

ALAMEDA COUNTY  
**HEALTH CARE SERVICES**  
AGENCY

ALEX BRISCOE, Director



ENVIRONMENTAL HEALTH DEPARTMENT  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

May 3, 2013

Roya Kambin (*Sent via E-mail to: [RKambin@chevron.com](mailto:RKambin@chevron.com)*)

Chevron  
6101 Bollinger Canyon Road  
San Ramon, CA 94583

Ed Ralston (*Sent via E-mail to: [Ed.C.Ralston@p66.com](mailto:Ed.C.Ralston@p66.com)*)

Phillips 66  
76 Broadway Street  
Sacramento, CA 95818

Monument Gas & Mart  
111 E14th Street  
San Leandro, CA 94577

Ibrahim Abbushi  
16376 Kildare Road  
San Leandro, CA 94578-1267

Subject: Additional Site Investigation Work Plan for Fuel Leak Case No. RO0002444 and GeoTracker Global ID T0600173591, Unocal #7124, 10151 International Blvd., Oakland, CA 94603

Dear Ms. Kambin:

Thank you for the recently submitted document entitled *Additional Site Investigation Work Plan*, dated March 5, 2013, prepared by Arcadis for the subject site. The work plan proposes to further delineate and characterize impacted soil and groundwater downgradient of the site, by advancing two soil borings and completing both as temporary pre-packed wells. One soil boring is proposed to be advanced east of the Abe's Lotto Liquors building and the second soil boring advanced off-site to the north, on the southeast corner of the AutoZone building. The data collected from both soil borings is proposed to be used to assess the downgradient edge of the known groundwater impacts by site constituents of concern.

Alameda County Environmental Health (ACEH) has evaluated the data and recommendations presented in the above-mentioned report in conjunction with the case files and the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP) criteria. Based on ACEH's review, insufficient data has been presented to determine whether the site meets LTCP criteria for General Criteria B, C, E, F, and H, and Media Specific criteria for Groundwater, and Outdoor Air and Direct Contact. Therefore we request that you address the following technical comments, and send us a Revised Site Investigation Work Plan in accordance with the schedule below.

## **TECHNICAL COMMENTS**

1. **Comments on 2013 Work Plan** – The case currently has an approved work plan entitled *Work Plan for Additional Assessment and Remediation Pilot Testing*, prepared by Stantec Consulting Corporation, dated July 20, 2009 and amended on December 13, 2010. The work plan was prepared to address data gaps identified for the site in addition to evaluating a remedial method addressing residual site pollution. The approved work plan proposed the installation of three off-site monitoring wells, sampling soil gas and performing a hydrogen peroxide injection pilot test.

As the 2009 work plan was prepared prior to the implementation of the LTCP, certain elements of the work plan are no longer required. A summary of our comments is provided below:

- a. Soil vapor sampling is no longer required, as the site characteristics satisfy Scenario 3 of the Media Specific criteria for vapor intrusion to indoor air.
- b. ACEH recommends remediation of primary and secondary source removal activities be assessed subsequent to the collection of data during the additional site investigation activities. Additionally the site history presented in the work plan and case file documents is inadequate, going back only as far as 1997. ACEH requests that a site history be prepared that documents petroleum products used at the site from the initial date of station operation. Based on our review, ACEH cannot determine the current status of the station. TRC (previous consultant for the site) reported that the station was closed and fenced off in 2009; however, there is no documentation if the tanks and appurtenant structures have been removed.
- c. ACEH agrees that in order to advance the case to closure under the Media Specific criteria for groundwater, the extent of the plume needs to be defined and plume stability established. However, ACEH prefers the location and installation of the three permanent monitoring wells in the approved 2009 work plan, rather than the temporary pre-packed wells proposed in the 2013 work plan.
- d. The current groundwater monitoring well network contains wells screened from 10 to 25 feet below the ground surface. Our review of the cross sections presented in the case file documents indicates the more permeable units are not being monitored. Therefore, ACEH requests the revised work plan present a proposed strategy to increase the likelihood that the downgradient dissolved-phase contaminant plume is quickly delineated and to optimize off-site monitoring well locations and screen intervals (i.e. Cone Penetrometer Testing, continuously sampled direct push, etc.).

