ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
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December 4, 2008

Mr. Ian Robb
Chevron Environmental Management Company
6001 Bollinger Canyon Rd., K2256
San Ramon, CA 94583-2324

Mr. Ken Hilliard
Environmental Services
7-Eleven, Inc.
One Arts Plaza, 1722 Routh St., Suite 1000
Dallas, TX 75201

Subject: Fuel Leak Case No. RO0000189 and Geotracker Global ID T0600101353, Chevron #21-1253/Texaco, 930 Springtown Boulevard, Livermore, CA 94550

Dear Mr. Robb and Mr. Hilliard:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site, including the document entitled, "*Subsurface Investigation Report*," dated August 13, 2008. The "*Subsurface Investigation Report*," presents the results from several phases of cone penetration test (CPT) soil borings in 2007 and 2008. Soil and grab groundwater samples were collected from each of seven CPT borings. Total petroleum hydrocarbons as gasoline (TPHg) and benzene were detected in groundwater at maximum concentrations of 160,000 and 4,200 micrograms per liter (µg/L), respectively.

In correspondence dated March 8, 2002, Alameda County Environmental Health (ACEH) staff indicated that ACEH and the San Francisco Regional Water Quality Board had reviewed the case closure summary and concurred that no further action related to the underground storage tank release is required at this time. The March 8, 2002 correspondence went on to request that the nine monitoring wells at the site be decommissioned, if they will no longer be monitored. Subsequent review of the case file by ACEH staff in 2007, which is documented in correspondence dated January 31, 2007, identified data gaps that need to be addressed prior to considering the case for closure. The seven CPT borings advanced in 2007 and 2008 were implemented to address these data gaps.

The August 13, 2008 "*Subsurface Investigation Report,*" concludes that all data gaps identified in the ACEH letter dated January 31, 2007 have been addressed. The Report goes on to conclude that current site conditions are similar to conditions upon which ACEH and the Water Board concurred that no further action was necessary. No rationale for case closure is presented other than current conditions are believed to be similar to previously referenced conditions. A document entitled, "*Request for Closure,*" dated December 10, 2001 is referenced and included as Attachment G to the "*Subsurface Investigation Report.*" Based upon our review of the case file including the August 13, 2008 "*Subsurface Investigation Report,*" December 10, 2001 "*Request*

for Closure," and the August 13, 2001, "*Vadose Zone Investigation and Risk-Based Corrective Action (RBCA) Analysis,*" we do not concur that current site conditions are similar to previously referenced conditions. Please see technical comments 1 through 4 for descriptions of specific differences.

Based upon our review of the case file, site conditions are significantly different than cited and represented in documents previously used to evaluate the site for case closure. The volume and concentration of residual soil and groundwater contamination at the site requires that the site be remediated. Therefore, we request that you submit a Work Plan for pilot testing or a Draft Corrective Action Plan **by February 26, 2009**.

TECHNICAL COMMENTS

1. **Plume Extent.** Our January 31, 2007 directive letter requested that you investigate the potential for the plume to have migrated off-site to the northwest, possibly along a preferential pathway. The four CPT borings were advanced off-site to the north and northwest to address this data gap. TPHg was detected at a concentration of 1,700 micrograms per liter (µg/L) in a grab groundwater sample collected from a sand layer at a depth of approximately 24 feet bags in boring CPT3. Boring CPT-3 is more than 300 feet from the former USTs and approximately 190 feet from the northern corner of the property. Therefore, we do not understand the conclusion in the August 13, 2008, "*Subsurface Investigation Report,*" that the plume is limited to the northern property boundary. It appears that the plume extends off-site and is significantly larger than previously considered.

2. **Vertical Delineation.** In our January 31, 2007 directive letter, the vertical extent of contamination was identified as a data gap for the site based on the potential for downward migration of contamination at the site due to long-term water level fluctuations and the observation of fuel hydrocarbons at the lowest depths investigated. The CPT borings included depth-discrete soil and grab groundwater sampling that provided data on the vertical distribution of contamination to address this data gap. In the three CPT borings where the highest concentrations of petroleum hydrocarbons were detected, the grab groundwater samples collected below a depth of 20 feet bags contained the highest concentration of TPHg. In boring CPT-1, the concentration of TPHg in the grab groundwater sample collected at a depth of 24 feet bags (160,000 µg/L) was nearly two orders of magnitude higher than the concentration of TPHg in the shallower grab groundwater sample collected at 16 feet bags (1,700 µg/L). In the five (of total seven) CPT borings where petroleum hydrocarbons were detected in groundwater, the highest concentrations of TPHg were generally detected in grab groundwater samples collected between 24 and 43 feet bags. Groundwater monitoring wells MW-A and MW-B, which were directly downgradient from the former USTs, only extended to a depth of 16 feet bags. Wells MW-A and MW-B were the primary wells used to delineate the extent of contamination and trends in concentration over time. The 2007 and 2008 CPT investigation shows that the vertical extent and concentrations of petroleum hydrocarbons are significantly greater than previously assumed in 2002.

