Ian Robb
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6001 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 842-9496
Fax (925) 842-8370
ianrobb@chevron.com

Dec. 30, 2008

RE: Chevron Service Station # - 20 9339

Address 5940 College Avenue, Oakland

I have reviewed the attached report dated Dec. 30, 2008.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga-Rovers & Associates (CRA) upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code section 13267(b) (1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Ian Robb

Attachment: Report

CONESTOGA-ROVERS
& ASSOCIATES

5900 Hollis Street, Suite A, Emeryville, Calfornia 94608
Telephone: 510-420-0700 Facsimile: 510-420-9170
www.CRAworld.com

December 30, 2008

Reference No. 311954

Mr. Steven Plunkett
Alameda County Environmental Health (ACEH)
1131 Harbor Bay Parkway
Alameda, California 94502

Re: Work Plan for Additional Site Assessment
Former Chevron Service Station 20-9339
5940 College Avenue
Oakland, California
Fuel Leak Case No. RO0000466

Dear Mr. Plunkett:

Conestoga-Rovers & Associates (CRA) is submitting this *Work Plan for Additional Site Assessment* on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above. In a letter dated September 11, 2008 (Attachment A), ACEH requested a work plan to further delineate the hydrocarbon source area and dissolved plume be included within a site conceptual model (SCM). The SCM will be submitted to ACEH under separate cover. Presented below are the site background and CRA's proposed scope of work.

SITE DESCRIPTION AND INVESTIGATION HISTORY

The site is a former Chevron gasoline station located on the southeast corner of the intersection of College Avenue and Harwood Avenue in Oakland, California (Figure 1). A Chevron service station occupied the site from 1938 to 1968. Former site facilities consisted of four underground storage tanks (USTs), one dispenser island and a building. From 1968 until the construction of the current building, the site was used as a parking lot. A multi-story building was constructed in 1979 and contains multiple businesses (Figure 2). Adjacent and south of the site is the former Sheaff's Garage, now Stauder Automotive service facility, an open fuel leak case with ACEH (RO0000377).

To date, four soil borings and two monitoring wells have been installed at the site. An unknown quantity of soil was excavated when the current office building was constructed in 1979, but the depth of the excavation is not known. The current building is constructed 3-4 feet below street level. A summary of the past investigation work performed at the site is included in Attachment B.

SITE GEOLOGY AND HYDROGEOLOGY

The site is approximately 195 feet above mean sea level with a regional topographic gradient east-northeast toward San Francisco Bay. Native materials encountered at this site appear to be Holocene-age alluvial fan and fluvial deposits. Depth to groundwater ranges from 6 to 13 feet below grade (fbg).

There are only two monitoring wells associated with the former Chevron site, but joint groundwater monitoring has been conducted with the former Sheaff's Garage semi-annually since 2001 (Figure 2). Based on the joint groundwater monitoring data, groundwater flow is variable, but predominately towards the west.

Subsurface soils encountered consist of silty clay from below the paved surface (which is approximately 3-4 feet below street level) to approximately 6 fbg. Silty, sandy gravel underlies the silty clay to approximately 11 fbg, the total depth explored onsite. In 2001, during the installation of well MW-1 across College Avenue, clay with silt was encountered from below the paved surface to approximately 16 fbg. Silty sand underlies the clay to the total depth explored of 21 fbg. Well MW-2 was installed in the sidewalk adjacent to the site, near the former UST pit. Silty sand with gravel was encountered in well MW-2 from below the paved surface to approximately 11 fbg. Brick fragments encountered at 5 fbg suggest that the sands encountered in this boring are not native and most likely represent backfill material. Clay underlies the sand to approximately 19 fbg, and silty sand was encountered at the bottom of the boring from 19 to 21 fbg.

As reported in the 2006 Golden Gate Tank Removal, Inc. *Additional Site Characterization and Groundwater Monitoring Report*, subsurface soil at the adjacent Former Sheaff's Garage site (5930 College Avenue) is, for the most part, similar to subsurface soils encountered at the subject site.

