

Nowell, Keith, Env. Health

To: TimBishop@chevron.com
Cc: jim.harms@aecom.com; Fischer, Alexis N; Roe, Dilan, Env. Health
Subject: Fuel Leak Case RO253 Unocal #5781, 3535 Pierson St., Oakland

Dear Mr. Bishop,

Thank you, Jim Harms of AECOM, and Alexis Fischer of Chevron Environmental Management Company (Chevron) for participating in the meeting on April 8, 2014 regarding fuel leak case for Unocal #5781, 3535 Pierson St., Oakland, Alameda County Environmental Health (ACEH) case number RO00000253. The site is situated at the north corner of Pierson Street and MacArthur Boulevard, fronting Pierson Street. An off-ramp from Highway 580 bounds the northern edge of the site. The purpose of the meeting was to discuss the status of the case and identify action items to move the case forward toward closure, including a discussion of the draft *Site Conceptual Model and Data Gap Investigation Work Plan* (SCM-DGI) provided to ACEH in an email dated April 7, 2014 and prepared by AECOM for the subject site. The SCM-DGI was requested by ACEH in a Directive dated February 3, 2014. As discussed in the meeting, the data presented in soil data tables reported elevated volatile organic compound (VOC) concentrations including tetrachloroethene (PCE) concentrations to 160 milligrams per kilogram (mg/kg). ACEH expressed concern that these concentrations may pose an immediate threat to indoor air quality at the site and requested a work plan for a soil gas study be prepared and submitted to ACEH in the very near future to assess indoor air quality.

Additionally, a previously identified data gap- that of an incomplete well survey- is in the process of being addressed through a well search request to the Alameda County Public Works (ACPW).

In its February 3, 2014 Directive, ACEH requested the variable groundwater flow direction at the site be addressed. The SCM-DGI presented a hydrogeologic model suggesting a groundwater-low trough may exist on the site into which groundwater flows. In times of high groundwater the flow crosses the trough, the remainder of the time groundwater converges into the trough from either side and exits to the southeast.

Data gaps identified in the SCM-DGI and proposed activity to address the data gaps are:

1. Data Gap- Incomplete scope of analysis for the first generation waste oil underground storage tank (UST).

Proposed Activity- Advance two hand auger borings in the vicinity of the first generation waste oil UST to a depth of 10 feet below the ground surface (bgs) for recovery of soil samples. Analyze soil samples for total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), benzene, toluene, ethylbenzene, and xylenes (BTEX) total oil and grease (TOG), semi-volatile organic compounds (SVOCs).

2. Data Gap- Contaminant Plume Delineation

Proposed Activity- Advance three borings to approximately 20 feet bgs using direct push technology with borings converted to temporary groundwater monitoring wells. The locations of the temporary wells are shown to be easterly of groundwater monitoring well MW-5. The temporary wells will be surveyed and tied into the existing well network. Recovered soil and groundwater samples are to be analyzed for TPHg, TPHd and TOG by EPA Test Method 8015; BTEX and methyl tertiary butyl ether (MTBE) by EPA Test Method 8260; and SVOCs by EPA Test Method 8270.

3. Data Gap- Presence of diesel in soil and groundwater. Diesel was reported at 8,300 mg/kg beneath first generation waste oil tank and historically reported in groundwater monitoring well MW-5.

Proposed Activity- Confirm fuel dispensing history and add TPHd to analyte suite in Item 1 and Item 2 above.

ACEH is in general concurrence with proposed actions presented in the SCM-DGI provided the following technical comments are addressed.

Technical Comments

- A. Soil Gas- Indoor Air Investigation– Please prepare a work plan to evaluate soils gas concentrations and indoor air quality for the station building. ACEH requires the soil gas (SG) investigation be conducted following the guidelines presented in the following documents: Final- Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) prepared by Cal/EPA, dated October 2011 and Advisory-Active Soil Gas Investigations prepared by Cal/EPA, LARWQCB, and San Francisco RWQCB, dated April 2012., not the ASTM Method D6234-04(2010) *Standard Practices for Expedited Site Characterization of Vadose Zone and Groundwater Contamination at Hazardous Waste Sites* identified in the revised work plan. The DTSC guidance documents can be reviewed at the following web addresses: http://www.dtsc.ca.gov/AssessingRisk/upload/Final_VIG_Oct_2011.pdf and http://www.dtsc.ca.gov/SiteCleanup/upload/VI_ActiveSoilGasAdvisory_FINAL_043012.pdf.
- B. Waste Oil Tank Investigation – Based on the reported presence of VOCs associated with the first generation waste oil UST, ACEH recommends the investigation (Item 1 above) include VOC analysis by EPA Test Method 8260B. Additionally, the borings should be advanced to a sufficient depth for the recovery and analysis of groundwater samples. Please collect at least one soil sample from within the 0- to 5-foot bgs zone and from the 5- to 10-foot bgs zone from each of the two borings to satisfy the LTCP Media Specific Criteria for Direct Contact and Outdoor Air Exposure.
- C. Contaminant Plume Delineation -- The installation of the three proposed temporary wells appear to address the groundwater scenario for when the flow crosses the proposed trough. ACEH recommends the groundwater investigation include an evaluation to validate the trough concept. The investigation should include at least one temporary well located to the east, as groundwater exiting in this direction has the potential of impacting the Julia Morgan School for Girls located to the east across MacArthur Boulevard.

Technical Report Request

Please upload technical reports to the ACEH ftp site (Attention: Keith Nowell), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule below. Please provide ACEH (Attention: Keith Nowell), the draft figure depicting proposed hydropunch and temporary well locations. After review and approval of the draft figure by ACEH, please prepare a work plan for the soil and groundwater investigations.

- **April 25, 2014 – Draft Figure Depicting Proposed Hydropunch and Temporary Well Locations**
- **May 2, 2014 – Soil Gas Investigation Work Plan** (file name: RO0000253_WP_R_YYYY-mm-dd)
- **To Be Determined – Soil and Groundwater Investigation Work Plan** (file name: RO0000253_WP_R_YYYY-mm-dd)

Thank you for your cooperation. Should you have any questions regarding this correspondence or your case, please call me at (510) 567-6764 or send an electronic mail message at keith.nowell@acgov.org.

Regards,

Keith Nowell

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PDF copies of case files can be reviewed/downloaded at:

<http://www.acgov.org/aceh/lop/ust.htm>