# ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

ALEX BRISCOE, Director

November 30, 2010

ENVIRONMENTAL HEALTH DEPARTMENT ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

Shirley B. Hopkins Trust 1745 Shuey Avenue Walnut Creek, CA 94596 Richard Sciortino 2528 Adeline Street Oakland, CA 94607

Subject: Fuel Leak Case No. RO0000463 and GeoTracker Global ID T0600102135, Aervoe Pacific, 2528 Adeline Street, Oakland, CA 94607

Dear Ms. Hopkins & Mr. Sciortino:

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 Health (ACEH) 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:

• Residual concentrations of gasoline and diesel range petroleum hydrocarbons were detected in groundwater at concentrations ranging from 630 to 340 μg/L and residual concentrations of 1,1-DCA and 1,1-DCE were detected at concentration of 100 and 120 μg/L, respectively, at the site.

If you have any questions, please call Paresh Khatri at (510) 777-2478. Thank you.

Sincerely

Donna L. Drogos, P.E.

Division Chief

Enclosures: 1. Remedial Action Completion Certificate

2. Case Closure Summary

CC:

Ms. Cherie McCaulou (w/enc)

SF- Regional Water Quality Control Board

1515 Clay Street, Suite 1400

Oakland, CA 94612

(Sent via E-mail to:

CMccaulou@waterboards.ca.gov)

Closure Unit (w/enc)

State Water Resources Control Board

UST Cleanup Fund

P.O. Box 944212

Sacramento, CA 94244-2120

(Sent via E-mail)

Paresh Khatri (w/orig enc), D. Drogos (w/enc), T. Le-Khan (w/enc)

# ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

ALEX BRISCOE, Agency Director

November 30, 2010

Shirley B. Hopkins Trust 1745 Shuey Avenue Walnut Creek, CA 94596

Richard Sciortino 2528 Adeline Street Oakland, CA 94607

#### REMEDIAL ACTION COMPLETION CERTIFICATE

Subject: Fuel Leak Case No. RO0000463 and GeoTracker Global ID T0600102135, Aervoe Pacific, 2528 Adeline Street, Oakland, CA 94607

Dear Ms. Hopkins & Mr. Sciortino:

This letter confirms the completion of a 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 tank(s) 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, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

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

Sincerely

Ariu L'evi Director

Alameda County Environmental Health

## CASE CLOSURE SUMMARY LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

#### I. AGENCY INFORMATION

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 777-2478
Responsible Staff Person: Paresh Khatri	Title: Hazardous Materials Specialist

#### II. CASE INFORMATION

Site Facility Name: Aervoe Pacific			
Site Facility Address: 2528 Adeline Street, Oakland, California			
RB Case No.: 01-2321 Local Case No.: 266 LOP Case No.: RO0000463			ase No.: RO0000463
URF Filing Date:	Global ID No.: T0600101632 APN: 5-436-1		5-436-1
Responsible Parties	Addresses		Phone Numbers
Shirley B. Hopkins Trust	1745 Shuey Ave., Walnut Creek, CA 94596		,
Richard Sciortino	2528 Adeline Street, Oakland, CA 94607		

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	1 x 550-gallon	Great Western Solvent	Removed	June 1987
2	1 x 1,000-gallon	Kerosene	Removed	August 4, 1988
	Piping		Removed	1987/1988

#### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown			
Site characterization complete? Yes	Date	Approved By Oversigh	t Agency:
Monitoring wells installed? Yes		Number: 3	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 3.99 ft bgs		Lowest Depth: 8.8 ft bgs	Flow Direction: Assumed West to Northwesterly
Most Sensitive Current Use: Potential drinking	ng water	source.	

Date: August 19, 2008

Summary of Production Wells in Vicinity: A well survey was not conducted. Considering the non-migratory residual concentrations of dissolved phase petroleum hydrocarbons, solvents, and barium in the groundwater that is confined to the primary source areas at the Site, no water wells, deeper drinking water aquifers, surface water or other sensitive receptors are likely to be impacted. Therefore, it appears likely that the contaminant plume does not extend beyond the subject property and a well survey does not appear warranted.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain Groundwater Basin	
Is surface water affected? No	Nearest SW Name: San Francisco Bay, located approximately 2 miles west of the site.	
Off-Site Beneficial Use Impacts (Addresses/Locations): None		
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health & Oakland Fire Department, Fire Prevention Bureau	

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL				
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date	
Tank	One 550-gallon ? One 1,000-gallon	Disposal to Unknown Destination Disposal to Unknown Destination	06/1987 08/1988	
Piping	Unknown	Disposal, unknown location	06/1987 & 08/1988	
Free Product	NA NA			
Soil	NA	AA.W		
Groundwater	NA	W.A. A.	· · · · · · · · · · · · · · · · · · ·	

#### MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP

(Please see Attachments for additional information on contaminant locations and concentrations)

04	Soil (ppm)		Water	Water (ppb)		
Contaminant	Before	After	Before	After		
TPH (Gas)	160 (06-022-2, 8.5 ft bgs, 06/01/1987)	<1.0 (11/2002)	2,800 (Former Well, 3/31/1995)	630 (MW-1, 11/21/2002)		
TPH (Diesel/Kerosene)	<10 (#1, 08/1988)	NA	1,600 (Former Well, 3/31/1995)	250/160 (MW-1, 7/14/1998)		
TPH (Motor Oil)/TOG	NA	NA	37,000 (Former Well, 3/31/1995)	<500 (MW-1, 10/31/1996)		
Barium	67,000 (2, 08/1995)	67,000/160 (2, 8/95 / B-3, 1 ft bgs,11/2002)	28,000 (Former Well, 3/31/1995)	220 (MW-1, 7/31/1997)		
Benzene	11 <sup>1</sup> (06-022-2, 8.5 ft bgs, 06/01/1987)	11 <sup>1</sup> (06-022-2, 8.5 ft bgs, 06/01/1987)	4.5 (Former Well, 3/31/1995)	<0.5 (MW-1, 11/21/2002)		
Toluene	11 <sup>1</sup> (06-022-2, 8.5 ft bgs, 06/01/1987)	11 <sup>1</sup> (06-022-2, 8.5 ft bgs, 06/01/1987)	49 (Former Well, 3/31/1995)	<0.5 (MW-1, 11/21/2002)		
Ethylbenzene	NA	<0.005 (11/2002)	34 (Former Well, 3/31/1995)	<0.5 (MW-1, 11/21/2002)		
Xylenes	<0.5 (06-022-2, 8.5 ft bgs, 06/01/1987)	<0.005 (11/2002)	270 (Former Well, 3/31/1995)	<0.5 (MW-1, 11/21/2002)		
MTBE	NA	<0.005 (11/2002)	NA	<5 (MW-1, 11/21/2002)		
Lead	49 (3 @ 2.0', 08-1995)	49 (3 @ 2.0', 08-1995)		NA		
1,1-DCA			100 (MW-2, 11/21/2002)	100 (MW-2, 11/21/2002)		
1,1-DCE			400 (MW-2, 04/29/1996)	120 (MW-2, 11/21/2002)		
PCE			<13 (MW-2, 08/15/1995)	1.4 (MW-3, 11/21/2002)		
TCE			<13 (MW-2, 08/15/1995)	4.4 (MW-3, 11/21/2002)		

<sup>&</sup>lt;sup>1</sup> Soil sample collected below the UST. DTW ranges between 3.99 to 8.8 ft bgs. Therefore, soil sample was likely saturated and may not be representative of vadoze zone soil conditions.

