ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-93

March 18, 2012

Shannon Couch
Atlantic Richfield Company
PO Box 1257
San Ramon, CA 94583
(*Sent via E-mail to: shannon.couch@bp.com*)

Subject: Case File Review for Fuel Leak Case No. RO0000200 and GeoTracker Global ID T0600100113, ARCO #00771, 899 Rincon Avenue, Livermore, CA 94550

Dear Ms. Couch:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site. The most recent document in the case file is a report entitled, "*Fourth Quarter 2012 Status Report*," dated January 11, 2013 (Status Report). The Status Report, which was prepared on behalf of Atlantic Richfield Company by Broadbent & Associates, Inc., anticipates that the site will be re-evaluated in the near future. A technical report entitled, "*Case Evaluation and Justification for No Further Action*," dated January 5, 2012 (NFA Request) previously requested that the site be considered for case closure. However, the NFA Request was retracted in correspondence from Atlantic Richfield Company dated September 12, 2012.

Based on our review of the case file, we concur that the site should be re-evaluated. Therefore, we request that you prepare a Conceptual Site Model (CSM) and Work Plan that addresses the technical comments below. Please submit the CSM and Work Plan **no later than May 29, 2013**.

TECHNICAL COMMENTS

1. **Free Product in Well MW-7.** Light non-aqueous phase liquid (LNAPL) was observed within well MW-7 on July 25, 2012. LNAPL was also measured at a thickness of 0.01 feet during a site visit on August 31, 2012. The Status Report recommends continued monitoring for the presence on LNAPL within MW-7 on a quarterly basis. We have no objection to this proposal.

2. **Municipal Water Supply Well.** A "*Water Well Survey*," dated September 17, 2003, was completed for the site by URS. The 2003 water well survey was referenced in the "*Case Evaluation and Justification for No Further Action*," dated January 5, 2012 and the "*Initial Site Conceptual Model and Soil and Groundwater Investigation Work Plan,*" dated February 10, 2009. These documents do not appear to include references to a municipal supply well CWS-10, which is located approximately 850 feet northeast of the site. We concur with the recommendation in the "*Fourth Quarter 2012 Status Report*," dated January 11, 2013 to complete a new Sensitive Receptor Survey for the site. Please include the results of the Sensitive Receptor Survey in the CSM and Work Plan requested below.

3. **Site Geology and Vertical Extent of Contamination.** Site geology consists of coarse-grained soils typically described as sandy to clayey gravels to a depth of approximately 36 to 42 feet bgs. A sandy clay layer was encountered in each soil boring extended to these depths. Borings for the monitoring wells were generally extended into the sandy clay layer and then backfilled to the top of the sandy

clay for well construction. The bottoms of the well screens for monitoring wells MW-1 through MW-11 appear to be immediately above the top of the sandy clay layer. Analytical data from the monitoring well soil borings indicates that the highest concentrations of TPHg were detected in soil samples collected from the sandy clay layer. Only one soil sample (S-45.5-B4) appears to have been collected below the sandy clay layer. Soil sample S-45.4-B4, apparently collected from a clayey sand layer below the sandy clay, contained 5.5 mg/kg of TPHg and 0.16 mg/kg of benzene. Within boring B4, the sandy clay layer appeared to be approximately 5 feet thick. These limited results suggest that the sandy clay may act to limit downward migration of contamination. However, no groundwater samples have been collected below the sandy clay layer to confirm that groundwater contamination does not extend below the sandy clay layer. It is also unknown whether there is a downward vertical hydraulic gradient that could cause contamination to migrate downward through the sandy clay layer. Please review the vertical extent of contamination in the CSM and Work Plan requested below and propose a scope of work as appropriate to assess whether the sandy clay layer is a barrier to vertical migration or whether groundwater contamination has migrated downward through the sandy clay layer. A transect of soil borings with multi-level groundwater sampling is likely to provide sufficient information to make this evaluation.

