

June 25, 2001

Mr. Barney Chan
Alameda Health Care Services Agency
1131 Harbor Bay Parkway, Room 250
Oakland, California 94502-6577

Re: **Case Closure Request**
Former Shell Service Station
2300 Santa Clara Avenue
Alameda, California
Incident #97089387
Cambria Project #243-0477

JUN 29 2001



Dear Mr. Chan:

Cambria Environmental Technology, Inc. (Cambria) has prepared this *Case Closure Request* on behalf of Equiva Services LLC (Equiva). Presented below are details of site characteristics, a soil and groundwater investigation summary, a discussion of low-risk groundwater case criteria, and our conclusions and recommendations.

SITE BACKGROUND

Site Characteristics

Site Location: The site is a former Shell-branded service station located on the southern corner of the intersection of Santa Clara Avenue and Oak Street in Alameda, California (Attachment A). The site is currently a section of paved parking lot for the adjacent Long's Drug Store. The area surrounding the site is primarily used as commercial and residential property. A former Bill Chun Service Station is located northeast of the site across Santa Clara Avenue.

Site Lithology: Boring logs from a previous investigation indicate that the site is underlain by fine sands with silt to the total explored depth of 13 feet below grade (fbg) (see Attachment A).

Groundwater Depth and Flow Direction: Groundwater was first encountered at depths between 8.0 and 9.5 fbg during 1998 investigation activities (Attachment A). Groundwater flow direction at the former Bill Chun Service Station is typically north to northeast.

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria
Environmental
Technology, Inc.

1144 65th Street
Suite B
Oakland CA 94608
Tel: (510) 420-0700
Fax (510) 420-9170

Soil and Groundwater Investigation Summary

Underground Storage Tank (UST) Removal: According to Weiss Associates (Weiss) July 15, 1996 *Phase I Environmental Site Assessment Report* (Phase I), USTs were installed at the site in August 1922. They were replaced in January 1939 by five USTs which were subsequently removed in November 1950 upon site demolition.

1998 Subsurface Investigation: In response to Alameda County Health Care Services Agency correspondence, Cambria advanced 8 soil borings (GP-A to GP-H) onsite to total depths of 11 to 13 fbg to assess whether the former Shell Station was the source of hydrocarbons detected in the former Bill Chun Service Station well MW-8, located adjacent to the site. No total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary-butyl ether (MTBE) or volatile organic compounds (VOCs) were reported in the analyzed soil samples from the borings (Attachment A). Total petroleum hydrocarbons as diesel (TPHd) concentrations reported in the analyzed soil samples ranged from below detection limits to 6.9 parts per million (ppm). Except for 0.58 parts per billion (ppb) toluene in boring GP-H, no TPHg, BTEX, MTBE or VOCs were reported in the analyzed grab groundwater samples, and TPHd concentrations in grab groundwater samples ranged from below detection limits to 1,500 ppb. Based on the sampling results, Cambria concluded that the former Shell station was not likely the source of the hydrocarbons detected in well MW-8.

LOW-RISK GROUNDWATER CASE CRITERIA

The site appears to meet the San Francisco Regional Water Quality Control Board (SFRWQCB) criteria for a low-risk fuel site. As described by the January 5, 1995 SFRWQCB memorandum, *Regional Board Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites*, a low-risk groundwater case has the following general characteristics:

- The leak has stopped and ongoing sources, including free product, have been removed or remediated:
- The site has been adequately characterized:
- The dissolved hydrocarbon plume is not migrating:
- No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted, and
- The site presents no significant risk to human health or the environment.

Each of the low-risk groundwater case characteristics, as they relate to the site, is discussed below.

The leak has stopped and ongoing sources, including free product, have been removed or remediated. Four USTs were removed and replaced in 1939. Five USTs were removed in 1950 upon site demolition. Soil samples collected in 1998 indicated that up to 6.9 ppm TPHd and no detected residual TPHg, BTEX or MTBE remain in soil at the site. With the removal of the USTs and associate dispensers and piping, the source of hydrocarbons was substantially removed.

The site has been adequately characterized. It is our belief that the extent of subsurface impact has been defined to the degree necessary to determine if the site poses a threat to human health, the environment, or other sensitive receptors. Eight borings were advanced within and near the site perimeter. The soil and groundwater samples collected from these borings provide adequate characterization of the site.