The 2013 Work Plan proposes the installation of wells with 20-foot screen intervals. ACEH recommends the use of monitoring wells designed such that the screen interval plus the sand pack length will total 5 feet or less. This request is based on technical literature that has determined that shorter screen intervals are more likely to provide representative groundwater samples. The proposed strategy should minimize the screen length at each well location to the extent possible, with well screens minimally longer than the water-bearing zone, including any capillary fringe zone. If a well intersects multiple water bearing units, than well clusters or multilevel wells (similar to Continuous Multi-Phase Tubing [CMT]) should be proposed.

- e. Historic groundwater levels at the site have been reported within the range of approximately 13 to 19 feet below the ground surface. If groundwater is not encountered in this interval then please present your contingency plan for monitoring groundwater in this previously identified impacted zone.
  - f. Historic groundwater data suggests a predominantly western flow direction; however, the proposed locations are to the north of the site and therefore fail to adequately delineate the plume. No justification has been provided to support the proposed well locations.
  - g. The grab groundwater sample collected in 2008 from soil boring SB-4 had a concentration of 45,000 micrograms per liter of total petroleum hydrocarbons as gasoline. ACEH requests further delineation be conducted in this area.
  - h. Please collect and analyze soil samples at maximum intervals of not more than five feet, at signs of obvious contamination, at the soil/groundwater interface, and at significant changes in lithology. Submit a sufficient number of soil samples for laboratory analyses to define the vertical extent of contamination. Please collect groundwater samples from each boring and submit for laboratory analysis.
  - i. If your revised site history indicates that waste oil or diesel products were used at the site, please collect and analyze soil samples within the top 10 feet (0 to 5 feet and 5 to 10 feet) to evaluate soil from this interval as required by the LTCP media specific criteria for Direct Contact and Outdoor Air Include naphthalene and polycyclic aromatic hydrocarbon (PAH) analysis for soil samples collected from the top ten feet.
2. **Revised Site Investigation Work Plan** – Please revise the work plan to address the comments identified in Item 1 above. Please support the proposed scope of work with an Updated Site Conceptual Model (SCM) presented in a tabular format that highlights the major SCM elements and identified data gaps. Please see Attachment A for a description of the requisite SCM elements.
3. **Electronic Submittal of Information (ESI)** –ACEH's review of the electronic case file database indicates that the record is incomplete. Please upload the results of the semi-annual groundwater monitoring events conducted since April 16, 2012, and the 1997 Soil Gas Survey report in accordance with the instructions included in Attachment 1.

### **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:

- **July 2, 2013** – Revised Soil and Water Investigation Work Plan (file name: RO0002444\_WP\_R\_yyyy-mm-dd);
- **June 2, 2013** – ESI Compliance;

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

Ms. Kambin  
RO0002444  
May 3, 2013, Page 4

Sincerely,

Keith Nowell, P.G., C.H.G.  
Hazardous Materials Specialist

Enclosure: Responsible Party(ies) Legal Requirements/Obligations  
ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))

Katherine Brandt, ARCADIS U.S., Inc., 2000 Powell Street, 7th Floor, 2000 Powell Street, 7th Floor (Sent via E-mail to: [Katherine.Brandt@arcadis-us.com](mailto:Katherine.Brandt@arcadis-us.com))

Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Keith Nowell, ACEH (Sent via E-mail to: [keith.nowell@acgov.org](mailto:keith.nowell@acgov.org))  
GeoTracker, e-file

## Attachment 1

### Responsible Party(ies) Legal Requirements/Obligations

#### REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

#### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/))

#### 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, 7835, 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, late 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.

|  |  |
|--|--|
| <b>Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)</b> | <b>REVISION DATE:</b> July 25, 2012  |
|  | <b>ISSUE DATE:</b> July 5, 2005  |
|  | <b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010 |
| <b>SECTION:</b> Miscellaneous Administrative Topics & Procedures             | <b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions                                  |

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) 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

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single Portable Document Format (PDF) with no password protection.**
- 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)

## 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 [.loptoxic@acgov.org](mailto:.loptoxic@acgov.org)
  - 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 <://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - 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 [.loptoxic@acgov.org](mailto:.loptoxic@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 @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) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

**ATTACHMENT A**

**Site Conceptual Model**

# ATTACHMENT A

## Site Conceptual Model Requisite Elements

The site conceptual model (SCM) is an essential decision-making and communication tool for all interested parties during the site characterization, remediation planning and implementation, and closure process. A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely magnitude of potential impacts to receptors.

