Aaron Costa
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6111 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 543-2961
Fax (925) 543-2324
acosta@chevron.com

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

Re: Former Chevron Service Station No. 9-1026
3701 Broadway
Oakland, CA

I have reviewed the attached report dated February 13, 2009.

I agree with the conclusions and recommendations presented in the referenced report. This information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This workplan was prepared by Conestoga Rovers Associates, upon who 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,

Aaron Costa
Project Manager

Attachment: Report

CONESTOGA-ROVERS
& ASSOCIATES

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

February 17, 2009 Reference No. 311959

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

Re: Addendum to Site Investigation
Former Chevron Service Station 9-1026
3701 Broadway
Oakland, California
Fuel Leak Case No. RO0000500

Dear Mr. Plunkett:

On behalf of Chevron Environmental Management Company (Chevron), Conestoga-Rovers & Associates (CRA) has prepared this *Addendum to Site Investigation* for the above site. In your letter dated January 21, 2009, Alameda County Environmental Health (ACEH) requested additional information to address inconsistencies in the original *Site Investigation and Remedial Excavation Report*, submitted to ACEH on January 22, 2007 (Attachment A). Summarized below are responses to ACEH's technical comments.

RESPONSE TO TECHNICAL COMMENTS

1. Soil and Groundwater Investigation

The following comments address the inconsistencies indentified by ACEH in the *Site Investigation and Remedial Excavation Report* dated January 22, 2007.

- In a letter dated January 31, 2008, *Fuel Leak Cases RO500 and RO205, 3701 and 3741 Broadway, Oakland, CA 94611 (Proposed Kaiser Development)*, ACEH requested colleting grab-groundwater samples from selected soil borings in response to Secor's *Additional Characterization Work Plan* on the 3701 Broadway property. This request was not made for the proposed work to be completed by Chevron.

- Total excavation depth varied from 18 to 20 feet below grade (fbg), therefore some confirmation samples were collected at 19 fbg.

- Cambria attempted to advance 22 borings, but three of the borings, CSB-2, CSB-15 and CSB-21, encountered refusal at 2 fbg. These borings were omitted from the final report and all figures.

- Boring logs were completed for all completed borings, excluding borings CSB-2, CSB-15, and CSB-21. CSB-1 is the same boring as SWE-4 and that boring log was included in the initial report.

- Figure 4 excluded analytical data from borings CSB-2, CSB-15, and CSB-21 because soil samples were not collected in these borings due to refusal. Boring CSB-1 is the same as boring as SWE-4 and soil analytical data was included in the original report. Figure 4 was updated to include the incomplete borings and is included as Attachment B.

- Figure 5 excluded soil analytical data from boring SWW-4 because soil samples were not collected due to refusal encountered at four fbg. An updated Figure 5, stating refusal was encountered in boring SWW-4, is included as Attachment C.

- Figure 6 has been changed to reflect the correct conversion from micrograms per liter (µg/kg to milligrams per kilogram (mg/kg). An analytical table with corrected data is included as Attachment D. An updated Figure 6 is included as Attachment E.

CLOSING

ACEH has also requested a Risk Assessment (RA) and Site Management Plan (SMP) to be submitted under separate cover, prior to the submittal of a monitoring well installation work plan. CRA requests to install all groundwater monitoring wells and monitor for at least two quarters prior to completion of a RA and SMP so that all conclusions will be relevant to current conditions. Based on the remedial actions completed at the site, current groundwater data is integral to understanding any potential risks associated with current subsurface conditions.

We appreciate the opportunity to work with you on this project. Please contact Charlotte Evans of CRA at (510) 420-3351 or Aaron Costa of Chevron at (925) 543-2961 if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charlotte Evans

PROFESSIONAL GEOLOGIST
BRANDON S. WILKEN
No. 7564
STATE OF CALIFORNIA

Brandon Wilken, PG #7564

CE/doh/1
Enc.