#### Site History and Description of Corrective Actions:

The Aervoe Pacific site is located at the southeast corner of Adeline Street and 26<sup>th</sup> Street in west Oakland, just south of the boundary between Oakland and Emeryville. The site and immediately adjacent properties are currently zoned commercial. However for contaminant risk comparison purposes, the residual contamination has been compared to future residential land-use scenario. The general terrain in the Site vicinity is flat with a gradual surface gradient to the west towards San Francisco Bay. Groundwater studies conducted on and off-site have indicated that the groundwater flow direction is towards the west.

The site is occupied by a single-story building with an interior that has been partitioned and finished for use a promotion and graphic design business. Exterior areas are paved with the monitoring wells located outside of the building with one well (MW-2) located in an interior area.

Two underground storage tanks (USTs) were removed from the Site in the later 1980's. The tanks were reportedly situated adjacent to one another at the northeast corner of the site. An Unauthorized Release Form was filed following the removal of the first UST in June 1987. Soil samples were collected from the bottom of the excavation underneath the

Other VOCs analyzed (groundwater μg/L after cleanup): NA MtBE, NA TBA, NA DIPE, NA ETBE, NA TAME, NA EDB, NA 1.2-DCA, NA EtOH

<sup>&</sup>lt;sup>3</sup> Other VOCs <u>not</u> analyzed (groundwater ppb before cleanup): NA MtBE, NA TBA, NA DIPE, NA ETBE, NA TAME, NA EDB, NA 1.2-DCA, NA EtOH

<sup>&</sup>lt;sup>4</sup> Other VOCs (Soil mg/kg after cleanup): NA TBA, NA DIPE, NA ETBE, NA TAME, NA EtOH,

<sup>&</sup>lt;sup>5</sup> Other VOCs (Soil mg/kg before cleanup): NA MtBE, NA TBA, NA TAME, < NA DIPE, NA EtOH NA - Not Analyzed

former ends of the UST. Soil sample analytical results detected 160 mg/kg of total petroleum hydrocarbons (TPH) as gasoline, 11 mg/kg benzene, and 11 mg/kg toluene. It is reported that this UST contained Great Western Solvent 225 for an unspecified period of time. According to Great Western Chemical Company of Richmond, Solvent 225 is comprised of light aliphatic naphtha, toluene, N-heptane, and cyclohexane. Groundwater samples obtained from a well located in the UST area (referred to as "Former Well) detected a variety of petroleum hydrocarbons, volatile organics, and barium.

The second UST that reportedly stored kerosene was removed from the site in August 1988. Tank removal and soil sampling overseen by Uriah indicated that two soil samples collected from beneath the UST did not contain detectable concentrations of TPH. Therefore, it did not appear that there had been significant previous releases from this UST.

The former well was abandoned in 1995 since the integrity of this well was of concern, and three new wells and three borings were subsequently installed. Groundwater sampling of the three wells occurred periodically between 1995 through 2002. Chemicals of concern included in the analytical suite were volatile organic compounds (VOCs), petroleum hydrocarbons, barium, and selenium. Concentrations of barium ranged from 820 to 67,000 mg/kg in the six samples collected from within the former tank pit area.

On November 21, 2002, Furgro oversaw the installation of five borings (B-1 through B-5) to depths of approximately 15 to 18 feet bgs using a limited access direct push rig. Two borings were installed within the former UST area, and the remaining three borings were located inside the warehouse structure, and along the east and south building walls. The boring were continuously cored for lithology. Grab groundwater samples were collected from borings B-3 through B-5 and analyzed for VOCs. Barium concentrations ranged from 50 mg/kg to 160 mg/kg. Considering all the data collected to date, it is apparent that the highest concentrations of barium are associated with the fill placed within the former Great Western Solvent UST, and/or activities conducted in this area. No TPH-g, BTEX, or MtBE were detected in any of the soil samples. Low concentrations of VOCs (1,1-DCA, 1,1-DCE, PCE, and TCE were detected in groundwater. No VOCs were detected in MW-1 located closest to the former USTs.

According to Subsurface Consultants, Inc. (SCI), the elevated concentrations of metals (barium) in shallow soil appear to be localized to the former UST pit, and therefore may represent impacted fill placed within the tank pit following removal activities. Barium and selenium concentrations measured in groundwater do not suggest any correlation to the to the presence of the impacted fill materials. As such, the groundwater concentrations of barium and selenium may represent background concentrations for the area.

VOCs have been detected regularly in monitoring wells MW-2 and MW-3, along the Adeline Street side of the property. According to SCI, the source of the VOCs in unknown. However, the property is situated in a historic mixed commercial and residential use area.

A supplemental Risk Assessment was presented in Furgro's April 2003 Report. According to Fugro, TPH, BTEX, and MtBE were below Regional Water Quality Control Board's RBSLs and determine that these residual concentrations do not pose a significant risk to human health or the environment.

Elevated concentrations of barium detected in soil (67,000 mg/kg) and groundwater (28,000  $\mu$ g/L) have been located within the former UST area. Concentrations of barium located outside the UST pit area ranged from 37 to 220 mg/kg, with an average of 116 mg/kg. This data suggests that a risk of exposure to high levels of barium is not widespread across the site. The concentrations detected in the area of concern (the former UST pit) would only represent a risk if a direct pathway for contact were completed, which is not currently the case since the soil in the former UST pit is capped with asphalt. The elevated barium concentrations in groundwater collected from the "former well" also appears to skew the groundwater data. The "former well" was accepted for closure due to concerns about the integrity of wells' surface seal. The average barium concentrations detected in groundwater outside of the former tank area can be observed by reviewing the historic data of samples obtained from the existing groundwater monitoring wells. The barium concentrations in these wells have ranged from 33 to 270  $\mu$ g/L. The highest concentration of barium was detected at 28,000  $\mu$ g/L a groundwater sample collected from the "former well" located between the former USTs at the site was. The barium appears to be localized to the former UST area as indicated by the concentration gradient.