The dissolved hydrocarbon plume is not migrating. Given there were no detected TPHg, benzene and MTBE concentrations and only low TPHd concentrations reported in grab groundwater samples, there is no significant dissolved hydrocarbon plume at the site. The SFRWQCB memo quotes the Lawrence Livermore National Laboratory's report entitled *Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks* which states "petroleum plumes tend to stabilize close to the source." The small residual TPHd plume is not expected to migrate from the site.

No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted. According to the Weiss July 15, 1996 Phase I, a well survey was conducted for the former Bill Chun Service Station site which identified one inactive drinking-water supply well listed at the Alameda High School, located approximately 400 feet southwest of the site. The nearest surface water bodies are the Brooklyn Basin Tidal Canal, closest point located approximately 2,600 feet northeast; the San Francisco Bay, closest point approximately 4,700 feet south-southwest; and several lagoons located between the San Francisco Bay and the site, closest point approximately 2,900 feet southwest.

The site overlies the groundwater basin designated as the East Bay Plain. According to the SFRWQCB's June 21, 1995 *Water Quality Control Plan*, current established beneficial uses of groundwater in the East Bay Plain Basin are municipal, industrial process, industrial service and agricultural use. Based on the lack of detectable concentrations of TPHg, benzene and MTBE, and the low concentrations of TPHd reported in grab groundwater samples at the site, it is highly unlikely that any water wells, drinking water aquifers, surface water, or sensitive receptors will be impacted by the residual dissolved hydrocarbon plume.

The site presents no significant risk to human health or the environment. Given that the site has been adequately characterized and that no TPHg, benzene or MTBE concentrations and only low TPHd concentrations were detected in soil and grab groundwater samples, the site presents no significant risk to human health or the environment.

CONCLUSIONS AND RECOMMENDATIONS



As stated above, it is our belief that soil and groundwater contamination at the site has been adequately characterized and that the site meets the SFBRWQCB criteria for a low-risk fuel site. Therefore, on behalf of Equiva, we request case closure related to Shell Oil Company's former occupation of the site. A partially complete site information summary form is presented as Attachment B.

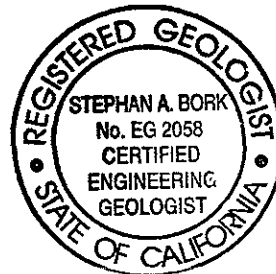
CLOSING

Thank you for your cooperation on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Jacquelyn L. Jones
Project Geologist

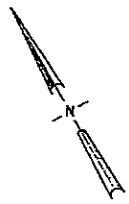
Stephan A. Bork, C.E.G., C.H.G.
Associate Hydrogeologist



- Attachments A - Background Data
 B - Site Information Summary

cc: Karen Petryna, Equiva Services LLC, P O Box 7869, Burbank, CA 91510-7869
 Chuck Headlee, RWQCB, 1515 Clay Street, Suite 1400, Oakland, CA 94612
 Long's Drug Stores California Inc, P O Box 5222, Walnut Creek, CA 94596, Attn
 Corporate Secretary

