

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



October 18, 2007

Elliot JM TR Family Trust c/o
Ms. Jeannette Elliot
1744 Skyview Drive
San Leandro, CA 94577

Mandela Partners LLC c/o
Thomas Breunig & Micheal Dinga
2607 Mandela Parkway Parkway, #1
Oakland, CA 94607-1720

ENVIRONMENTAL HEALTH SERVICES

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

Dear Ms. Elliot and Messrs. Breunig and Dinga:

Subject: Fuel Leak Case Closure, RO0000040, Global ID T0600102110, Russ Elliot
Roofing, 2526 Wood St., Oakland, CA 94607

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 the following conditions exist at the site.

- Residual pollution of up to 2.2 parts per million, (ppm) Total Petroleum Hydrocarbons as diesel (TPHd), 11 ppm lead and 0.24 ppm methyl tertiary-butyl ether (MTBE) exist in soil at this site.
- Residual pollution of up to 82 parts per billion, (ppb) TPHg and 240 ppb lead exist in groundwater at this site.

If you have any questions, please call Barney Chan at (510) 567-6765. Thank you.

Sincerely,

Donna L. Drogos, P.E.
LOP and Toxics Program Manager

Enclosures:

1. Remedial Action Completion Certificate
2. Case Closure Summary

cc:

Mr. Leroy Griffin, OFD
250 Frank Ogawa Plaza, Ste 3341
Oakland, CA 94612

Mr. Toru Okamoto (w/enc)
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Ms. Cherie McCaulou (w/enc)
SFRWQCB
1515 Clay St., Suite 1400
Oakland, CA 94612

Files, (w/original enc), D. Drogos (w/enc), R. Garcia-LaGrille (w/enc)



October 18, 2007

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
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REMEDIAL ACTION COMPLETION CERTIFICATION

Elliot JM TR Family Trust c/o
Ms. Jeannette Elliot
1744 Skyview Drive
San Leandro, CA 94577

Mandela Partners LLC c/o
Thomas Breunig & Micheal Dinga
2607 Mandela Parkway Parkway, #1
Oakland, CA 94607-1720

Subject: Fuel Leak Case Closure, RO0000040, Global ID T0600102110, Russ Elliot
Roofing, 2526 Wood St., Oakland, CA 94607

Dear Ms. Elliot and Messrs. Breunig and Dinga :

This letter confirms the completion of a site investigation and remedial action for the 1-500 gallon and 1-10,000 gallon 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 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Ariu Levi
Director

Alameda County Environmental Health

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

I. AGENCY INFORMATION

Date: 8/2/07

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6765
Responsible Staff Person: Barney Chan	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Russ Elliott Roofing		
Site Facility Address: 2526 Wood St., Oakland, CA 94607		
RB Case No.: 01-2294	Local Case No.: 4073	LOP Case No.: RO0000040
URF Filing Date: 10/22/95	Global ID: T0600102110	APN: 7-580-1-1
Responsible Parties	Addresses	Phone Numbers
Elliott J M TR Family Trust c/o Jeannette M. Elliott	1744 Skyview Drive, San Leandro, CA 94577	510-763-1300
Mandela Partners LLC c/o Thomas Breunig & Michael Dinga	2607 Mandela Parkway, #1, Oakland, CA 94607-1720	510-835-5401

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	500	Diesel	Removed	7/2/95
2	10,000	Gasoline	Removed	4/22/02
Piping			Removed with tanks	7/95 & 4/02

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: releases from dispenser and tanks		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? yes	Number: 3	Proper screen interval? Acceptable, though screened across 2 permeable zones
Highest GW Depth Below Ground Surface: 2.15' bgs	Lowest Depth: 7.8' bgs	Flow Direction: northwest to southwest
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: According to EDR report, no production or irrigation wells are located within a 1/4 mile radius of this site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain Oakland Sub basin
Is surface water affected? No	Nearest SW Name: SF Bay is approx. 0.6 mi to the northwest
Off-Site Beneficial Use Impacts (Addresses/Locations): none	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	1-550 gallon 1-10,000 gallon	Disposed at H & H, Environmental, SF, CA Disposed at ECI, Richmond, CA	7/27/95 4/22/02
Piping	Unknown	Piping assumed removed with USTs	7/27/95 4/22/02
Free Product	78 gallons	Residual Fuel from gasoline tank disposed at ECI, Richmond, CA	4/02
Soil	Unknown amounts for both tank removals	Soil believed to have been disposed at landfill but there are no receipts No receipt for soil disposed	7/95 4/2002
Groundwater	Unknown	Unknown	unknown