3. **Grab Groundwater Results.** The August 13, 2008, "*Subsurface Investigation Report,*" appears to discount the grab groundwater sampling results by stating that, "grab groundwater

samples are often one to two orders of magnitude higher than stabilized groundwater monitoring well samples." The basis for this statement is not provided. However, data from both types of sampling are available for this site and can be readily compared. Boring CPT-7 is adjacent to former well MW-B and boring CPT-1 is adjacent to former well MW-A. During the last monitoring well sampling event on January 4, 2002, the groundwater sample from well MW-B contained 10,000 µg/L of TPHg and 11 µg/L of benzene. Former well MW-B was screened from approximately 4 to 16 feet bgs; therefore, the results can be compared to the grab groundwater sample collected at a depth of 13 feet bgs from adjacent boring CPT-7. The grab groundwater sample collected at a depth of 13 feet bgs from boring CPT-7 contained 3,600 µg/L of TPHg and 21 µg/L of benzene. The TPHg concentration in the sample from the monitoring well is higher than the grab groundwater sampling result. At the second location, the results from monitoring well MW-A can be compared to the grab groundwater sample collected at a depth of 16 feet bgs from boring CPT-1 (monitoring well was screened from approximately 4 to 16 feet bgs). During the last monitoring well sampling event on January 4, 2002, the groundwater sample from well MW-A contained 9,100 µg/L of TPHg and 4.1 µg/L of benzene. In comparison, the grab groundwater sample collected at a depth of 16 feet bgs from boring CPT-1 contained 1,700 µg/L of TPHg and 7 µg/L of benzene. Again, the concentration of TPHg was higher in the groundwater sample from the monitoring well than in the comparable grab groundwater sample. These results do not fit with the stated conclusion that grab groundwater sampling results are one to two orders of magnitude higher than results from monitoring wells. As discussed in technical comment 2, the depth at which the grab groundwater samples were collected is a much more significant factor for this site than the sampling method.

4. **Comparison of Current Conditions to Conditions Cited in Request for Closure.** The August 13, 2008, "*Subsurface Investigation Report*," concludes that, "current site conditions are similar to conditions upon which ACEHS and RWQCB-SFB originally based their no further action determination" and requests that a remedial action completion certificate be issued. In order to evaluate this conclusion, we have compared the current site conditions to those described in the December 10, 2001 "*Request for Closure*," and in the August 13, 2001 "*Vadose Zone Investigation and Risk-Based Corrective Action (RBCA) Analysis*." Case closure was requested in the December 10, 2001 "*Request for Closure*," based on the following facts:

Basis for Case Closure Request in December 10, 2001 "*Request for Closure*"	**Current Conditions**
The USTs were removed in June 1985 and the site is currently a 7-Eleven convenience store	No changes.
Graphs show the effectiveness of SVE system in removing petroleum hydrocarbons from vadose zone soil	The graphs show that the SVE system performance declined over time but does not provide an indication of the mass removed or the effectiveness of the SVE system to remediate the vadose zone. Moreover, much of the contamination at this site is below the water table and not affected by SVE. Therefore, even if it

	could be assumed that SVE was effective in removing petroleum hydrocarbons from the vadose zone, site cleanup is necessary to address deeper contamination.
The effectiveness of the SVE system was confirmed by analysis of soil samples in June 2001. TPHg was detected in two samples at concentrations of 11 and 14 milligrams per kilogram (mg/kg), respectively.	TPHg and benzene were detected in vadose zone soil samples collected in 2008 at concentrations up to 1,700 and 2.5 mg/kg, respectively. This is a significant difference from the 2001 assumed conditions.
The dissolved petroleum plume is small (0.1 acres) and was assumed to be largely on site.	TPHg was detected in a grab groundwater sample from CPT-3 at a concentration of 1,500 micrograms per liter (µg/L). CPT3 is off-site more than 300 feet from the former USTs. This is a significant difference from the 2001 assumed conditions.
MTBE was not detected in groundwater samples during recent sampling events.	No changes
No registered water supply wells were identified within 1/2.-mile of the site.	No changes
Current conditions do not pose a threat to human health based on a 2001 RBCA analysis	The RBCA analysis was based on data that has been superseded by data from the 2007 and 2008 CPT investigation. Maximum concentrations from the 2007 and 2008 CPT investigation exceed the site-specific target levels in the 2001 RBCA. This is a significant difference from the 2001 assumed conditions.

Based upon the differences noted in the table above and the greater horizontal and vertical extent of contamination discussed in technical comments 1 and 2 above, there are significant differences between the conditions encountered during the 2007 and 2008 CPT investigation and the conditions described in the December 10, 2001 *"Request for Closure."*

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **February 26, 2009** – Pilot Test Work Plan or Draft Corrective Action Plan

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Cheryl Dizon, QIC 80201, Zone 7 Water Agency, 100 North Canyons Parkway
Livermore, CA 94551

Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street
Pleasanton, CA 94566

Charlotte Evans, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A,
Emeryville, CA 94608

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**ISSUE DATE:** July 5, 2005
	REVISION DATE: December 16, 2005
	PREVIOUS REVISIONS: October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
      or
      ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape and Firefox browsers will not open the FTP site.
   b) Click on File, then on Login As.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload)