Chevron Environmental Management Company
6001 Bollinger Canyon Rd, K2236
P.O. Box 6012
San Ramon, CA 94583-2324
Tel 925-842-9559
Fax 925-842-8370

Dana Thurman
Project Manager

ChevronTexaco

October 11, 2006
(date)

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

Re: Chevron Service Station # 9-1583

Address: 5509 Martin Luther King Jr. Way, Oakland, California

I have reviewed the attached report titled *Workplan for Soil Borings* and dated October 11, 2006.

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,

Dana Thurman
Project Manager

Enclosure: Report

CAMBRIA

October 11, 2006

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: **Workplan for Soil Borings**
Chevron Service Station 9-1583
5509 Martin Luther King Jr. Way
Oakland, California

Dear Mr. Chan:

On behalf of Chevron Environmental Management Company (Chevron), Cambria Environmental Technology, Inc. (Cambria) has prepared this *Workplan for Soil Borings* to assess soil conditions in the vicinity of the underground storage tanks (USTs). To achieve this, Cambria proposes advancing three hand augered borings. The following sections present the site background and our proposed scope of work.

SITE BACKGROUND

The site is situated on the northwest corner of Martin Luther King, Jr. Way and 55th Street in Oakland, California (Figure 1), at an elevation of approximately 85 feet above mean sea level. The surrounding topography slopes towards the west. Land use in the vicinity of the site is mixed commercial, residential, and transportation. Prior to November 1998, the service station facilities included a station building, service islands, fuel and used-oil underground storage tanks (USTs), and product lines. The used-oil UST and hydraulic hoists in the service bays were removed in 1995 and 1998, respectively. Since November 1998, the site has been utilized as a gasoline fueling station only. Locations of former and current site features are shown on Figure 2.

Previous Investigations

Site Excavation

1989 Product Upgrade: In December 1989, Geotest removed product piping from the site and collected six soil samples from the piping trenches in the vicinity of the product dispenser islands. Sample B, collected at a depth of 3 feet below grade (fbg), contained 1,700 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg). No TPHg was detected in the other five samples. Benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds were not analyzed.

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1995 Used-Oil Tank Removal and Soil Excavation: In April 1995, Golden West/American Construction excavated and removed the used-oil UST from the northwest corner of the site. Touchstone Developments (TD) collected four soil samples from the base of the excavation at a depth of 10.5 to 11 fbg. Total petroleum hydrocarbons as motor oil (TPHmo) was detected in all four samples at concentrations ranging from 76 to 2,700 mg/kg. The pit was further over-excavated to 12.5 fbg. In May 1995, approximately 80 cubic yards of used-oil bearing soil was transported and disposed of at BFI Waste Systems in Livermore, California.

1998 Hydraulic Hoist and Clarifier Removal and Excavation: In November 1998, Musco Excavators removed two single post semi-hydraulic hoists and one dual post hydraulic hoist with clarifier from the site. TD collected one soil sample from beneath each of the hoists at depths ranging from 7.5 to 8 fbg. No TOG, TPHg, TPHd, BTEX or methyl tertiary butyl ether (MTBE) was detected in the samples.

Soil Boring and Monitoring Well Installation

1983 Subsurface Investigation: In December 1983, Gettler-Ryan, Inc. (G-R) advanced three on-site soil borings and completed the borings as monitoring wells MW-1 through MW-3. The borings were drilled to a depth of 21 fbg. Groundwater was encountered at depths ranging from 13 to 16 fbg. Although reports indicate these wells were installed in response to a suspected leak, no record exists of soil samples being collected and analyzed from MW-1 through MW-3.

1990 Well Redevelopment: In March 1990, G-R redeveloped and sampled wells MW-1 through MW-3. Laboratory analyses of the groundwater samples indicated the presence of TPHg at concentrations ranging from 800 to 50,000 micrograms per liter (µg/L), and BTEX concentrations ranging from 18 to 18,000 µg/L.

1990 Subsurface Investigation: In October 1990, H.E.W. Drilling, Inc. advanced three soil borings and completed the borings as monitoring wells MW-4 through MW-6 to further evaluate the off-site extent of petroleum hydrocarbons in groundwater. Well MW-4 was installed in the northeast corner of the subject property and wells MW-5 and MW-6 were installed off-site, along the southern shoulder of 55th Street. The borings were drilled to depths ranging between 20 and 26.5 fbg. Six soil samples collected from the borings at depths between 10.5 and 20.5 fbg were analyzed for TPHg only. TPHg was detected in MW-5 at 190 mg/kg and in MW-6 at 11 mg/kg at 10.5 fbg. No TPHg was detected in soil collected from MW-4.