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	1900	<1	2960	82
TPH (Diesel)	310	2.2	470	<50
Oil & Grease	---	---	----	---
Benzene	2.6	<0.005	1	<0.5
Toluene	<1.4	<0.005	1.9	<0.5
Ethyl benzene	26	<0.005	16	<0.5
Xylenes	100	<0.005	4.1	<0.5
Heavy Metals, lead	11	11	ND	ND
MTBE	*0.24	0.24	**1820 (8021)	240
Other (8240/8270)	---	---	---	---

*0.24 ppm MTBE, <10 ppb TAME, <10 ppb ETBE, <10 ppb DIPE, 0.061ppm TBA, NA EtOH ppb, <5 ppb EDB, and <5 ppb EDC

**1820 ppb MTBE, 139 ppb TAME, <1 ppb ETBE, <1 ppb DIPE, 486 ppb TBA, NA EtOH ppb, <5 ppb EDB, and <5 ppb EDC

Site History and Description of Corrective Actions:

The site is located in west Oakland in an industrial setting. It is located between Wood St. and Willow St. to the west and east respectively, 26th St. to the north and other industrial properties to the south. Further west of Wood St. are railroad tracks and interstate 880 rebuilt over the former Cypress structure. No residential homes are located nearby this area. Railroad tracks also run north-south through the middle of the site. The site was formerly a roofing company and used the two underground tanks to fuel their vehicles. A 550 gallon diesel tank and a 10,000 gallon gasoline tank were located near the garage, in the center of the property and shared a common dispenser area. The 550 gallon diesel tank was removed in 1995 and the 10,000 gallon gasoline tank removed in 2002. No tank closure report was prepared for either of the tank removals. The information regarding the removals has been generated through review of historical records of analytical reports, field notes, inspection reports and receipts and reconstructed by Stellar Environmental Solutions, SES in their August 2003 Closure Documentation and Assessment Report. Assumptions are made regarding the disposal of spoils, since no soil disposal receipts were found, however, clean fill receipts were found indicating the spoils were not likely reused in the tank holds. See Attachment 1 for site location map and for aerial photo with x marking the former UST locations.

The 550 gallon diesel tank was used from at least 1977 until 1995 when it was removed. On July 27, 1995, the diesel tank was removed under the oversight of ACEH. Due to the presence of water in the tank pit, two sidewall samples, S1 and S2, were collected from 3' and 4' respectively from the east and west ends of the UST. Samples were analyzed for TPHg, TPHd and BTEX. With the exception of 0.0054 ppm xylenes, no other analytes were detected in S-2. Up to 1900 ppm TPHg, 310 ppm TPHd and 2.6, 26 and 100 ppm BEX were detected, respectively in sample S-1. No dispenser sample was collected at this time because it was still in use for the gasoline tank. The tank pit was then excavated to approximately 8' in depth. On June 6, 1996 the excavation was expanded laterally, a sample near the dispenser, VS-1, and additional verification soil samples, VS-2 through VS-5 were collected from depth ranging from 3-5' depths. A total of approximately 60-70 cy of soil was generated. These verification samples were ND for TPHg, TPHd, BTEX and MTBE. A pit water sample WS-1 was collected on October 4, 1995 at a depth of 4.5' bgs, after allowing the pit to be pumped out and recharge. This sample was ND for TPHg, TPHd, and BTEX. The presence of TPHg in S-1 may have been from releases from the nearby dispenser, which was also being used

for the 10k gasoline tank. It is noted that the stockpile composite sample collected from the initial tank removal, SP1 (A-D) and from the over-excavation soils, STK (A-D) detected up to 960 TPHg, 340 ppm TPHd and 0.8, 1.2 and 0.71 ppm, BTE, respectively. Again, it is noted the presence of TPHg in spoils from excavation of the former diesel tank. As stated previously, no documentation for soil or groundwater disposal was found for either of the tank removals. There are references to on-site treatment of the stockpiled soils with hydrogen peroxide and disposal to a landfill, however, no disposal receipts. The tank pit was backfilled in July 1996. See Attachments 2 for sample locations and Attachment 3 for analytical results.

