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January 14, 2008

Mr. Jerry Wickham, P.G.
Hazardous Material Specialist
Alameda Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: **Confirmation Water Samples for VOCs near former USTS and Groundwater Sampling Prior to Destruction of Water Production Well**
Fuel Leak Case RO0000018, GeoTracker Global ID T0600100262
Carnation Dairy Property
1310 14th St. Oakland, CA 94607

Dear Mr. Wickham:

AEI Consultants (AEI) has prepared this letter to summarize the scope of work for the confirmation groundwater sampling that you requested during the January 2, 2008 meeting between Alameda county Environmental Health (ACEH) and Hall Equities (representing Encinal 14th Street, LLC).

AEI proposes to advance two direct push soil borings at the locations shown on the attached Figure 2. These borings will be advanced to depths of approximately 16 feet below the ground surface or 5 feet below the top of the groundwater. Upon reaching total depth new ¾-inch schedule 40 PVC casing with 5 feet of 0.010 slotted casing will be placed in the boring. The casing will be developed using a peristaltic pump until the discharged water is clear and relatively free of fine sediment. The casing will be allowed to sit for approximately 30 minutes, then the well will be purged using the low flow protocol described below.

The casing will be low flow / micro-purged at a rate of approximately 0.5-liter per minute. During well purging the following groundwater parameters of temperature, pH, conductivity, dissolved oxygen, and oxidation-reduction potential (ORP) will be measured at one-minute intervals. The wells will be purged until the three successive readings are within ± 10% for temperature, ± 0.1 for pH, ± 3% for conductivity, and ± 10 mv for ORP, or until the casing dewaters. Visual estimates of turbidity will be noted during purging.

Once the groundwater parameters stabilize water samples will be collected from each well using the peristaltic pump. Water samples will be collected into containers with appropriate preservatives to each analysis. Samples for volatile analytes will be collected into 40 milliliter (mL) hydrochloric acid preserved volatile organic analysis (VOA) vials, with zero headspace (no air bubbles). Samples will be entered of an appropriate chain-of-custody and placed in a cooler on water ice under chain of custody protocols to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644). Groundwater samples will be analyzed for Total Petroleum Hydrocarbons Multi-range (gasoline, diesel, and bunker oil) and Volatile Organic Compounds by method 8260.

During building demolition in the southeast quadrant of the site a well was discovered in a basement vault underneath the building. The well consisted of a 10-inch casing and a down hole pump on 140 feet of 4-inch production casing with a large pump motor at the surface. The pump and production casing were removed and the well was sounded. A soft bottom was encountered at a depth of approximately 110 feet below the top of the casing, which is approximately 10 feet below the ground surface. The total length of down hole pump and production casing was 150 feet. It is assumed slightly more than 150 feet of 10-inch casing is in the well giving the well a total depth of at least 160 feet bgs.

During the repeated dewatering of the adjacent excavation for tank T-1 (see Figure 2) the primary mode of recharge for the excavation was from this deep well. Approximately 6,000 gallons of water was removed from this pit and it is estimated that at 3,000 gallons of that amount was from water flowing from the well.

As part of the comprehensive site characterization requested by the ACEH, AEI has requested and received from the California Department of Water Resources (DWR) copies of all the well completion forms in their files for wells with a ¼ mile radius of the site. No water well drillers report was included from the DWR files that correspond to the 150 feet deep 10-inch well discovered during demolition of the buildings in the southeast quadrant of the site. The only deep well included in the well driller's reports is a well that appears to be located to the north and east in DeFremery Park. According to the driller's log, this well contained little well developed water sand below a depth of 46 feet bgs.

AEI proposes to sample this well to determine if it has acted as a conduit for any contamination that may have resulted from onsite activities as follows:

1. Purge 100 gallons of water from a depth of 45 feet bgs, the approximate depth of the water sand in the DeFremery Park well (see attached well completion form).
2. Collect a groundwater sample from 45 feet bgs using the submersible pump.
3. The Groundwater sample will be analyzed for Total Petroleum Hydrocarbons Multi-range (gasoline, diesel, and bunker oil) and Volatile Organic Compounds by method 8260.

If any you have any comments, require additional information or have any questions regarding these proposed confirmation sampling, please contact the undersigned at (925) 944-2899, ext. 122.

Sincerely,
AEI Consultants

Robert F. Flory, PG
Senior Geologist/Project Manager

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