ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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September 30, 2008

Mr. Aaron Costa
Chevron Environmental Mgmt.
6001 Bollinger Canyon Road
PO Box 6012
San Ramon, CA 94583-2324

Convenience Retailers LLC
c/o Smart Business Advisory
PO Box 59365
Schaumburg, IL 60159

Kayo Oil Company
c/o Real Estate Administrator
315 S. Johnson #810G
Bartlesvill, OK 74004-0001

Subject: Fuel Leak Case No. RO0000464 (Global ID # T0600102238), Chevron #9-1851, 451 Hegenberger Road, Oakland, CA 94612

Dear Mr. Costa and Mr. Gomez:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site and the documents entitled "Interim Corrective Action Overpurge Results" dated November 17, 2005 and prepared by Conestoga Rovers Associates (CRA). Results from the remedial action have had limited success, with separate phase hydrocarbon contamination persisting in groundwater beneath your site. In addition, no soil data has been collected below 10 feet bgs to evaluate the vertical extent of contamination in the source area. Furthermore, significant data gaps exist at your site; therefore, we request that you prepare a site conceptual model (SCM) to address any data gaps. In addition, a feasibility study and corrective action plan (FS/CAP) is required to address residual free phase hydrocarbon contamination in soil and groundwater beneath your site.

Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to mail to: steven.plunkett@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Source Area Characterization**. During a previous site investigation completed in December 1995, four soil borings were advanced and completed as groundwater monitoring wells (MW-1 to MW-4) in order to evaluate soil and groundwater contamination beneath your site. Contamination in shallow soil was detected at concentrations of up to 8.4 mg/kg; however, no soil samples were collected below 5.5 feet bgs. In addition, in December 1998, during the removal of a waste oil tank, free product was observed in the tank pit, also high concentrations of TPHg and benzene were detected in shallow soil beneath the fuel dispensers at concentrations of up to 3,800 mg/kg and 200 mg/kg, respectively. Then, in October 2000, two additional monitoring wells were installed; however soil samples were not collected below 9 feet bgs. The lack of soil analytical data below 9 feet bgs indicates that the vertical extent of contamination in the source area is undefined. Therefore, ACEH requests that you prepare a work plan to address the vertical extent of contamination in the source area. Please submit the work plan according to the schedule outlined below.

2. **Dissolved Contaminant Plume Characterization**. Delta stated in their January 2001 *Well Installation and Groundwater Sampling Results*, additional investigation east and southeast of the site apprears to be necessary. ACEH concurs with the conclusion that additional offsite characterization is necessary; therefore, we

request that you prepare extended site maps, which utilize aerial photos as base maps for your site, and accurately depict neighboring structures and site features in relation to the groundwater contaminant plume for all future reports. Please propose additional offsite characterization to establish the extent of contamination east and south of your site, and submit a work plan according to the schedule below.

3. **Site Conceptual Model**. We anticipate that site remediation work will be necessary beneath your site to remediate residual contamination in the subsurface. Considerable cost savings can be realized if your consultant focuses on developing and refining a viable Site Conceptual Model (SCM) for the project. 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 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 improve the efficiency of the work, and limit its overall costs.

   Both industry and the regulatory community endorse the SCM approach. Technical guidance for developing SCMs 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 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.

   c. Identification and listing of specific data gaps that require further investigation during subsequent phases of work and propose a scope of work to acquire data to address the identified data gaps.

d. The SCM shall include an analysis of the hydraulic flow system at 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.

e. Provide extended site maps that show adjacent buildings, structures, roads and other pertinent facilities. We recommend the use of aerial photos as a base map.

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 may 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, if applicable.

i. Please discuss the results and effectiveness of free product removal including any recommendations to supplement the current free product removal by overpurging.

At this juncture, prepare a site conceptual model (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. vertical and lateral extent of contamination, 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.

Once site characterization is completed and all identified data gaps have been addressed, a Feasibility Study, should be prepared in accordance with California Code of Regulations, Title 23, Division 3, Chapter 16, §2725(f), which evaluates at least three cost-effective remedial approaches, not including the no action and monitored natural attenuation remedial alternatives, having likelihood of attaining site cleanup objectives.

