ALAMEDA COUNTY

HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(540) 567 679

(510) 567-6700 (510) 337-9432

StID 5347

November 30, 1999

Ms. Ingrid Werner 22 Kensington Court Kensington, CA 94707

Mr. Rod Simmons Chevron Products P.O.Box 5004 San Ramon, CA 94583-0804

Re: Fuel Leak Site Case Closure for 701 San Pablo Avenue, Albany, CA

Dear Ms. Werner and Mr. Simmons:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 360ppm TPH as gasoline, 400ppm TPHd and 0.25ppm benzene exists in soil beneath the site;
- up to 6,600ppb TPHg and 22ppb benzene exists in groundwater beneath the site; and,
- a site safety plan must be prepared for construction workers in the event of excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.

If you have any questions, please contact me at (510) 567-6762.

eva chu

Hazardous Materials Specialist

enlosures:

1. Case Closure Letter

2. Case Closure Summary

 c: Ann Chaney, Community Development Director, City of Albany, Planning Dept., 1000 San Pablo Ave., Albany, CA 94706
 files (werner-4) **AGENCY**



DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway Alameda, CA 94502-6577 (510) 567-6700 (510) 337-9432

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 5347 - 701 San Pablo Avenue, Albany, CA
(1-300 gallon waste oil tank removed on June 29, 1996, and 4 gasoline
USTs removed in February 1979)

November 30, 1999

Ms. Ingrid Werner 22 Kensington Court Kensington, CA 94707 Mr. Rod Simmons Chevron Products P.O.Box 5004 San Ramon, CA 94583-0804

Dear Ms. Werner and Mr. Simmons:

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Section 2721(e) of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Ariu Levi, Chief of Division of Environmental Protection

Chuck Headlee, RWQCB Dave Deaner, SWRCB

Brian Crudo, Albany Fire Department, 1000 San Pablo Ave., Albany, CA 94706

files-ec (werner-3)

RB#01-2314

99 NOV 30 PH 1: 20

CASE CLOSURE SUMMARY Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: October 26, 1999

Agency name: Alameda County-HazMat

Address: 1131 Harbor Bay Pkwy

City/State/Zip: Alameda, CA 94502

Phone: (510) 567-6700

Responsible staff person: Eva Chu

Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: Werner Property

Site facility address: 701 San Pablo Ave, Albany, CA 94706

RB LUSTIS Case No: N/A Loc

Local Case No./LOP Case No.: 5347

URF filing date: 6/25/96

SWEEPS No: N/A

Responsible Parties:

Addresses:

Phone Numbers:

Ms. Ingrid Werner

22 Kensington Court, Kensington, CA 94707

510/525-9335

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	<u>Date:</u>
1	300	Waste Oil	Removed	6/20/96
2	2,000	Gasoline	Removed	Feb 1979
3	3,000	"	"	u
4	3,000	u	u	"
5	6,000	"	11	n n

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**Site characterization complete? **YES**Date approved by oversight agency:

Monitoring Wells installed? NO, but grab water samples were collected from six soil borings

Proper screened interval? NA

Highest GW depth below ground surface: Groundwater was encountered at "9.6' to 14.6'bgs from

borings B1 through B3

Flow direction: Not determined, but regional flow is to the west, southwest.

Most sensitive current use: Commercial/residential

Are drinking water wells affected? No

Aguifer name: Unknown

Is surface water affected? No Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): None

Report(s) on file? YES Where is report(s) filed? Alameda County

1131 Harbor Bay Pkwy Alameda, CA 94502

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u>	Action (Treatment	<u>Date</u>	
	(include units)	or Disposal w/destination)		
Tank	1 tank	Disposed at Erickson, in Richmond, CA	6/20/96	
	4 USTs	Unknown disposition	Feb 1979	
Soil	26 tons	Disposed at Chem Waste, Kettleman City	3/98	
	55 tons	Recycled at TPS Technologies, Richmond	2/11/98	
Groundwater	575 gal.	Recycled at Alviso Independent Oil, Alviso	2/11/98	
Rinsate	300 gal.	Recycled at Evergreen Oil, in Newark, CA	6/25/96	

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

maximum boddinence		contaminant co	110011111011101110	Before and Atter Oreanap			
Contaminant		Soil (p	pm)	Water (ppb)			
		Before ¹	After ²	Before ³ After ⁷			
TPH (Gas)		3,600	360	6,600			
TPH (Diesel)		1,300	400	ND			
Benzene		0.46	0.25	22			
Toluene		5.5	1.1	5			
Ethylbenzene		2.0	3.8	27			
Xylenes		8.3	470	18			
MTBE		ND		ND			
Oil & Grease		620	ND	20,000⁴			
Heavy metals	Pb	720	100	ND			
•	Cr	74	74	ND			
Other VOCs		ND					
SVOCs		see Note 5	see Note 6				

NOTE 1 soil sample collected from waste oil tank pit at time of UST removal, 6/96.

- 2 soil sample from fuel tank pit (2/98), except O&G and TEX are from boring B1 @8'8", 10/96
- 3 grab groundwater sample from boring EX1, 2/98, xylenes from Boring B-2 and TPHd from other borings.
- 4 TEPH from boring B3, by waste oil pit, 10/96
- 5 up to 3.9 ppm naphthalene and 6.0 ppm 2-methyl-naphthalene were detected in soil from the waste oil pit, 6/96
- 6 a total of 2.79 ppm SVOCs was detected in soil from boring EX-1 at 7'bgs. See Table 9 for compounds detected.
- 7 no permanent wells installed at the site

IV. CLOSURE

Does completed corrective action protect existing beneficial u	uses per the
Regional Board Basin Plan?	
Does completed corrective action protect potential beneficial	uses per the
Regional Board Basin Plan?	
Does corrective action protect public health for current land u	ise? YES
Site management requirements: A site safety plan must be p	repared for construction workers in the
event excavation/trenching is proposed in the vicinity of resid	lual soil and groundwater contamination
Should corrective action be reviewed if land use changes?	YES

Monitoring wells Decommissioned: NA

Number Decommissioned: NA

List enforcement actions taken: None List enforcement actions rescinded: NA

Number Retained: NA

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: Date: 1/17/99

Reviewed by

Name: Juliet Ship Title: Haz Mat Specialist

Signature: Julia Date: 10/26/29

Name: Thomas Peacock Title: Supervisor

Signature: March Date: 11-15-29

VI. RWQCB NOTIFICATION

Date Submitted to RB: 11/19/99 RB Response:

RWQCB Staff Name: Chuck Headlee // Title: AEG

Signature: (Ruel | Sleedle Date: 11/29/99

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is a former Chevron service station that operated on the leased property from 1948 until 1978. Upon termination of the lease, the trustee of the property owner's estate requested that Chevron not remove any of the facilities or improvements on the site, including the building, canopy, dispenser and underground storage tanks (USTs). The fuel USTs were removed in February 1979, and the property was later leased to a pottery shop. The site is currently vacant. Sediment at the site consists primarily of sandy clay to the maximum explored depth of 20 feet below ground surface (bgs). Depth to groundwater has been measured from 6.6 ft bgs to 19.5 ft bgs.