Although a risk assessment consisting of a comparison of site concentrations of contaminants to RWQCB RBSLs was conducted by Fugro, it appears prudent to evaluate the site concentrations to the more recently revised RWQCB's Environmental Screening Levels (ESLs). Therefore, site concentrations were compared to applicable RWQCB ESLs. Residual concentrations of TPH-g (160 mg/kg) benzene (11 mg/kg), and toluene (11 mg/kg) exceed the applicable ESL of 83 for TPH-g, 0.044 mg/kg for benzene, and 2.9 mg/kg for benzene for residential land-use risk scenario where groundwater is a current or potential drinking water resource. However, these samples were collected approximately between 8 to 10 ft bgs. Depth to water at the site ranges from 3.99 to 8.8 ft bgs. Therefore, the soil samples may not be representative of vadose zone soil conditions and may be more indicative of site groundwater conditions. Barium was detected at 67,000 mg/kg, significantly above its respectively ESL of 750 mg/kg. However, as stated above, the barium appears to be localized to the fill material and does not appear to be widespread at the site. The site average barium concentration, discounting the barium concentrations detected in the fill, of 116 mg/kg is below the ESL. No other concentration of contaminants in soil were detected above the ESLs. Therefore, the residual concentrations of

contaminants in soil do not appear to pose a potential risk to human health or the environment under the current commercial land use and building configuration.

Gasoline and dieset range petroleum hydrocarbons were detected at a concentrations ranging from 630 to 340  $\mu$ g/L, respectively slightly above its ESL of 100  $\mu$ g/L. However, the contaminant plume appears stable and BTEX has been detected below the laboratory detection limits. Although the origin of solvents is unknown, 100  $\mu$ g/L of 1,1-DCA, 120  $\mu$ g/L1-DCE, 1.4  $\mu$ g/L PCE, and 4.4  $\mu$ g/L TCE were detected at the site with 1,1-DCA and 1,1-DCE detected above their respective ESLs of 5  $\mu$ g/L and 6  $\mu$ g/L. However, the 1,1-DCA and 1,1-DCE concentrations are below the contaminant volatilization to indoor air residential land-use scenario ESL of 1,000  $\mu$ g/L and 6,300  $\mu$ g/L, respectively. Thereforem the residual concentrations of contaminants detected in groundwater do not appear to pose a significant risk to human health or the environment.

#### **IV. CLOSURE**

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes

Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a significant risk to human health based upon current land use and conditions.

Site Management Requirements: City of Oakland Building Department has been notified that should excavation or development of the property be proposed that may encounter impacted soil or groundwater, Alameda County Environmental Health must be notified as required by Government Code Section 65850.2.2. The current property owner/developer must submit a soil and groundwater management plan for review prior to any construction activities. Please note that case closure for the fuel leak site is granted for commercial land use. If a change in land use to residential or other conservative scenario occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated.

Should corrective action be reviewed if land use changes? Yes.

	Was a deed restriction or deed notification filed? No		Date Recorded:	•
	Monitoring Wells Decommissioned: No	Number Decommissioned: 3	Number Retained: 0	
1	List Enforcement Actions Taken: None	•		

List Enforcement Actions Taken: None

List Enforcement Actions Rescinded: --

#### V. ADDITIONAL COMMENTS, DATA, ETC.

#### Considerations and/or Variances:

Residual concentrations of gasoline and diesel range petroleum hydrocarbons were detected in groundwater at concentrations ranging from 630 to 340  $\mu$ g/L and residual concentrations of 1,1-DCA and 1,1-DCE were detected at concentration of 100 and 120  $\mu$ g/L, respectively, which exceed the ESLs where groundwater is a potential drinking water source. The concentrations of gasoline and diesel range petroleum hydrocarbons and VOCs are expected to decrease over time as a result of biodegradation and natural attenuation processes. Please note that case closure for the fuel leak site is granted for commercial land use. If a change in land use to residential or other conservative scenario occurs at this property, Alameda County Environmental Health must be notified and the case needs to be reevaluated.

#### Conclusion:

Alameda County Environmental Health staff consider that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment based upon the information available in our files to date. No further investigation or cleanup is necessary. ACEH staff recommend case closure for this site based on the current commercial use of the site. If a change in land use to residential or other conservative scenario occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated.

#### VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Paresh Khatri	Title: Hazardous Materials Specialist
Signature: / My Lhd.	Date: 8/19/2008
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature:	Date: 08/20/08

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

#### VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: Ch_WclauL	Date: 1/16/09

#### VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH:	Date of Well Decommissioning Report: 11/23/2010		
All Monitoring Wells Decommissioned: 15 165	S Number Decommissioned: 3 Number Retained:		
Reason Wells Retained:	I		
Additional requirements for submittal of groundwa	iter data from retained wells: None		
ACEH Concurrence - Signature:	at:	Date: 11/30/2010	

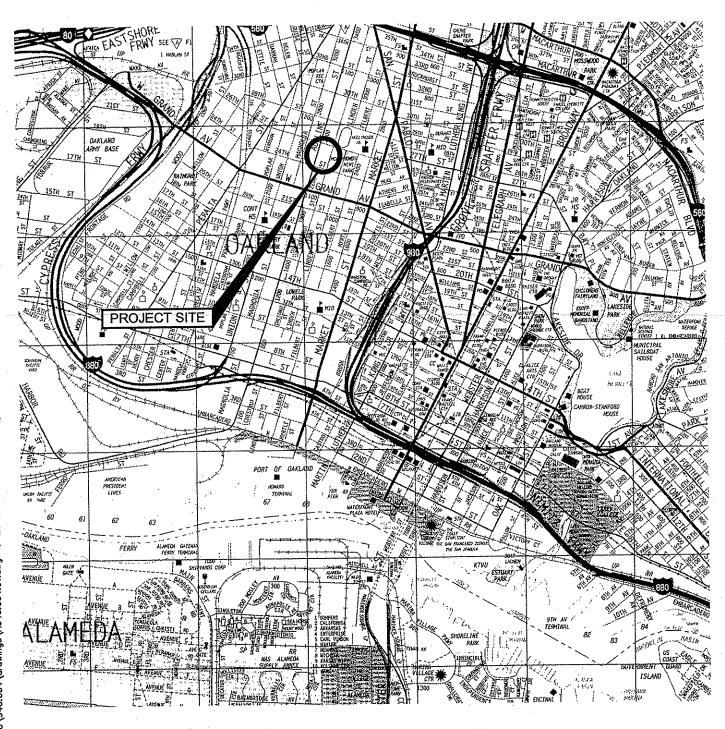
#### Attachments:

- 1. Site Vicinity Map
- 2. Site Plan with Sample Locations
- 3. June 1987 Tank Removal Laboratory Data
- 4. Soil Analytical Data Table
- 5. Groundwater Elevation Table
- 6. Groundwater Analytical Data Table
- 7. Tables 1 & 2 (Comparison of residual contamination to applicable ESLs).
- 8. Fugro's Risk Comparison Table
- 9. Monitoring Well Construction Details and Boring Logs (8 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

NOTE:

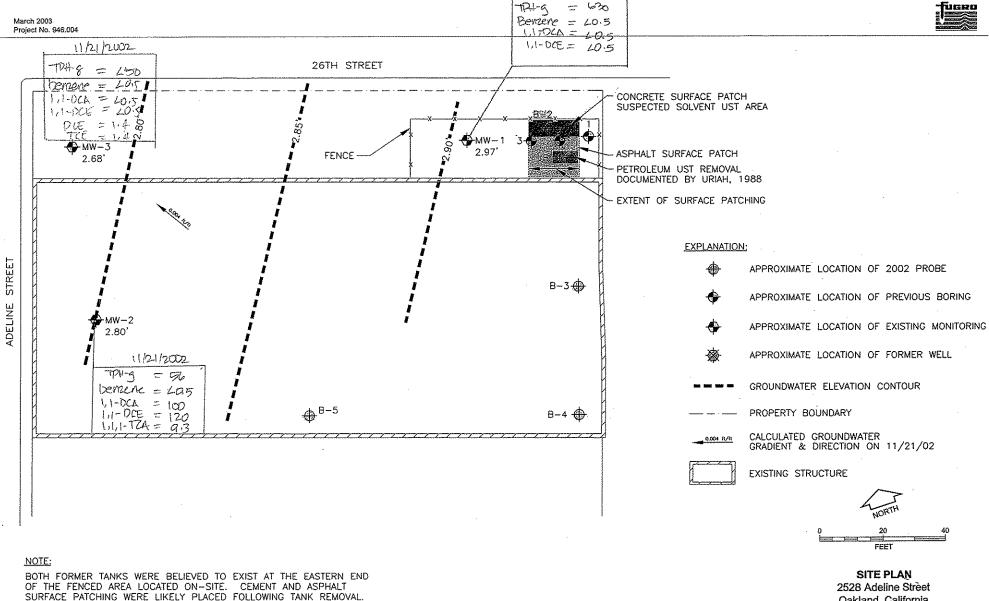
This Vicinity Map Is Based On A Thomas Guide Map For San Francisco, Alameda And Contra Costa Counties, California, Map 649, YEAR 2000



VICINITY MAP 2528 Adeline Street Oakland, California 2400

NORTH

FEET



11/21/2002

Oakland, California





## BROWN AND CALDWELL LABORATORIES

1255 POWELL STREET EMERYVILLE, CA 94608 . (415) 428-2300

E87-06-022 LOG NO:

Received: 01 JUN 87 Reported: 19 JUN 87

Mr. Richard Fahey Diablo Petroleum Inc. 3930 Pacheco Boulevard Martinez, California 94553

Project: 87276

## REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, SOIL S	AMPLES	DATE	SAMPLED
06-022-1 06-022-2	#1 Under Suction End #2 Under Fill End			JUN 87 JUN 87
PARAMETER		06-022-1	06-022-2	
Benzene, m Toluene, m	wene, Xylene Isomers g/kg g/kg ene Isomers, mg/kg Hydrocarbons, mg/kg	3.6 6.3 <0.5 73	11 11 <0.5 160	w. sac sac va. «» «»

McLean, Laboratory Director

Copies to Ala Cty Heathland Cabland Fre 6/12/87

## TABLE 3 CHEMICALS OF CONCERN IN SOIL 2528 ADELINE STREET OAKLAND, CALIFORNIA



<u>Sar</u>	mple ID	Barium (mg/kg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (ma/kg)	Ethyl benzene (mg/kg)	Xyienes (mg/kg)	MTBE (ma/kg)
March -August	1995 Data							
1:@	2.0	83	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	-
1:@	3.5	91				**		
1.@	2.10.51	**	14			••	***	
2.@	4.0'	67,000	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	
2 @	5.5	1,900				••	-	
2.@	10:5'	820						
2.@	:11.0'	**	24					
3:@	2.0	14,000	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	
3 @	£4.0¹	2,100				••		
3 @	8.0'	2,900				**	**	
MW	/-1 @ 3.0°	220	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	
MW	/-1 @ 7.0°	**	<1.0			••		
MW	-1 @ 8.0°	160				**		
MW	-2 @ 1.0	37		**				
MW	-3 @ 2.5	100		**		••		
November 2002	? Data							
	@:1:5'	100		**		-		
	@ 4.0'	83	<1.0	< 0.005	< 0.005	<0.005	<0.005	< 0.005
· ·	@:8:0'	120	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
	@ 1-0'	100	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
B-2	@-5:0'	66	-	**				
B-2:	@-8:0'	130	<1.0	< 0.005	< 0.005	< 0.005	<0.005	<0.005
B#3:	@ 1:0'	160		**		**	10.000	
	@:4.0	50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
	@ 8.0	83	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
B-5.	@:1:5'	110			** .		**	

Ba = Barium
TPHg = Total volatile hydrocarbons within the gasoline range
MIBK = Methyl isobutyl ketone
MTBE = Methyl tertiary buthyl ether
--= Test not requested
mg/kg = milligrams per kilogram
<1.0 = None detected at or above the stated detection limit