On April 22, 2002 the OFD oversaw the removal of the 10,000 gallon fiberglass gasoline tank. The tank was installed in 1982. Notes from the removal indicate the tank appeared structurally intact with no holes. The tank was not held down with a slab or deadmen as is often the case for USTs in the presence of shallow groundwater. Four soil samples were collected, S-2 at 8' from the fill (north) end, S-1 at 8' from the south end, B-1 at 10' from the center base of the excavation and D1 from 3.5' beneath the dispenser. These samples were ND for TPHg, TPHd and BTEX. Up to 0.24 ppm MTBE was reported in sample S-1 and up to 11 ppm lead was detected in D-1. A grab groundwater sample, W-1, was collected from water that infiltrated into the excavation pit. This sample detected 790 ppb TPHg and 48, 120, 14, 88, 810 ppb BTEX and MTBE, respectively. TPHd was not run on this sample. Discolored soils and petroleum odor was noted on the OFD inspection report. One 4-point composite sample, STK1A-1D, was taken from the stockpiled soils. It reported ND for TPHg, BTEX and 0.15 ppm for MTBE.

From October 27-28, 2003 a soil and groundwater investigation was performed at the site to determine the extent of contamination at the site. Eight borings were drilled in locations within the former tank pits, up, down and cross-gradient of the former USTs. Continuous cores were obtained and soil samples collected in the unsaturated zone and saturated zone as permitted. In the boreholes outside of the UST excavations, saturated soils were encountered at depths of 5-8' bgs in a sandy, gravelly unit. Below this layer was a silt and clay of lower permeability. Another sand unit was found in the 14-18' bgs range in a number of borings, below which a clay unit, believed to be an aquitard, was encountered. Generally, soil samples indicated that the little to no TPH remained in soils, with the most significant concentration being 0.135 ppm MTBE detected in BH-02-6.5', located down-gradient of the gasoline tank and adjacent to the dispenser. Although saturated soil appeared in the shallow soil, groundwater samples were collected in the "deeper" gravel unit at depths from 12-18'. It is unclear whether the shallow unit is groundwater or perched water. The grab groundwater sample results detected residual TPHg and MTBE within the former gasoline tank pit and down-gradient of the former gasoline UST and lower concentrations of TPHg, TPHd and MTBE down-gradient of the former diesel tank and dispenser. Up to 2960 ppb TPHg and 764 ppb MTBE was detected in the grab groundwater sample from within the gasoline tank pit and up to 1370 ppb TPHg and 606 ppb MTBE down-gradient. It is likely that leaks from the dispenser of both TPHg and TPHd occurred. The down-gradient lateral extent of the investigation was limited due to the presence of warehouse located approximately 60' down-gradient of the former diesel tank. See Attachments 2 for sample locations, Attachment 3 for analytical results & Attachment 5 for boring logs.

On February 18, 2004 three monitoring wells were installed to verify the extent of the groundwater contamination. The wells were located within the former gasoline tank pit, near boring BH-01, just east of the former diesel tank and BH-03 and near previous boring BH-05. The wells were drilled to 20' depth and screened from 5-20'. The borings for these wells were similar to those of the previous investigation. The initial depth to water measurements ranged from 2.3-3.3' bgs, which likely indicates groundwater under confined conditions. Soil samples collected from the well borings were ND for TPHd, TPHg, BTEX and lead scavengers. MTBE up to 0.19 ppm was detected in the boring from MW-1 at a depth of 19.5'. Initial groundwater samples detected ND for TPHd, up to 172 ppb TPHg and 1.2, 0.6, 3, 19 ppb, BT, TAME and TBA, respectively. See Attachment 4 for well locations and cross-sections, Attachment 3 for analytical results and Attachment 5 for boring logs.

Groundwater monitoring was then performed quarterly until 2006, when sampling was changed to semi-annually. Monitoring trends indicate residual concentrations of 82 ppb TPHg and up to 240 ppb MTBE in MW-1 in the most recent August 2006 event. BTEX has consistently been ND. The TPHg and MTBE plumes, though fluctuating in concentration are below the appropriate ESLs, either or impacts to aquatic habitats of gross contamination. See Attachment 6 for monitoring data.