PROPOSED SCOPE OF WORK

ACEH has requested further lateral and vertical delineation of hydrocarbons in soil and groundwater at the site. Due to the lack of analytical data in and around the site, and the adjacent hydrocarbon source area at the Sheaff's Garage site, CRA proposes advancing three borings to verify that a source area is present on the former Chevron station site prior to performing further delineation of a dissolved groundwater plume. Soil and depth discrete grab-groundwater samples will be collected from each of the borings as described below.

The site has been redeveloped with an office building that houses several small businesses on two floors. The bottom floor is approximately 3-4 feet below street level. Half of the space on

the first level is reserved as an enclosed parking area for the tenants. Due to the configuration of the building and height restrictions of the ceiling, two boring (SB5 and SB6) will be advanced onsite using a limited-access rig (Figure 3). Boring SB7 will be advanced in the parking lane along the eastern side of College Avenue, immediately downgradient of the former USTs. To accomplish this scope of work, Chevron and CRA propose to conduct the following:

Permits: CRA will obtain a drilling permit from Alameda County Public Works Agency and any additional needed permits from the City of Oakland. A minimum of 72 hours of notice will be given to ACEH prior to beginning drilling activities.

Site Health and Safety Plan: CRA will prepare a site specific health and safety plan to protect site workers. The plan will be reviewed and signed by all site workers and visitors. The plan will be kept onsite during all field activities.

Underground Utility Location: CRA will mark the site for Underground Service Alert (USA) clearance. USA and a private underground utility locator will be contacted a minimum of 48 hours prior to field activities to mark and identify locations of utilities near the boring location.

Borehole Clearance: Per Chevron and CRA safety requirements, the soil boring locations will be cleared to eight fbg using an air-knife assisted vacuum truck and/or hand augers to detect any unknown utilities prior to drilling. Samples will be collected by hand from the boreholes at depths less than 8 fbg.

Soil Borings: After clearing to 8 fbg, the borings will be advanced using dual tube hydraulic push rods advanced into undisturbed sediments. After soil and grab-groundwater samples have been collected, the borings will be filled with Portland neat cement and finished to match the existing grade. Exact boring locations and final depths will be based on site and utility constraints. CRA's Standard Field Procedures for Soil Borings is presented as Attachment C.

Soil Sampling Protocol: Soil samples will be collected for laboratory analysis at approximately three-foot intervals, at obvious changes in soils, and where hydrocarbon staining or odors are observed to a depth of at least 10 feet below first encountered groundwater or any detected hydrocarbons. CRA geologists will log collected soils using the Unified Soil Classification System. Soil will be field screened using a photo-ionization detector (PID) and visual observations. All samples will be sealed, capped, labeled, logged on a chain-of-custody form, placed on ice and transported to a Chevron and State-approved laboratory for analysis.

Groundwater Sampling Protocol: Depth discrete grab-groundwater samples will be collected at first encountered groundwater and subsequent 10-foot intervals to 30 fbg from all borings using a hydropunch and decanted into clean, laboratory supplied containers. All samples will

be sealed, labeled, logged on a chain-of-custody form, placed on ice and transported to a Chevron and State-approved laboratory for analysis.

Chemical Analyses: Soil and grab-groundwater samples will be analyzed for the following:

- TPHg by EPA Method 8015B Modified, and
- BTEX by EPA Method 8260B.

Soil and Water Disposal: Soil cuttings will be temporarily stored onsite in properly labeled 55-gallon drums pending soil profiling results. Integrated Wastestream Management of Milpitas, California, will transport and dispose of all waste at appropriate Chevron-approved disposal facilities.

Reporting: Upon completion of field activities and review of the analytical results, we will prepare a subsurface investigation report that, at a minimum, will contain:

- Descriptions of drilling and sampling methods;
- Boring logs;
- Tabulated soil and grab-groundwater analytical results;
- A figure illustrating the soil boring locations;
- Analytical reports and chain-of-custody forms;
- Soil disposal methods;
- A discussion of the dissolved hydrocarbon distribution in soil and groundwater;
- Conclusions and recommendations; and
- An updated SCM.

CRA will conduct all work following approval from ACEH. After approval, CRA will obtain the necessary permits, meet with utility service providers, and schedule a drilling subcontractor. CRA will submit our investigation report approximately six weeks after completion of field activities.