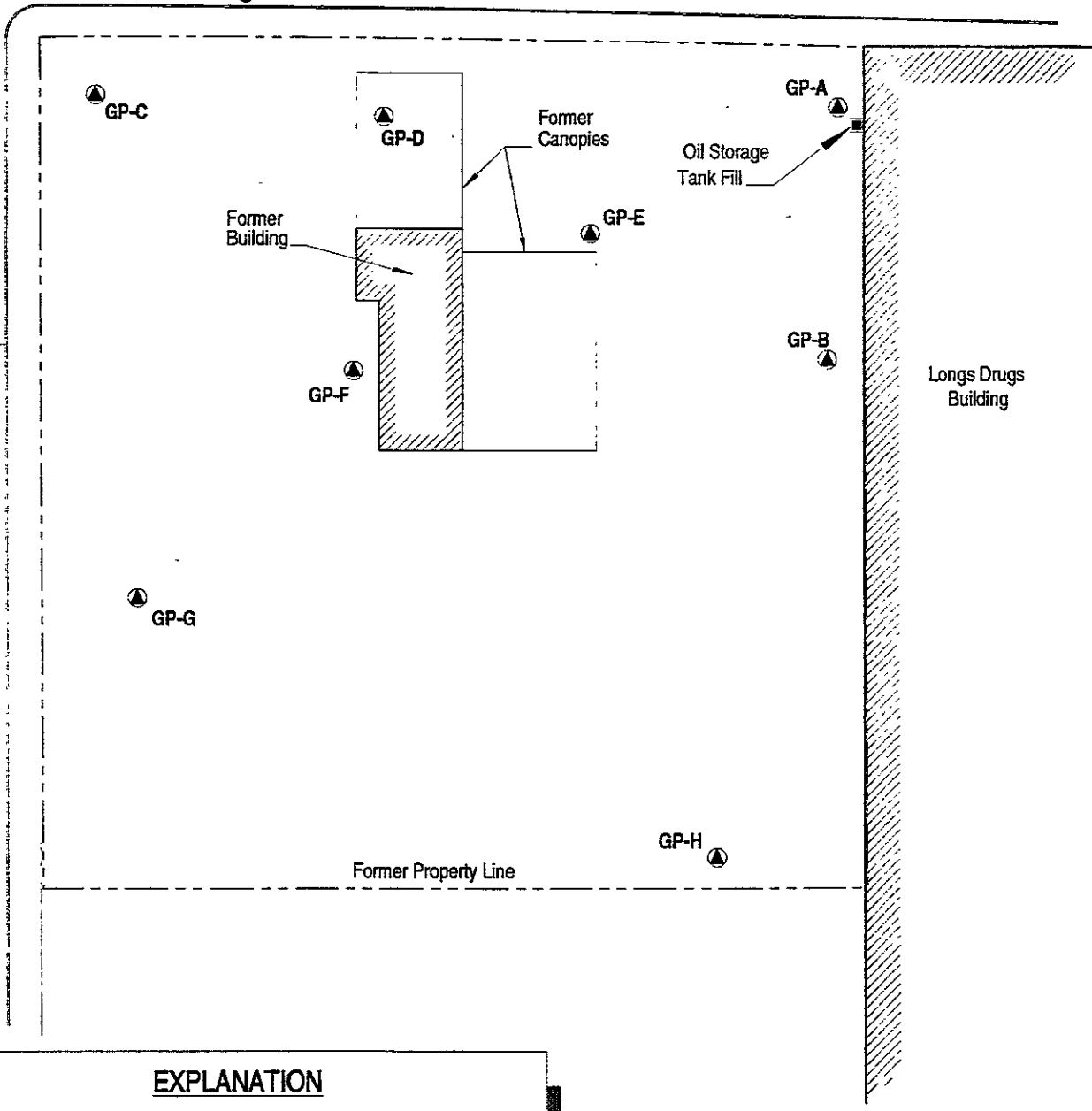
ATTACHMENT A
Background Data



SANTA CLARA AVE.

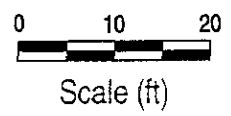
MW-8

OAK STREET



EXPLANATION

- GP-A GeoProbe Boring Location
- MW-8 Existing Ground Water Monitoring Well Location - Former Bill Chun Service Station



CAMBRIA
Environmental Technology, Inc.

Former Shell Service Station
2300 Santa Clara Avenue
Alameda, California

Site Map With
GeoProbe Boring Locations

FIGURE

1

F:\PROJECTS\HELL\VALA2300\FIGURES\GEO-BOR.DWG

Table 1. Soil Analytical Data - Former Shell Service Station WIC# 204-0072-0908, 2300 Santa Clara Avenue, Alameda, California

Sample ID and Depth	Date Sampled	Lead	TPHd	TPHg	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	VOCs
		(mg/kg)								
GP-A-5.0'	1/26/98	<5.0	5.7 ^d	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	---
GP-A-9.0'	1/26/98	---	1.9	<1.0	---	---	---	---	---	---
GP-B-6.0'	1/26/98	<5.0	6.9	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	---
GP-C-6.0'	1/26/98	<0.25	2.1	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	ND
GP-C-10.0'	1/26/98	---	1.7	<1.0	---	---	---	---	---	---
GP-D-6.0'	1/26/98	<5.0	4.5	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	ND
GP-E-6.0' ^a	1/26/98	<5.0	1.0	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	ND
GP-E-10.0'	1/26/98	---	<1.0	<1.0	---	---	---	---	---	---
GP-F-5.0'	1/26/98	<5.0	2.1	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	ND
GP-G-7.0' ^b	1/26/98	<5.0	6.0	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	---
GP-H-6.0'	1/26/98	<5.0	3.1	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	ND
GP-H-9.5'	1/26/98	---	5.4, 1.6 ^c	<1.0	---	---	---	---	---	ND ^d