Attachment A	ACEH Letter dated January 21, 2008
Attachment B	Updated Figure 4 - Soil Borings Locations and Soil Concentrations
Attachment C	Updated Figure 5 - Sidewall Soil Boring Locations and Soil Concentrations
Attachment D	Updated Analytical Table
Attachment E	Updated Figure 6 - Excavation Bottom Product Piping Sample Locations with Soil Locations

cc: Mr. Aaron Costa, Chevron Environmental Management
Mr. Gary Bankhead, Kaiser Foundation
Hertzinger Associates
Mr. Greg Hoehn, Stantec
Mr. Leroy Griffin, Oakland Fire Department

ATTACHMENT A

ACEH LETTER DATED JANUARY 21, 2009

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

JAN 2 9 2009

C. Evans

January 21, 2009

Mr Aaron Costa
Chevron Environmental Management
PO Box 6012
6111 Bollinger Canyon Rd, Rm 3660
San Ramon, CA 94583-2324

Mr Gary Bankhead
Kaiser Foundation Hospitals
100 San Leandro Blvd
San Leandro, CA 94577

Heitzinger Associates
PO Box 1613
Pebble Beach, CA 93953
~~Pasadena, CA 91188~~

Subject Fuel Leak Case No RO0000500 (Global ID # T0600100334), Chevron #9-1026, 3701 Broadway, Oakland CA 94611

Dear Mr Costa, Mr Havel and Heitzinger Associates

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site and the documents entitled, "Site Investigation and Remedial Excavation Report" dated January 22, 2007 and received January 29, 2007 and prepared by Conestoga Rovers Associates (CRA) Results from the site investigation detected high concentrations of TPHg and benzene in soil at a depth of 20 feet bgs, which is below the maximum depth of excavation, at concentrations of up to 11,000 parts per million (ppm) TPHg, 31 ppm benzene, 320 mg/kg toluene, 100 mg/kg ethylbenzene and 600 mg/kg xylenes Furthermore, ACEH requsted the collection of grab groundwater samples from selected soil boring to assess the impact to groundwater beneath the site, however, no grab groundwater samples were collected

Additional soil borings were installed around the perimeter of the site, in-place of excavation confirmation samples, to determine the extent of contamination left in place onsite Results from the soil sampling also detected high levels of residual hydrocarbon contamination up to 1,700 mg/kg TPHg and 4 mg/kg benzene Confirmation soil samples were also collected from the bottom of the excavation, and high levels of petroleum hydrocarbon contamination were detected in soil at up to 1,300 mg/kg TPHg and 1 3 mg/kg benzene (reported units of concentration for benzene are incorrect) at 20 feet bgs

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 **Soil and Groundwater Investigation** CRA installed 19 soil borings to a maximum depth of 23 feet bgs to determine the vertical extent of contamination Results from the investigation detected residual contamination in soil at concentrations of up to 8,600 mg/kg TPHg and 9 5 mg/kg benzene (20' bgs) In place of excavation sidewall samples, 17 soil borings were advanced around the perimeter of the excavations, and soil samples collected from the perimeter "sidewalls" detected high levels of hydrocarbon contamination up to 1,700 mg/kg TPHg and 4 9 mg/kg benzene Additionally, confirmation soil samples collected from the excavation bottom detected high levels of up to 1,300 mg/kg TPHg and 9 7 mg/kg benzene at 19 feet bgs, which is below the total depth of the excavation Significantly elevated petroleum hydrocarbon contamination remains in place in the excavations sidewalls and bottom, below the maximum depth of excavation (19 feet bgs) We are concerned

that the residual soil contamination left in place below the limit of excavation (19 feet bgs) does not meet the clean up levels consistent with current land use Therefore, we request that you evaluate whether additional remediation work may be necessary to achieve case closure Please present the results of your evaluation in the risk assessment report requested below

During our review of the "Site Investigation and Remedial Excavation Report" ACEH identified several inconsistencies in the report including

- Site Investigation and Remediation Report Section 3 2 states, "Cambria advanced 22 soil borings (CSB-1 through CSB-22) Table 1 presents analytical data for only 19 soil borings, no data presented for soil borings CSB-2, CSB-15 and CSB-21,
- Boring logs were completed for 18 soil borings, excluding soil borings CSB-1, CSB-2, CSB-15 and CSB-21,
- Figure 4 shows soil analytical data for 18 soil borings, excluding soil borings CSB-1, CSB-2, CSB-15 and CSB-21,
- Figure 5 which shows "sidewall" soil boring locations and contamination concentrations omitted soil analytical data for sample SWW-4,
- Figure 6 list benzene concentrations for bottom soil samples EX-8-20, EX-9-20 and EX-10-20 in units of mg/kg, however, laboratory analytical data for benzene are presented in units of µg/kg and have not been converted correctly