CLOSING

We appreciate this opportunity to work with you on this project. Please contact Charlotte Evans at (510) 420-3351 or Mr. Ian Robb of Chevron at (925) 543-2375 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charlotte Evans

PROFESSIONAL GEOLOGIST
N. SCOTT MacLEOD
No. 5747
STATE OF CALIFORNIA

N. Scott MacLeod P.G. #5747

Enc.
CE/doh/2

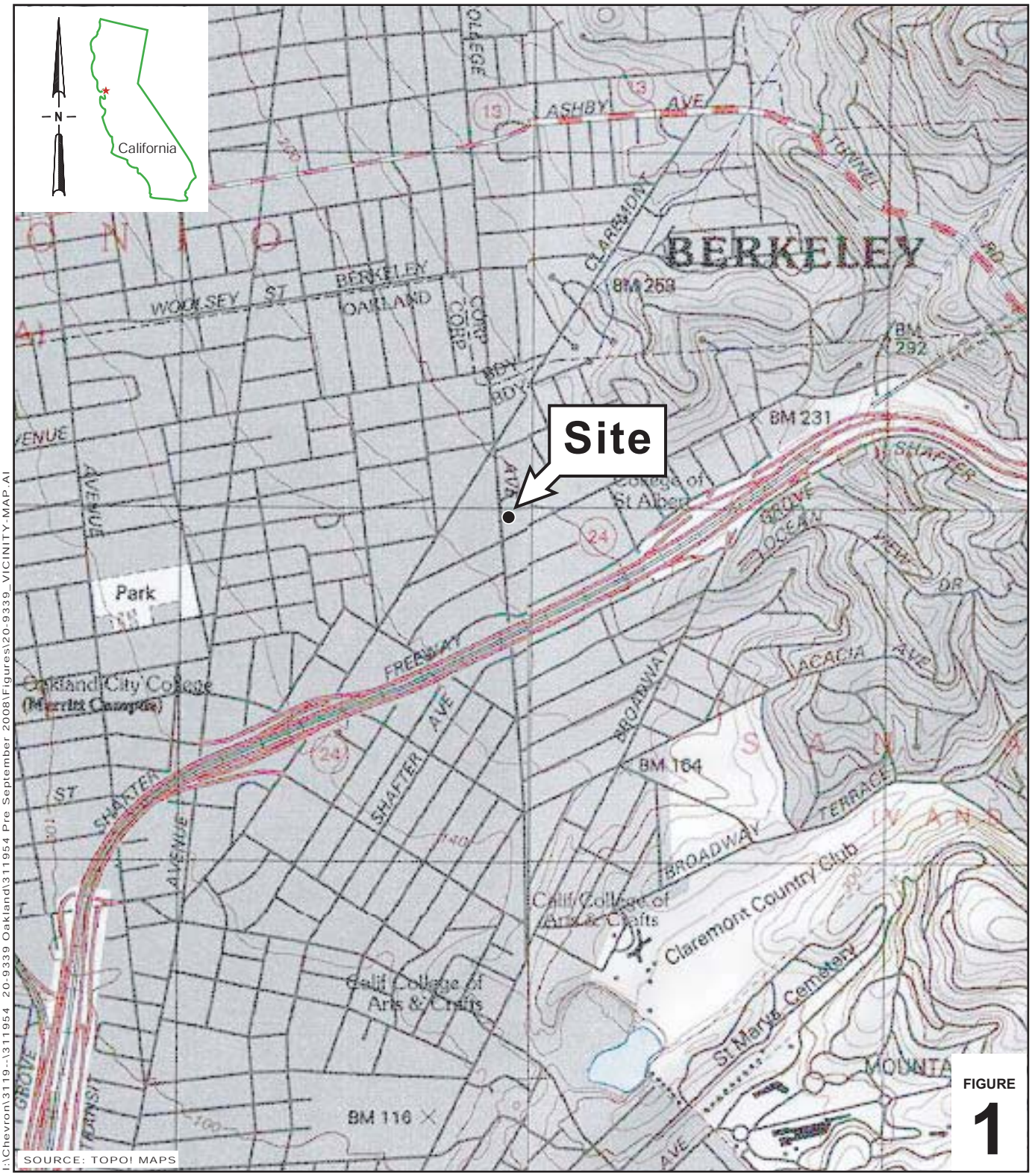
Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Site Plan with Proposed Borings