Abbreviations and Notes:

Lead by EPA Method 6010

TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

MTBE = Methyl tert-butyl ether by EPA Method 8020

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8020

VOCs = Volatile organic compounds by EPA Method 8240

mg/kg = Milligrams per kilogram

µg/kg = Micrograms per kilogram

<n = Below detection limit of n mg/kg

--- = Not analyzed

ND = No VOCs were detected; see laboratory analytical report for specific detection limits

a = This sample ID is incorrectly reported as GPE-E-6.0' in the laboratory analytical report

b = This sample matrix is incorrectly reported as liquid in the laboratory analytical report

c = This sample was analyzed for TPHd twice; both results are presented

d = Sample analyzed out of hold time

Table 2. Ground Water Analytical Data - Former Shell Service Station WIC# 204-0072-0908, 2300 Santa Clara Avenue, Alameda, California

Sample ID	Date Sampled	Lead	TPHd	TPHg	MTBE	Benzene (µg/L)					VOCs
						Toluene	Ethylbenzene	Xylenes			
GP-A	1/26/98	16	120	<50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	---
GP-B	1/26/98	120	50	<50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	---
GP-C	1/26/98	20	<50	<50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	ND
GP-D	1/26/98	15	220	<50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	ND
GP-E	1/26/98	400	320	<50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	ND
GP-F	1/26/98	44	150	<50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	ND
GP-G	1/26/98	20	<50	<50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	---
GP-H	1/26/98	40	1,500	<50	<2.5	<0.50	0.58	<0.50	<0.50	<0.50	a

Abbreviations and Notes:

Lead by EPA Method 6010

TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

MTBE = Methyl tert-butyl ether by EPA Method 8020

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8020

VOCs = Volatile organic compounds by EPA Method 8240

mg/L = Milligrams per liter

µg/L = Micrograms per liter

<n = Below detection limit of n µg/L

--- = Not analyzed

ND = No VOCs were detected, see laboratory analytical report for specific detection limits

a = No VOCs were detected with the exception of acetone at 56 µg/L.

BORING LOG

Client: **Shell Oil Products Company**

Project No: **240-0477**

Phase

Task **5**

Boring ID

GP-A

Location **2300 Santa Clara Avenue, Alameda**

Surface Elev. **NA ft.**

Page **1** of **1**

Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0			<u>Asphalt</u>				0	
			<u>Sandy GRAVEL with cobbles:</u> (GP); grey; loose; dry; 20% fine sand, 80% gravel; high estimated permeability (fill). concrete chunk @ 6"					
5			<u>SAND:</u> (SP); brown, loose; damp; 5% silt, 95% fine sand; no plasticity; moderate to high estimated permeability.				5	
			wet; 10% silt, 90% fine sand.					
10							10	Water encountered @ 9 ft.
								Bottom of boring @ 11 ft.

Driller Gregg
 Logged By Christina Empedocles
 Water-Bearing Zones NA

Drilling Started 1/26/98
 Drilling Completed 1/26/98
 Grout Type Portland Type I/II

Notes: See site map. 2" diameter Geoprobe boring.

BORING LOG

Client: **Shell Oil Products Company**

Project No: **240-0477**

Phase

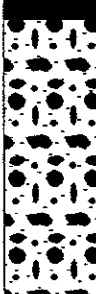
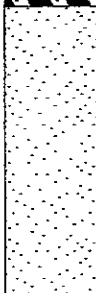
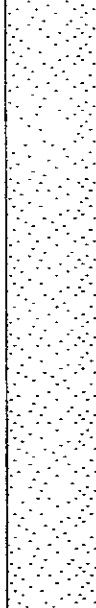
Task **5**

Boring ID **GP-B**

Location **2300 Santa Clara Avenue, Alameda**

Surface Elev. **NA ft,**

Page **1** of **1**

Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0	Ground Surface		Asphalt				0	
			Sandy GRAVEL with cobbles; (GP); grey; loose; dry; 20% fine sand, 80% gravel; high estimated permeability (fill).					
5							5	
			SAND; (SP); brown; loose; moist; <5% silt, >95% fine sand; no plasticity; moderate to high estimated permeability.					
10			wet; 5% silt, 95% fine sand.				10	Water encountered @ 9 ft.
								Bottom of boring @ 12 ft.