Please review and correct all tables and figures to accurately reflect soil analytical data and submit the updated tables and figures in the addendum to the Site Investigation and Remedial Excavation Report requested below

2 **Soil Excavation and Removal** The west end of the former Chevron gas station was excavated to a depth of 19 feet bgs and approximately 2,800 yd^3 of soil was removed and disposed at an offsite landfill Soil samples collected during excavation confirmation sampling detected residual contamination above cleanup levels consistent with future land at a depth of 20 feet bgs Table 1 below identifies locations where residual contamination above clean up levels remains in place

Table 1 Soil Sample Location Above ESLs

Sample Date	Sample ID/Depth (feet bgs)	TPHg mg/kg	Benzene mg/kg
6/23/2006	CSB-1-22	3 7	0 41
6/23/2006	CSB-4-23	510	0 33
6/23/2006	CSB-8-20	8,600	9 5
6/23/2006	CSB-8-21 5	28	0 61
6/23/2006	CSB-9-22	420	<0 063
6/23/2006	CSB-22-15	28	0 61
6/23/2006	CSB-22-20	290	0 28
6/21/2006	SWW-1-15	530	<0 063
6/21/2006	SWW-1-20	140	<0 063
6/23/2006	SWW-5-15	1700	<0 063
6/21/2006	SWS-1-15	260	0 28
6/21/2006	SWS-3-15	91	0 13
6/24/2006	SWS-4-15	1,400	4 0
6/24/2006	SWS-5-15	1 100	<0 063
6/28/2006	SWE-1-20	290	<0 063
6/28/2006	SWE-2-15	160	<0 062
6/28/2006	SWE-2-20	1,500	0 075
6/28/2006	SWE-3-20	790	4 9
6/22/2006	SWE-4-16	720	0 58
6/28/2006	SWE-5-20	940	0 051
9/5/2006	EX-2-19	1,300	9 7
9/6/2006	EX-3-19	160	0 18
9/7/2006	EX-7-20	250	0 17
9/8/2006	EX-8-18	900	<0 003
9/9/2006	EX-8-20	970	1,300*
9/11/2006	EX-9-20	850	430*

9/11/2006	EX-10-20	140	100*
ESL for residential/commercial land use where groundwater is a potential drinking water source Soil>10 feet TPHg=83 mg/kg Benzene=0 044 mg/kg * Units for benzene are reported incorrectly			

Moreover, Secor collected 40 excavation confirmation soil samples from the bottom of the excavation at 15 feet bgs, after the removal of approximately 5,000 yd^3 of soil from the east area of the former Chevron site Residual pollution remains in place at elevated concentrations of up to 3,600 mg/kg TPHg, 830 mg/kg TPHd and 6 3 mg/kg benzene

In summary, a total of 71 soil borings were installed during previous investigations by both CRA and Secor In addition, elevated levels of residual contamination remain in soil at concentrations of up to 11,000 ppm TPHg and 31 ppm benzene (below the maximum depth of the excavation at 20 feet bgs) Soil analytical data confirm that 36 soil boring locations did not meet clean up levels consistent with future land use Therefore, we request that you prepare data tables and figures showing pre-excavation and post excavation soil data, using soil analytical data from both CRA and Secor Please submit the tables and figures in the risk assessment report requested below

3 **Dissolved Contaminant Plume Monitoring** All onsite groundwater monitoring wells were decommissioned prior to soil excavation Before the well decommissioning, groundwater samples were collected from onsite wells B and B-2 Results from the groundwater sampling detected high concentrations of up to 350,000 µg/L TPHg and 26,000 µg/L benzene However this data was not included in the report text, tables or figures In future reports, we request that you present all soil and groundwater analytical data collected from your site In addition, wells B and B-2 have historically reported the presence of separate phase hydrocarbon contamination, while down gradient wells have not detected dissolved phase contamination above laboratory reporting limits which may indicate that the down gradient wells do not encounter the dissolved plume