When the four USTs (1-2K, 2-3K, and 1-6K gallon gasoline tanks) were reportedly removed, the excavation was backfilled with the excavated material and the balance with imported clean fill. Soil samples were not collected from the tank pit at this time. Subsequent subsurface investigations conducted in October 1996 (discussed below) addressed residual hydrocarbons in soil at the former tank pit and dispenser area.

In June 1996 a 300-gallon waste oil tank was removed. The UST had a four-inch diameter hole on the fill end. Initially two soil samples (WO-6'6" and WO-SSW-4') were collected from the waste oil tank pit. Sample WO-6'6" was collected approximately 2' below the former UST and Sample WO-SSW-4' was collected from the southern sidewall of the pit. Because the soil appeared obviously contaminated, the pit was overexcavated to 8' bgs. A soil sample (WO-8') was then collected. Up to 310 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHg), 1,300 ppm TPH as diesel, 620 ppm total extractable petroleum hydrocarbon (TEPH or TOG), 720 ppm lead, 74ppm chromium, and 0.46, 5.5, 2.0, and 8.3 ppm benzene, toluene, ethylbenzene, and xylenes, (BTEX), respectively, were identified in the soil samples collected from 4' to 6'bgs. Low levels of polynuclear aromatic hydrocarbons (SVOCs) (naphthalene (3.9 ppm) and 2-methyl-naphthalene (6.0 ppm)) were also identified in the soil sample collected from 6'6" bgs. The eight-foot depth sample contained much lower concentrations of the analytes sought. (See Figs 1, 2 and Tables 1, 2, and 3)

In October 1996 investigations were conducted to evaluate soil and groundwater conditions by the former gasoline tank. Two borings (B1/#5 and B2/#6) were drilled to depths of approximately 19' bgs around the former fuel USTs to collect soil and water samples. At this time, hand-augered borings were also advanced at the former pump islands to 2' bgs (PI-N/#9 and PI-S/#10), and in the former waste oil pit to 10' bgs (B3/#7 and WO@10'/#8). Soil samples from Borings B1, B2, and PI-S contained elevated levels of petroleum hydrocarbons. Boring locations and analytical results are summarized in Figs 3, 4, and Table 4.

In May 1997 four borings (B7 through B10) were drilled to further evaluate the lateral and vertical extent of hydrocarbon-impacted soil and groundwater beneath the site. Boring B7 encountered backfill material, thus a soil sample was not collected. Three soil samples were collected from boring B8 for hydrocarbon analysis, and two soil samples were collected from B10 for soil porosity, moisture content, bulk density, and organic content analyses. A "grab" groundwater sample was collected form boring B8 for chemical analysis. And in January 1998, another boring B11 was drilled north of the former fuel tank pit, through native soil. Four soil samples and one "grab" groundwater sample was collected from this boring. Laboratory analytical results collected to date identified locations and limits of the vertical and lateral extent of hydrocarbon in soil and groundwater. (See Fig 5, Tables 5 and 6)

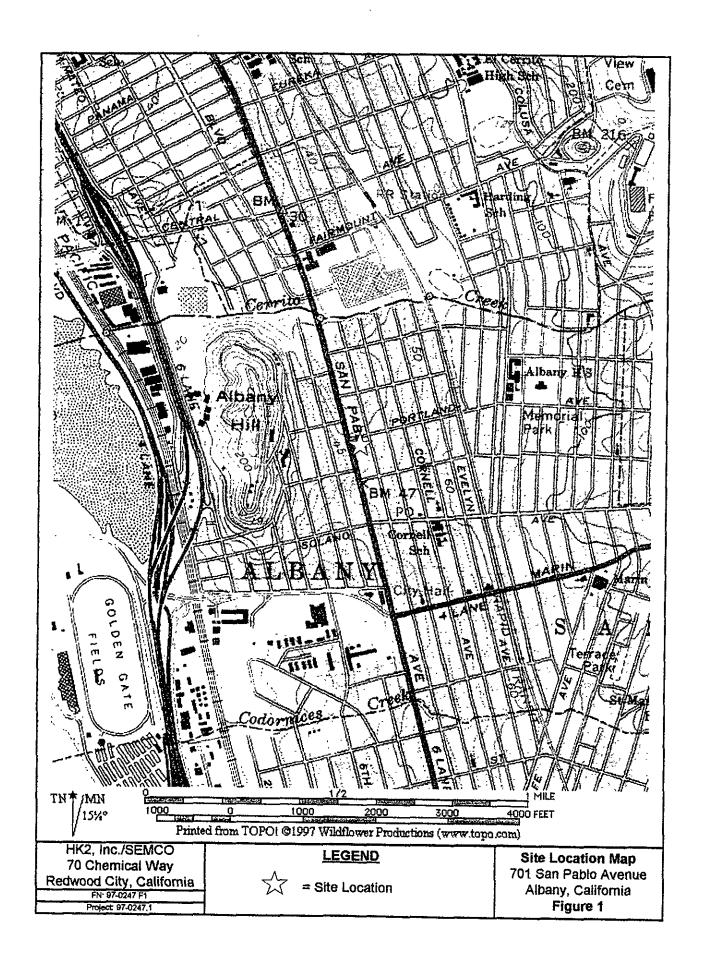
In February 1998 soil containing elevated hydrocarbons in the former waste oil tank pit (to 10'bgs) and around the former dispenser island (to 6'bgs) was excavated. Confirmatory soil samples EX2 through EX11 were collected from the excavation around the former dispenser island. Very low to non-detectable levels of petroleum hydrocarbons were identified in the confirmatory soil samples. No soil samples were collected from the waste oil tank excavation. Two soil samples (EX-1@3' and EX-1@7') from the backfill material of the former gasoline tank pit were collected and found to contain up to 360 ppm TPHg, 400 ppm TPHd, and 0.25, 0.53, 1.3, and 0.64 ppm BTEX, respectively. Low levels of SVOCs were also identified. Water was noted in excavation Boring EX1 and a sample was collected and found to contain 6,600 ppb TPHg, and 22, 5, 27, and 9 ppb BTEX, respectively. MTBE was not detected. (See Fig 6, 7, Tables 6, 7, 8, and 9)