Driller Gregg	Drilling Started 1/26/98	Notes: See site map. 2"
Logged By Christina Emedocles	Drilling Completed 1/26/98	diameter Geoprobe boring.
Water-Bearing Zones NA	Grout Type Portland Type I/II	

BORING LOG

Client: **Shell Oil Products Company**

Project No: **240-0477**

Phase

Task **5**

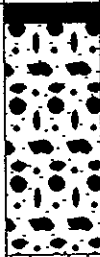
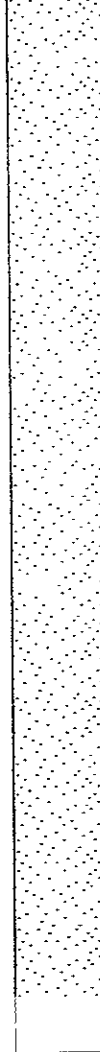

Boring ID

GP-C

Location **2300 Santa Clara Avenue, Alameda**

Surface Elev. **NA ft.**

Page **1** of **1**

Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0	Ground Surface		<u>Asphalt</u>				0	
			<u>Sandy GRAVEL with cobbles:</u> (GP); grey; loose; dry; 20% fine sand, 80% gravel; high estimated permeability (fill).					
5							5	
			<u>SAND:</u> (SP); brown; loose; moist; 5-10% silt, 90-95% fine sand; no plasticity; moderate to high estimated permeability.					
10			wet.				10	Water encountered @ 9 ft.
								Bottom of boring @ 13 ft.

Driller Gregg

Drilling Started 1/26/98

Notes: See site map. 2"

Logged By Christina Empedocles

Drilling Completed 1/26/98

diameter Geoprobe boring.

Water-Bearing Zones NA

Grout Type Portland Type I/II

BORING LOG

Client: **Shell Oil Products Company**

Project No: **240-0477**

Phase


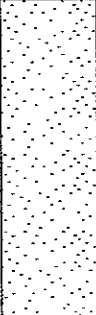
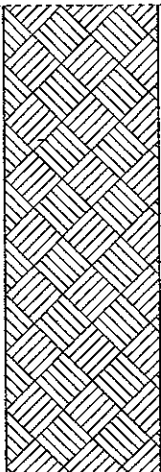

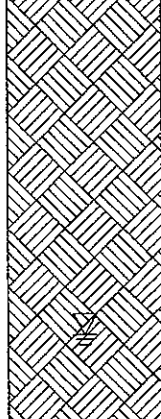
Task **5**

Boring ID **GP-D**

Location **2300 Santa Clara Avenue, Alameda**

Surface Elev. **NA ft.**

Page **1** of **1**

Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0	Ground Surface		<u>Asphalt</u>				0	
			<u>Sandy GRAVEL with cobbles:</u> (GP); grey; 20% fine sand, 80% gravel; high estimated permeability (fill).					
5			<u>SAND:</u> (SP); brown; loose; moist; 5% silt, 95% fine sand; no plasticity; moderate to high estimated permeability.				5	
			wet; 10% silt, 90% fine sand.					Water encountered @ 8 ft.
10							10	
								Bottom of boring @ 13 ft.

Driller **Gregg**

Drilling Started **1/26/98**

Notes: **See site map. 2"**

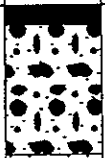
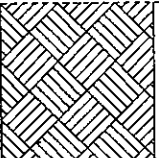
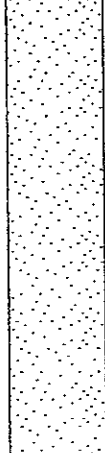
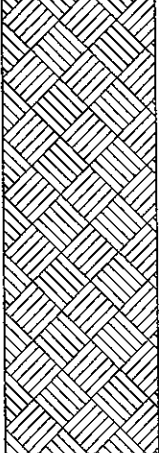
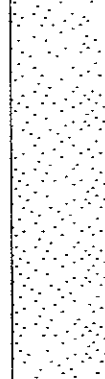
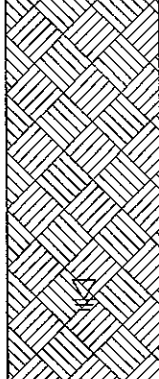
Logged By **Christina Empedocles**

Drilling Completed **1/26/98**

diameter Geoprobe boring.