4. **Feasibility Study/Corrective Action Plan**. Currently, separate phase hydrocarbon contamination has been detected in onsite wells MW-2, and free product has been detected in onsite wells as recently as June 2008 in MW-2. CRA has implemented batch groundwater extraction to remove residual dissolved and separate phase hydrocarbon contamination in groundwater. Results from 4 years of free product removal demonstrate limited success; therefore, we request that you prepare a Feasibility Study/Corrective Action Plan to address the residual contamination beneath your site. 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 should also include, but not limited to, a detailed description of site lithology, including soil permeability. In addition, please disscuss site cleanup goals and the timeframe required to reach each of these cleanup values, in accordance with the San Francisco Regional Water Quality Control Board Basin Plan including appropriate water quality objectives and ESL guidance for all COCs and for the appropriate groundwater designation. Please note once again that soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality objectives (cleanup goals) for groundwater in accordance with San

Francisco Regional Water Quality Control Board Basin Plan. Please propose appropriate cleanup levels and cleanup goals in accordance with 23 CCR Section 2725, 2726, and 2727 in the FS/CAP.

The FS/CAP must evaluate at least three active remediation alternatives for remedying or mitigating the actual or potential adverse affects of the unauthorized release(s) beside the 'no action' and 'monitored natural attenuation' remedial alternatives. Each alternative shall be evaluated for cost-effectiveness, time frame to reach clean up goals and the Responsible Party must propose the most cost-effective corrective action.

Public participation is a requirement for the Corrective Action Plan (CAP) process. Therefore, upon approval of a CAP, but before implementation, ACEH will notify potentially affected members of the public and concerned citizens who live or own property in the surrounding area of the proposed remediation described in the CAP. Public comments on the proposed remediation will be accepted for a 30-day period. We request that you perform the proposed work and send us the reports described below. Please submit the FS/CAP by the date specified below.

LANDOWNER NOTIFICATION REQUIREMENTS

Pursuant to California Health & Safety Code Section 25297.15, the active or primary responsible party for a fuel leak case must inform all current property owners of the site of cleanup actions or requests for closure. Furthermore, ACEH may not consider any cleanup proposals or requests for case closure without assurance that this notification requirement has been met. Additionally, the active or primary responsible party is required to forward to ACEH a complete mailing list of all record fee title holders to the site.

At this time we require that you submit a complete mailing list of all record fee title owners of the site by **October 30, 2008**, which states, at a minimum, the following:

A. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that the following is a complete list of current record fee title owners and their mailing addresses for the above site:

- OR -

B. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.

(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)

In the future, for you to meet these requirements when submitting cleanup proposals or requests for case closure, ACEH requires that you:

1. Notify all current record owners of fee title to the site of any cleanup proposals or requests for case closure;
2. Submit a letter to ACEH which certifies that the notification requirement in 25297.15(a) of the Health and Safety Code has been met;
3. Forward to ACEH a copy of your complete mailing list of all record fee title holders to the site; and
4. Update your mailing list of all record fee titleholders, and repeat the process outlined above prior to submittal of any additional *Corrective Action Plan* or your *Request for Case Closure.*

Your written certification to ACEH (Item 2 above) must state, at a minimum, the following:

A. In accordance with Section 25297.15(a) of the Health & Safety Code, I, (name of primary responsible party), certify that I have notified all responsible landowners of the enclosed proposed action. (Check space for applicable proposed action(s)):
___ cleanup proposal (Corrective Action Plan)
___ request for case closure
___ local agency intention to make a determination that no further action is required
___ local agency intention to issue a closure letter

- OR -

B. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.

(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Steven Plunkett), according to the following schedule:

- **January 30, 2009** – Work Plan and Site Conceptual Model
- **90 days after concurrence with SCM and Work Plan** – Feasibility Study/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/electronic_submittal/report_rqmts.shtml.

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 contact me at (510) 383-1761 or send me an electronic mail message at steven.plunkett@acgov.org.

Sincerely,

Steven Plunkett
Hazardous Materials Specialist

Jerry Wickham, PG, CHg, CEG
Senior Hazardous Materials Specialist

cc: Charlotte Evans
CRA
5900 Hollis Street, Suite A
Emeryville, CA 95608

Donna Drogos, ACEH Steven Plunkett ACEH, File