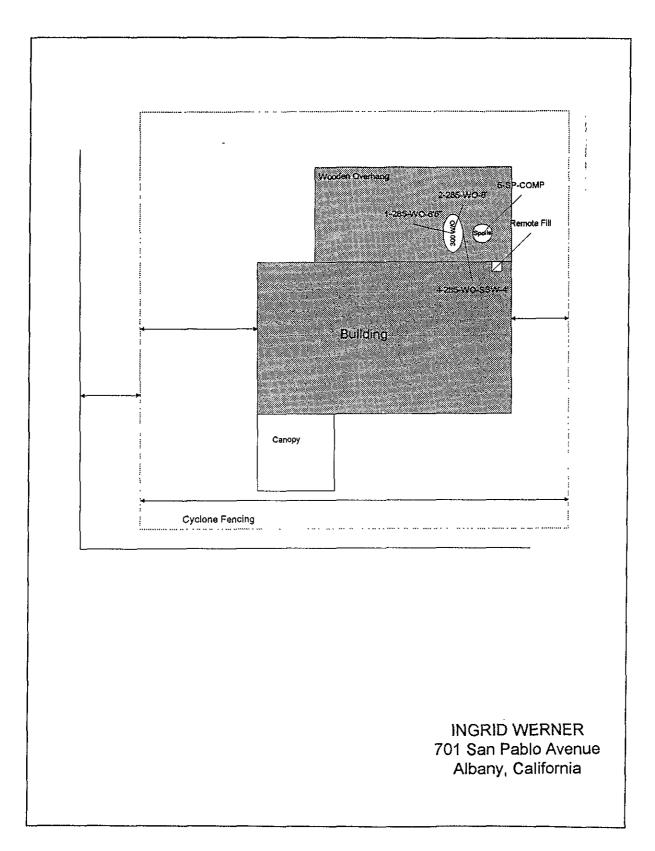
In September 1999 Tier 1 Risk Based Corrective Action (RBCA) analysis was prepared for the site. Exposure pathways considered in the risk assessment included: dermal contact/ingestion/inhalation of surface soil by commercial and residential receptors, and construction workers; inhalation of outdoor air by both commercial and residential receptors; and, inhalation of indoor air by commercial receptors. The RBCA analysis indicated that contaminants detected in soil and groundwater beneath the site do not exceed risk-based screening levels for current or future onsite receptors. (See Table 10)

In summary, case closure is recommended because the site qualifies as a low-risk fuel site:

- the leak and ongoing sources have been removed; USTs and associated piping were removed, lead-affected soil in the waste oil pit was removed, most of the hydrocarbon-impacted soil in the vicinity of the former dispenser island was removed. Although residual hydrocarbons remain in the backfill material of the former fuel tank pit, its impact to groundwater quality is not significant (a maximum of 22ppb benzene has been identified from "grab" groundwater samples collected from the fuel tank pit).
- the site has been adequately characterized;
- the dissolved plume is not migrating;
- no water wells, surface water, or other sensitive receptors are likely to be impacted;
 Cordornices Creek, the nearest surface water in the assumed downgradient direction, is located approximately 0.7 miles to the south. Cerritos Creek is located approximately 0.3 miles north of the site, in the assumed upgradient direction.
- the site presents no significant risk to human health or the environment.

werner-1





Site Layout and Sampling Locations

Table 1
WASTE OIL TANK SOIL SAMPLING SUMMARY
(mg/Kg)

No.	Sample	Depth	TPH-G	TPH-D	Benzene	Toulene	Ethylbenzene	Xylenes	TEPH
1	1-285-WO-6'6"	6'6"	310	1300	0.46	5.5	2	8.3	620
2	2-285-WO-8'	8'	6.2	15	0.036	0.14	0.088	0.314	NA
3	4-285-WO-SSW-4'	4'	ND	ND	ND	ND	ND	ND	ND
4	5-SP-COMP	0'	24	89	0.044	21	0.32	0.55	270
No.	Sample	Depth	Nickel	Zinc	Chromium	Cadmium	Lead		
1	1-285-WO-6'6"	6'6"	57	92	41	ND	720		
2	2-285-WO-8'	8′	75	59	. 74	ND	20		···
3	4-285-WO-SSW-4'	4'	42	26	33	ND	14		
4	5-SP-COMP	0'	54	110	33	ND	77		

ND = Non Detect NA = Not Analyzed

HK2, Inc. / SEMCO File: 96-0247.rpt



Tablez

CERTIFICATE OF ANALYSIS

JOB NO: 96-427 DATE SAMPLED: 06/20/96 CLIENT: SEMCO DATE EXTRACTED: 06/27/96 PROJECT NAME:WERNER 96-0143 DATE ANALYZED: 06/27/96

VOLATILE HALOGENATED ORGANICS BY EPA GC/MS METHOD 8260

RESULT OF ANALYSIS

Laboratory Number	96-427-01	96-427-04	96-427-05
Client ID:	285-WO-6'6"	285-WO-SSW-	4'SP-COMP
Matrix	Soil	Soil	Soil
Analyte	Result	Result	Result
Dibromomethane: Bromodichloromethane:	ND<250 :ND<250 ND<250 ND<250 ND<250 ND<250 ND<75 ND<25	ND<5 ND<5	ND<200 ND<200 ND<200 ND<200 ND<200 ND<200 ND<60 ND<20
Concentration:	ug/Kg	ug/Kg	ug/Kg

Page 1 of 4

With Man 2 samples would for them 2



cent. Table 2

CERTIFICATE OF ANALYSIS

 JOB NO: 96-427
 DATE SAMPLED: 06/20/96

 CLIENT: SEMCO
 DATE EXTRACTED: 06/27/96

 PROJECT NAME: WERNER 96-0143
 DATE ANALYZED: 06/27/96

VOLATILE HALOGENATED ORGANICS BY EPA GC/MS METHOD 8260

RESULT OF ANALYSIS

Laboratory Number:	96-427-01	96-427-04	96-427-05
Client ID:	285-WO-6'6"	285-WO-SSW	-4'SP-COMP
Matrix	Soil	Soil	Soil
Analyte	Result	Result	Result
c-1-3-Dichloropropene: 1,1,2-Trichloroethane: Tetrachloroethene: 1,3-Dichloropropane: Dibromochloromethane: 1,2-bromoethane: Chlorobenzene: 1,1,1,2-Tetrachloroetha Bromoform: Bromobenzene': 1,1,2,2-Tetrachloroetha 2-chlorotoluene: 4-chlorotoluene: 1,3-Dichlorobenzene: 1,4-Dichlorobenzene: 1,2-dibromo-3-chloroetha 1,2,4-trichlorobenzene: hexachlorobutadiene: 1,2,3-trichlorobenzene:	ND<25 ND<25 : ND<50 ND<25 ND<25 ND<25 ND<25 ND<25	ND < 5 ND < 5	ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND<20 ND
Concentration:	ug/Kg	ug/Kg	ug/Kg
Surrogate % Recoveries		•	
1,2-Dichloroethane-d4 Toluene-d8: Bromofluorobenzene:	132 102 107	121 107 98	118 102 97

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Table 3

NORTH STATE ENVIRONMENTAL

2-chloronaphthalane

2-nicrosniline

Attn: JOHN MURPHY

y'