1994 Subsurface Investigation: In February 1994, Groundwater Technology Inc. (GTI) advanced two on-site soil borings and completed them as monitoring wells MW-7 and MW-8 to evaluate the extent of petroleum hydrocarbons in groundwater near the former used-oil UST. Wells MW-

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7 and MW-8 were installed to depths of 20 fbg. Four soil samples were collected from the soil borings at depths between 5 and 15 fbg. No TPHg or BTEX was detected.

Geology and Hydrogeology

The site is located on the East Bay Plain, approximately 1.5 miles east of the Outer Harbor on the eastern shore of San Francisco Bay, and approximately 2 miles north of Lake Merritt. The site is a relatively flat lot approximately 85 feet above mean sea level. As mapped by Helley and others (1979, Flatland Deposits of the San Francisco Bay Region, California: U.S. Geological Survey Professional Paper 943), soil in the vicinity consists of Pleistocene beach and dune sand deposits (Merritt Sand) of loose, well sorted fine to medium sand. The nearest surface water is the San Francisco Bay.

The site surface is paved with cement and asphalt from 2 to 8 inches thick. Based on a review of the subsurface materials encountered during soil boring installations, the site consists of sandy silt to clay from beneath the surface extending between 8 and 10 fbg.

Depth to groundwater beneath the site has historically ranged from approximately 6.5 to 14 fbg. Based on historical monitoring data, groundwater flow beneath the site fluctuates between a northeast and southeast direction.

HYDROCARBON DISTRIBUTION IN SOIL

The highest TPHg concentrations detected in soil at the site was 1,700 mg/kg at 3 fbg in product piping sample B. Lower TPHg concentrations were also detected in soil from MW-5 at 10.5 fbg. Soil samples were not collected from MW-1 through MW-3 near the USTs, thus little is known about the soil in the vicinity of the USTs, however because hydrocarbon concentrations in groundwater are low and declining, a significant residual source is not likely present in the vicinity of MW-1, MW-2 and MW-3. The extent of hydrocarbons in soil is defined up-gradient by wells MW-4, MW-7 and MW-8. TOG was identified in all soil samples collected during the used-oil UST removal, at a maximum concentration of 2,700 mg/kg in the northern sample at 10.5 fbg. Over-excavation to 12.5 fbg likely removed the majority of hydrocarbon impacted soil from the used-oil UST pit.

Soil has been defined cross-gradient of the site by monitoring wells MW-5 and MW-6. The former used-oil UST source area appears to have been adequately remediated during excavation in 1989, which removed approximately 80 cubic yards of soil from the site. However, soil in the vicinity of the gasoline USTs has not been adequately defined. Cumulative soil analytical data is presented in Table 1.

PROPOSED SCOPE OF WORK

To evaluate the extent of hydrocarbon impact in soil around the gasoline USTs, Cambria proposes to advance three hand auger soil borings. Locations of the proposed borings are presented in Figure 2. Cambria proposes to perform the following tasks.

Permits: Cambria will obtain soil boring permits from Alameda County Health Services Agency prior to the beginning of any field operations. Alameda County will be notified a minimum of 48 hours prior to field work commencement.

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

Underground Utility Location: Cambria will visit the site and mark the locations of proposed borings. We will then contact Underground Service Alert (USA) a minimum of 48 hours prior to drilling to mark and identify locations of utilities on and adjacent to the property.

Soil Borings: Cambria proposes advancing three hand auger soil borings. Becuase groundwater in the vicinity of the USTs is approximately 10 fbg, the borings will be advanced to approximately 10 fbg. Soil will be logged continuously and sampled at approximately 3, 6 and 9 fbg. Once all desired samples have been collected, each boring will be filled with neat Portland type I/II cement and the surface will be replaced to match existing grade. Cambria's standard field procedures are included in Attachment A.

Soil Sample Selection: We will submit all samples from each boring for analysis.

Chemical Analysis: Soil samples will be analyzed for the following constituents:

- TPHg by EPA Method 8015M
- BTEX, oxygenates MTBE, TBA, TAME, ETBE, and DIPE, and lead scavengers 1,2-DCA and EDB by EPA Method 8260B

Soil Disposal: Soil cuttings will be temporarily stored on-site in 55-gallon steel drums, sampled for disposal purposes, removed by Integrated Waste Management, and transported to a Chevron approved disposal facility.