Since site redevelopment is nearly complete, ACEH requires you to submit a work plan for the installation of groundwater monitoring wells to evaluate the dissolved phase hydrocarbon plume(s) onsite and downgradient of the former Chevron service station The monitoring well network in its current configuration is inadequate to evaluate groundwater conditions immediately downgradient of your site Please submit the work plan for offsite dissolved plume characterization and well installation according to the schedule below

4 **Well Decommissioning** In a correspondence from ACEH dated June 13, 2006 we requested that you submit a well decommissioning report and discuss the extent of the dissolved phase contaminant plume To date, we have not received the previously requested report As a result, reports for your site are late This is not an extension of the due date for the submission of the previously requested report We request that you submit the well decommissioning report, including a detailed discussion of the extent of the dissolved contaminant plume(s) by the date specified below expect

5 **Risk Assessment and Site Risk Management Plan** High concentrations of residual pollution remain in soil throughout the site above residential ESLs at maximum concentrations of up to 11,000 mg/kg TPHg (SB-26-20 5' bgs) 32 ppm napthalene, 320 mg/kg toluene, 100 mg/kg ethylbenzene and 600 mg/kg xylenes (SB-20-18 5' bgs) Furthermore, some confusion exists regarding the use of ESLs, Chevron is using ESLs for a commercial setting where groundwater is not a potential drinking water source, while Secor is using ESLs for a residential setting Since the proposed site redevelopment includes a medical office, the more conservative residential ESLs, which are appropriate for the groundwater designation consistent with the Basin Plan and as previously required should be used In addition, a risk assessment and site management plan are necessary to assess the potential exposure pathways (including an evaluation of the below grade medical office) and evaluate the potential threat to human health and the environment from the residual pollution that will be left in

place in both soil and groundwater Please prepare a risk assessment (including as built construction drawings, pre and post excavation data tables and figures and residual mass calculations) and a site management plan according to the schedule outlined below

6 **Dissolved Plume Migration and Impacts to Adjacent Motel and Park** It appears that the unauthorized release from the former USTs has impacted groundwater beneath the adjacent hotel and park In 1977 hydrocarbon odors were detected emanating from beneath the Westwind Lodge located adjacent to the former Chevron and in Mosswood Park located approximately 140 feet west of the former Chevron Soil samples collected from soil boring SB-37 (approximately 15 feet from a 69 inch drainage culvert that traverses beneath Westwind Lodge and Mosswood Park) detected 7,900 mg/kg TPHg and 1,200 mg/kg TPHd Please evaluate if the culvert located adjacent to your site may be acting as a potential conduit for the offsite migration of the dissolved contaminant plume Present the results from your evaluation in the well decommissioning report requested below

TECHNICAL REPORT REQUEST

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

- **February 15, 2009** – Addendum to Site Investigation
- **March 23, 2009** – Risk Assessment and Site Management Plan
- **May 1, 2009** – Well Decommissioning Report and Work Plan for Monitoring Well Installation

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) 383-1767 or send me an electronic mail message at steven plunkett@acgov org

Sincerely,

Steven Plunkett
Hazardous Materials Specialist

Donna L Drogos, PE
Supervising Hazardous Materials Specialist

cc Charlotte Evans
CRA
5900 Hollis Street, Suite A
Emeryville, CA 94608

Greg Hoehn
Stantec
57 Lafayette Circle, 2nd Floor
Lamarette, CA 94549

Leroy Griffin
Oakland Fire Department
250 Frank H Ogawa Plaza, Ste 3341
Oakland, CA 94612-2032 (sent via electronic mail to lgriffin@oaklandnet com)

Donna Drogos, Steven Plunkett, File

ATTACHMENT B

UPDATED FIGURE 4 - SOIL BORINGS LOCATIONS AND SOIL CONCENTRATIONS

02/06/09

Cambria Soil Boring Locations and Soil Concentrations

EXPLANATION

- A ⊠ Monitoring well pressure grouted June 2006
- SB-1 ◉ Soil boring location (Secor 2006)
- CSB-1 ◉ Soil boring location (Cambria 2006)

Boring
Depth
TPHg
BENZ
Xylenes

- Soil boring designation
- Depth of sample
- Hydrocarbon concentrations in soil in milligrams per kilogram (mg/kg)