# TABLE 1 GROUNDWATER ELEVATION DATA 2528 ADELINE STREET OAKLAND, CALIFORNIA

Well Number	Date	TOC Elevation (feet)	Groundwater Depth (feet)	Groundwater Elevation (feet)
MW-1	4/3/1995	10.99	5.78	5.21
	8/14/1995		8.04	2.95
	4/29/1996		8.16	2.83
	7/25/1996		8.80	2.19
	10/31/1996		8.69	2.30
	1/9/1997		5.65	5.34
	7/31/1997		7.58	3.41
,	1/13/1998		5.20	5.79
	7/14/1998		7.53	3.46
	11/21/2002		8.02	2.97
MW-2	8/14/1995	9.12	6.42	2.70
9	4/29/1996	•	5.43	3.69
•	7/25/1996		6.68	2.44
	10/31/1996		6.74	2.38
	1/9/1997		3.99	5.13
	7/31/1997		6.78	2.34
	1/13/1998		3.70	5.42
	7/14/1998		6.37	2.75
	11/21/2002	•	6.32	2.80
MW-3	8/14/1995	9.93	7.48	2.45
	4/29/1996		7.16	2.77
	7/25/1996		7.55	2.38
	10/31/1996		7.17	2.76
	1/9/1997		6.66	3.27
	7/31/1997		7.57	2.36
•	1/13/1998	•	6.22	3.71
	7/14/1998		7.31	2.62
	11/21/2002		7.25	2.68

#### Notes:

- 1. TOC Top of Casing
- 2. Measured below TOC
- 3. Reference Mean Sea Level

TABLE 4
CHEMICALS OF CONCERN IN GROUNDWATER
2528 ADELINE STREET

## FIGRO (

OAKLAND, CALIFORNIA

			T	/H³	7	EH <sup>2</sup>																	
	•		Gasoline	Stoddard	Diesel	Kerosene	•			Ethyl-	Total			Carbon						cis-1,2-			
		Barium	Range	Solvent	Range	Range	O&G	Benzene	Toluene	benzene	Xylenes	MTBE	Acetone	disulfide	1,1-DCA	1,1-DCE	MEK	MIBK	1,1,1-TCA	DCE	TCE	PCE	
Sample ID	Date	(ug/L)	(µg/L)	(µg/L)	(µq/L)	(µg/L)	(mg/L)	(µq/L)	(µg/L)	(µq/L)	(µg/L)	(µg/L)	(ug/L)	(ug/L)	(µg/L)	(µg/L)	(µq/L.)	<u>(μq/L)</u>	(µg/L)	(µg/L)	(µq/L)	(µq/L)	
Former Well	3/31/1995	28000	2800	**	1600	**	37	4.5	49	34	270		24	4.1	<5.0	<5.0	7,7	57	<5.0	<5.0			
(abandoned)		44700					O,	7.0	70	04	2.10		2.7	7.1	νο.υ	40.0	,.,		<b>10.0</b>	٦٥.٥			
MW-1	4/3/1995	160	730	**		310	5.8						00	.e.o	.e. 6	4.0	-10	40	<5.0	<5.0	-50	<5.0	
14144-1	4/29/1996	130	2000	2000	240	220	<5	<0.5	<0.5	65	16		<20	<5.0	<5.0	4.2	<10	<10	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	
	7/25/1996	110	730	750	190	180	<5	<0.5	<0.5				<20	<5.0	<5.0	6.2	⊲10	<10			<5.0	<5.0	
	10/31/1996	130	<50	<50	<50	<50	<5	<0.5		26	<0.5	**	<20	<5.0	<5.0	<5.0	<10	<10	<5.0 -c.o	<5.0 -= 0			
	1/9/1997	270	1800	430	470	550	<0		<0.5	<0.5	<0.5		<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0 <5.0	<5.0	
	7/31/1997	220	700	610	290	360		<0.5 <0.5	<0.5	57	26	-	<20	<5.0	<5.0	<5.0	<10	<10	<5.0 .c.o	<5.0		<5.0 -5.0	
	1/13/1998	220	1400	2800	320	330			<0.5 4.3C	2.7	<0.5	400	<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0	<5.0	
	7/14/1998		630	340	250	160		1.2C		16	0.95	13C									**	**	
	11/21/2002	••	630	340	250	100		<0.5	<0.5	1.8	<0.5	3.1					**			-0.5	-0.5	-0.5	
	1 1/2 1/2002	**	000			••		<0.5	<0.5	<0.5	<0.5	<5	-		<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	
MW-2	8/15/1995	180	83	**	<50	<50	<5	<13	<13	<13	≼13		<50	<13	62	260	<25	<25	170	<13	<13	<13	
	4/29/1996	120	75	74	<50	<50	<5	<0.5	<0.5	<0.5	<0.5	••	<20	<5.0	91	400	`<10	<10	260	<5.0	<5.0	<5.0	
	7/25/1996	130	110	92	<50	<50	<5	<0.5	<0.5	<0.5	<0.5	***	<40	<10	70 .	270	<20	<20	230	<10	<10	<10	
	10/31/1996	130	<50	<50	<50	<50	<5	<0.5	< 0.5	<0.5	< 0.5	**	<33	<8.3	67	210	<17	<17	160	<8.3	<8.3	<8.3	
	1/9/1997	150	<50	<50	<50	<50	**	<0.5	<0.5	<0.5	<0.5	**	<50	<13	79	340	<25	<25	230	<13	<13	<13	
	7/31/1997	150	<50	<50	<50	<50		< 0.5	< 0.5	<0.5	<0.5	**	<33	<8.3	66	210	<17	<17	120	<8.3	<8.3	<8.3	
	1/13/1998		<50	<50	<50	<50	**	0.55	<0.5	<0.5	< 0.5	15	<40	<10	70	270	<20	<20	110	<10	<10	<10	
	7/14/1998		<50	<50	58	<50	**	<0.5	<0.5	<0.5	<0.5	<2	<33	<8.3	62	170	<17	<17	68	<8.3	<8.3	<8.3	
	11/21/2002	**	56	**		**	~~	<0.5	<0.5	<0.5	<0.5	<5		••	100	120	**	**	9.3	<2.5	<2.5	<2.5	
MW-3	8/15/1995	62	<50	<50	<50	<50	<5	<5.0	<5.0	<5.0	<5.0		<20	<5.0	3.3	4.1	<10	<10	8.8	2.9	<5.0	<5.0	
	4/29/1996	82	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5		<20	<5.0	<5.0	14	<10	<10	12	<5.0	<5.0	<5.0	
	7/25/1996	33	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5		<20	<5.0	<5.0	7.2	<10	<10	8	<5.0	<5.0	<5.0	
	10/31/1996	100	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5	••	<20	<5.0	<5.0	<5.0	<10	<10	5.1	<5.0	<5.0	<5.0	
	1/9/1997	130	<50	<50	<50	<50	+	< 0.5	<0.5	<0.5	<0.5		<20	<5.0	<5.0	<5.0	<10	<10	5.6	<5.0	<5.0	<5.0	
	7/31/1997	65	<50	<50	<50	<50	+*	<0.5	<0.5	<0.5	<0.5	•	<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0	<5.0	
	11/21/2002		<50	+2			•••	<0.5	<0.5	<0.5	<0.5	<5	**		<0.5	<0.5			<0.5	1.4	1.4	4.4	
Probe B-3	11/21/2002			**	*-					**					7.8	3.7			1.0	<0.5	<0.5	<0.5	
Probe B-4	11/21/2002														<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	
Probe B-5	11/21/2002		**			_		**		_				-	<0.5	<0.5	-		<0.5	<0.5	<0.5	<0.5	
000 0-0	11212002		**	34				**	-						<0.5	~U.O		**	₹0.5	~0.0	<b>~0.0</b>	~0.0	

<sup>&</sup>lt;sup>1</sup>Gasoline and stoddard solvent hydrocarbon ranges overlap

TVH = Total volatile hydrocarbons

TEH = Total extractable hydrocarbons

MTBE = Methyl tertiary butyl ether

O&G = Oil and grease

C = Presence of this compound confirmed by a second column; however, the confirmation concentration differed from the reported result by more than a factor of two.