Project Reported on June 26, 1996

	EPA 8W-94	6 Metho	od 8270 s	emivola	tile Org	saujes by	ac/wa	
LAB ID	Sample ID					Matrix	Dil.Factor	Moieture
21524 · 01	1-285-WO-6-6"	··········				6011	5.0	-
21524 02	4-285-90-859-					Soil	1.0	-
21524-03	5 SP COMP					Soil	1.0	•
	R	E	LTS	OF A	NALI	rsjs		,
Cund		21574	- 01	21524	. 02	21524-	03	
Compound		Conc.	Rb	Conc.	RI,	Conc.	RL	
		ug/Kg	(I)	ug/Kg		ug/Kg		
		49/ 49		9,9		- 27 739		
bis (2-chloro	ethyl)ether	ND	1500	ND	300	ИД	300	
aniline		ND	1500	ND	300	ND	300	
pheno1		ND	1500	ПN	300	ND	300	
2-chlorophenol		ир	1500	NO	300	ND	300	
1.)-dichlorobenzene		ND	1500	טא	300	иD	300	
1,4-dichlorobanzene		ND	1500	ND	3 0 0	ND	300	
1,2-dichlorol		ND	1500	ND	300	NO	300	
benzyl alcoho		ND	1500	ND	300	ИD	300	
•	oisopropyl)ether	ND	1500	ND	300	ND	300	
2-merhylphone		ИВ	1500	ND	300	ND	300	
hexachloroeti		В	1500	ИD	300	ND	300	
n-nitroso-di	-n-propylamine	ND	1500	ND	300	ND	300	
4 methylphen		ND	1500	ND	300	ND	300	
nicrobenzene		ND	1500	ND	300	ND	300	
imophorone		ND	1500	ND	300	ND	300	
2-nitropheno	1	ND	1500	ND	300	ND	300	
2,4-dimethyl	phenol	NO	1500	ND	300	ND	300	
bis (2-chloro	ethoxy)methane	ND	1500	ND	300	ND	300	
2,4-dichloro	phenol	ND	1500	ND	300	ИD	300	
1,2,4-trach1	orobenzene	р	1500	ND	300	СИ	300	
naphthalene		3900	1500	ND	300	430	300	
benzoic acid		иo	7500	ИО	1200	ND	1500	
4-cnloro≠nil	ine	ND	1500	ND	300	ND	300	
hexachlorobu	tadiene	ND	1500	ND	300	ND	300	
4-chlaro-3-m	ethylphenol	ND	1500	ND	300	ND	300	
2·methyl nap		6000	1500	ĠИ	300	640	300	
hexaclorocyc	lopentadiene	MD	7500	ND	1500	ND	1500	
2.4,6-trichl		ND	1500	ND	300	ND	300	
2,4,5 trich1		ND	1500	ИD	300	ND	300	
T. oblavonesh	thalene	ND	1500	ND	300	ND	300	

Page 2 ot 9

ND

ND

300

300

1500

1500

ND

ND

300

300

ND

cont. Table 3

NORTH STATE ENVIRONMENTAL ACCU: JOHN MURPHY

di-n-octylphthalate

benzo(b,k)fluoranthone

Project Reported on June 25, 1996

Atth: JOHN MU	RPHY				Kebo	read on C	/UNG 25, 19		
	epa sw-	946 Met	hod 8270	Memivol.	atile Or	ganics by	GC/M8		-1
LAB ID	Sample ID					Matrix	Dil	Factor	Moisture
21521-01	1-285-WO-6.	6"			er ly - more	Soil		5.0	····
21524-02	4 - 285 - WO - 59	W-4'				Soi I		1.0	•
21524-07	5-8P-COMP					Soil		1.0	•
		RES	игтя	OF:	ли а ь	ysıs			
Compound		2152	4 - 01	2152	4 02	21524	- 03		
•		Conc		Conc	RL	Conc.	RI.		
		ug/K	٥	ug/K	r/Kg ug/Kg				
acenaphthyle		ND	1500	ND	300	ND	300		
dimethylphthlate		MD	1500	ND	300	ND	300		
2,6-dinitrocoluene		ND	1500	ND	300	ND	300		
Acenaphthene		ND	1500	ND	300	ND	300		
3-nitroanilius		ND	1500	ND	300	ND	300		
2,4-dimitrophenol		ND	7500	ND	1500	ND	1500		
dibenzofuran		DM	1500	ND	300	NO	300		
2, 4-dinitrot	oluene	ND	1500	ND	300	ND	300		
4.nitropheno		ND	1500	מא	300	ND	300		
fluorene		ND	1500	ND	300	NÐ	300		
	yl-phemylethor	ND	1500	NĐ	300	ND	300		
disthylphth).	ate	ND	1500	ND	300	ND	300		
4-nitroanili		ND	7500	ND	1500	ND	1500		
4,6 dinitro-	2-methylphenol	ND	1500	ND	300	ND	300		
n nitrosodip	• •	ND	3500	ND	300	ND	300		
4-bromo-phen	yl-phenylether	ND	1500	(NID	300	ND	300		
hexachlorobe	nzene	ND	1500	ND	300	ND	300		
pentachlorop	henol	NO	7500	ND	1500	ИÚ	1500		
phonanthrana		ND	1500	NO	300	ND	300		
anthracene		ИD	1500	ND	300	ND	300		
di-n-butylph	edate	מא	1500	ND	300	300	300		
fluoranthene		ND	1500	ND	300	NO	300		
benzidine		ND	7500	ND	1500	ND	1500		
pyrane		ND	1500	ND	300	ND	300		
butylnauzylp	hthlate	ND	1500	NO	300	ND	300		
3.3'-dichlor	obenzidin e	NO	1500	ND	300	ND	300		
Benzo (a) Anth	racene	ND	1500	ND	300	ND	300		
chryeene		סמ	1500	ND	300	ND	300		
bie(2-ethylh	exyl)phchalate	ND	1500	ND	300	aи	300		
		110	9 F 4 A	275	7.66	1175	300		

Page 3 of 9

ND

ND

300

300

ND

ND

300

300

1500

1500

ND

ND

cont. Table 3

NORTH STATE ENVIRONMENTAL Attn: JOHN MURPHY

Project Reported on June 25, 1996

	EPA SW-8	16 Metho	od 8270 8	Semivola	tile Or	ganice by	GC/M5	
LAB ID	Sample IO					Matrix	Dil. Factor	Moistur
21524-01	1-285-WO-6.6					Scil	5.0	-
21524 - 02	4-205-WO-88W	-1'				Soil	1.0	•
21524-03	5-8P-COMP					8011	1.0	-
	1	ខ€៩ប្	г т з	OF A	ΝΛL	8 1 2 4		
Compound		21524	- 01	21524	0.3	21524-	03	
Composition		Conc.	RL	Conc	RI.	Conc.	RI	
		ug/Kg		ug/Kg		uq/Kg		
Benzo (a) Pyre	n o	ND	1500	ИD	300	ND	300	· <u>-</u>
Indeno(1,2,3)Pyrene	ND	1500	NO	300	DИ	300	
dibenzola,hl	anthracene	ND	1500	ИО	300	ИD	300	
94-Carbazole		ND	1500	ŅD	300	MD	300	
Benzo(g,h,i)	Perylene	ИD	1500	ИD	300	ND	300	
>> Burrogate	Recoveries (%) <	<						
2-fluorophen	ol	86		74		69		
phanol-d5		95		93		61		
nitrobenzene	-d5	93		A 4		81		
2-fluorobiph	enyl	96		9.0		80		
2,4,6.tribro	mophenol	86		79		89		
terphenyl-dl	4	109		137		89		