Kaiser Proposed Excavation

CSB-20							
12.0'	13.5'	15.0'	19.5'	20.0'	20.5'	22.0'	23.0'
<1.0 <0.0005 <0.001	24 <0.002 <0.005	1.0 <0.0005 <0.001	<1.0 <0.0005 <0.001	44 <0.0005 <0.001	53 <0.0005 0.004	<1.0 <0.0005 <0.001	<1.0 <0.0005 <0.001

CSB-19	
11.0'	14.0'
<1.0 <0.0005 <0.001	<1.0 <0.0005 <0.001

CSB-16	
9.0'	15.0'
<1.0 0.0007 0.002	<1.0 0.0009 <0.001

CSB-18		
3.0'	9.0'	16.0'
<1.0 <0.0005 <0.001	1.7 0.0006 <0.001	<1.0 <0.0005 <0.001

CSB-17	
11.5'	16.0'
<1.0 <0.0005 <0.001	1.5 <0.0005 <0.001

CSB-22			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	56 <0.0005 0.001	420 <0.0063 7.7	290 0.28 20

CSB-13	
14.0'	
27 <0.002 <0.005	

CSB-12	
19.5'	
<1.0 <0.0005 <0.001	

CSB-7	
22.0'	
<1.0 <0.0005 <0.001	

CSB-3	
22.0'	
<1.0 0.001 <0.001	

CSB-14	
22.5'	
<1.0 <0.0005 <0.001	

CSB-6	
22.0'	
<1.0 0.0008 <0.001	

CSB-11	
22.0'	
2.0 0.006 0.030	

CSB-10	
22.0'	
<1.0 0.005 0.006	

CSB-9	
23.0'	
2.6 0.43 0.015	

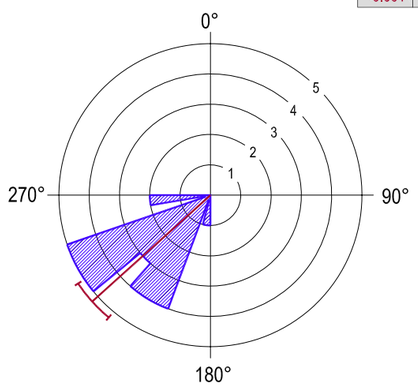
CSB-5	
22.0'	
<1.0 0.002 <0.001	

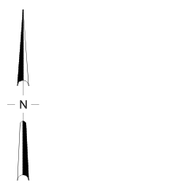
CSB-8	
20.0'	21.5'
8,600 9.5 91	28 0.61 0.47

CSB-4	
23.0'	
510 0.33 19	

SWE-4 / CSB-1				
5.0'	10.0'	16.0'	20.0'	22.0'
<1.0 <0.0005 <0.001	1.2 0.18 0.007	720 0.58 24	3.1 0.31 <0.001	3.7 0.41 0.031

trash
SB-37
1,000 gal.
used oil tank
SB-38
hoists
Station Building
SB-39
SB-27
6,000 gal.
7,500 gal.
3,000 gal.
USTs
SB-26
SB-40
SB-43
UST
SB-41
B-4
SB-4
SB-2
SB-21
SB-1
SB-23
SB-25
SB-13
SB-14
SB-19
dispenser islands
dispenser islands
SB-3
SB-18
B-1
SB-22
SB-24
SB-42
SB-16
BROADWAY
Cambria Excavation Boundary
SB-28
SB-30
B-3
SB-15
SB-20
B
SB-17
SB-29
B-2
planter
MAC ARTHUR BOULEVARD





0 10 20 40

Scale (ft)