Reporting: Following receipt of analytical results, Cambria will prepare a subsurface investigation report that will include:

- A summary of the site background and history.
- Descriptions of the drilling and soil sampling methods.
- A figure illustrating the boring locations.
- Boring logs.
- Tabulated soil analytical results.
- Analytical reports and chain-of-custody forms.
- Soil disposal methods.
- A discussion of the hydrocarbon and oxygenate distribution in soil .
- Conclusions and recommendations.

SCHEDULE

Cambria will perform this investigation after receiving written approval of this workplan from the Alameda County Health Services Agency and obtaining permits. Cambria will obtain the necessary permits from Alameda County. We will submit our investigation report approximately six weeks after receipt of analytical data.

CLOSING

We appreciate this opportunity to work with you on this project. Please contact Christene Sunding (ext. 109) at (916) 677-3407 with any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Kiersten Hoey
Senior Staff Scientist

David W. Herzog, P.G. #7211
Senior Project Geologist

Cambria Environmental Technology, Inc. (Cambria) prepared this document for use by our client and appropriate regulatory agencies. It is based partially on information available to Cambria from outside sources and/or in the public domain, and partially on information supplied by Cambria and its subcontractors. Cambria makes no warranty or guarantee, expressed or implied, included or intended in this document, with respect to the accuracy of information obtained from these outside sources or the public domain, or any conclusions or recommendations based on information that was not independently verified by Cambria. This document represents the best professional judgment of Cambria. None of the work performed hereunder constitutes or shall be represented as a legal opinion of any kind or nature.

Figure 1 – Vicinity Map
2 – Site Plan

Table 1 – Cumulative Soil Analytical Data

Attachments: A - Standard Field Procedures for Hand Auger Borings

cc: Mr. Dana Thurman, Chevron Environmental Management Company, PO Box 6012, San Ramon, California 94583