The SCM is initially used to characterize the site and identify data gaps. As the investigation proceeds and the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened until it is said to be "validated". At this point, the focus of the SCM shifts from site characterization towards remedial technology evaluation and selection, and later remedy optimization, and forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

Alameda County Environmental Health (ACEH) requests utilization of a tabular format that highlights the major SCM elements and their associated data gaps, which need to be addressed to progress the site to case closure. Update the SCM at each stage of the project and submit with work plans, feasibility studies, corrective action plans, and requests for closures.

The SCM should incorporate, but is not limited to, the topics listed below. Please maximize the use of large-scaled maps and graphics, tables, and conceptual diagrams to illustrate key points. Please include an extended site map(s) utilizing an aerial photographic base map with sufficient resolution to show the facility, delineation of streets and property boundaries within the adjacent neighborhood, downgradient irrigation wells, and proposed locations of transects, monitoring wells, and soil vapor probes.

- a. Regional and local (on-site and off-site) geology and hydrogeology. Include a discussion of the surface geology (e.g., soil types, soil parameters, outcrops, faulting), subsurface geology (e.g., stratigraphy, continuity, and connectivity), and hydrogeology (e.g., water-bearing zones, hydrologic parameters, impermeable strata). Please include a structural contour map (top of unit) and isopach map for the aquitard that is presumed to separate your release from the deeper aquifer(s), cross sections, soil boring and monitoring well logs and locations, and copies of regional geologic maps.
- b. Analysis of the hydraulic flow system in the vicinity of the site. Include rose diagrams for depicting groundwater gradients. The rose diagram shall be plotted on groundwater elevation contour maps and updated in all future reports submitted for your site. Please address changes due to seasonal precipitation and groundwater pumping, and evaluate the potential interconnection between shallow and deep aquifers. Please include an analysis of vertical hydraulic gradients, and effects of pumping rates on hydraulic head from nearby water supply wells, if appropriate. Include hydraulic head in the different water bearing zones and hydrographs of all monitoring wells.
- c. Release history, including potential source(s) of releases, potential contaminants of concern (COC) associated with each potential release, confirmed source locations, confirmed release locations, and existing delineation of release areas. Address primary leak source(s) (e.g., a tank, sump, pipeline, etc.) and secondary sources (e.g., high-concentration contaminants in low-permeability lithologic soil units that sustain groundwater or vapor plumes). Include local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.).



## ATTACHMENT A

- d. Plume (soil gas and groundwater) development and dynamics including aging of source(s), phase distribution (NAPL, dissolved, vapor, residual), diving plumes, attenuation mechanisms, migration routes, preferential pathways (geologic and anthropogenic), magnitude of chemicals of concern and spatial and temporal changes in concentrations, and contaminant fate and transport. Please include three-dimensional plume maps for groundwater and two-dimensional soil vapor plume plan view maps to provide an accurate depiction of the contaminant distribution of each COC.
- e. Summary tables of chemical concentrations in different media (i.e., soil, groundwater, and soil vapor). Please include applicable environmental screening levels on all tables. Include graphs of contaminant concentrations versus time.
- f. Current and historic facility structures (e.g., buildings, drain systems, sewer systems, underground utilities, etc.) and physical features including topographical features (e.g., hills, gradients, surface vegetation, or pavement) and surface water features (e.g. routes of drainage ditches, links to water bodies). Please include current and historic site maps.
- g. Current and historic site operations/processes (e.g., parts cleaning, chemical storage areas, manufacturing, etc.).
- h. Other contaminant release sites in the vicinity of the site. Hydrogeologic and contaminant data from those sites may prove helpful in testing certain hypotheses for the SCM. Include a summary of work and technical findings from nearby release sites, including the two adjacent closed LUFT sites, (i.e., Montgomery Ward site and the Quest Laboratory site).
- i. Land uses and exposure scenarios on the facility and adjacent properties. Include beneficial resources (e.g., groundwater classification, wetlands, natural resources, etc.), resource use locations (e.g., water supply wells, surface water intakes), subpopulation types and locations (e.g., schools, hospitals, day care centers, etc.), exposure scenarios (e.g. residential, industrial, recreational, farming), and exposure pathways, and potential threat to sensitive receptors. Include an analysis of the contaminant volatilization from the subsurface to indoor/outdoor air exposure route (i.e., vapor pathway). Please include copies of Sanborn maps and aerial photographs, as appropriate.
- j. Identification and listing of specific data gaps that require further investigation during subsequent phases of work. Proposed activities to investigate and fill data gaps identified.