

## Nowell, Keith, Env. Health

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**To:** Reed.Westphal@balcoproperties.com  
**Cc:** Roe, Dilan, Env. Health (Dilan.Roe@acgov.org); mjones@trihydro.com  
**Subject:** Fuel Leak Case RO378 - Wareham Property Development, 2855 Mandela Parkway, Oakland CA  
**Attachments:** SCM-Data Gap Work Plan Sample Table.docx; X-Sects\_examples.pdf; Attachment\_1\_and\_ftpUploadInstructions\_2013\_09-17.pdf

Dear Mr. Westphal,

Alameda County Environmental Health (ACEH) staff has reviewed the case file, including the document entitled *Work Plan for Additional Investigation, Balco Properties LLC, 2855 Mandela Parkway, Oakland, California* prepared for the subject site by Trihydro Corporation (Trihydro) and dated August 14, 2012. Following our review Dilan Roe, the Local Oversight Program Manager, and myself participated in a conference call with Mr. Matt Jones of Trihydro on Monday October 21, 2013. The site was viewed against the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Site evaluation indicates the site does not meet three general and the three media specific criteria under the LTCP. During the conference call we discussed data gaps that need to be addressed to meet the LTCP, including secondary source removal, the variability of groundwater flow, on-site preferential pathways, adequacy of the monitoring well net work to delineate both the free product and vertical and lateral dissolved phase contaminant plumes, and soil gas study sample points and viability of soil gas analytical data. A summary of the conference call discussion of the LTCP criteria and requirements for submittal of a focused site conceptual model (SCM) is provided in the technical comments below.

### **A. LTCP Criteria Compliance**

1. **General Criteria d** – It has not been shown that free product been removed to the maximum extent practicable.
2. **General Criteria e** – An SCM that assesses the nature, extent, and mobility of the release has not been developed. This is a living document that is continuously updated with each investigation. The SCM is generally considered incomplete until the case is closeable.
3. **General Criteria f** – The LTCP` defines secondary source as “immediately beneath the release”. No soil samples have been recovered from beneath the two dispensers. The fuel source for the northern dispenser has not been identified. No soil samples have been recovered from beneath the product line feeding the northern dispenser.
4. **Media-Specific Criteria for Groundwater** –
  - I. Length of the plume- unknown as the plume has not been laterally delineated;
  - II. Plume Stable or Decreasing- unknown as the plume has not been delineated both vertically and laterally;
  - III. Free Product Has Been Removed to the Maximum Extent Practicable- it has not been shown if the remaining free product has been removed to the maximum extent practicable;
  - IV. Nearest Supply Well (From Plume Boundary) - is unknown as the plume has not been laterally defined;
  - V. Nearest Surface Water Body (From Plume Boundary) - is unknown as the plume has not been laterally defined.
5. **Media-Specific Criteria for Petroleum Vapor Intrusion to Indoor Air**–
  - I. No oxygen soil gas data for evaluating bioattenuation zone;
  - II. No naphthalene soil gas data for evaluating vapor intrusion;
  - III. Validity of existing soil gas data needs to be verified.
6. **Media-Specific Criteria- Direct Contact and Outdoor Air Exposure**–
  - I. Soil Concentrations of Benzene exceed 14 milligrams per kilogram (mg/kg);

- II. Naphthalene has been detected in groundwater; however, soil concentrations of naphthalene are unknown;
- III. Area of Impacted Soil, as defined by the known limits of the free product plume is greater than 82 by 82 Feet.

Based on the conference call discussion, ACEH requests the preparation of a focused SCM provided by the date specified below – ACEH requested the SCM address the following technical comments. Please prepare a focused SCM to address the data gaps identified in Item A above. Please also specifically address the following items.

## **B. Focused SCM**

- Please prepare a site figure using a photographic base showing the site and nearby features. Include on the figure a rose diagram showing groundwater flow directions, well and boring locations, and the estimated plume boundary. Please use the LTCP Technical Justification Groundwater Paper to support the estimated plume length. Identify nearby potential receptors on the site map.
- Please prepare cross sections showing borings, wells and well screen intervals, piezometric surface, utilities and preferential pathways. Depict the soil concentrations of principal chemicals of potential environmental concern (COPC) at the depth of collection, and groundwater concentrations of COPC. An example figure showing cross sections is provided as an attachment.
- Discussion and data table presentation of soil analytical data synthesizing all data collected to date. The discussion should include the rationale for sample locations and depths of specimen recovery. The data table should include the specimen collection date, sample recovery depth, and analyte concentrations with consistent concentration (milligrams per kilogram) units. Please reference the LTCP Direct Contact criteria when evaluating the soil data. Please include the appropriate screening levels in the table and evaluate the validity of the laboratory reporting limits.
- Discussion and data table presentation of groundwater analytical data synthesizing all data collected to date. Please prepare separate tables for samples recovered from monitoring wells and for grab-groundwater samples. Discuss the rationale for the well/boring locations. The data table should include the specimen collection date, depth to free product, depth to water (DTW), calculated depth to water in the presence of free product, and analyte concentrations with consistent concentration (micrograms per liter) units. Include well screen interval and document submerged well screens for all water samples collected. Please include the appropriate screening levels in the table and evaluate the validity of the laboratory reporting limits.
- Please provide a well construction detail table presenting installation date, construction details for both groundwater monitoring and extraction wells and piezometers. Include the decommissioning date if applicable. Discuss the validity of the well network for monitoring free product. Please provide logs showing well and piezometer lithology and construction details.
- Please discuss the variability of groundwater flow and its relationship to the free product plume. Also address the apparent anomalous DTW groundwater data for the well TR-4.
- Please address the removal of secondary source as it relates to the definition under the LTCP. Identify the type and source of product dispensed from the northern dispenser and the length of product piping between the tank and dispenser. Product piping runs typically have one soil sample collected beneath the pipe for every 20 feet of run.
- Discussion and data table presentation of soil gas analytical data synthesizing all data collected to date. The discussion should include the rationale for sample locations, depths of specimen recovery relative to the bottom of the foundation (if applicable), sample collection container, and if the sample point was a temporary or permanent sample port. The data table should include the specimen collection date, sample recovery depth, analyte concentrations with consistent concentration (micrograms per cubic

meter) units, and tracer gas concentration. Please include the appropriate screening levels in the table and evaluate the validity of the laboratory reporting limits.

- The site is located in a residential/commercial mixed use neighborhood. Discuss potential redevelopment plans and how it may relate to the clean up levels for the site.

In order to expedite review, ACEH requests the SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment B "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed Data Gap Investigation scope of work to enable efficient data collection in the fewest mobilizations possible. An example of a SCM with data gap identification is provided as an attachment

### **Report Submittal**

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 Attachment 1 and following the specified file naming convention and schedule:

- **January 10, 2014- Focused Site Conceptual Model Report** (file name: RO0000378\_SCM\_R\_yyyy-mm-dd)

In order to expedite review of the Focused SCM, please schedule a meeting with ACEH to discuss your draft findings document prior to final submittal.

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](mailto:keith.nowell@acgov.org).

Respectfully,

Keith Nowell

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