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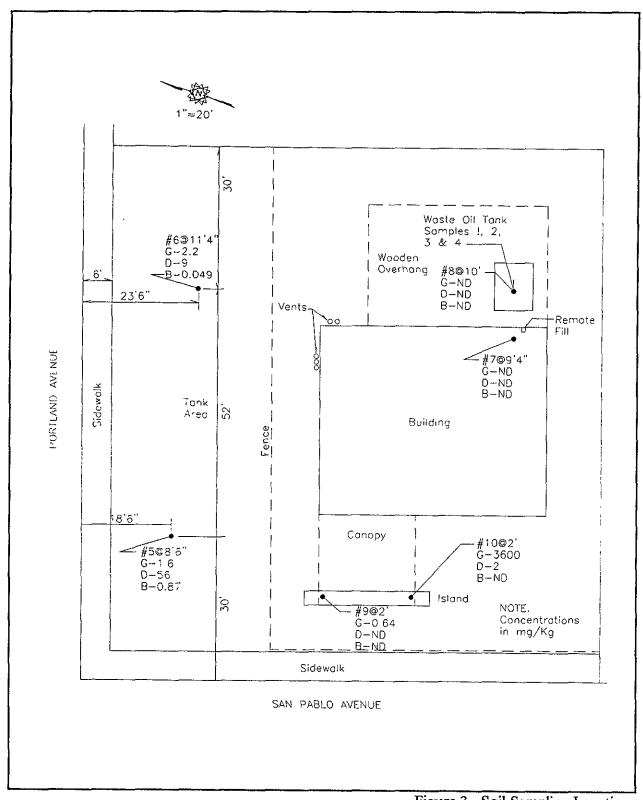


Figure 3. Soil Sampling Locations

HK2, Inc. / SEMCO

File: 96-0247.rpt

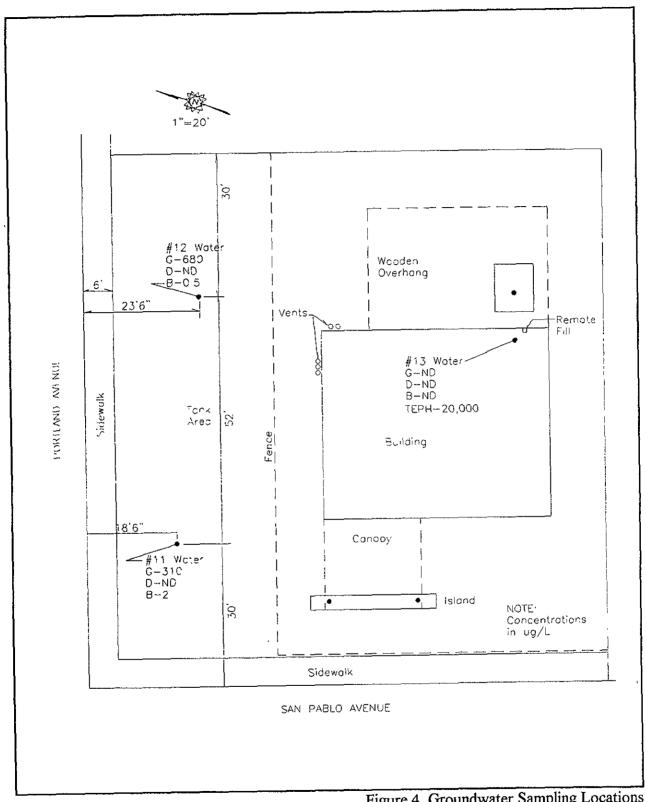


Figure 4. Groundwater Sampling Locations

HK2, Inc. / SEMCO File: 96-0247.rpt

Table # 4 SOIL SAMPLING SUMMARY (mg/Kg)

No.	Sample	Depth	TPH-G	TPH-D	Benzene	Toulene	Ethylbenzene	Xylenes	WED'T.
5	B1-8'6"	8'6"	1.6	56	0.87	1.1			ТЕРН
6	B2-11'4"	11'4"	2.2	9	0.049	0.180	3.8	470	NA
7	B3-9'4"	9'4"	ND	ND	ND	ND	0.22	0.039	ND
8	WO@10'	10'	ND	ND	ND		ND	20	ND
9	PI-N@2'	2'	0.64			ND	ND	0.018	ND
	 -		.0.64	ND	ND	ND	ND	0.035	ND
10	PI-S@2'	2'	3600	2	ND	0.005	ND	0.045	ND
No.	Sample	Depth	Nickel	Zinc	Chromium	Cadmium	Lead	PNA's	TOTAL CONT
5	B1-8'6"	8'6"	NA	NA	NA	NA	ND		TTLC Pb
6	B2-11'4"	11'4"	NA	NA	NA	NA		NA	12
7	B3-9'4"	9'4"	48	24	43	ND	-NA Span	NA	8
8	WO@10'	10'	69	41	35		ND-Spa-	ND _	NA
9	PI-N@2'	2'	NA			· ND	10	ND _	- NA
10				NA	NA	NA	18	NA	NA
	PI-S@2'	2'	NA	NA	NA NA	NA	11	NA	NA

NA = Not Analyzed

HK2, Inc. / SEMCO File: 96-0247.rpt

Cont. Table 3 4

WATER SAMPLING SUMMARY (ug/L)

No.	Sample	Depth	TPH-G	TPH-D	Benzene	Toulene	Ethylbenzene	Xylenes	ТЕРН	
11	BI-W	9'6"	310	ND	2	3	2	5	NA	7
12	B2-W	14'6"	680	ND	0.5	1	ND	18	NA	7
13	B3-W	10'9"	ND	ND	ND	ND	ND	ND	20,000	\Box
								· · · · · ·		-
No.	Sample	Depth	Nickel	Zinc	Chromium	Cadmium	Lead	PNA's		一
11	B1-W	9'6"	NA	NA	NA	NA	ND C	NA		
12	B2-W	14'6"	NA	NA	NA	NA	ND _	NA		
13	B3-W	10'9"	ND	ND	ND	ND	ND .	NA,)		4
							7	7		

= Non Detect ND

= Not Analyzed NA

HK2, Inc. / SEMCO File: 96-0247.rpt

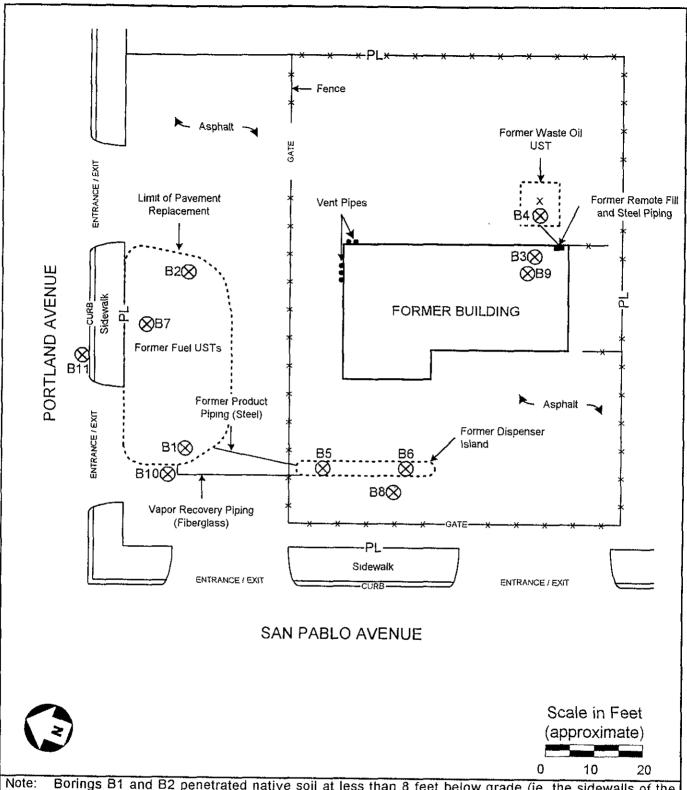
Table 4
Laboratory Results of Groundwater Sample Metal Analyses