<50 = None detected above the laboratory reporting limit stated.

-- = Test not requested

<sup>&</sup>lt;sup>2</sup>Diesel and kerosene hydrocarbon ranges overlap

<sup>\*\* =</sup> Range not reported due to overlap of hydrocarbons  $\mu g \hbar$  = micrograms per liter or parts per billion

mg/L = milligrams per liter or parts pr million

## **Environmental Impacts in Soil**

## Aervoe Pacific 2528 Adeline Street, Oakland, California

Table 1. Comparison of Maximum Residual Soil Concentrations at the Site to Relevant Cleanup Standards (mg/kg)

	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)	MtBE (mg/kg)	1,1-DCA (mg/kg)	1,1-DCE (mg/kg)	PCE (mg/kg)	TCE (mg/kg)	Barium (mg/kg)
Maximum Residual Soil Concentrations at Site in milligrams per kilogram	160 <sup>4</sup>		114	11 <sup>4</sup>	<0.005 <sup>4</sup>	<0.5 <sup>4</sup>	<0.005					67,000 <sup>5</sup>
RWQCB, Region 2 ESLs <sup>1</sup>	83 <sup>3</sup>	83 <sup>3</sup>	0.044 <sup>3</sup>	2.9 <sup>3</sup>	2.3 <sup>2</sup>	2.3 <sup>3</sup>	0.023 <sup>3</sup>	0.20	1.0	0.370	0.46	750

<sup>&</sup>lt;sup>1</sup> Environmental Screening Levels (ESLs); Shallow Soil Screening Level for residential land use where potentially impacted groundwater is current or potential drinking water resource. Shallow soils defined as soils situated <3 meters below the ground surface. Depth to water ranges between 3.99 ft and 8.8 ft bgs.

<sup>&</sup>lt;sup>2</sup> Lowest ESL value based on direct exposure scenario. Depth to water ranges between 3.99 ft and 8.8 ft bgs.

<sup>&</sup>lt;sup>3</sup> Lowest ESL value based on groundwater protection (soil leaching). Depth to water ranges between 3.99 ft and 8.8 ft bgs.

<sup>&</sup>lt;sup>4</sup> Soil sample collected at 2 feet below UST probably between 8 to 10 feet bgs. Depth to water ranges between 3.99 ft and 8.8 ft bgs. Therefore, the soil sample was likely saturated and not representative of actual vadose zone soil conditions.

<sup>&</sup>lt;sup>5</sup> Soil sample collected at 4.0 ft bgs from boring 2 in 1995. In the same boring, soil sample at 5.5 ft bgs barium was detected at 1,900 mg/kg and at 10.5 ft barium was detected at 820 mg/kg. In boring B-1 installed in November 2002, located just south of boring 2, barium was detected at 100 mg/kg at 1.5 ft bgs, 83 mg/kg at 4 ft bgs, and 120 at 8 ft bgs. In boring B-2 installed in November 2002, located just north of boring 2, barium was detected at 100 mg/kg at 1.0 ft bgs, 66 mg/kg at 5.0 ft bgs, and 130 mg/kg at 8.0 ft bgs.

## **Environmental Impacts in Groundwater**

## Aervoe Pacific 2528 Adeline Street, Oakland, California

Table 2. Comparison of Maximum Residual Groundwater Concentrations at the Site to Relevant Cleanup Standards (µg/L)

	TPH-g (μg/L)	TPH-d (μg/L)	TPH-ss (μg/L)	Kerosene (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl Benzene (µg/L)	Xylenes (μg/L)	MTBE (μg/L)	1,1-DCA (μg/L)	1,1-DCE (μg/L)	PCE (μg/L)	TCE (µg/L)	Barium (μg/L)
Maximum Residual Groundwater Concentrations at Site	630	250	340	160	<0.5	<b>√0.</b> 5	<0.5	<0.5	<5.0	100	120	1.4	4.4	28,000 <sup>7</sup>
RWQCB Region 2 ESLs <sup>2</sup>	100 <sup>1</sup> 100 <sup>2</sup> 210 <sup>3</sup> 210 <sup>6</sup>	1.0 <sup>1</sup> 170 <sup>2</sup> 1.0 <sup>3</sup> 540 <sup>4</sup> 46 <sup>6</sup>	40 <sup>1</sup> 40 <sup>2</sup> 150 <sup>3</sup> 380,000 <sup>4</sup> 130 <sup>6</sup>	30 <sup>1</sup> 30 <sup>2</sup> 300 <sup>3</sup> 170,000 <sup>4</sup> 43 <sup>6</sup>	20 <sup>1</sup> 20 <sup>2</sup> 1,800 <sup>3</sup> 160,000 <sup>4</sup> 100 <sup>6</sup>	5 <sup>1</sup> 5 <sup>2</sup> 13 <sup>3</sup> 24,000 <sup>4</sup> 8,000 <sup>6</sup>	5 <sup>1</sup> 50,000 <sup>2</sup> 5 <sup>3</sup> 1,000 <sup>4</sup> 47 <sup>6</sup>	6 <sup>1</sup> 1,500 <sup>2</sup> 6 <sup>3</sup> 6,300 <sup>4</sup> 25 <sup>6</sup>	5 <sup>1</sup> 170 <sup>2</sup> 5 <sup>3</sup> 120 <sup>4</sup> 120 <sup>6</sup>	5 <sup>1</sup> 310 <sup>2</sup> 5 <sup>3</sup> 530 <sup>4</sup> 360 <sup>6</sup>	1,000 <sup>1</sup> 50,000 <sup>2</sup> 1,000 <sup>3</sup> <sup>4</sup> 1,000 <sup>6</sup>			
ASTM Tier 1 Standard Human Health RBSL (Benzene)	NA	NA	NA	NA	11,000 <sup>4</sup> 23.8 <sup>5</sup>	32,800	77,500	NA	NA	NA				-