Cambria Environmental Technology, Inc. file copy

04/20/04

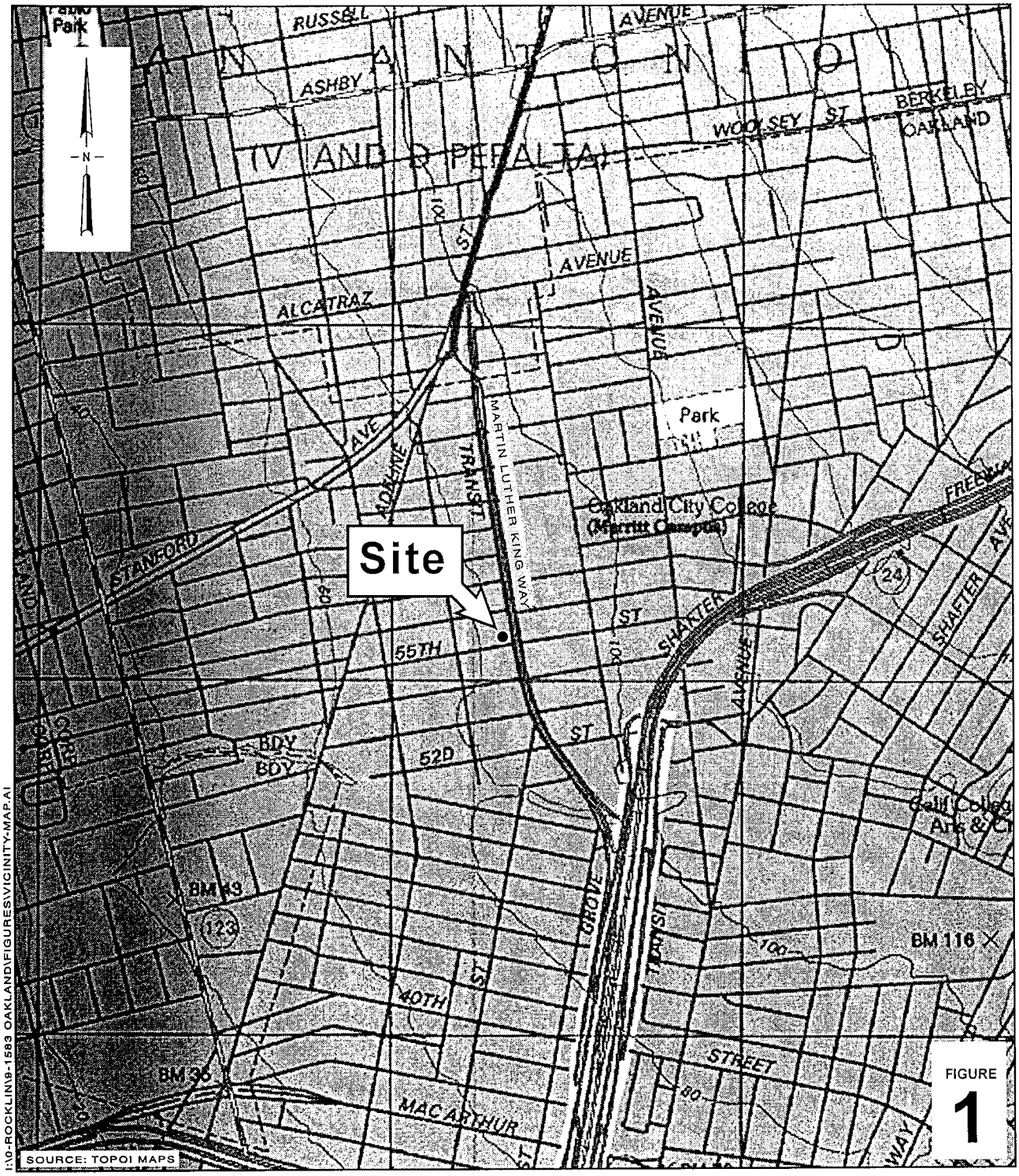

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FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Chevron Service Station 9-1583