4. **Variability in Groundwater Monitoring Data.** Groundwater monitoring data for several wells exhibit significant variability between sampling events. Examples include TPHg groundwater concentrations in well MW-4, which were below reporting limits for three consecutive events in 2000 and 2001 but increased to 3,400 µg/L on 9/17/2011. Please consider this variability in the CSM and Work Plan requested below.

5. **Hydraulic Gradient.** The "*Initial Site Conceptual Model and Soil and Groundwater Investigation Work Plan,*" dated February 10, 2009 includes a table of "Historical Groundwater flow Direction and Gradient." Thank you for including this compilation and please update this summary table for the CSM and Work Plan requested below. Based on review of data from other fuel leak cases in the area and regional groundwater elevation contour maps by the Zone 7 Water Agency, the regional hydraulic gradient in the area is to the west northwest. Groundwater elevation contour maps for the site typically show a hydraulic gradient to the north or north northwest. During several groundwater monitoring events, the apparent hydraulic gradient was to the north northeast, which is in the direction of the municipal water supply well discussed in technical comment 2. As shown on Table 3 of the 2009 SCM and Work Plan, the hydraulic gradient for the site is typically 0.02 to 0.05 but ranges from 0.01 to 0.07. The regional hydraulic gradient in the area of the site is on the order of 0.01. The cause for the apparent differences between the flow direction and hydraulic gradient for the site and the regional flow direction and hydraulic gradient is not obvious. The possibility that flow direction and hydraulic gradient for the site could be affected by local such as groundwater water withdrawal by the municipal well should be considered din the CSM and Work Plan requested below.

6. **Shallow Groundwater and Well Screens.** Well VW-1 is screened within a shallower stratigraphic interval between 18.5 and 28.5 feet bgs than the other 11 monitoring wells at the site. Water levels measured in well VW-1 are typically 5 to 10 feet higher than water levels in the deeper monitoring wells, which suggests that well VW-1 intersects a shallower water-bearing zone. A sandy silt with fine gravel layer appears to have been encountered at a depth of 28 feet bgs in the VW-1 boring but is not shown on cross sections for the site. It is not clear whether the sandy silt layer encountered in the

VW-1 boring is the base of a water-bearing layer. We request that you prepare more detailed cross sections through VW-1 in the CSM and Work Plan requested below.

7. **Reports Not in Case File**. The following reports have been referenced in various technical reports but are not in the ACEH case file. Please submit these documents to the ACEH ftp site and GeoTracker:
    - Broadbent and Associates, Inc.,"*Off-site Soil & Groundwater Investigation Report*," April 29, 2011.
    - RESNA, "*Letter Report of Vapor Extraction Test Performed*," January 3, 1992.

8. **Groundwater Monitoring.** We note that groundwater monitoring well was suspended in 2000 for the two downgradient monitoring wells MW-3 and MW-8, presumably due to minimal or no detections in groundwater samples from the wells. Given that these two wells are the two wells that would provide evidence of plume migration towards the municipal supply well to the northeast, we request that wells MW-3 and AMW-8 be sampled during the second quarter 2013 groundwater monitoring event. Please present the results in the groundwater monitoring report requested below.

TECHNICAL REPORT REQUEST

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

- **May 29, 2013** – Conceptual Site Model and Work Plan
  File to be named: SCM_WP_R_yyyy-mm-dd RO200

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.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Case files can be reviewed online at the following website: http://www.acgov.org/aceh/index.htm.

Sincerely,

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o=Alameda County Environmental Health, ou, email=jerry.wickham@acgov.org, c=US
Date: 2013.03.18 11:37:23 -07'00'

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

Attachments: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Danielle Stefani, Livermore Pleasanton Fire Department, 3560 Nevada St, Pleasanton, CA 94566 (*Sent via E-mail to: dstefani@lpfire.org*)

Colleen Winey (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (*Sent via E-mail to: cwiney@zone7water.com*)

Matt Herrick, Broadbent & Associates, Inc., 1324 Mangrove Avenue, Suite 212, Chico, CA 95926 (*Sent via E-mail to: mherrick@broadbentinc.com*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, eFile

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/)

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.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** 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
   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 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.