**Environmental Management Company** 

6001 Bollinger Canyon Rd, K2256 P.O. Box 6012 San Ramon, CA 94583-2324

Tel 925-842-1589 Fax 925-842-8370 **RECEIVED** 

By dehloptoxic at 9:02 am, Jun 27, 2006

June 26, 2006

ChevronTexaco

Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re:

Chevron Service Station # 30-7233

Address: 2259 First St., Livermore

J. Mark Inglis

Project Manager

I have reviewed the attached report titled <u>Site Investigation Workplan</u>, Former Texaco Service Station (307233) and dated <u>June 26, 2006</u>.

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 Cambria Environmental Technology, Inc., 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,

J. Mark Inglis
Project Manager

**Enclosure: Report** 

June 26, 2006

Mr. Jerry Wickham Alameda County Environmental Health Services (ACEHS) 1131 Harbor Bay Parkway Alameda, CA 94502

Re: Site Investigation Workplan

Former Texaco Service Station (Chevron Site # 30-7233)

2259 First Street Livermore, CA



Dear Mr. Wickham:

On behalf of Chevron Environmental Management Company (Chevron), Cambria Environmental Technology, Inc. (Cambria) is submitting this site investigation workplan in response to a request made an Alameda County Environmental Health Services (ACEHS) letter, dated April 26, 2006. The investigation objective is to evaluate subsurface conditions resulting from operations of a Texaco Service Station, located onsite prior to 1973. The site is located on the southeast corner of First Street and South Livermore Avenue in Livermore, California (Figure 1).

#### SITE BACKGROUND

The site is currently a City of Livermore park. Topography around the site slopes gently to the north at an elevation of approximately 485 feet above mean sea level (Figure 1). The site is primarily covered with grass and trees with a concrete walkway (Figure 2).

Aerial photos indicate that the site was a retail service station prior to 1973. The earliest available aerial photograph was from 1959. This photo shows a station building located on the southern edge of the property and two dispenser islands located on the western portion of the property (Figure 2). The 1973 aerial photograph indicates that the station building and dispenser island had been removed and only a paved lot remained. By 1978, the property had been redeveloped as a park. The park remains in the same configuration as indicated on the 1978 aerial photo. These aerial photographs are presented as Attachment A.

Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A Emeryville, CA 94608 Tel (510) 420-0700 Fax (510) 420-9170

#### PREVIOUS ENVIRONMENTAL WORK

In September 2005, a 1,000 gallon underground storage tank (UST) was encountered beneath the sidewalk on the southwest corner of the site. Under the direction of the Pleasanton-Livermore Fire Department the UST was removed and soil samples were collected.

According to Consolidated Engineering Laboratories' *Environmental Sampling, Testing and Evaluation of Soil* report, dated October 4, 2005, soils beneath the UST contained total petroleum hydrocarbons as gasoline, diesel and motor oil (TPHg, TPHd and TPHmo) at maximum concentrations of 1,200 mg/kg, 4,100 mg/kg and 54 mg/kg, respectively.



#### SCOPE OF WORK

Cambria has reviewed the report provided by Consolidated Engineering Laboratories and proposes to conduct the following investigation.

#### **Soil Borings**

To investigate residual conditions resulting from operation of the former Texaco service station, Cambria will advance two soil borings (SB-1 and SB-2) in the vicinity of the former UST pit (Figure 2). Two additional borings (SB-3 and SB-4) will be advanced beneath the former dispenser islands. Chevron and Cambria's safety protocol requires that all borings be cleared to 8 feet below grade (fbg) using a hand auger or air-knife assisted vacuum. Borings will be advanced to first encountered groundwater or to approximately 10 feet below the deepest identified indication of hydrocarbon impacts. The borings will be backfilled with grout from the bottom utilizing a treme pipe. Standard field procedures for Soil Boring and Sampling are included in Attachment B.

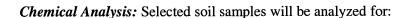
*Underground Utility Location:* Cambria will contact Underground Service Alert to identify potential utilities in the vicinity of all proposed boring locations. Each boring will be cleared to eight fbg using an air-knife assisted vacuum rig or hand auger.

Additionally, Cambria will contract a private underground utility locator to scan the site utilizing magnetic equipment locators and metal detectors to verify that no additional subsurface developments remain and to check again for any potential underground utilities.

Site Health and Safety Plan: Cambria will prepare a site health and safety plan to protect site workers. The plan will be reviewed and signed by all site workers/visitors and kept onsite at all times.