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 risk to human health based upon current land use and conditions.		
Site Management Requirements: Site closed for industrial land use only. ACEH must be notified if land use changes to a more restrictive use and the case must be re-evaluated. Site is to be entered into the City of Oakland Permit Tracking System.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: NA
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 3
List Enforcement Actions Taken: none		
List Enforcement Actions Rescinded: none		

V. ADDITIONAL COMMENTS, DATA, ETC.

<p>Considerations and/or Variances:</p> <ul style="list-style-type: none"> • Tank removal reports were never submitted and the compiled removal report by Stellar Environmental lacks disposal information for stockpiled soil or groundwater. Receipts exist for clean fill delivered the same day as the gasoline tank removal and Mr. Thomas Seidman, president of Russ Elliot, Inc. stated to Stellar Environmental that the gasoline stockpile soil was removed the day it was excavated. In addition, the boring logs of MW-1 and MW-2, drilled within the former excavation pits show fill material to depths of the former excavation. • No soil sample was collected directly beneath sample S-1 after over-excavation of the former diesel tank. However, the pit was excavated to below the tank into saturated soil to a depth of approximately 8'. In addition, after lateral excavation around the tank, verification sample VS-2 was taken and was ND for TPHg, TPHd and BTEX. Therefore, it is likely that the impacted soil was removed. • The north arrow on figures and gradient maps has historically been incorrect (shifted approximately 90 degrees clockwise). This affects the reported gradient directions and other related directional descriptions, however, it does not affect the quality of the data. When this correction to gradient is applied, the gradient is consistently nw to sw, consistent with the anticipated gradient. • Residual pollution potentially remains in place under building at excavation limits. • No wells installed down-gradient of USTs. Wells are within and cross-gradient of the former USTs. • The SWI investigation was limited due to the presence of an adjacent warehouse. Although the down-gradient extent of the plume was not determined, the wells near the sources indicate the concentration of contaminants are below appropriate ESLs. Down-gradient properties are vacant and industrial with no known sensitive receptors. • Monitoring wells cross-connect two shallow sand intervals. <p>Conclusion: Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current industrial land use, warehouse facility, based upon the information available in our files to date. Residual soil and groundwater contamination in vicinity of former USTs appears localized and attenuating. ACEH staff recommends site closure.</p>

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Barney Chan	Title: Hazardous Materials Specialist
Signature: <i>Barney Chan</i>	Date: 8/7/07
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: <i>Donna L. Drogos</i>	Date: 08/07/07

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: Associate Water Resources Control Engineer
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature:	Date:

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH:	Date of Well Decommissioning Report:	
All Monitoring Wells Decommissioned: Yes No	Number Decommissioned:	Number Retained:
Reason Wells Retained:		
Additional requirements for submittal of groundwater data from retained wells:		
ACEH Concurrence - Signature:		Date:

Attachments:

1. Site Vicinity Map and Aerial Photo (2 pp)
2. Site Plan with Sample Locations (3 pp)
3. Analytical Data (5 pp)
4. MW Locations and Cross-sections
5. Boring Logs
6. Groundwater Monitoring Data

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.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Barney Chan	Title: Hazardous Materials Specialist
Signature: <i>Barney Chan</i>	Date: 8/7/07
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: <i>Donna L. Drogos</i>	Date: 08/07/07

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: Associate Water Resources Control Engineer
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: <i>Cherie McCaulou</i>	Date: 8/14/07

