

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
ALEX BRISCOE, Director



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July 20, 2012

Mr. John Buestad
Foley Street Investments LLC
2533 Clement Avenue
Alameda, CA 94501
(sent via electronic mail to:
john@buestad.com)

Mr. John F. Buono, Jr.
Good Chevrolet
P.O. Box 1730
Alameda, CA 94501

Subject: Modified Approval of Data Gap Investigation and Interim Source Removal Work Plan for Fuel Leak Case No. RO0000008 and GeoTracker Global ID T0600100655, Good Chevrolet, 1630 Park Street, Alameda, CA 94501

Dear Messrs. Buestad and Buono:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the six recently submitted documents for the subject site:

1. *Subsurface Investigation and Well Installation Report* dated March 30, 2012
2. *Response to ACEH's April 16, 2012 Comments* dated April 25, 2012
3. *Data Gap Investigation and Interim Source Removal Work Plan* dated May 4, 2012
4. *Groundwater Monitoring and Soil Vapor Sampling Report (May 2012)* dated June 11, 2012
5. *Progress Update* conference calls ACEH attended: May 25, June 8, and July 6, 2012

Thank you for submitting the reports. A commercial development project with at-grade parking is currently proposed to be built under an accelerated development schedule. An ACEH-approved HVDPE pilot test was conducted December 5, 2011 - January 9, 2012. Foley Street Investments (FSI) elected to continue operation of the high vacuum dual phase extraction (HVDPE) portable system without ACEH's approval an additional three months from January 24 to April 28, 2012. A *Corrective Action Plan (CAP)* was submitted in February 2012, but results submitted in the March 30, 2012 *Subsurface Investigation and Well Installation Report* indicated that site characterization was incomplete to the east and west of the old tank pit. The CAP was premature as significant data gaps remain; consequently, ACEH did not concur with it. The objective of the May 4, 2012 *Data Gap Investigation and Interim Source Removal Work Plan* was define the lateral extent of dissolved concentration and perform a focused hot spot removal of suspected contaminated soil and plastic liner from the old tank pit with the goal of shortening the time interval needed to perform corrective action. On May 21, 2012, ACEH provided an e-mail authorization to proceed with the exploratory test pit as proposed in Section 5.2.3 of the Data Gap Work Plan. During the May 25th *Progress Update* conference call, FSI proposed digging an exploratory test pit across the old tank pit to verify the presence of a plastic liner in the tank backfill as a preliminary step to determine if a focused hot spot removal was warranted and for backfill soil sample collection for landfill profiling. On June 12, 2012 ACEH

observed the excavation of the exploratory pit during which evidence of petroleum hydrocarbon impacts including staining, strong odor, and a significant amount of plastic was observed in the sandy tank pit back-fill material.

ACEH is in general agreement with the data gap work plan; however, a data gap work plan addendum is requested to clarify several concerns prior to implementation. Consequently, we request that you address the following technical comments and send us the technical reports by the dates requested below.

TECHNICAL COMMENTS

1. **Updated Alameda Station Tentative Entitlement Schedule:** The updated schedule requested in Technical Comment 6 of ACEH's April 16, 2012 directive letter has not been submitted and is late. As previously requested, please revise the schedule to include a 60-day review period for all ACEH reviews, installation and operation of the chosen remedial option; a minimum of two years of post construction groundwater monitoring and sampling; vapor sampling; and future well decommissioning and provide the updated schedule by the date specified below.
2. **Final HVDPE Pilot Test Report:** The Final HVDPE Pilot Test Report for the entire period of operation was not submitted by the May 18, 2012 deadline requested in Technical Comment 4 of our April 16, 2012 directive letter. This report is now late. Please submit the Final HVDPE Pilot Test Report for the entire period of operation by the date specified below.
3. **Well decommissioning and replacement:** As discussed during the July 6th Progress Update conference call, ACEH requests by the date specified below; a well decommissioning and replacement work plan for all wells that must be decommissioned prior to excavation of the old tank pit and construction of the building. Please provide a figure of the proposed replacement well locations, the rationale for their locations in terms of how those locations will provide groundwater quality data for the plume core, and include a description well of how remaining wells will be safeguarded during future construction. Please submit the Well Decommissioning and Replacement Work Plan by the date specified below.
4. **Excavation Target Soil Concentrations:** The proposed cleanup targets for the excavation bottom samples are based on Table B, Environmental Screening Levels (ESLs) Shallow Soil (<3m bgs), Groundwater not a Current of Potential Source of Drinking Water, from the May 2008 *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* Guidance. All groundwater in the East Bay Plain Groundwater Basin is classified as 'MUN' (potentially suitable for municipal or domestic water supply). According to the San Francisco Regional Water Quality Control Board (SFRWQCB) Water Quality Control Plan (Basin Plan), dated January 18, 2007, for the San Francisco Bay Basin, "the term 'groundwater' includes all subsurface waters, whether or not these waters meet the classic definition of an aquifer or occurs within identified groundwater basins.' The Basin Plan also states that 'all groundwaters are considered suitable, or potentially suitable, for municipal or domestic water supply (MUN).'" Therefore, the groundwater beneath the subject site must be considered beneficial for these uses unless shown to be non-beneficial using criteria presented in the Basin Plan. Please present the revised proposed cleanup targets for the excavation bottom samples in the Data Gap Work Plan Addendum by the date specified below.
5. **Former Tank Pit and Lift Excavation Confirmation Sampling:** Please collect and analyze confirmatory sidewall samples from all four walls and samples from the excavation floor at the rate of one sample per every 20 linear feet of wall and excavation bottom. The samples are to be positively biased towards the

worse-case indicators of contamination. Please present the revised confirmation sampling procedure in the Data Gap Work Plan Addendum by the date specified below.

