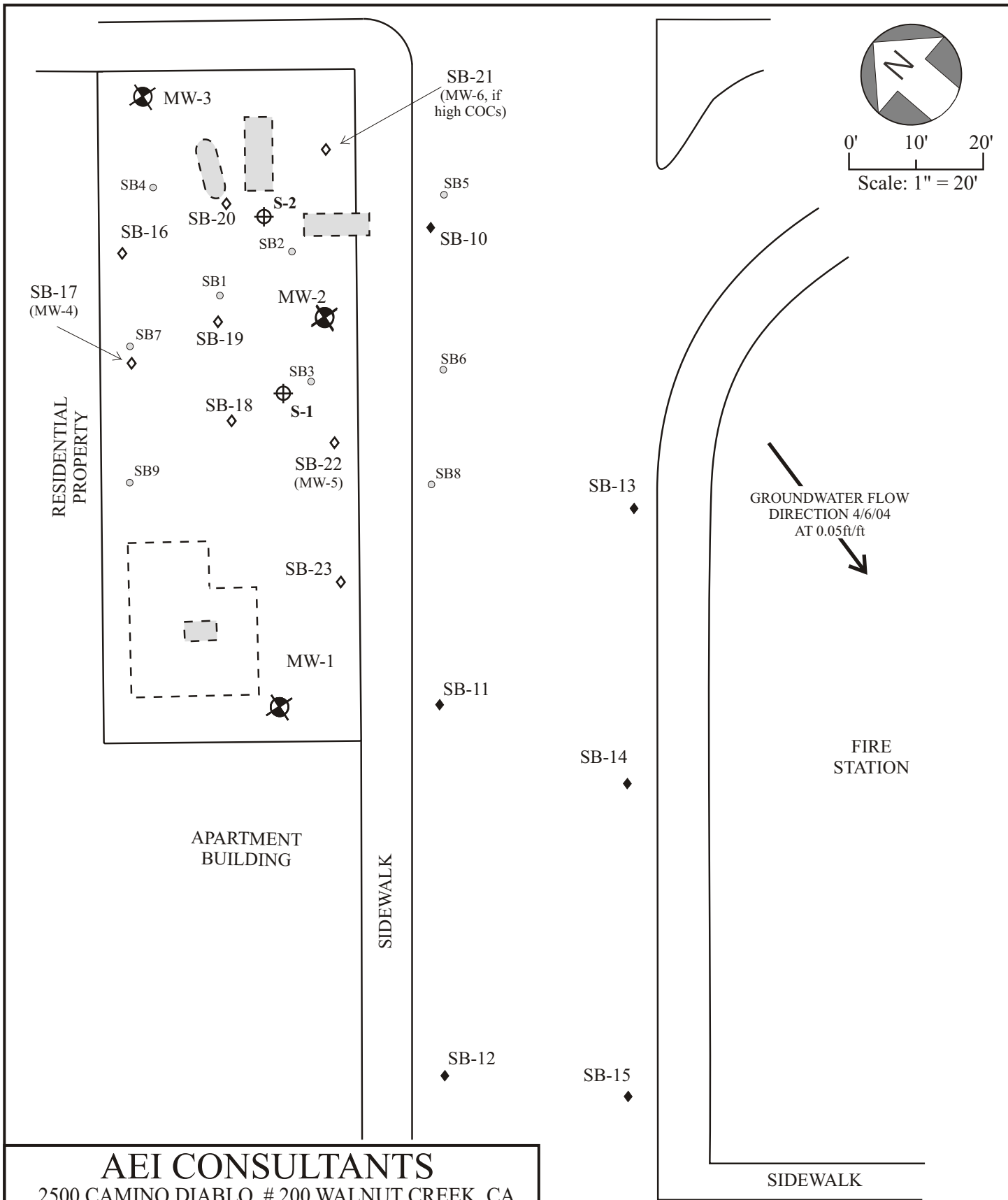
AEI Consultants: *Groundwater Monitoring Report, 4th Quarter 2004*, October 29, 2004

AEI Consultants: *Remedial Investigation and Interim Corrective Action Plan*, July 19, 2004

Distribution:

Mr. Steven Plunkett, ACEH (submitted via email and to ACEH FTP site)

Mr. John Williamson, 1511 Wellington, Oakland, CA 94602



AEI CONSULTANTS
 2500 CAMINO DIABLO, # 200 WALNUT CREEK, CA

PROPOSED BORING AND WELL LOCATIONS

3635 13th Avenue
 Oakland, California

FIGURE 1
 AEI Project # 110803

LEGEND		(REV. 9/06)
⊕	Monitoring Well	◇ Proposed Boring / monitoring well
○ & ◇	Previous Borings	⊕ Tentative sparge well