Basemap modified from 1957 Standard Oil drawing

FIGURE

4

Chevron Service Station 9-1026

3701 Broadway

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

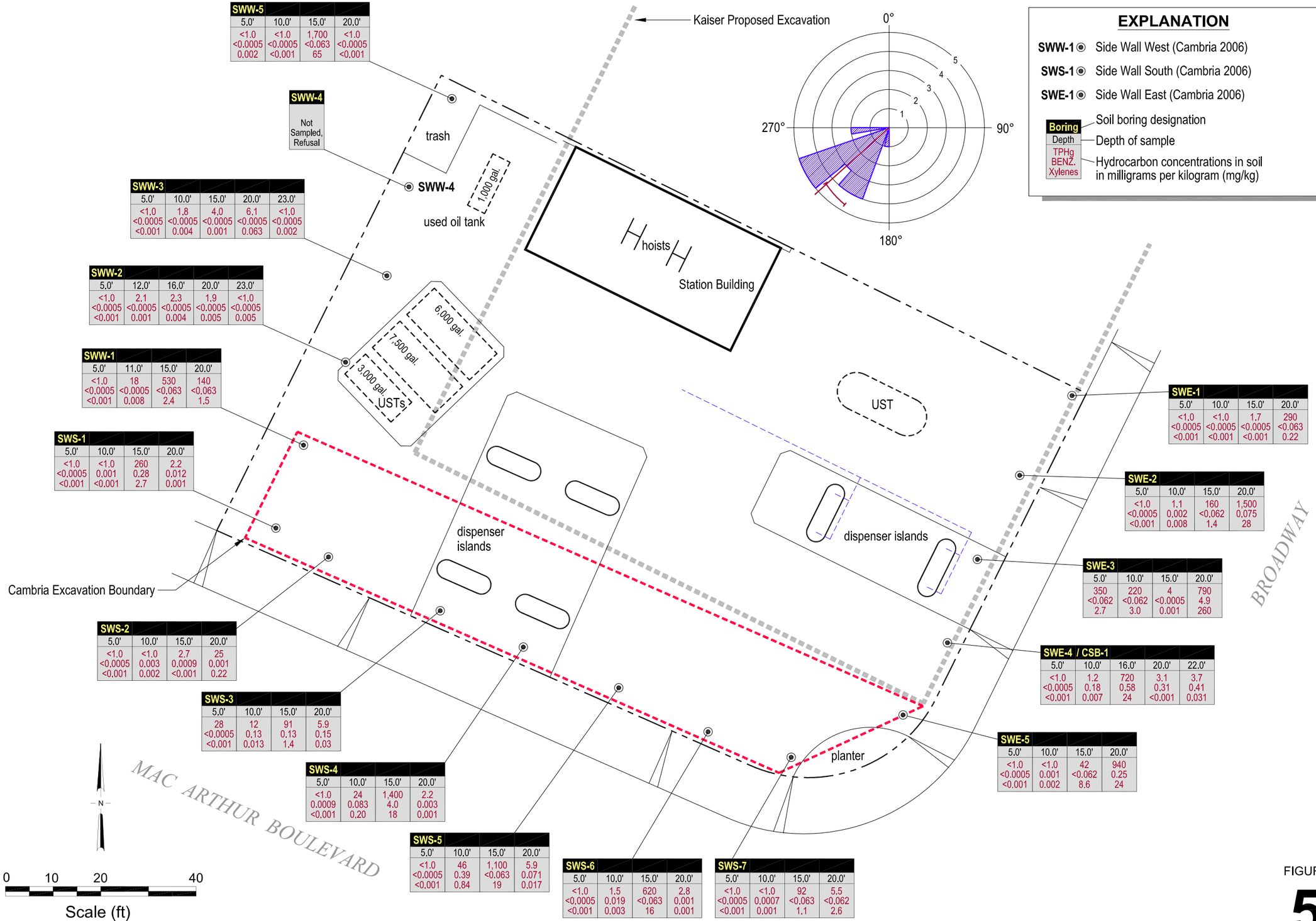
I:\9-1026 OAKLAND\FIGURES\9-1026_HC-SOIL.DWG

ATTACHMENT C

UPDATED FIGURE 5 - SIDEWALL SOIL BORING LOCATIONS
AND SOIL CONCENTRATIONS

01/04/07

Sidewall Soil Boring Locations and Soil Concentrations



SWW-5			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 0.002	<1.0 <0.0005 <0.001	1,700 <0.063 65	<1.0 <0.0005 <0.001

SWW-4
Not Sampled, Refusal

SWW-3				
5.0'	10.0'	15.0'	20.0'	23.0'
<1.0 <0.0005 <0.001	1.8 <0.0005 0.004	4.0 <0.0005 0.001	6.1 <0.0005 0.063	<1.0 <0.0005 0.002

SWW-2				
5.0'	12.0'	16.0'	20.0'	23.0'
<1.0 <0.0005 <0.001	2.1 <0.0005 0.001	2.3 <0.0005 0.004	1.9 <0.0005 0.005	<1.0 <0.0005 0.005