<sup>&</sup>lt;sup>1</sup> Environmental Screening Levels (ESLs) for impacted subsurface groundwater less than 10 feet, where groundwater IS a current or potential drinking water resource

<sup>&</sup>lt;sup>2</sup> Final Groundwater Screening Level, based on ceiling value (taste and odor threshold)

<sup>&</sup>lt;sup>3</sup> Groundwater Screening Level, based on drinking water toxicity

<sup>&</sup>lt;sup>4</sup> Groundwater Volatilization to indoor air (residential) Level,

<sup>&</sup>lt;sup>5</sup> Groundwater Vapor Intrusion from groundwater to buildings (residential, chronic hazard quotient = 1)

<sup>&</sup>lt;sup>6</sup> Final Groundwater Screening Level, based on Aquatic Habitat

<sup>&</sup>lt;sup>7</sup> Sample collect on 7/31/1997 from monitoring well MW-1 located approximately 15 ft down-gradient of USTs detected barium at 220 μg/L. Barium detected at 28,000 μg/L on 3/31/1995 from former well located in former UST pit. Former well construction details are unknown.



#### TABLE 2 COMPARISON of RBSLs 2528 ADELINE STREET OAKLAND, CALIFORNIA

		SOIL	GROUNDWATER				
Chemical of	RWQCB RBSL	ULR RBSL	RWQCB RBSL	ULR RBSL			
Concern	<u>(mg/kg)</u>	(mg/kg)	(ug/L)	(ug/L)			
Barium	1,100/2,400 (CW) not a volatile, not an inhalation risk	5,000/71,000 surficial soil	50,000 (CV)	not a volatile not an inhalation risk			
TPHg	400 (L)	NA	5,000 (CV)	NA			
Benzene	0.18/0.39(CW)	19/49 surficial soil 3.3/52 (I)	5,800/24,000 (i)	6,600/100,000 (1)			
Toluene	8.4 (L)	7,100/34,000 surficial soil 1,600/SAT (I)	SOL (I)	SOL (I)			
Ethylbenzene	24(L)	3900/18000 surficial soil SAT Inhalation	300(CV)/SOL (I)	SOL (I)			
Total Xylenes	1.0 (L)	53000/260000 surficial soil SAT Inhalation	5,300(CV)/SOL (I)	SOL (I)			
1,1-DCA	2.1 (L) 3.2/13 (I)	330/870 surficial soil 43/680 Inhalation	22,000/94,000 (I)	120,000/1,900,000 (I)			
1,1-DCE	4.3 (L) 0.028/0.12 ( I)	3.3/8.5 surficial soil 0.4/6.3 Inhalation	200/850 (I)	2,500/39,000 (I)			
1,1,1-TCA	8.0 (L) 330/1,100 (I)	3.3/8.5 surficial soil 0.4/6.3 Inhalation	50,000 (CV)	SOL(I)			

#### Notes

#### 1,100/2,400=Residential Exposure Risk/Commercial Exposure Risk

RBSL = Risk Based Screening Criteria

RWQCB=Regional Water Quality Control Board-Region 2 Interim Final Guidance, December 2001, Tables B, D, E-1a, E-1b, F and K. ULR=Oakland Urban Land Redevelopment Program Guidance, January 2000

Assumes Clayey Silt Soil Type and Shallow Groundwater. Analysis driven by surfacial soil impacts and risk of inhalation of impacted vapors in indoor air spaces.

mg/kg = milligrams per kilogram=parts per million

ug/L=micrograms per liter=parts per billion

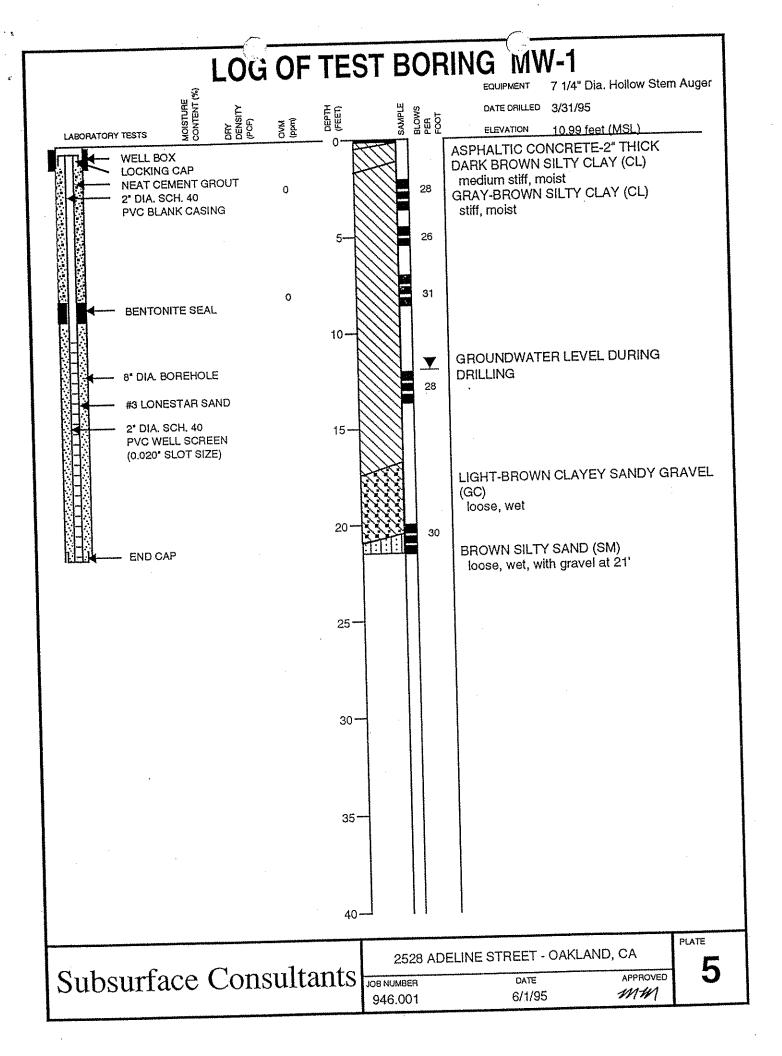
TPHg = Total volatile hydrocarbons reported within gasoline range