6. **Soil Vapor Sampling Plan:** The initial May 2012 vapor sampling results from vapor probes VP-1, VP-2, and VP-3 were non detect for total petroleum hydrocarbons as gasoline (TPHG) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) but the atmospheric gases oxygen (O₂), methane (CH₄), carbon dioxide (CO₂), nitrogen(N₂), and total volatile hydrocarbons (TVHC) were measured in the field, so it is not known if the vapor probes may have short-circuited or reflected a temporary non-detectable concentrations in soil vapor (rebound has not been tested for or eliminated). In order to monitor potential rebound, please analyze vapor samples using EPA Method TO-15 for BTEX, naphthalene, and TVHC (C5-C11), and atmospheric gases by the appropriate methodology prior to vapor well decommissioning. Please present the revised soil vapor sampling plan in the Data Gap Work Plan Addendum by the date specified below.
7. **Additional Remedial Efforts:** ACEH does not concur that adding an oxygen-release compound to the back fill material below the water table is appropriate at this time because of the currently considered selection of HVDPE as the corrective action. HVDPE would remove the oxygen generated by the oxygen-releasing compound, negating the intended effect of the oxygen-releasing compound. It may be appropriate to consider use an oxygen-releasing compound as a polishing method after completion of corrective action in the future. Please address in the Data Gap Work Plan Addendum by the date specified below.
8. **Groundwater Monitoring:** Please include isoconcentration maps depicting TPHG and benzene concentrations in groundwater in all reports submitted for the site. Please revise Table 10, Proposed Groundwater Monitoring Schedule, to include a minimum of two years of quarterly sampling of all groundwater monitoring and accessible DPE wells after completion of the chosen remedy and present the revised schedule in the Data Gap Work Plan Addendum by the date specified below.
9. **Site Management Plan:** Worker protection is addressed in a Construction Worker Health and Safety Plan, not in a site management plan. We recommend that you prepare a Health and Safety plan for the construction workers to be protective of human health.
10. **Site Conceptual Model (SCM):** Please report the results of the Data Gap Work into a Soil and Groundwater Investigation (SWI), and incorporate results of the SWI, the completed preferential pathway study, and all known site data into a SCM. We anticipate that characterization and remediation work, in addition to what is requested in this letter, will be necessary at and down-gradient from your site. Considerable cost savings can be realized if your consultant focuses on developing and refining a viable SCM for the project. An 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 used to identify data gaps that are subsequently filled as the investigation proceeds. As the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened. Subsurface investigations continue until the SCM no longer changes as new data are collected. At this point, the SCM is said to be 'validated.' The validated SCM then forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

When performed properly, the process of developing, refining and ultimately validating the SCM effectively guides the scope of the entire site investigation. We have identified, based on our review of existing data, some initial key data gaps in this letter and have described several tasks that we believe will provide important new data to refine the SCM. We request that your consultant incorporate the results of the new

work requested in this letter into their SCM, identify new and/or remaining data gaps, and propose supplemental tasks for future investigations. There may need to be additional phases of investigations, each building on the results of prior work, to validate the SCM. Characterizing the site in this manner will focus the scope of work to address the identified data gaps, which improves the efficiency of the work, and limits the overall costs.

Both industry and the regulatory community endorse the SCM approach. Technical guidance for developing an SCM is presented in Strategies for Characterizing Subsurface Releases of Gasoline Containing MTBE, American Petroleum Institute Publication No. 4699 dated February 2000; 'Expedited Site Assessment Tools for Underground Storage Tank Sites: A Guide for Regulators' (EPA 510-B-97-001), prepared by the U.S. Environmental Protection Agency (EPA), dated March 1997; and 'Guidelines for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates, Appendix C,' prepared the State Water Resources Control Board, dated March 27, 2000.