Former Chevron Station

701 San Pablo Avenue, Albany, California

Sample Location	Date	Cadmium (mg/L)	Chromium (mg/L)	Nickel (mg/L)	Zinc (mg/L)	Lead (mg/L)
B-1	10-9-96					ND
B-2	10-9-96					ND
B-3	10-24-96	ND	ND	ND	ND	ND
CRWQCB	MSWQO	0.005	0.05	0.1	5	0.05
Laboratory Rep	oorting Limit	0.01	0.015	0.01	0.02	0.01

LEGEND: mg/L = milligrams per liter; CRWQCB MSWQO = California Regional Water Quality Control Board municipal supply water quality objective; ND = concentration less than the laboratory reporting limit; -- = sample not analyzed for this constituent.



Note: Borings B1 and B2 penetrated native soil at less than 8 feet below grade (ie. the sidewalls of the excavation either slope toward the center of the excavation or the perimeter of resurfaced pavement is greater than the perimeter of the excavation.

LEGEND SITE PLAN HK2, Inc./SEMCO Former Chevron Station 70 Chemical Way \otimes = Boring 701 San Pablo Avenue Redwood City, California = Soil sample collected during Albany, California Project 97-0247 FN: 97-0247.F2 tank removal DWG: MWD 4/98 FIGURE な ぢ

 Table ₱5

 Laboratory Results of Soil Sample Hydrocarbon Analyses

Former Chevron Station

701 San Pablo Avenue, Albany, California

Sample Location	Depth (fbg)	TPH-G (mg/kg)	TPH-D (mg/kg)	TEPH/ [TPH-MO] (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	HVOCs (mg/kg)	SVOCs (mg/kg)
W.O. Tank	4	ND	ND	ND	ND	ND	ND	ND		ND (50.5)	ND
	6.5	310	1,300	620	0.46	5.5	2	8.3		ND (≤0.25)	9.9
	8*	6.2	15		0.036	0.14	0.088	0.314		ND	1.25
B1	8.5	1.6	56		0.087	1,1	3.8	470			
B2	11.3	2.2	9	ND	0.049	0.180	0.22	0.039			
В3	9.3	ND	ND	ND	ND	ND	ND	20			ND
B4	10	ND	ND	ND	ND	ND	ND	0.018			ND
B5	2	0.64	ND	ND	ND	ND	ND	0.035			
В6	2	3,600	2	ND	ND	0.005	ND	0.045			
В8	5	4.5		~-	ND	ND	0.010	0.043	ND		
[10	0.5			ND	ND	ND	ND	ND		
	17	ND			ND	ND	ND	ND	ND		
B11	6.5	ND			ND	ND	ND	ND	ND		
Į	8	9			0.018	0.047	0.016	0.10	ND		
	10	15	8	[ND]	0.024	0.15	0.048	0.074	ND		
	20	0.72	4	[16]#	ND	ND	ND	ND	ND		
Laboratory R Limi	1	0.5	1.0	50 / [10]	0.005	0.005	0.005	0.010	0.005	≤0.025	≤1.5

LEGEND:

TPH-G, TPH-MO = total petroleum hydrocarbons as gasoline, diesel, and motor oil (EPA Method 8015M); TEPH = total extractible petroleum hydrocarbons; B, T, E, X = benzene, toluene, ethylbenzene, and total xylenes, MTBE = methyl tert-butyl ether (EPA Method 8020), HVOCs = halogenated volatile organic compounds (EPA Method 8010), SVOCs = semi-volatile organic compounds (EPA Method 8270); fbg = feet below grade; mg/kg = milligrams per kilogram; ND = concentration less than the laboratory reporting limit; () = laboratory reporting limit if different from value listed in last row of table; - = sample not analyzed for this constituent, * = analyzed 30 to 35 days after sample collected; # = chromatogram does not match typical motor oil pattern.

Table 3 6
Laboratory Results of Groundwater Sample Hydrocarbon Analyses

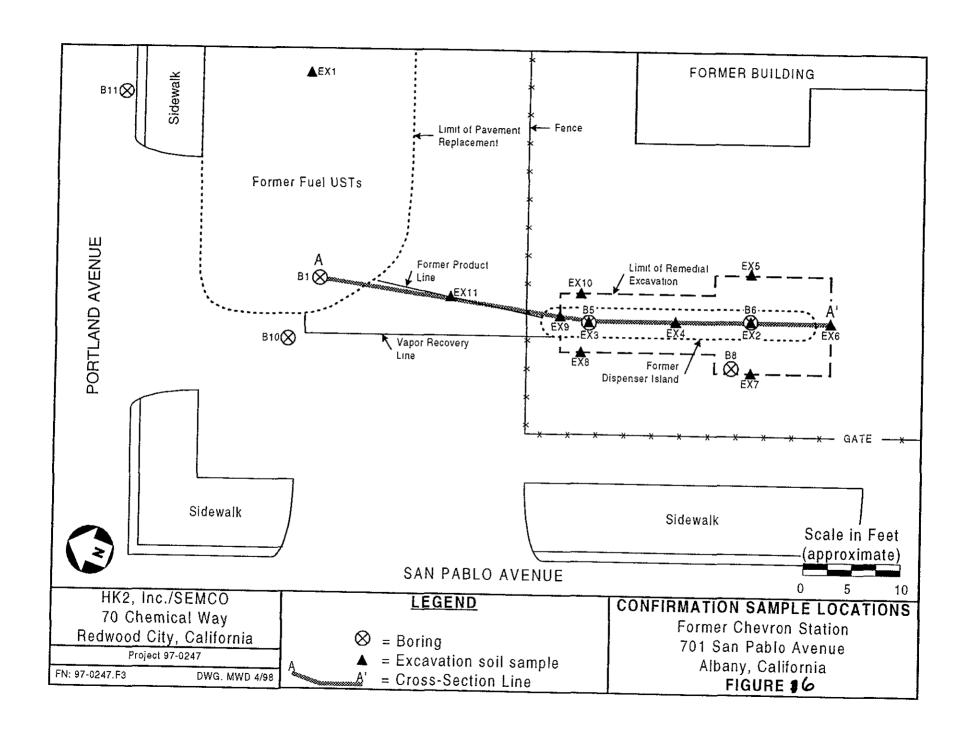
Former Chevron Station

701 San Pablo Avenue, Albany, California

Sample Location	Date	TPH-G (ug/L)	TPH-D (ug/L)	TEPH/ [TPH-MO] (ug/L)	(ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	SVOCs (ug/L)	TDS (mg/L)
B-1	10-9-96	310	ND		2	3	2	5			
B-2	10-9-96	680	ND		0.5	1	ND	18			
B-3	10-24-96	ND	ND	20,000	ND	ND	ND	ND		ND	
B-8	5-8-97	ND			ND	ND	ND	ND	ND		990
B-11	1-23-98	ND		<u></u>	_2	3	3	9	ND		
EX1	2-11-98	6,600			22	5	27_	9	ND		
CRWQCB N	ASWQO	none	none	none_	. 1	150	700	1,750	none	varies	500
Lab Reportii	ng Limit	50	50	5,000	0.5	0.5	0.5	1.0	0.5	≤500	1