Attachment A	ACEH Letter
Attachment B	Site History
Attachment C	Standard Operating Procedures for Soil Borings

cc: Mr. Ian Robb, Chevron
Mr. Donald Sweet, San Francisco Property MGMT
Mr. Patrick Elwood, College Square Associates

FIGURES

10/01/08



I:\Chevron\3119-\311954 20-9339 Oakland\311954 Pre September 2008\Figures\20-9339_VICINITY-MAP.AI

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Chevron Service Station 20-9339

5940 College Avenue
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

Building
Gym

College Avenue
United Presbyterian
Church

Retail/Commercial

sidewalk

HARWOOD AVENUE

parking lane

driveway

sidewalk

SB-1

former
USTs

sump
pump
access

former
dispenser
island

Stairs to
lower
level

Stairs to
upper
level

former
station
building

former
garage
and
service
building

Residence

MW-2

MW-1

sidewalk

parking lane

COLLEGE AVENUE

Office

below ground
parking area

SB-3

SB-2

Barclay's
Restaurant / Pub

SB-4

1 story commercial space
above garage and Barclay's

Approximate Property Boundary

Retail / Commercial

MW-1

PW-1

open area
storage / parking

MW-2

Approximate
location of
UST removal area

Stauder Automotive Service
(Former Sheaff's Garage)

MW-3

8" W

SD 90" RCP

SD 24" RCP
16" W

Residential / Retail
Building

Residence

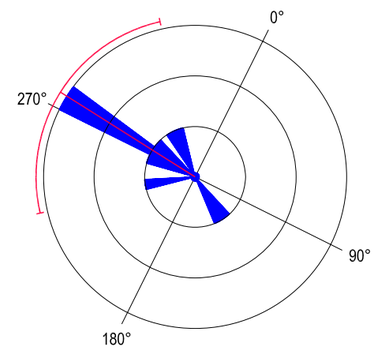
Residence

Residence

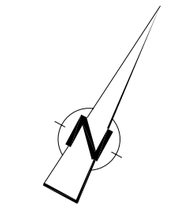
Basemap modified from drawing provided by Gettler Ryan, Inc.

EXPLANATION

- MW-1 ● Former Chevron monitoring well location
- MW-1 ◔ Former Sheaff monitoring well location
- SB-1 ■ Soil boring location
- Electrical line
- Sanitary sewer line
- Storm drain line
- Gas line
- Water line
- Telecommunications line



Historical Groundwater Flow Direction
2001 through 2008
based on data acquired from joint
monitoring with Former Sheaff's Garage



0 10 30ft

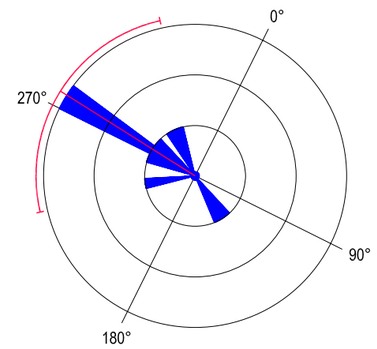
Figure 2

HISTORICAL BORING SITE PLAN
FORMER CHEVRON SERVICE STATION 20-9339
5940 COLLEGE AVENUE
OAKLAND, CALIFORNIA

I:\CHEVRON\3119--\311954 20-9339 OAKLAND\311954-FIGURES\311954-EM002.DWG

EXPLANATION

- SB5 ■ — Proposed soil boring location
- MW-1 ● — Former Chevron monitoring well location
- MW-1 ⊕ — Former Sheaff monitoring well location
- SB-1 ■ — Soil boring location
- E — Electrical line
- S — Sanitary sewer line
- STM — Storm drain line
- G — Gas line
- W — Water line
- T — Telecommunications line