Water-Bearing Zones **NA**

Grout Type **Portland Type I/II**

BORING LOG				Boring ID		GP-E		
Client: Shell Oil Products Company				Location 2300 Santa Clara Avenue, Alameda				
Project No: 240-0477		Phase		Task 5		Surface Elev. NA ft,		
Page 1 of 1								
Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0	Ground Surface		<u>Asphalt</u>				0	
			<u>Sandy GRAVEL with cobbles</u> ; (GP); grey; loose; dry; 20% fine sand, 80% gravel; high estimated permeability (fill).					
5							5	
			<u>SAND</u> ; (SP); brown; loose; damp; <5% silt, >95% fine sand; no plasticity; moderate to high estimated permeability.					
10			wet; 5% silt, 95% fine sand.				10	Water encountered @ 9 ft.
								Bottom of boring @ 13 ft.

Driller <u>Gregg</u>	Drilling Started <u>1/26/98</u>	Notes. <u>See site map. 2"</u>
Logged By <u>Christina Empedocles</u>	Drilling Completed <u>1/26/98</u>	<u>diameter Geoprobe boring.</u>
Water-Bearing Zones <u>NA</u>	Grout Type <u>Portland Type I/II</u>	

BORING LOG

Client: **Shell Oil Products Company**

Project No: **240-0477**

Phase

Task **5**


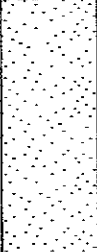
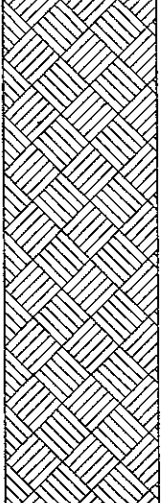
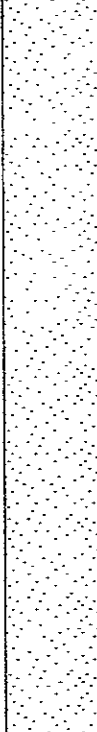
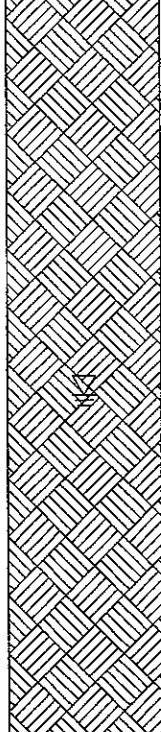
Boring ID

GP-F


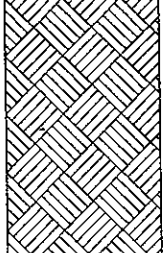
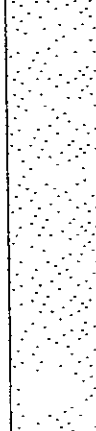
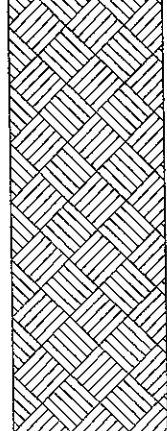
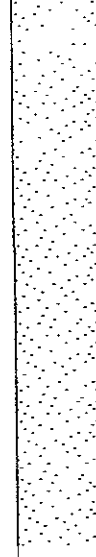
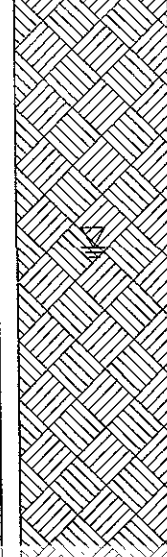

Location **2300 Santa Clara Avenue, Alameda**

Surface Elev. **NA ft,**

Page **1** of **1**

Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0	Ground Surface		<u>Asphalt</u>				0	
			<u>Sandy GRAVEL with cobbles</u> ; (GP); grey; loose; dry; 20% fine sand, 80% gravel; high estimated permeability (fill).					
5			<u>SAND</u> ; (SP); brown; loose; moist; 5% silt, 95% fine sand; no plasticity; moderate to high estimated permeability.				5	
10			wet.				10	Water encountered @ 9 ft.
								Bottom of boring @ 13 ft

Driller Gregg	Drilling Started 1/26/98	Notes: See site map. 2" diameter Geoprobe boring.
Logged By Christina Emedocles	Drilling Completed 1/26/98	
Water-Bearing Zones NA	Grout Type Portland Type I/II	