VIII. MONITORING WELL DECOMMISSIONING

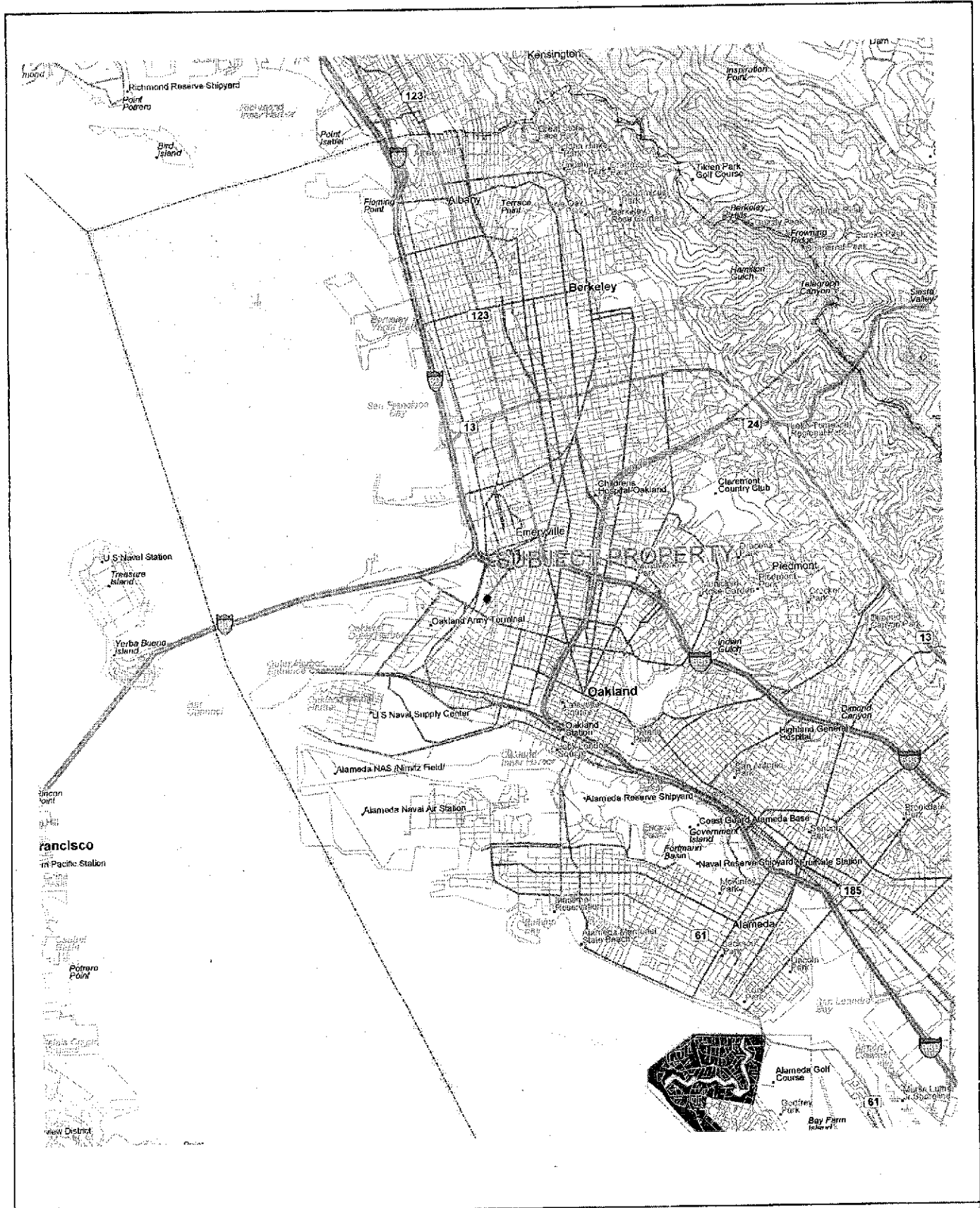
Date Requested by ACEH:	Date of Well Decommissioning Report:	
All Monitoring Wells Decommissioned: Yes No	Number Decommissioned:	Number Retained:
Reason Wells Retained:		
Additional requirements for submittal of groundwater data from retained wells:		
ACEH Concurrence - Signature:		Date:

Attachments:

1. Site Vicinity Map and Aerial Photo (2 pp)
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Post-It* Fax Note	7671	Date	8/14/07	# of pages	1
To	<i>Barney Chan</i>	From	<i>Cherie McCaulou</i>		
Co./Dept.	<i>ACEH</i>	Co.	<i>RWQCB</i>		
Phone #	<i>(510) 567-6765</i>	Phone #	<i>(510) 622-2342</i>		
Fax #	<i>(510) 337-9335</i>	Fax #	<i>(510) 622-2464</i>		