**Permits:** Cambria will obtain boring permits from the Zone 7 Water District prior to field activities.

Sampling Protocol: Cambria will collect soil samples from each boring at approximately 5 foot intervals, the groundwater interface, and in areas where hydrocarbon impact is evident. Undisturbed samples will be collected in a stainless steel or brass sample tube, which will be sealed using Teflon strips and plastic end caps. Each sample will be logged onto a chain of custody form, properly preserved on ice and delivered to Lancaster Analytical Laboratory for analysis.



- TPHg, TPHd and TPHmo by modified EPA Method 8015M; and
- BTEX, fuel oxygenates, and lead scavengers DCA and EDB by EPA Method 8260B.

Soil and Rinseate Water Disposal/Recycling: Soil and water produced during field activities will be temporarily stored on site. Following review of analytic results, the soil and water will be transported to an appropriate Chevron-approved facility for disposal/recycling.

#### Reporting

Upon completion of field activities and review of the analytic results, Cambria will prepare an investigation report that, at a minimum, will contain:

- Descriptions of the drilling and sampling methods;
- Boring logs;
- Tabulated analytic results for soil samples;
- A discussion of hydrocarbon distribution;
- Analytic reports and chain-of-custody forms;
- Conclusions and recommendations.



#### **Schedule**

The above scope of work will be implemented after receipt of written concurrence from ACEHS. An investigation report will be submitted approximately 60 days after the fieldwork is completed.

# Closing

Please call Ms. Laura Genin at (510) 420-3367 or Mr. Satya Sinha of Chevron at (925) 842-9876 if you have questions or comments.



Sincerely,

Cambria Environmental Technology, Inc.

Laura Genin Project Geologist

Robert Foss, P.G. #7445 Associate Geologist

Associate Geologist

Figures: 1 – Vicinity Map

2 – Site Map

Attachments: A – Aerial Photographs

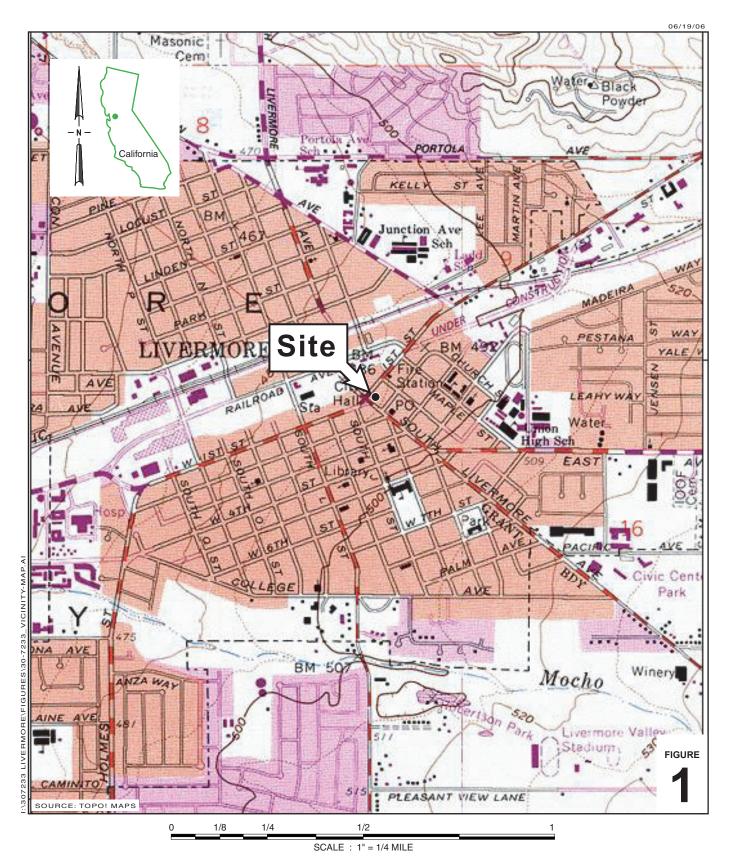
B - Standard Field Procedures for Soil Borings and Air Knife Vacuum

Clearance.