BORING LOG				Boring ID		GP-G		
Client: Shell Oil Products Company				Location 2300 Santa Clara Avenue, Alameda		Surface Elev. NA ft.		
Project No: 240-0477		Phase		Task 5		Page 1 of 1		
Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0	Ground Surface		Asphalt				0	
			Sandy GRAVEL with cobbles: (GP); grey; loose; dry; 20% fine sand, 80% gravel; high estimated permeability (fill).					
5			SAND: (SP); brown; loose; moist; 5% silt, 95% fine sand; no plasticity; moderate to high estimated permeability.				5	
			wet; 10% silt, 90% fine sand.					
10							10	Water encountered @ 9.5 ft.
								Bottom of boring @ 13 ft

Driller Gregg	Drilling Started 1/26/98	Notes: See site map. 2"
Logged By Christina Empedocles	Drilling Completed 1/26/98	diameter Geoprobe boring.
Water-Bearing Zones NA	Grout Type Portland Type I/II	

BORING LOG

Client: **Shell Oil Products Company**

Project No: **240-0477**

Phase

Task **5**


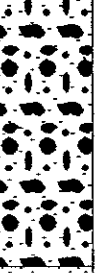
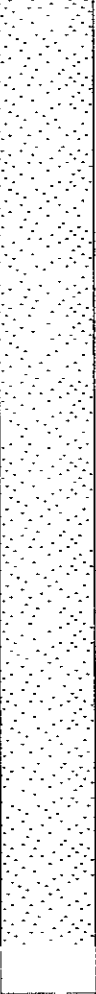
Boring ID

GP-H

Location **2300 Santa Clara Avenue, Alameda**

Surface Elev. **NA ft,**

Page **1** of **1**

Depth (feet)	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth (feet)	Additional Comments
0	Ground Surface		<u>Asphalt</u>				0	
			<u>Sandy GRAVEL with cobbles</u> ; (GP); grey; loose; dry; 20% fine sand, 80% gravel; high estimated permeability (fill).					
5							5	
			<u>SAND</u> ; (SP); brown; medium dense; wet; 10% silt, 90% fine sand; no plasticity; moderate to high estimated permeability.					
10							10	Water encountered @ 8.5 ft.
								Bottom of boring @ 13 ft

Driller **Gregg**

Drilling Started **1/26/98**

Notes: **See site map. 2"**

Logged By **Christina Empedocles**

Drilling Completed **1/26/98**

diameter Geoprobe boring.

Water-Bearing Zones **NA**

Grout Type **Portland Type I/II**

ATTACHMENT B

Site Information Summary

SITE INFORMATION SUMMARY

I. SITE INFORMATION

Site Facility Name: Former Shell-branded Service Station				
Site Facility Address: 2300 Santa Clara Avenue, Alameda, California				
RWQCB LUST Case No:			URF Filing Date:	
Responsible Parties (include addresses and phone numbers):				
Longs Drug Stores California, Inc., Attn: Corporate Secretary, PO Box 5222, Walnut Creek, California 94596, owner				
Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank California 91510-7869, (559) 645-9306, operator				
Tank No.	Size in Gallons	Contents	Closed In-Place/Removed?	Date
1	290	gasoline	removed	1939
2	290	gasoline	removed	1939
3	290	gasoline	removed	1939
4	290	gasoline	removed	1939
5	1,000	gasoline	removed	1950
6	1,000	gasoline	removed	1950
7	1,000	gasoline	removed	1950
8	550	gasoline	removed	1950
9	110	gasoline/waste oil	removed	1950

II. INITIAL SITE ASSESSMENT (Information from previous investigations at nearby sites and other available sources may be used for applicable items if necessary)

Cause and Estimated Quantity of Release: Unknown		
Nearest Surface Water Bodies (including any unnamed creeks, tributaries, canals, etc.): Brooklyn Basin Tidal Canal San Francisco Bay Unnamed lagoons	Their Geographical Distances From the Site: Approximately 2,600 feet northeast Approximately 4,900 feet south-southwest Approximately 2,900 feet southwest	
Nearest domestic Water Wells (both public and private) within 2000 ft.: Inactive drinking water supply well at Alameda High School	Their Geographical Distances From the Site: 400 feet southwest of the site	
Minimum Groundwater Depth First encountered 8 fbg	Max Depth First encountered 9.5 fbg	Flow Direction Regional northeast to north
Site Ground Surface Elevation and Geology. The site is underlain by fine sands with silt to the total explored depth of 13 fbg		
Current Site and Surrounding Land Use Site is currently a paved parking lot for the adjacent Longs Drug Store. Surrounding land use is mixed commercial and residential		
Preferential Pathways Such as Subsurface Utilities?	Yes	No If Yes, Describe:
None investigated.		
Number of Soil Borings. 8	Number of Monitoring Wells. 0	