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2001 through 2008
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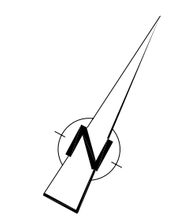

0 10 30ft

Building
Gym

College Avenue
United Presbyterian
Church

Retail/Commercial

sidewalk

HARWOOD AVENUE

parking lane

driveway

sidewalk

SB-1

former
USTs

sump
pump
access

SB7

SB6

former
dispenser
island

Stairs to
lower
level

Stairs to
upper
level

former
station
building

former
garage
and
service
building

Residence

MW-1

MW-2

SB5

SB-3

Office

below ground
parking area

COLLEGE AVENUE

sidewalk

parking lane

sidewalk

Barclay's
Restaurant / Pub

SB-2

SB-4

1 story commercial space
above garage and Barclay's

Approximate Property Boundary

Retail / Commercial

MW-1

PW-1

open area
storage / parking

MW-2

Approximate
location of
UST removal area

Stauder Automotive Service
(Former Sheaff's Garage)

MW-3

8" W

SD 90" RCP

SD 24" RCP
16" W

Residential / Retail
Building

Residence

Residence

Residence

Basemap modified from drawing provided by Gettler Ryan, Inc.

I:\CHEVRON\3119--\311954 20-9339 OAKLAND\311954-FIGURES\311954-EM003-PROP.DWG

Figure 3

SITE PLAN WITH PROPOSED BORINGS
FORMER CHEVRON SERVICE STATION 20-9339
5940 COLLEGE AVENUE
OAKLAND, CALIFORNIA

ATTACHMENT A

ACEH LETTER

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

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

September 11, 2008

Mr. Ian Robb
Chevron Environmental Management
6001 Bollinger Canyon Rd K2256
PO Box 6012
San Ramon, CA 94583-2324

Mr. Patrick Elwood
College Square Associates
1345 Grand Avenue
Oakland, CA 94610-1000

San Francisco Property Mgmt.
1375 Sutter Street, Suite 308
San Francisco, CA 94109-5466

Subject: Fuel Leak Case No. RO0000466 (Global ID # T06019752694), Chevron #20-9339/College Square, 5940 College Ave, Oakland CA

Dear Mr. Robb:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site and the documents entitled "Monitoring Well Installation Report dated February 20, 2001 and prepared by Delta Environmental Consultants, Inc (Delta). Soil sampling conducted during the well installation did not collect a soil samples below 4.5 feet bgs, which is above the depth of UST invert, leaving the vertical extent of contamination in the source area undefined. In addition, a previous investigation completed in September 1999 did not collect soil samples, but grab groundwater samples collected from the soil borings detected 190,000 parts per billion (ppb) TPHg, 3,500 ppb benzene and 1,100 ppb MtBE downgradient of the source area. The lack of soil data downgradient of the site, combined with the high levels of dissolved phase petroleum hydrocarbon contamination indicates that the horizontal extent of contamination beneath your site is undefined.

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 mailto:steven.plunkett@acgov.org) prior to the start of field activities.

TECHNICAL COMMENT

1. **Contaminant Source Area Characterization Results**. Based on our review of the soil borings SB-1 to SB-4 and groundwater analytical data, elevated concentrations of TPHg, benzene and MtBE were detected in groundwater; however, no soil analysis was performed. Soil samples collected following the UST and dispenser removals. However, the depths of the samples collected are unknown. Prior to conducting active remediation, the contaminant source area(s) must be adequately characterized. Please propose a work plan to address the above-mentioned concerns (i.e. define the lateral and vertical extent of contamination). Please include the work plan in the SCM requested below.

2. **Dissolved Contaminant Plume Characterization.** According to Delta, the extent of the dissolved plume remains undefined and additional monitoring and sampling is required to assess flow direction and evaluate plume configuration. Furthermore, it appears that contamination from your site may be impacting the site located at 5930 College Ave. (Sheaff's Garage, local ID #0000377). Please 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 groundwater characterization to define the extent of contamination to east and south and submit a work plan.