5509 Martin Luther King Way

Oakland, California

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Vicinity Map

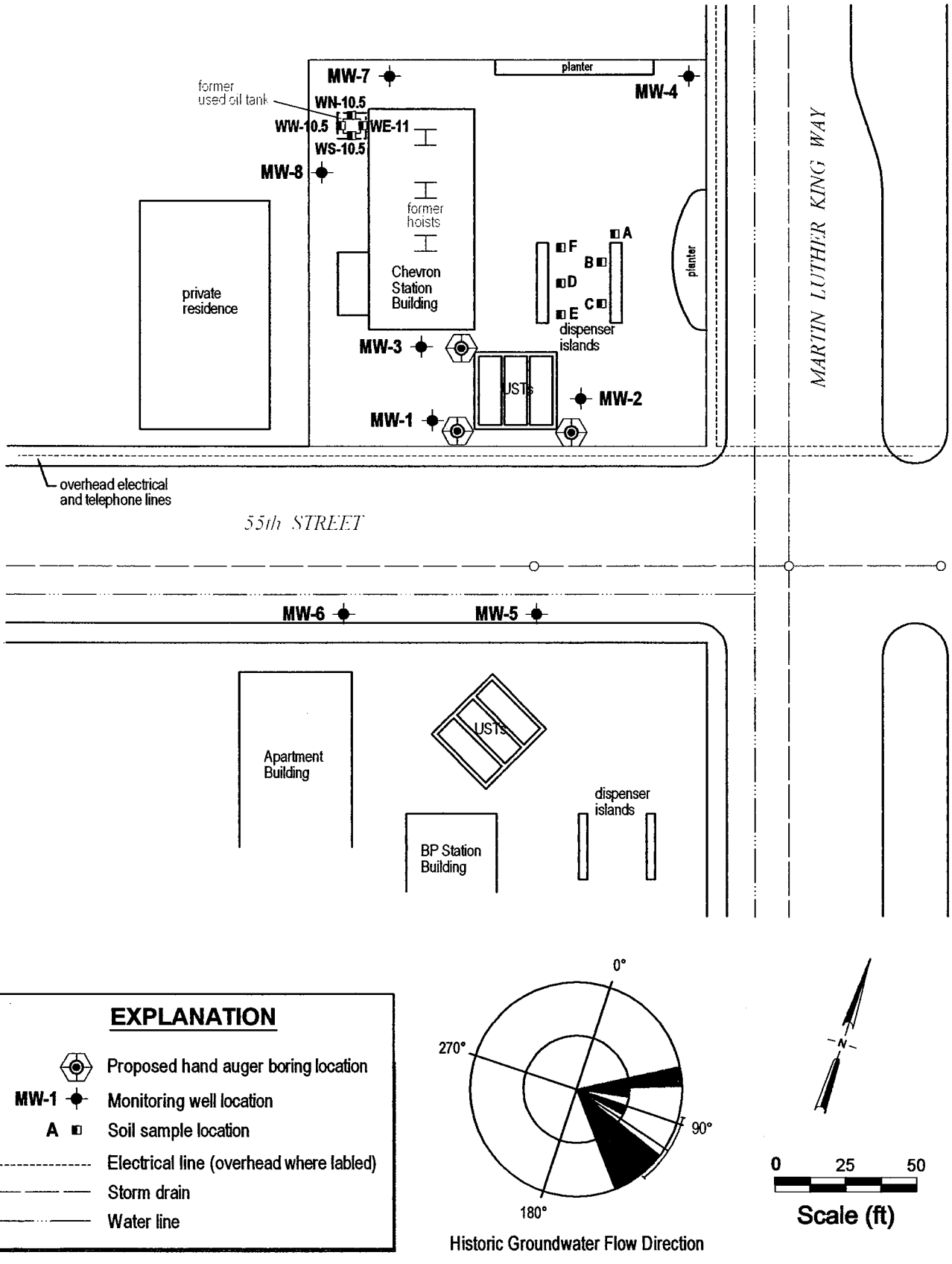

FIGURE
2

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Chevron Service Station 9-1583

5509 Martin Luther King Way

Oakland, California

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Site Plan

Table 1
Cumulative Soil Results
Chevron Station 9-1583, 5509 Martin Luther King, Jr. Way, Oakland, California

Sample ID	Depth (ft)	Sample Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE 8020/8260	TPHmo
			(Concentrations in mg/kg)						
Piping Upgrade									
A	2	12/14/1989	<10	--	--	--	--	--	--
B	3	12/14/1989	**1,700**	--	--	--	--	--	--
C	3.5	12/14/1989	<10	--	--	--	--	--	--
D	4.5	12/14/1989	<10	--	--	--	--	--	--
E	4.5	12/14/1989	<10	--	--	--	--	--	--
F	3.5	12/14/1989	<10	--	--	--	--	--	--
Monitoring Well Installations									
MW-4	10.5	10/18/1990	<10	--	--	--	--	--	--
	15.5	10/18/1990	<10	--	--	--	--	--	--
	20.5	10/18/1990	<10	--	--	--	--	--	--
MW-5	10.5	10/18/1990	**190**	--	--	--	--	--	--
	15.5	10/18/1990	<10	--	--	--	--	--	--
MW-6	10.5	10/18/1990	**11**	--	--	--	--	--	--
MW-7	5	2/22/1994	<1	<0.005	<0.005	<0.005	<0.015	--	--
	15	2/22/1994	<1	<0.005	<0.005	<0.005	<0.015	--	--
MW-8	10	2/22/1994	<1	<0.005	<0.005	<0.005	<0.015	--	--
	15	2/22/1994	<1	<0.005	<0.005	<0.005	<0.015	--	--
Used-Oil Tank Removal									
WE-11	11.0	4/17/1995	ND	ND	ND	ND	ND	--	**770**
WW-10.5	10.5	4/17/1995	ND	ND	ND	ND	ND	--	**220**
WN-10.5	10.5	4/17/1995	--	--	--	--	--	--	**2,700**
WS-10.5	10.5	4/17/1995	--	--	--	--	--	--	**76**
Hoist/Clarifier Removal									
H/CLR	7.5	11/5/1998	<1000	<5	<5	<5	<10	<25	<10
H2	8	11/5/1998	--	--	--	--	--	--	<10
H3	8	11/5/1998	--	--	--	--	--	--	<10

Abbreviations / Notes

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
TPHmo = Total petroleum hydrocarbons as motor oil/hydraulic oil
BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020
MTBE = methyl tert-butyl ether by EPA Method 8260
Other Oxys = Non-MTBE oxygenates by EPA Method 8260
<x = not detected above reporting limit x
ND = Not detected at varying detection limits
--' = Not analyzed

ATTACHMENT A

Cambria's Standard Field Procedures

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STANDARD FIELD PROCEDURES FOR HAND-AUGER SOIL BORINGS

This document describes Cambria Environmental Technology's standard field methods for drilling and sampling soil borings using a hand-auger. 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

Hand-auger borings are typically drilled using a hand-held bucket auger to remove soil to the desired sampling depth. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the augered hole. The vertical location of each soil sample is determined using a tape measure. 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.

Augering 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 4°C 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 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 4°C, 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

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.