III. REMEDIATION

Material	Amount (Include Units)	Action (Treatment or Disposal w/ Destination)	Date
Free Product		No free product detected onsite	
Soil		None	
Groundwater		None	
Vapor		None	

COMMENTS

MAXIMUM DOCUMENTED SOIL POLLUTANT CONCENTRATIONS

POLLUTANT	Location	Soil (ppm)		POLLUTANT	Location	Soil (ppm)	
	Date(s)	Initial	Residual		Date(s)	Initial	Residual
TPH (Gas)	1/26/98	--	<1.0	Xylenes	1/26/98	--	<0.0050
TPH (Diesel)	1/26/98	--	6.9	Ethylbenzene	1/26/98	--	<0.0050
Benzene	1/26/98	--	<0.0050	Oil & Grease	--	--	--
Toluene	1/26/98	--	<0.0050	Heavy Metals- Lead	1/26/98	--	<5.0
MTBE	1/26/98	--	<0.025	Motor Oil	--	--	--
Chlorinated Solvents	--	--	--	Other - VOCs	1/26/98	--	ND

GROUNDWATER CONCENTRATION (ppb) TRENDS AT SOURCE AREAS & PLUME/SITE BOUNDARIES

Date	Location	Benzene	MTBE	TPHg	TPHd	Toluene	Ethylbenzene	Xylenes	VOCs	Other Lead	DTW
1/26/98	GP-A	<0.50	<2.5	<50	120	<0.50	<0.50	<0.50	--	16	9 fbg
1/26/98	GP-B	<0.50	<2.5	<50	50	<0.50	<0.50	<0.50	--	120	9 fbg
1/26/98	GP-C	<0.50	<2.5	<50	<50	<0.50	<0.50	<0.50	ND	20	9 fbg
1/26/98	GP-D	<0.50	<2.5	<50	220	<0.50	<0.50	<0.50	ND	15	8 fbg
1/26/98	GP-E	<0.50	<2.5	<50	320	<0.50	<0.50	<0.50	ND	400	9 fbg
1/26/98	GP-F	<0.50	<2.5	<50	150	<0.50	<0.50	<0.50	ND	44	9 fbg
1/26/98	GP-G	<0.50	<2.5	<50	<50	<0.50	<0.50	<0.50	--	20	9.5 fbg
1/26/98	GP-H	<0.50	<2.5	<50	1,500	0.58	<0.50	<0.50	--	40	8.5 fbg

TITLE / SUBJECT	DATE
ACHCSA letter requesting investigation at the former Shell Service Station	Feb. 20, 1996
Phase I Environmental Site Assessment Report prepared by Weiss Associates	July 15, 1996
ACHCSA letter after review of Phase I Report requesting investigation	Sept. 10, 1996
Investigation Work Plan prepared by Cambria	Nov. 8, 1996
ACHCSA letter approving the November 8, 1996 Investigation Work Plan	Nov. 20, 1996
Site Investigation Update prepared by Cambria proposing final boring locations	Dec. 15, 1997
Subsurface Investigation prepared by Cambria	Feb. 26, 1998
Quarterly Status Report – Third Quarter 1999 prepared by Cambria requesting closure	Sept. 22, 1999
Quarterly Status Report – Fourth Quarter 1999 prepared by Cambria requesting closure	Feb. 8, 2000
Quarterly Status Report – First Quarter 2000 prepared by Cambria requesting closure	March 1, 2000
ACHCSA letter indicating the site is ready for closure and a closure summary will be prepared	March 6, 2000

V. ENCLOSE FOLLOWING FIGURES AND TABLES

1. Site maps showing locations of existing buildings, former/current UST areas, subsurface utilities and other pathways, groundwater flow direction etc.
 2. Summary tables of all soil sampling results available, including any tank/excavation pit samples and confirmation samples, with sampling dates, location-identifications and depths (if applicable).
 3. Summary tables of all groundwater sampling results available, including depth to water/product measurements, with sampling dates and location-identifications.
 4. Figures showing all soil and groundwater sampling locations and monitoring well locations.
- Additional Comments:**