SWW-1			
5.0'	11.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	18 <0.0005 0.008	530 <0.063 2.4	140 <0.063 1.5

SWS-1			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	<1.0 0.001 <0.001	260 0.28 2.7	2.2 0.012 0.001

SWS-2			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	<1.0 0.003 0.002	2.7 0.0009 <0.001	25 0.001 0.22

SWS-3			
5.0'	10.0'	15.0'	20.0'
28 <0.0005 <0.001	12 0,13 0,013	91 0,13 1,4	5.9 0.15 0.03

SWS-4			
5.0'	10.0'	15.0'	20.0'
<1.0 0.0009 <0.001	24 0.083 0.20	1,400 4.0 18	2.2 0.003 0.001

SWS-5			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	46 0.39 0.84	1,100 <0.063 19	5.9 0.071 0.017

SWS-6			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	1,5 0.019 0.003	620 <0.063 16	2.8 0.001 0.001

SWS-7			
5.0'	10.0'	15.0'	20.0'
<1.0 <0,0005 <0,001	<1.0 0,0007 0.001	92 <0,063 1.1	5.5 <0,062 2,6

SWE-1			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	<1.0 <0.0005 <0.001	1.7 <0.0005 <0.001	290 <0.063 0.22

SWE-2			
5.0'	10.0'	15.0'	20.0'
<1.0 <0,0005 <0,001	1,1 0,002 0,008	160 <0,062 1,4	1,500 0,075 28

SWE-3			
5.0'	10.0'	15.0'	20.0'
350 <0,062 2.7	220 <0,062 3.0	4 <0.0005 0.001	790 4.9 260

SWE-4 / CSB-1				
5.0'	10.0'	16.0'	20.0'	22.0'
<1.0 <0.0005 <0.001	1.2 0.18 0.007	720 0.58 24	3.1 0.31 <0.001	3.7 0.41 0.031

SWE-5			
5.0'	10.0'	15.0'	20.0'
<1.0 <0.0005 <0.001	<1.0 0.001 0.002	42 <0.062 8.6	940 0.25 24

EXPLANATION

- **SWW-1** ◉ Side Wall West (Cambria 2006)
- **SWS-1** ◉ Side Wall South (Cambria 2006)
- **SWE-1** ◉ Side Wall East (Cambria 2006)

Boring
Depth
TPHg BENZ. Xylenes

- Soil boring designation
- Depth of sample
- Hydrocarbon concentrations in soil in milligrams per kilogram (mg/kg)

Basemap modified from 1957 Standard Oil drawing

FIGURE

5

Chevron Service Station 9-1026
3701 Broadway
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

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ATTACHMENT D

UPDATED ANALYTICAL TABLE

Table 4. Analytic Results for Soil Excavation Bottom Samples - Former Chevron Service Station 9-1026, 3701 Broadway,

Sample ID	Sample Date	Sample Depth (feet)	TPHg	TPHd	Benzene	Toluene	Ethyl benzene	Xylenes	MtBE	Lead
			(concentrations reported in mg/kg)							
EX-1-S-19	9/5/06	19	4.3	NA	0.14	0.022	0.068	0.41	<0.003	NA
EX-2-S-19*	9/5/06	19	**1,300**	NA	9.7	24	25	**140**	<0.062	NA
EX-3-S-18	9/6/06	18	160	NA	0.18	1.1	2.1	**13**	<0.062	NA
EX-4-S-19	9/6/06	19	18	NA	0.12	0.011	0.12	0.3	<0.0005	NA
EX-5-S-18	9/7/06	18	2.4	11	0.23	0.001	0.014	0.011	<0.0005	NA
EX-6-S-18	9/7/06	18	4.5	<10	0.098	0.002	0.043	0.002	0.018	NA
EX-7-S-18*	9/8/06	18	1.5	NA	0.0008	0.002	<0.001	0.002	<0.0005	NA
EX-7-S-20	9/11/06	20	0.25	1.4	0.17	<5.0	<5.0	<5.0	NA	<5.0
EX-8-S-18*	9/8/06	18	**900**	NA	<0.003	<0.005	0.018	0.18	<0.003	NA
EX-8-S-20	9/11/06	20	0.97	1.5	**1.3**	<50	0.1	<50	NA	<5.0
EX-9-S-18*	9/8/06	18	<1.0	NA	<0.0005	0.001	<0.001	0.001	<0.0005	NA
EX-9-S-20	9/11/06	20	0.85	1.5	0.43	<20	<20	<20	NA	5.8
EX-10-S-20	9/11/06	20	0.14	1.3	0.1	<5.0	0.012	0.008	NA	9.8
PP-1	9/19/06	2	<1.0	100	<0.005	<0.005	<0.005	<0.002	<0.05	20.3
PP-2	9/19/06	2	<1.0	<10	<0.005	<0.005	<0.005	<0.002	<0.05	12.4
PP-3	9/19/06	3	200	320	**0.08**	0.08	0.4	1.3	<0.5	69.3
PP-4	9/19/06	3	5.9	<10	<0.005	<0.005	0.009	0.03	<0.05	12.2
ESL's			**400**	**500**	**0.51**	**9.3**	**32**	**11**		**50**