LEGEND:

TPH-G, TPH-D, TPH-MO = total petroleum hydrocarbons as gasoline, diesel, and motor oil (EPA Method 8015M); TEPH = total extractible petroleum hydrocarbons; B, T, E, X = benzene, toluene, ethylbenzene, and total xylenes, MTBE = methyl tert-butyl ether (EPA Method 8020), SVOCs = semi-volatile organic compounds (EPA Method 8270); TDS = total dissolved solids (EPA Method 160.1); ug/L = micrograms per liter; mg/L = milligrams per liter; CRWQCB MSWQO = California Regional Water Quality Control Board municipal supply water quality objective; ND = concentration less than the laboratory reporting limit; -- = sample not analyzed for this constituent.



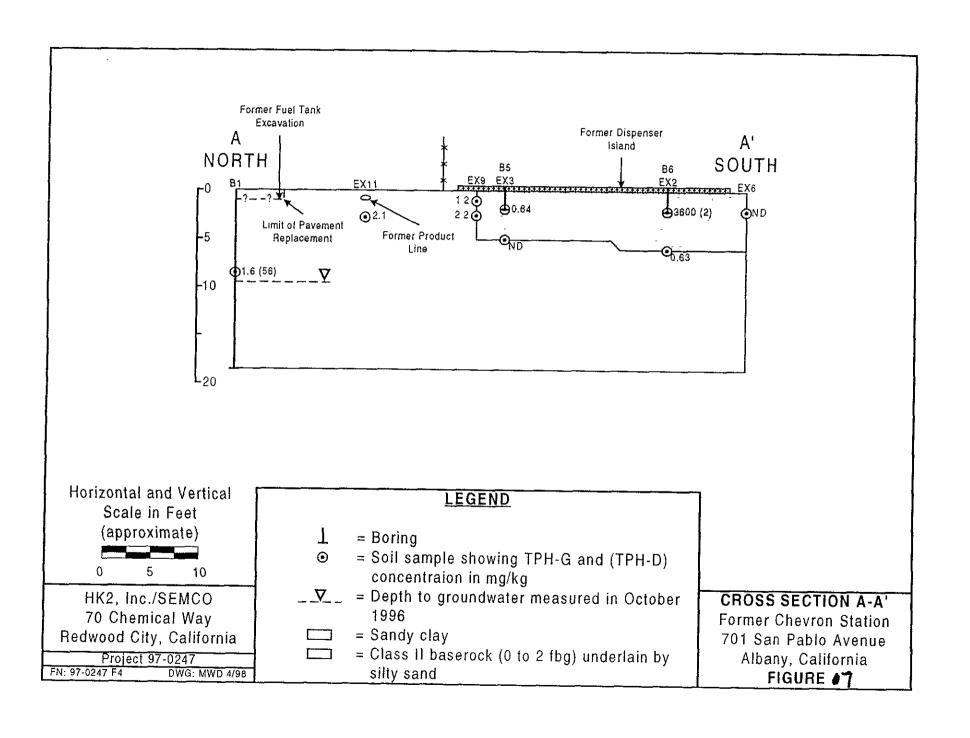


Table (continued)

Laboratory Results of Soil Sample Hydrocarbon Analyses

Former Chevron Station

701 San Pablo Avenue, Albany, California

Sample Location	Depth (fbg)	TPH-G (mg/kg)	TPH-D (mg/kg)	TEPH/ [TPH-MO] (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	HVOCs (mg/kg)	PAHs (mg/kg)
EX1	3	63	49	[ND]	0.25	0.16	1.3	0.22	ND		
	7	360	400	[ND]	0.18	0.53	0.44	0.64	ND		2.79
EX2	6	0.63			ND	ND	ND	ND	ND		
EX3	5	ND			ND	ND	ND	ND	ND		
EX5	2	ND			ND	ND	ND	ND	ND		
EX6	2	ND			ND	ND	ND	ND	ND		
EX7	2	ND			ND	ND	ND	ND	ND		
EX8	2	ND	1		ND	ND	ND	ND	ND		
EX9	2	1.2	5	[51] #	ND	ND	ND	ND	ND		
	5	2.2	•		0.014	0.016	ND	0.013	ND		
EX10	2	ND			ND	ND	ND	ND	ND		
EX11	3	2.1			0.021	0.007	ND	ND	ND		
Laboratory F Limi		0.5	1.0	50 / [10]	0.005	0.005	0.005	0.010	0.005	≤0.025	≤1.5

LEGEND:

TPH-G, TPH-MO = total petroleum hydrocarbons as gasoline, diesel, and motor oil (EPA Method 8015M); TEPH = total extractible petroleum hydrocarbons; B, T, E, X = benzene, toluene, ethylbenzene, and total xylenes, MTBE = methyl tert-butyl ether (EPA Method 8020), HVOCs = halogenated volatile organic compounds (EPA Method 8010); PAHs = polycyclic aromatic hydrocarbons (EPA Method 8270); fbg = feet below grade; mg/kg = milligrams per kilogram; ND = concentration less than the laboratory reporting limit; () = laboratory reporting limit if different from value listed in last row of table; - = sample not analyzed for this constituent; # = chromatogram does not match typical motor oil pattern.

Table # 8 Laboratory Results of Soil Sample Metal Analyses
Former Chevron Station

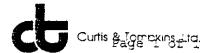
701 San Pablo Avenue, Albany, California

Sample Location	Depth (feet)	Chromium (mg/kg)	Cadmium (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	Lead (mg/kg)	Soluble Lead WET/TCLP (mg/L)
W.O. Tank	4	33	ND	42	26	14	
	6.5	41	ND	57	92	720	
	8	74	ND	75	59	20	
W.O Stockpile	1.5				7.		10 / 1.1
B1	8.5					12	
B2	11.3					8	
B3	9.3	43	ND	48	24	8	
B4	10	35	ND	69	41	10	
B5	2					18	
В6	2					11	
EX1	7					100	
EX9	2					6.6	
Laboratory Repo	orting Limit	5.0	2.0	5.0	1.0	1.0	0.1 / 0.1

LEGEND:

mg/kg = milligrams per kilogram; mg/L = milligrams per liter; ND = concentration less than the laboratory reporting limit; --= sample not analyzed for this constituent.