SITE LOCATION ON U.S.G.S. TOPOGRAPHIC MAP

2526 Wood Street
Oakland, CA

By: MJC

JULY 2003

2003-36-01





2526 Wood St. Oakland, ca



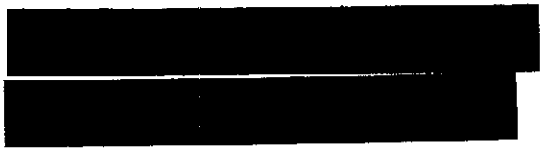
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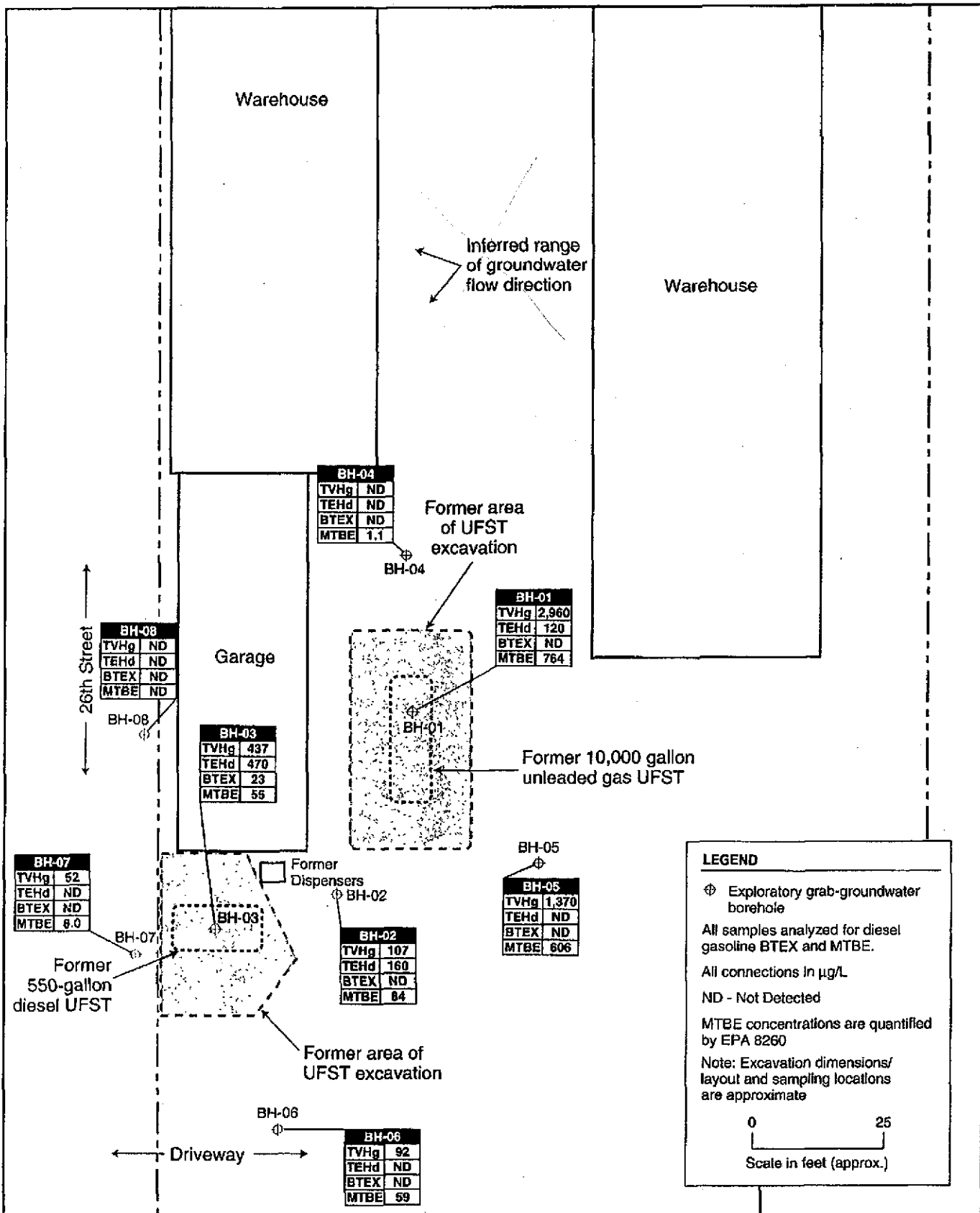
Google

