

Nowell, Keith, Env. Health

From: Nowell, Keith, Env. Health
Sent: Thursday, June 12, 2014 1:19 PM
To: 'TimBishop@chevron.com'
Cc: 'Katherine.Brandt@arcadis-us.com'; Alexis Fischer (AFischer@Chevron.com); Roe, Dilan, Env. Health
Subject: Fuel Leak Case RO499 Unocal #5367, 500 Bancroft Ave., San Leandro

Dear Mr. Bishop,

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the recently submitted documents *Response to Comments and Focused Conceptual Site Model (SCM)*, dated April 15, 2014, and the *Supplemental Data for the Focused Conceptual Site Model (SDR)*, dated May 29, 2014, both prepared by ARCADIS U.S., Inc. (ARCADIS) for the subject site. Based on our review of the data in the case file, it is ACEH's opinion that the case does not meet the State Water Resources Control Board's (SWRCB) Low Threat Underground Storage Tank Case Closure Policy (LTCP) Media Specific Groundwater criteria for distance to the nearest supply well from the plume boundary.

Technical Comments

The SCM identified 37 potential supply wells within 1,000 feet of the site, with the nearest well reported 296 feet from the site. It also identified the plume length as 76 feet and that no well is within 250 feet of the lead edge of the plume, thereby meeting LTCP Media Specific Groundwater criteria #1. The SCM provided a rose diagram on Figure 2 presenting the results of 44 groundwater monitoring events, with 26 events depicting a prevalent westward flow direction. Referencing the *Technical Justification for Groundwater Plume Length, Indicator Constituents, Concentrations, Buffer Distances (Separation Distances) to Receptors* (LTCP Guidance; SWRCB 2012) and the 90th percentile plume length, the SDR identified three wells, wells 18, 19, and 20, within the area of potential migration. However, groundwater contour maps in groundwater monitoring reports prepared for the site present a more outward radial flow varying from the northwest to the southwest. Additionally, the rose diagram in the groundwater monitoring report dated April 13, 2011, supports the outward radial flow from the northwest to the southwest, with only 15 of the 52 events resulting in a westward flow during the period third quarter 1990 through first quarter 2011. Hence, ACEH is of the opinion most of the 37 identified wells are located down gradient of the site, that wells 3, 4, and 6 are also located within the 90th percentile plume length, and that 30 wells are within the area of potential migration using the maximum plume length.

ARCADIS attempted to establish the status of the 37 wells and determined seven of the wells were either not present or not being used. The status for 26 of the wells, including 3, 4, 6, 17, 18, and 19, could not be determined.

ACEH evaluated the data presented in the SCM and determined the nearest supply well to the site, identified as well 6 on Figure 1 of the SCM, is approximately 150 feet from the leading edge of the plume. As down gradient off-site monitoring well MW-8, located between the site and supply well 6, has historically contained TPHg at concentrations of up to 6,500 micrograms per liter ($\mu\text{g/L}$), ACEH is of the opinion additional effort should be made to ascertain the well status of nearby wells 3, 4, 6, 17, 18, and 19.

ACEH requests that wells 6 and 19, if found to be in service, be sampled and analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), and the fuel oxygenate methyl tertiary butyl ether (MTBE). If your attempt fails, ACEH can write a letter to the property owners to help with these matters.

Technical Report Request

Please email your findings of the supplemental well status determination of wells 3, 4, 6, 17, 18, and 19 (Attention: Keith Nowell) by **July 28, 2014** to determine the next step.

Thank you for your cooperation. ACEH looks forward to working with you and your consultants to advance the case toward closure. 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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