cc: Mr. Satya Sinha, Chevron Environmental Management Company, 6001

Bollinger Canyon Road, Room K2256, San Ramon, CA 94583

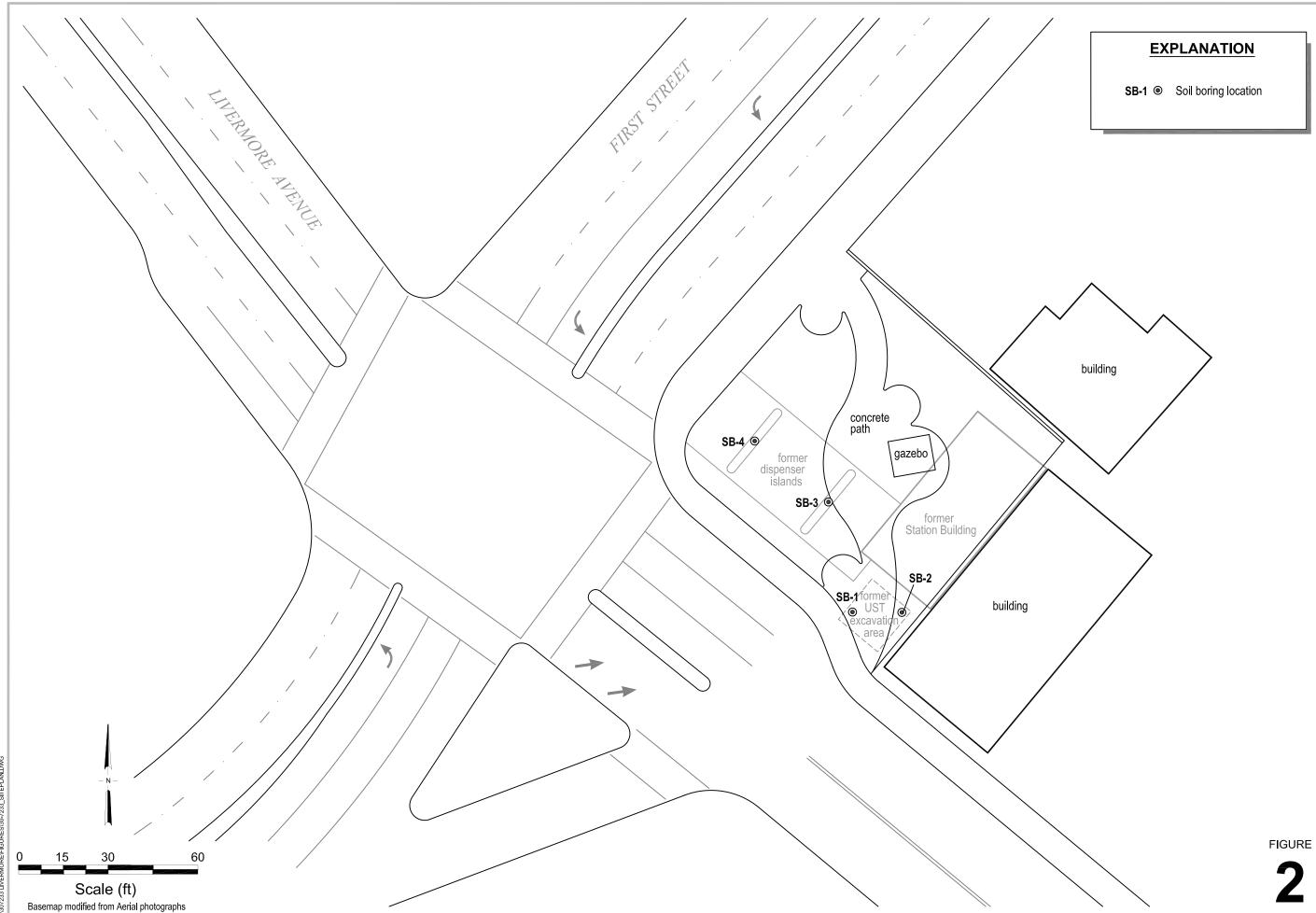
Alameda County Database Geotracker Database



**Chevron Service Station 30-7233** 



**Vicinity Map** 



ATTACHMENT A Aerial Photographs





Image ID Number: AV329-05-12 Date of Photo: 04-16-59





Image ID Number: AV903-03-09 Date of Photo: 05-15-69





Image ID Number: AV1101-03-11 Date of Photo: 08-21-73





Image ID Number: AV1498-03-10 Date of Photo: 05-05-78





Image ID Number: AV2131-03-09 Date of Photo: 04-27-82





Image ID Number: AV2862-03-10 Date of Photo: 04-20-86

ATTACHMENT B
Standard Operating Procedures

# STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document describes Cambria Environmental Technology's 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 Registered Geologist (RG) 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.

F:\TEMPLATE\SOPs\Boring with Air Knife Clearance.doc