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DRAFT AGENDA FOR MEETING WITH ALAMEDA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT, OCTOBER 7, 2010

Former Mandela Trucking, 1225 Mandela Parkway, Oakland, CA
ACEH Fuel Leak Case No. RO0000041
GeoTracker Global ID T0600102246
AllWest Project No. 10032.36

Expected Participants: Marc Cunningham and Leonard Niles, AllWest Environmental, Inc.; Tom Gillis, property owner; Dominick Lee, VA Transportation; Paresh Khatri and Donna Drogos, Alameda County Environmental Heath Services Agency

Meeting Purpose

AllWest has requested a meeting with Alameda County Environmental Health (ACEH) on behalf of our clients to discuss case closure requirements and request additional limited subsurface investigation to verify current site conditions, since we have reason to question the validity of some data from previous investigations. It is our opinion that a request for further investigation prior to committing to costly remediation activities is reasonable in view of our clients' limited financial resources.

In their letter of September 17, 2009, responding to AllWest's *Groundwater Monitoring Well Installation Report* dated August 4, 2009, ACEH did not agree with our opinion that the six Regional Water Quality Control Board Case Closure Criteria for Low Risk Groundwater Sites had been met. Specifically ACEH listed historical analytical results indicating elevated total petroleum hydrocarbon (TPH) concentrations and the presence of free product in soil and groundwater near the former fuel dispenser island. The ACEH concluded that " it does not appear that ongoing sources, including free product, have been removed or remediated".

The ACEH required the submittal of a *Feasibility Study and Corrective Action Plan* (FS/CAP) proposing at least three alternatives for remediating petroleum hydrocarbon impact to soil and groundwater at the Mandela site (not including monitored natural attenuation). The ACEH also required performing a quarterly groundwater monitoring program of the onsite wells. AllWest submitted the *2nd Quarter 2010 Groundwater Monitoring Report* to ACEH on May 28, 2010. The results of the 2nd Quarter 2010 monitoring are consistent with conclusions of our previous subsurface investigation, indicating that the dissolved TPH plume is not migrating offsite and that TPH concentrations in groundwater are relatively low in the southern pump island vicinity.

Main Discussion Points

1. **Free Product**
   - According to the ACEH 9/17/09 letter and previous discussions with Paresh Khatri, Donna Drogos and Jerry Wickham of ACEH, free product (or LNAPL) is one of the main obstacles to obtaining case closure. According to a previous subsurface investigation conducted by Golden Gate Tank Removal (GGTR) in 2006, 2 feet of free product was measured in boring SB-2 at the former pump island location. Subsequent boring SB-7 and monitoring well MW-1 by AllWest, located within several feet of SB-2, have not indicated any measurable free product other than sheen and small droplets in groundwater.
   - According to the six Regional Water Quality Control Board case closure criteria, free product must be removed for case closure.
   - Key Question for ACEH at meeting: If free product were to be eliminated as an issue, would the site then be considered for either closure or monitored natural attenuation instead of active source remediation?

2. **Groundwater Contamination**
   - The TPH concentrations in groundwater samples from borings SB-2 and SB-7 near the pump island were stated as a major impediment to closing the site by ACEH in their 9/17/09 letter and in discussions. However, TPH concentrations in the nearby permanent groundwater monitoring well MW-1 are several orders of magnitude lower (only marginally above RWQCB ESLs) , even though this well is located within about 5 feet of the other borings.
   - AllWest suspects that the highTPH concentrations in groundwater samples from SB-2 and SB-7 may have been caused by biased Geoprobe sampling techniques, allowing contaminated soil from above to cave into the open borehole when the groundwater samples were collected. More precise groundwater sampling techniques, such as the "Hydropunch" method, can reduce or eliminate this problem. A properly constructed monitoring well, like MW-1, also minimizes this problem, which may explain the lower TPH concentrations in groundwater samples from MW-1.
   - Key Question for ACEH at meeting: If followup investigation demonstrated that actual TPH concentrations in groundwater at the SB-2 and SB-7 locations were much lower than historically measured (comparable to those detected in MW-1), would the site be considered for closure or monitored natural attenuation instead of active source remediation?

3. **Soil Contamination**
   - High TPH concentrations were detected in soil samples collected down to the groundwater table in all the borings in the pump island area, including MW-1; however concentrations of the BTEX constituents have been virtually non-detectable.

- The high TPH concentrations in upper unsaturated soil caving into the open boreholes were likely the source of the high TPH concentrations in groundwater samples from SB-2 and SB-7.
- The Mandela site is industrial use, has no permanent occupants or full time workers, and is paved or covered with buildings. Therefore direct contact with contaminated soil is unlikely. Since virtually no volatile TPH constituents such as BTEX have been detected in soil samples, the human health risk from vapor intrusion inhalation is minimal.
- It is AllWest's opinion that if impact of TPH soil contamination to groundwater and human health can be demonstrated as minimal, monitored natural attenuation may be warranted instead of active remediation.

4. Proposed Subsurface Investigation

- Proposal for ACEH: AllWest proposes a limited subsurface investigation in the vicinity of previous borings SB-2 and SB-7 and the former pump island as a reasonable and cost-effective verification of possibly suspect previous data prior to committing to costly remediation activities.
- Scope of Work: We propose advancing additional Geoprobe borings as close as possible to the previous SB-2 and SB-7 locations. We propose 2 adjacent borings at each location: 1 continuous soil core to verify presence of free product in soil, then 1 adjacent Hydropunch boring for undisturbed discrete groundwater sample. The Hydropunch retractable screen point sampler tool will prevent contaminated soil caving from above, and provide a more representative groundwater sample. We will analyze soil and water samples for TPH-g, d & mo, & BTEX by EPA 8015/8260 with silica gel cleanup.
- Further Work: If no free product is present in borings, and groundwater sample analytical TPH results are comparable to those in well MW-1, we will propose conducting a semi-annual groundwater natural attenuation monitoring program with existing wells pending case closure by ACEH. If free product and/or high groundwater TPH concentrations are detected, AllWest will proceed with the FS/CAP for site remediation pending client authorization.