

October 27, 2009
Project No. 84855

Mr. Jerry Wickham, PG, CEG, CHG
Senior Hazardous Materials Specialist
Alameda County Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

SUBJECT: Fuel Leak Case No. RO0002938 and Geotracker Global ID T0600194363, City of Pleasanton Fire Station #3, 3200 Santa Rita Road, Pleasanton, CA 94566 – Response to Technical Comments on Site Assessment Report

Dear Mr. Wickham:

Kleinfelder, on behalf of the City of Pleasanton (the City), is pleased to present Alameda County Environmental Health (ACEH) with this response to technical comments regarding Kleinfelder's *Additional Phase II Environmental Site Assessment* report dated June 30, 2009, for investigation of a fuel release from the former underground ground storage tank (UST) at the Pleasanton Fire Station #3, located at 3200 Santa Rita Road, in Pleasanton, California (the Site). This letter was prepared in response to a letter dated August 25, 2009 from the Alameda County Environmental Health (ACEH) to Mr. James Gotcher of the City of Pleasanton, requesting responses to technical comments.

RESPONSE TO ACEH TECHNICAL COMMENTS

Technical Comment 1

Shallow Water Bearing Zone. The Site Assessment Report concludes that the shallow water-bearing zone beneath the former USTs is impacted with TPH but has been well defined and is very limited in aerial extent. Groundwater was encountered in boring SR-2 at or above 40 feet bgs but was not encountered in other borings at the site. Groundwater is present at depths less than 40 feet bgs in several wells at the service station (3192 Santa Rita Road) located approximately 150 feet south of the site. Please review the boring logs and methods for drilling and of sampling borings at the site to potentially explain the absence of groundwater in the five borings advanced in March 2009. Please present this discussion in the Response to Comments requested below.

Kleinfelder Response to Technical Comment 1

As discussed in Kleinfelder's *Additional Phase II Environmental Site Assessment* report dated June 30, 2009, Enprob provided drilling services for five boring locations using a truck-mounted Geoprobe 6600 (direct push) drill rig employing a dual-tube sampling system. Groundwater was not observed in soil borings SB-1 through SB-5 at or above 40 feet bgs, and sufficiently permeable zones (well sorted sands or gravels) were not encountered in the first (shallow) aquifer interval penetrated by these soil borings. Only thin stringers of clayey silt, silty sand and sandy clay were observed between approximately 12 to 40 feet bgs in borings SB-1 through SB-5. These soil borings were halted at 40 feet bgs and left open for approximately four hours, or overnight, but groundwater did not accumulate in these boreholes. The saturated soil encountered above a depth of approximately 40 feet in these borings appears to have a very low yield. Boreholes penetrating this interval would need to be left open much longer to accumulate enough water to be sampled. This interval does not appear to contain a significant water bearing/transmissive zone, and therefore water samples from this zone would be of limited usefulness.

Technical Comment 2

Source of TPHd and TPHmo in Groundwater. We do not concur that sufficient data are available to conclude that groundwater in the deeper zone has not been impacted by the former on-site USTs. Soil data from below the USTs indicate that a residual source of TPHd and TPHmo remains in the area below the former on-site USTs. A grab groundwater sample from SR-(2) indicates that shallow groundwater below the former USTs is significantly impacted. Based on several years of groundwater monitoring south of the site at 3192 Santa Rita Road, the predominant groundwater flow direction in the deeper zone is to the south. Based on these considerations, the detections of TPHd and TPHmo in the deeper zone are more likely related to downward migration of contamination from the on-site UST area. We request that you review site conditions and assess the need for further action based upon the TPHd and TPHmo contamination detected in the deeper zone more likely originating from the on-site USTs. Please present this evaluation in the Response to Comments requested below.

Kleinfelder's Response to Technical Comment 2

We acknowledge the possibility that the concentrations of TPHd and TPHmo detected at the Site in the deeper zone may have originated from the former on-site UST fuel release. We also acknowledge that additional groundwater data from the Site would be helpful in assessing the impact from the former on-site UST fuel release. We therefore propose installing three groundwater monitoring wells in the deeper aquifer to better assess impacts to the Site. The proposed locations of the monitoring wells would be 1) at the location of the former USTs, 2) at the location of soil boring SB-4, and 3) at the location of soil boring SB-5. We believe that data from groundwater monitoring wells at these three proposed locations would be sufficient to verify the groundwater gradient in the deeper zone, and to further assess impacts to the Site from the former UST fuel release. Because permeable zones were not encountered at less than 40 feet bgs in

six of the seven soil borings drilled at the Site to date, (only soil boring SR-2 encountered a sufficiently permeable shallow zone to collect a groundwater sample from the shallow zone) we believe that wells installed within this shallow depth interval at the Site would not add enough value to justify their expense.

Technical Comment 3

Comparison of TPHmo and TPHd Concentrations in Groundwater. A comparison of the ratios of TPHd and TPHmo in grab groundwater samples cannot be the basis for concluding that groundwater contamination is from an off-site source. The ratio of TPHd and TPHmo would be unlikely to remain constant at a site given the expected variable effects of contaminant transport and degradation between source area and plume across a site. Please do not include discussion of comparisons of the ratios of TPHd to TPHmo in groundwater samples in the Response to Comments requested below.

Kleinfelder's Response to Technical Comment 3

We acknowledge the variable effects of transportation and degradation on TPHd and TPHmo concentrations across the Site. The higher TPHmo/TPHd ratio in the lower aquifer is only evidence, not proof of an off site source. However, if the lower TPHd concentrations are the result of a higher degradation rate of TPHd range compounds compared to TPHmo range compounds, then that contributes to the argument that the contaminant concentrations at the Site are being significantly reduced by natural degradation.

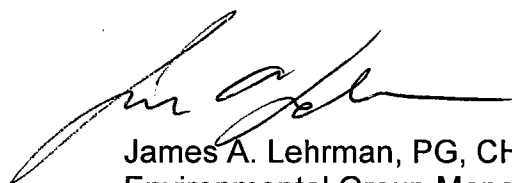
CLOSING REMARKS

If you have any questions regarding this letter, or if Kleinfelder may be of further assistance, please call Jim Lehrman at (925) 484-1700 ext 4520.

Sincerely,

KLEINFELDER WEST, INC.


Jeffrey A. Gravesen EIT
Staff Engineer


James A. Lehrman, PG, CHG
Environmental Group Manager

JAG/JAL/jmk

CC: Mr. James Gotcher, City of Pleasanton

