

From: [Soo, Kit, Env. Health](#)
To: ["Kiernan, James"; "rajgoswamy@sbcglobal.net"](#)
Cc: ["Brandt, Katherine"; "Samuel.Miles@arcadis.com"; "John Kevlin"; "overman@barcoast.com"; Roe, Dilan, Env. Health](#)
Subject: Fuel Leak Case No.RO0000409 - Unocal #1156, 4276 MacArthur Boulevard, Oakland - MPE Work Plan Review
Date: Friday, September 23, 2016 3:44:00 PM

Dear Responsible Parties:

Alameda County Department Environmental Health (ACDEH) staff has reviewed the fuel leak case files for the above referenced site including the *First Quarter 2016 Semiannual Groundwater Monitoring and Sampling Report (GWM)*, dated April 12, 2016, and the *Pilot Testing Work Plan, 76 Service Station No. 1156 (351645), 4276 MacArthur Boulevard, Oakland, California (Work Plan)*, dated March 30, 2016, and both prepared by AECOM on your behalf. The GWM presents the results for groundwater monitoring and sampling performed on January 20, 2016 and recommendations for continued monitoring. The Work Plan presents a proposed scope of work to evaluate the potential effectiveness of multi-phase extraction (MPE) to remediate hydrocarbon impacts at the site. ACDEH's comments on the scope of work and recommendations presented in the two documents are presented below.

TECHNICAL COMMENTS

Groundwater Monitoring and Sampling

ACDEH concurs with the recommendation to continue semiannual monitoring groundwater monitoring. Please perform the third quarter groundwater monitoring event and present the results in the report by November 30, 2016.

Pilot Test

MPE was evaluated in the *Feasibility Study Report*, dated November 10, 2015, prepared by AECOM, along with soil excavation and monitored natural attenuation (MNA). AECOM recommended monitored natural attenuation (MNA) for the site and concluded that soil excavation and MPE were not feasible options. However, the Feasibility Study indicated that MPE could not be evaluated due to several data gaps including the heterogeneity and fine grain nature of the soil at the site. In ACDEH's directive dated January 7, 2016, ACDEH requested the preparation of a pilot test work plan to adequately assess the viability of MPE at the site. The proposed scope of work includes preliminary field activities (preparation of a health and safety plan, permitting/notifications, well replacement), baseline data collection, pilot test setup, mobilization and demobilization of the MPE equipment, and MPE implementation and data collection. ACDEH concurs with the proposed scope of work to conduct the mobile pilot test long enough to define steady state dewatering, and not to exceed a period of 72 hours. The pilot test is acceptable and can be implemented. Please submit a draft word document of the public notification by November 30, 2016 (ACDEH will review the draft and provide comments prior to finalization) and the Pilot Test Report by March 31, 2017.

Vapor Intrusion Mitigation Planning

The Pilot Test Work Plan also presents a discussion on the expansion of the convenience store and proposed vapor intrusion mitigation measures which includes a passive sub-slab venting (SVV) system and sub-slab liner. The work plan also proposes to destroy five existing soil vapor monitoring wells that are located within the footprint of the proposed store expansion. As indicated in our

email directive dated September 2, 2016, the mitigation measures proposed to address the proposed expansion of the convenience store at the site must be protective against vapor intrusion to indoor air. Plans were submitted to ACDEH via email on July 22, 2016 which provide mitigation measures for the expansion portion of the building but does not address protective measures for the remainder of the building. We request that you revise the plans to include measures for the entire building and submit a Basis of Design Report for the VMS system. Prior to destruction of the soil vapor probes and construction of the VMS system, the building permit plans must be approved by ACDEH and the City of Oakland. Please submit the Basis of Design Report by December 21, 2016.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Kit Soo), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- November 30, 2016 – Semi-Annual Groundwater Monitoring Report
File to be named: GWM_R_YYYY-mm-dd RO409
- December 15, 2016 – Final Public Notification
File to be named: GWM_R_YYYY-mm-dd RO409
- December 21, 2016 – Basis of Design Report
File to be named: BOD_R_YYYY-mm-dd RO409
- March 31, 2017 – Pilot Test Report
File to be named: IRR_R_YYYY-mm-dd RO409

If you have any questions, please call me at call or email me. Case files can be reviewed online at the following website: <http://www.acgov.org/aceh/index.htm>.

Thanks,

Kit Soo, PG

Senior Hazardous Materials Specialist

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