3. **Vertical Plume Characterization**. In addition to defining the lateral extent of the hydrocarbon contaminant plume, including the MtBE contaminant plume, vertical plume characterization has not been completed. Based on a review of the case file, it appears that the vertical extent of the contaminant plume is unknown. We request that you collect depth discrete groundwater samples or install multi-level monitoring wells, monitoring well clusters, or systems capable of monitoring multiple depths to adequately characterize the groundwater contaminant plume. Please propose a scope of work to vertically define the groundwater contaminant plume and submit a work plan in the report requested below.

4. **Preferential Pathway Study**. The purpose of the preferential pathway study is to locate potential migration pathways and conduits and determine the probability of the NAPL and/or plume encountering preferential pathways and conduits that could spread contamination. The preferential pathway study should detail the potential migration pathways and potential conduits (wells, utilities, pipelines, etc.) for vertical and lateral migration that may be present in the vicinity of the site. We request that you re-submit the preferential pathway study and include the results in the SCM. Please include maps and data tables to support your analysis. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

   a. Utility Survey

   An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please include maps and cross-sections illustrating the location and depth of all utility lines and trenches within and near the site and plume areas(s) as part of your study.

   b. Well Survey

   The preferential pathway study shall include a detailed well survey of all wells (monitoring and production wells: active, inactive, standby, decommissioned (sealed with concrete), abandoned (improperly decommissioned or lost); and dewatering, drainage, and cathodic protection wells) within a ¼ mile radius of the subject site. As part of your well survey, please perform a background study of the historical land uses of the site and properties in the vicinity of the site. Use the results of your background study to determine the existence of unrecorded/unknown (abandoned) wells, which can act as contaminant migration pathways at or from your site. Please review and submit copies of historical maps, such as Sanborn maps, aerial photographs, etc., when conducting the background study.

5. **Site Conceptual Model (SCM).** We anticipate that additional site characterization work 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 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, improving 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. 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 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. 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.

f. Summary tables of chemical concentrations in different media (i.e. soil, groundwater, and soil vapor), including well logs, well completion details, boring logs, etc.

g. 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.

Please 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.

TECHNICAL REPORT REQUEST

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

- **December 30, 2008 –** Site Conceptual Model with Preferential Pathway Study

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

Sincerely,

Steven Plunkett
Hazardous Materials Specialist

Donna Drogos, PE
Supervising Hazardous Materials Specialist

cc: Laura Genin
CRA
5900 Hollis Street, Suite A
Emeryville, CA 94608

Donna Drogos, ACEH,Steven Plunkett ACEH, File

ATTACHEMENT B

SITE HISTORY

PREVIOUS INVESTIGATIONS

1999 Investigation: In August and September, 1999, Piers Environmental Services, Inc, soil borings SB-1 through SB-4 were advanced to determine the potential presence of hydrocarbons in groundwater resulting from the historical use of the site as a service station. TPHg and benzene were detected in groundwater at maximum concentrations of 190,000 micrograms per liter (µg/l) in SB-4 and 3,500 µg/l in SB-3, respectively. No soil samples were analyzed. The activities are summarized in Piers' September 27, 1999 *Report of Findings Groundwater Investigation* Report.

2001 Monitoring Well Installations: In December 2000, Delta Environmental Consultants, Inc. (Delta) oversaw the installation of offsite monitoring wells MW-1 and MW-2. No TPHg or benzene was detected in soil samples. In April 2001, joint groundwater monitoring between the Chevron site and the former Sheaff's Garage site began per a request by ACEH. The activities are summarized in Delta's February 20, 2001 *Well Installation Report*.

ATTACHEMENT C

STANDARD OPERATING PROCEDURES FOR SOIL BORINGS

CONESTOGA-ROVERS & ASSOCIATES

STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document describes Conestoga-Rovers & Associates, Inc. (CRA) standard field methods for drilling and sampling soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or hydraulic push technologies. Prior to drilling, the first 8 ft of the boring are cleared using an air or water knife and vacuum extraction. This minimizes the potential for impacting utilities.

At least one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the borehole. The vertical location of each soil sample is determined by measuring the distance from the middle of the soil sample tube to the end of the drive rod used to advance the split barrel sampler. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal

location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4oC on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch type sampler or are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4oC, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC

blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.