Table 9



		`	Page 1 of
Polynuc	lear Aromatic Hyd	irocarpons by GC/MS	5
Client: Morth State Environmen	cal	Analysis Method Prep Method:	: EPA 8270B EPA 3550
Field ID: 98-158-02/EX1-7		Sampled:	02/11/98
Lab ID: 132501-001		Received:	02/27/98
Matrix: Soil		Extracted:	03/02/98
Batch#: 39334		Analyzed:	03/02/98
Units: ug/Kg			
Diln Fac: 1			
Analyte	Result	Repo	orting Limit
Naphthalene	230		50
Acenaphthylene	ND		50
Acenaphthene	120		50
Fluorene	120		50
Phenanthrene	210		50
Anthracene	71D		50
Fluoranthene	130		50
Pyrene	180		50
Benzo(a) anthracene	160		50
Chrysene	270		50
Benzo(b,k) fluoranthene	420		50
Benzo(a)pyrene	370		50
Indeno(1,2,3-cd)pyrene	230		50
Dibenz(a,h)anthracene	110		50
Benzo(g,h,i)perylene	240		50
Surrogate	%Recovery	Rece	overy Limits
Nitrobenzene-d5	85		32-117
2-Fluorobiphenyl	86		38-121
Terphenyl-d14	86		29-143

CAMBRIA

To facilitate our Tier 1 analysis, we utilized the GSI RBCA Spreadsheet Sheet System.² Table B contains the results of this comparison. Benzene is a known carcinogen among BTEX compounds, hence we have presented the Tier 1 results for benzene only in the following table. As shown below in Table B, our RBCA analysis indicates that petroleum hydrocarbon concentrations detected in soil and groundwater beneath the site do not exceed risk-based screening levels for current or future onsite receptors. Results of our Tier 1 analysis for all COCs compounds are presented in Attachment C.

Table - Results of Tier 1 RBCA Analysis for Benzene



						Represe Conc. vs	
Exposure Pathway	Representative Benzene Concentration	Exposure Point	Receptor Scenario	Target Risk Level	Cal-EPA RBSL	Exceed	Below
	0.040	Ingestion/	Residential	1x10 ⁻⁶	0.55		Х
Surface soil	0,012 mg/kg	inhalation/ dermal contact	Commercial	1x10°	9.2	7	x
		0.11	Residential	1x10 ⁻⁶	7.1		Х
Volatilization from sub-	0 036 mg/kg	Outdoor Air	Commercial	1x10 ⁻⁵	100		х
surface soil		Indoor Air	Commercial	1x10⁵	0.23		х
			Residential	1x10 ⁻⁶	3.1		х
/olatilization from	0.0048 mg/kg	Outdoor Air	Commercial	1x10 ⁻⁵	53.4		х
groundwater		Indoor Air	Commercial	1x10-5	0,21		х

LOW RISK EVALUATION

Based on our review of the site background and conditions, Cambria believes that this site meets the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) definition of a low-risk fuel site, as described in their memorandum "Interim Guidance on Required Cleanup at Low-Risk Fuel Sites", dated January 5, 1996. Each of the low-risk groundwater case characteristics, as they related to the site, are discussed below.

RBCA Tier 1 and Tier 2 Spreadsheet System, ver. 1.01, Groundwater Services Inc. (GSI), 1997, 5252 Westchester, Suite 270, Houston, TX, 77005.

DRILLING CONTRACTOR HK2, Inc.
DRILLING METHOD Push
DRILLING EQUIPMENT SIMCO E

10

DRILLING EQUIPMENT SIMCO E

Sackey sheet for symbols and abbreviations used above.

Depth (Feet)	Recovery/ Sample ID	Organic Vapor (ppm)	TPH-G (ppm)	USCS Soil Type	Description	Boring Backfill Detail	
1	B8-5 B8-10		4.5 0.5	CL	amp, moderate yellowish OYR 5/4) and light olive generate yellowish olive (10Y 4/4) sandy CLAY	brown gray (5Y brown gray (5Y 2), silty,	
BORING NUMBER: LOCATION: PROJECT NO: DRILLING CONTRACTOR: DRILLING METHOD: DRILLING DATE: LOGGED BY: B8 Former Ch 701 San P Albany, CA 97-0247 HK2, Inc./ Percussion 5-6-97 K. Craig			San Pablo ny, CA 247 Inc./SEM ussion	Boring terminated at 1 TPH-G = total petrolei ppm = parts per millio	um hydrocarbons as gasoline		

Depth (Feet)	Recovery/ Sample ID	Organic Vapor (ppm)	TPH-G (ppm)	USCS Soil Type		Description	Boring Backfill Detail	
					Concre	te and Class il Baserock	Subject Side	
				CL	Damp, sandy (moderate brown (5YR 4/4) CLAY	The state of the s	
5			*		becau	il samples were collected se samples collected from B3 previously characterized a.	Portland Type I-II Cement	
_ 20							2 Inches	
25								
PROJE- DRILLII DRILLII	CT NO: NG CONTRA NG METHOD NG DATE:		701 Alba 97-0 HK2 Pero 5-6-	mer Chevro San Pablo any, CA D247 2, Inc./SEM cussion 97 Craig	Ave.	REMARKS: Boring terminated at 20 feet below TPH-G = total petroleum hydrocar ppm = parts per million		

Depth (Feet)	Recovery/ Sample ID	Organic Vapor (ppm)	TPH-G (ppm)	USCS Soil Type		Description		Boring Backfill Detail
			L		Asphal	t and Class II Baserock	14000	
_ 1	B10-4.5			CL		moderate brown (5YR 4/4)	200 C.	Portland Type I-II Cement
	B10-10			CL	Damp, CLAY	light olive gray (5Y 5/2) sandy	2	Portland
							Inches	
20 					. ,			
25								
LOCATION: Fo 70 All PROJECT NO: 97 DRILLING CONTRACTOR: HK DRILLING METHOD: Pe DRILLING DATE: 5-6			701 Alba 97-0 HK2	ner Chevro San Pablo .ny, CA .247 , Inc /SEM :ussion 97	Ave.	REMARKS: Boring terminated at 10 feet below TPH-G = total petroleum hydrocar ppm = parts per million	grade bons as	gasoline

To and the second

Depth (Feet)		covery/ npie ID	Organic Vapor (ppm)	TPH-G (ppm)	USCS Soil Type		Description		Boring Backfill Detail
1							and Class II Baserock		Asphalt
5			!		SM		lark yellowish orange (10YR y, gravelly, fine-to medium- SAND		
	Π	B11-6.5	40	ND		Damp, (grayish olive (10Y 4/2) sandy		
		B11-8	170	9	CL	Damp to 4/2), sil Damp, i	o moist, grayish olive (10Y ty, very sandy CLAY nedium gray (N5) and light	2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2	-II Cemen
10	NR	B11-10	280 0	15		Damp to	ay (5Y 5/2) sandy CLAY o moist , moderate brown (5YR ry sandy CLAY		Portland Type I-II Cement
15 			0		CL	olive gr grained Damp, 6/6) and sandy (dark yellowish orange (10YR d yellowish gray (5Y 7/2), CLAY		Ъ
20		B11-20	0	0.72		Soil be	comes moist	2	
25								inches	
BORING NUMBER: LOCATION: PROJECT NO: DRILLING CONTRACTOR: DRILLING METHOD: DRILLING DATE: LOGGED BY:			70 Alb 97- HK Pe 1-	·-		REMARKS: Boring terminated at 21 feet below Depth to water was approximately TPH-G = total petroleum hydroca ppm = parts per million ND = TPH-G concentration below limit NR = no recovery	y 19,5 fl rbons a	og s gasoline	