<1.0 = None detected at or above the stated detection limit

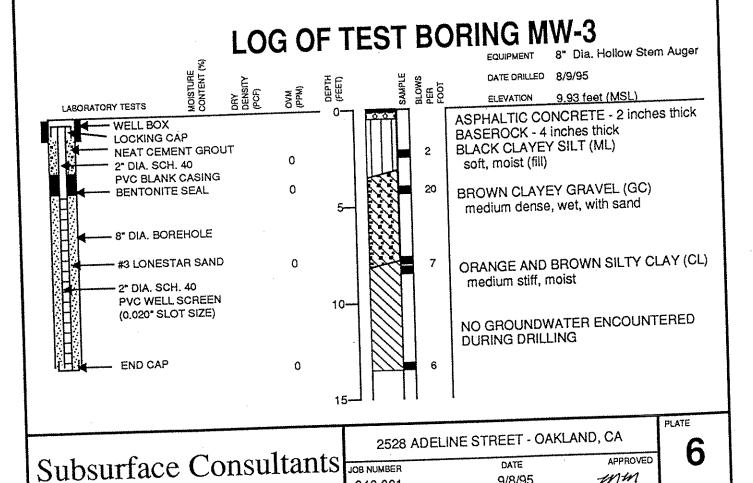
Sol=RBSL exceeds solubility of chemical in water

Sat=RBSL exceeds saturated soil concentration of chemical

NA=RBSL not established



#### LUG OF TEST BORING MW-2 8" Dia. Hollow Stem Auger MOISTURE CONTENT (%) DATE DRILLED 8/9/95 DRY DENSITY (PCF) DEPTH (FEET) BLOWS PER FOOT MVQ (ppm) 9.12 feet (MSL) ELEVATION LABORATORY TESTS CONCRETE - 6 inches thick WELL BOX BASEROCK - 4 inches thick LOCKING CAP GRAY-BROWN SILTY CLAY (CL) NEAT CEMENT GROUT medium stiff, moist, with trace coarse 2" DIA, SCH. 40 0 grained sand PVC BLANK CASING BENTONITE SEAL 5-14 8" DIA. BOREHOLE GROUNDWATER LEVEL DURING #3 LONESTAR SAND DRILLING 2" DIA, SCH. 40 0 PVC WELL SCREEN 10 (0.020\* SLOT SIZE) BROWN SANDY CLAY (CL) END CAP medium stiff, wet



946.001

APPROVED

mm

DATE

9/8/95

G	ENERAL SOIL C	ATEGORIES	SYMBOLS	TYPICAL SOIL TYPES
		Clean Gravel with	GW 3	Well Graded Gravel, Gravel-Sand Mixtures
e A	GRAVEL.	little or no fines	GP	Poorly Graded Gravel, Gravel-Sand Mixtures
No. 200 se	coarse fraction Is larger than No. 4 selve size	Gravel with more	GM	Silty Gravel, Poorly Graded Gravel-Sand-Silt Mixtures
r than M	NO. 4 30.10 0.12	than 12% fines	GC	Clayey Gravel, Poorly Graded Gravel-Sand-Clay Mixtures
COARSE GRAINED SOILS More than half is larger than No. 200 selve		Clean Sand with	sw	Well Graded Sand, Gravelly Sand
	SAND More than half coarse fraction is smaller than No. 4 selve size	little or no fines	SP	Poorly Graded Sand, Gravelly Sand
		Sand with more	SM	Silty Sand, Poorly Graded Sand-Silt Mixtures
		than 12% fines	sc	Clayey Sand, Poorly Graded Sand-Clay Mixtures
<u> </u>			ML	Inorganic Silt and Very Fine Sand, Rock Flour, Silty or Clayey Fine Sand, or Clayey Silt with Slight Plasticity
200 sel	SILT	AND CLAY hit Less than 50%	CL	Inorganic Clay of Low to Medium Plasticity, Gravelly Clay, Sandy Clay, Silty Clay, Lean Clay
D SOIL than No	Liquid Lin		OL	Organic Clay and Organic Silty Clay of Low Plasticity
FINE GRAINED SOILS an half is smaller than No. 200 selve			MH	Inorganic Silt, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silt
	SILT Liquid Lim	AND CLAY It Greater than 50%	СН	Inorganic Clay of High Plasticity, Fat Clay
More tha			он	Organic Clay of Medium to High Plasticity, Organic Silt
		ANIC SOILS	PT &	Peat and Other Highly Organic Solls

( · · ·

UNIFIED S	OIL CLASSIFI	CATION SY	/STEM
2528 ADELI	NE STREET - OAKL	AND, CA	PLATE
JOB NUMBER 946,001	DATE 6/1/95	APPROVED MM	/
	2528 ADELI JOB NUMBER	2528 ADELINE STREET - OAKL	UNIFIED SOIL CLASSIFICATION SY  2528 ADELINE STREET - OAKLAND, CA  JOB NUMBER DATE APPROVED  946.001 6/1/95 MM

946.004

Sheet 1 of 1 LOG OF BORING Project Name & Location: 2528 Adeline Street **Ground Surface Elevation:** Oakland, California Elevation Datum: Finish: Date Time Start: Date Time **Drilling Coordinates:** See Plate 1 12:20 11/21/02 11:10 11/21/02 Drilling Company & Driller: Vironex J.M. Hole Diameter: Drilling Fluid: Rig Type & Drilling Method: 2" N.A. Limited Access Rig, Direct Push Logged By: <u>\*</u> Sampler A) Clear Butyrate Tubes Type(s): O Nzewi Date: Backfill Method: Sampling A) Direct Push Method(s): 11/21/02 **Neat Cement** Blows/6 inches or pressure SOIL DESCRIPTIONS Blows/12 inches Sample Interval Sampler Type Depth (feet) OVM (ppm) GROUP NAME (GROUP SYMBOL) Graphic Log color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) Sandy SILT (ML) Dark brown to black, moist 0 0 Clayey SILT (ML) 0 Brown to light greenish gray, moist 0 Clayey SILT (ML) 5 Α Light greenish gray, moist, increasingly stiff, with some pebbles 0 0 0 0 10 Clayey SILT (ML) Light greenish gray to brown, stiff 0 Clayey SILT (ML)  $\nabla$ Light brown to greenish gray, stiff, increased sands 0 0 15 CORP.GDT Moist and soft, with dark brown black streaks ပ္ပ FUGRO LOG OF BORING 946-004.GPJ Bottom of boring at 18 feet below ground surface. 2528 Adeline Street **BORING** Oakland, California FUGRO WEST, INC. 1000 Broadway, Suite 200, Oakland, California 94607 Tel: (510) 268-0461, Fax; (510) 268-0137 DATE JOB NUMBER 3/03 946.004