Pointer 37°49'15.03" N 122°17'29.52" W

Streaming ||||| 100%

Eye alt 1139 ft





OCTOBER 2003 BOREHOLE LOCATIONS AND GRAB GROUNDWATER ANALYTICAL RESULTS

2526 Wood Street
Oakland, CA

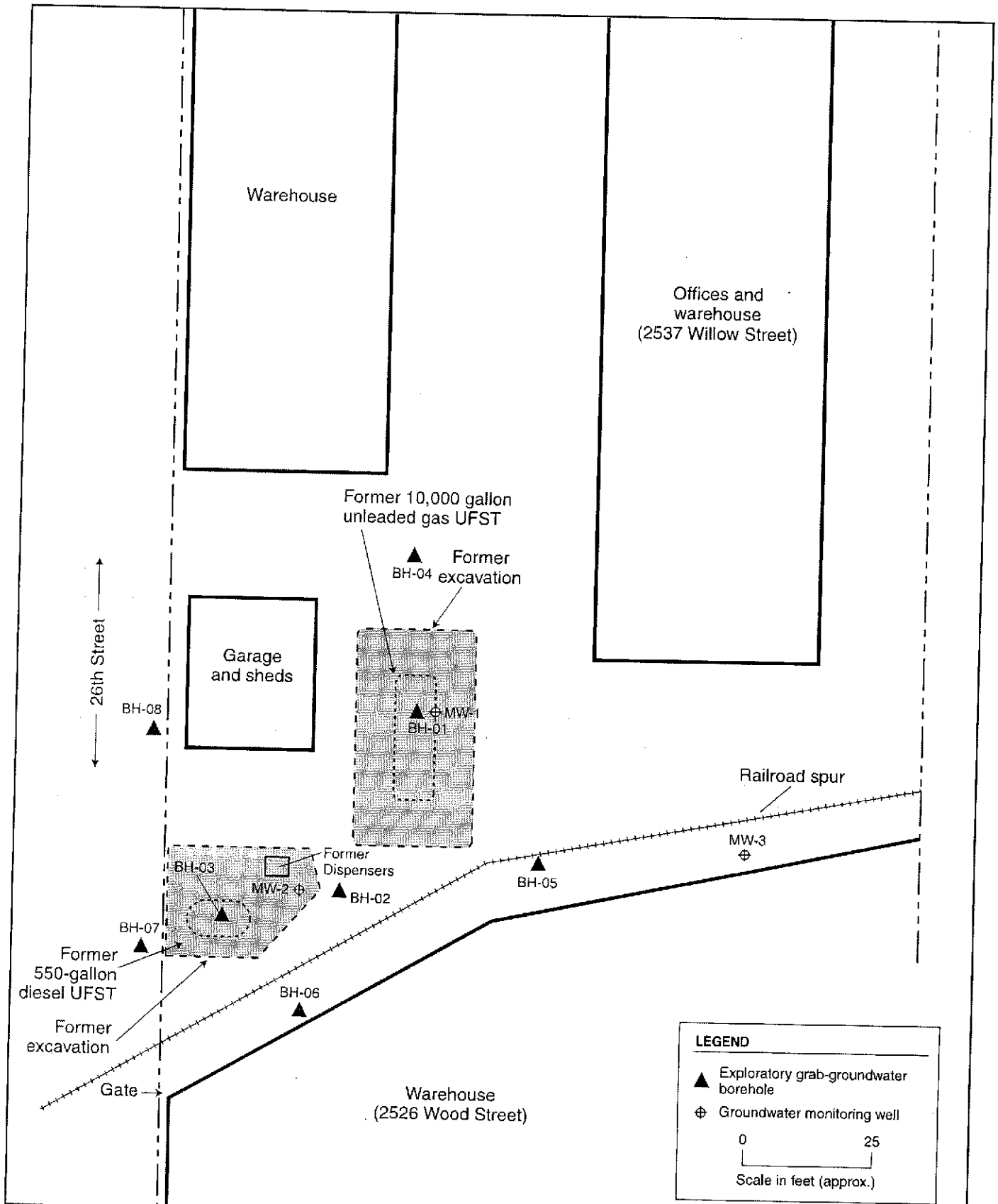
By: MJC

NOVEMBER 2003

★ Stellar Environmental Solutions, Inc.

Science & Engineering Consulting

2003-1-05



LEGEND

- ▲ Exploratory grab-groundwater borehole
- ⊕ Groundwater monitoring well

0 25
Scale in feet (approx.)

**1995-1996 Diesel UFST Removal Sampling Analytical Results
2526 Wood Street, Oakland, California**

Sample I.D.	Sample Depth (feet)	TPHg	TPHd	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	Total Lead
July 1995 Excavation Confirmation Soil Samples (concentrations in mg/kg)									
S-1 (south sidewall)	3	1,900	310	26	<1.4	26	100	NA	NA
S-2 (north sidewall)	4	<0.5	<1	<0.005	<0.005	<0.005	0.0054	NA	NA
June 1996 Excavation Confirmation Soil Samples (concentrations in mg/kg)									
VS-1	3	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.05	NA
VS-2	4	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.05	NA
VS-3	5	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.05	NA
VS-4	4	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.05	NA
VS-5	4	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.05	NA
Soil ESLs ^(a)		100	100	0.045	2.6	2.5	1.0	0.028	—
July 1995 Stockpiled Soil Sample (concentrations in mg/kg)									
SPI (A-D) ^(b)	—	960	340	<0.005	<0.005	<0.005	<0.015	NA	NA
June 1996 Stockpiled Soil Sample (concentrations in mg/kg)									
STK (A-D)	—	340	<25	0.80	1.2	0.71	<0.005	<0.05	NA
October 1995 Pit Water Sample (concentration in µg/L)									
W-1	4.5	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
Groundwater ESLs ^(c)		100	100	1.0	40	30	13	5.0	—

Notes:

^(a) Applicable to subsurface soils (<10 feet deep) at sites where groundwater is a potential drinking water source.