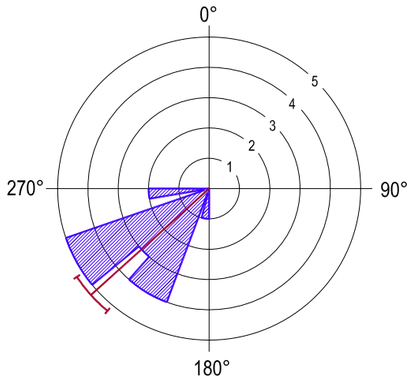
Abbreviations/Notes:
Total petroleum hydrocarbons as gasoline (TPHg) analyzed using modified EPA Method 8015M.
Total petroleum hydrocarbons as diesel (TPHd) analyzed using modified EPA Method 8015M.
Benzene, toluene, ethylbenzene, xylenes (BTEX) and Volatile Organic Compounds (VOCs) analyzed using EPA Method 8260B.
mg/kg = milligrams per kilogram.
<n = Results not detected above method detection limits.
– = Not Analyzed
ESLs = Regional Water Quality Control Boards Environmental Screening Levels for Deep Soils >3 meters, for commercial land use

ATTACHMENT E

UPDATED FIGURE 6 - EXCAVATION BOTTOM PRODUCT PIPING
SAMPLE LOCATIONS WITH SOIL LOCATIONS

02/06/09

Excavation Bottom Product Piping
Sample Locations with Soil Concentrations



EXPLANATION

- PP1 — Product line confirmation sample location
- EX-1 — Excavation bottom sample location
- Sample — Soil sample designation
- Depth — Depth of sample
- TPHg / BENZ. / Xylenes — Hydrocarbon concentrations in soil in milligrams per kilogram (mg/kg)

Kaiser Proposed Excavation

Cambria Excavation Boundary

trash

1,000 gal.

used oil tank

hoists

Station Building

6,000 gal.

7,500 gal.

3,000 gal.

USTs

UST

dispenser islands

dispenser islands

planter

MAC ARTHUR BOULEVARD

BROADWAY

PP4	PP3	PP2	PP1
3.0'	3.0'	2.0'	2.0'
5.9	200	<1.0	<1.0
<0.005	0.08	<0.005	<0.005
0.03	1.3	<0.002	<0.002

EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7		EX-8		EX-9		EX-10
19.0'	19.0'	18.0'	19.0'	18.0'	18.0'	18.0'	20.0'	18,0'	20.0'	18.0'	20.0'	20.0'
4,3	1,300	160	18	2,4	4,5	1,5	0,25	900	0,97	<1,0	0,85	0,14
0.14	9,7	0.12	0.12	0.23	0.098	0.0008	0.17	<0.003	1.3	<0,0005	0,43	0.10
0.41	140	13	0.3	0.011	0.002	0.002	<5.0	0.18	<50	0.001	<20	0.08

N

0 10 20 40

Scale (ft)

Basemap modified from 1957 Standard Oil drawing

FIGURE

6

Chevron Service Station 9-1026
3701 Broadway
Oakland, California

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I:\9-1026 OAKLAND\FIGURES\9-1026_HC-BOTTOM-SOIL.DWG