The SCM for this project is to incorporate, but is not limited to, the following:

- a. A concise narrative discussion of the regional geologic and hydrogeologic setting. Include a list of technical references you reviewed, and copies (photocopies are sufficient) of regional geologic maps, groundwater contours, cross-sections, etc.
- b. A concise discussion of the on-site and off-site geology, hydrogeology, release history, source zone, plume development and migration, attenuation mechanisms, preferential pathways, and potential threat to down-gradient and above-ground receptors (e.g. contaminant fate and transport). Please include the contaminant volatilization from the subsurface to indoor/outdoor air exposure route (i.e. vapor pathway) in the analysis. Maximize the use of large-scaled graphics (e.g. maps, cross-sections, contour maps, etc.) and conceptual diagrams to illustrate key points. 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).
- c. Identification and listing of specific data gaps that require further investigation during subsequent phases of work.
- d. Proposed activities to investigate and fill data gaps identified above.
- e. The SCM shall include an analysis of the hydraulic flow system down-gradient from the site. Include rose diagrams for depicting groundwater gradients. The rose diagram shall be plotted on the groundwater contour maps and updated in all future reports submitted for your site. Include an analysis of vertical hydraulic gradients. Please note that these likely change due to seasonal precipitation and groundwater pumping. To evaluate the potential interconnection between shallow and deep aquifers, include hydrographs of hydraulic head in shallow aquifer versus pumping rates from nearby water supply wells.
- f. Temporal changes in the plume location and concentrations are also a key element of the SCM. In addition to providing a measure of the magnitude of the problem, these data are often useful to confirm details of the flow system inferred from the hydraulic head measurements. Please include plots of the contaminant plumes on your maps, cross-sections, and diagrams.
- g. Summary tables of chemical concentrations in different media (i.e. soil, groundwater, and soil vapor), including well logs, well completion details, boring logs, etc.

h. Other contaminant release sites exist in the vicinity of your site. Hydrogeologic and contaminant data from those sites may prove helpful in testing certain hypotheses for your SCM. Include a summary of work and technical findings from nearby release sites, in particular the Winner Ford site (RO283) located mostly cross-gradient.

At this juncture, prepare a SCM as described above, including developing and/or identifying site cleanup goals, and include the results of the SCM in the decision-making process. If data gaps (i.e. potential contaminant volatilization to indoor air or contaminant migration along preferential pathways, etc.) are identified in the SCM, please include a work plan to address those data gaps.

- 11. Feasibility Study/Corrective Action Plan (FS/CAP):** After generating sufficient data to support a remediation technology, preparation of an FS/CAP is required. The FS/CAP must include a concise background of soil and groundwater investigations performed in connection with this case and an assessment of the residual impacts of the chemicals of concern (COCs) for the site and the surrounding area where the unauthorized release has migrated or may migrate. The FS/CAP also includes, but is not limited to, a detailed description of site lithology, including soil permeability, and most importantly, contamination cleanup levels and cleanup goals, in accordance with the SFRWQCB's Basin Plan and appropriate ESL guidance for all COCs and for the appropriate groundwater designation. Soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality objectives (cleanup goals) for groundwater in accordance with the SFRWQCB Basin Plan. The FS/CAP is to include appropriate cleanup levels and cleanup goals and the time frame necessary to reach those goals, in accordance with 23 CCR Section 2725, 2726, and 2727.

The FS/CAP must evaluate at least three viable alternatives for remedying or mitigating the actual or potential adverse effects of the unauthorized release(s) besides the "no action" and "monitored natural attenuation" remedial alternatives. Each alternative shall be evaluated not only for cost-effectiveness but also its timeframe to reach cleanup levels and cleanup goals, and ultimately the Responsible Party must propose the most cost-effective corrective action. Public participation is a requirement for the CAP process. Potentially affected stakeholders who live or own property in the surrounding area of the proposed remediation must be notified through mailing of a fact sheet. The draft fact sheet is first reviewed by ACEH. Once the fact sheet has been approved, public comments on the proposed remediation will be accepted for a period of thirty days. Following the public comment period, the comments received including ACEH's comments, must be addressed and incorporated into a Final FS/CAP.

TECHNICAL REPORT REQUEST

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

- **July 24, 2012** – Updated *Alameda Station Tentative Entitlement Schedule* - Late Schedule
- **July 27, 2012** - Final HVDPE Pilot Test Report – Late Report
- **July 27, 2012** - Well Decommissioning and Replacement Work Plan
- **July 27, 2012** - Data Gap Work Plan Addendum
- **September 26, 2012** – Soil and Groundwater Investigation (SWI)

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- **September 26, 2012** – Site Conceptual Model (SCM)
- **60 days after SCM approval** – FS/CAP

If you have any questions or concerns regarding this correspondence or your case, please send me an e-mail at karel.detterman@acgov.org or call me at (510) 567-6708.

Sincerely,

Karel Detterman, PG
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements/Obligations
Electronic Report Upload (ftp) Instructions

cc: Robert Robitaille, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597 (Sent via E-mail to rrobitaille@aeiconsultants.com)

Sunil Ramdass, Underground Storage Tank Cleanup Fund, SWRCB, PO Box 944212,
Sacramento, CA 94244-2120, (sent via electronic mail to sramdass@waterboards.ca.gov)

Andrew Thomas, Planning Services Manager, City of Alameda Planning and Building Development, 2263
Santa Clara Avenue, Room 190, Alameda, CA 94501-4477 (Sent via E-mail to:
athomas@ci.alameda.ca.us)

Donna Drogos, ACEH (Sent via E-mail to: donna.drogos@acgov.org)

Karel Detterman, ACEH (Sent via E-mail to: karel.detterman@acgov.org)

GeoTracker, Electronic Case File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

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.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, 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.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	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 (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

- **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 deh.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 <ftp://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 deh.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.