^(b) 4-point composite sample.

^(c) Applicable to sites where a potential drinking water source is threatened.

ESLs = Regional Water Quality Control Board, San Francisco Bay Region "Environmental Screening Levels" for commercial/industrial sites.

TPHg = Total petroleum hydrocarbons- gasoline range.

TPHd = Total petroleum hydrocarbons- diesel range

NA = Sample not analyzed for this constituent.

The site is listed in the RWQCB's GeoTracker database of reported releases from petroleum USTs (RWQCB case No. 01-2294). Based on the date of the database entry (1995), that case citation is likely for the 1995 removal of the diesel UFST rather than the gasoline UFST.

**April 2002 Gasoline UFST Removal Sampling Analytical Results
2526 Wood Street, Oakland, California**

Sample I.D.	Sample Depth (feet)	TPHg	TPHd	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	Total Lead
Excavation Confirmation Soil Samples (concentrations in mg/kg)									
S-1 (west sidewall)	7'	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.24	8.5
S-2 (east sidewall)	7'	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	<3.0
B-1 (UFST base)	10'	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.078	3.1
D-1 (below dispenser)	3.5'	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	11
Soil ESLs ^(a)		100	—	0.045	2.6	2.5	1.0	0.028	750
Stockpiled Soil Sample (concentrations in mg/kg)									
STK 1A-1D	—	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.15	9.9
Pit Water Sample (concentration in µg/L)									
W-1	7'	790	NA	48	120	14	88	810	ND ^(c)
Groundwater ESLs ^(b)		100	—	1.0	40	30	13	5.0	3.2

Notes:

^(a) Applicable to subsurface soils (<10 feet deep) at sites where groundwater is a potential drinking water source.

^(b) Applicable to sites where a potential drinking water source is threatened.

^(c) Not Detected - method reporting limit not specified in lab report.

ESLs = Regional Water Quality Control Board, San Francisco Bay Region "Environmental Screening Levels" for commercial/industrial sites.

TPHg = Total petroleum hydrocarbons- gasoline range.

TPHd = Total petroleum hydrocarbons- diesel range.

was MTBE. The maximum MTBE concentration was 0.24 mg/kg in one of the excavation sidewall samples. Lead was at background concentrations (11 mg/kg or less).

Gasoline, BTEX, and MTBE were all detected in the pit water sample at elevated concentrations. Dissolved lead was not detected in that water sample.

The available data suggest an historical leak in the UFST and/or piping. While MTBE was detected in two of the four confirmation soil samples, the absence of gasoline and BTEX soil contamination (and detected contamination in the stockpile sample) indicates that the majority of residual soil contamination was removed; however, groundwater was impacted before soil corrective action was implemented.

**October 2003 Borehole Soil Analytical Results
2526 Wood Street, Oakland, California**

Sample I.D.	Sample Depth (feet)	TEHd	TVHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE ^(a)	Fuel Oxygenates ^(b)
BH-01-4'	4	< 10.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035 / 0.0017	ND
BH-02-6.5'	6.5	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	0.095 / 0.135	TBA = 0.061
BH-02-16'	16	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035 / < 0.005	ND
BH-03-4.5'	4.5	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035 / < 0.005	ND
BH-03-15'	15	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035 / < 0.005	ND
BH-04-7'	7	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-04-18'	18	2.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-05-6'	6	2.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	0.094 / 0.026	NA
BH-05-15.5'	15.5	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	0.046 / 0.0025	NA
BH-06-8.5'	8.5	1.3	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-06-15.5'	15.5	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-06-19.5'	19.5	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-07-6'	6	2.2	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-07-15.5'	15.5	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-08-10'	10	< 1.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
BH-08-19.5'	19.5	2.0	< 3.0	< 0.005	< 0.005	< 0.005	< 0.015	< 0.035	NA
Soil ESLs		100 / 500	100 / 400	0.044 / 0.38	2.9 / 9.3	3.3 / 13	1.5 / 1.5	0.023 / 5.6	TBA = 0.073 / 110

Notes

^(a) First value is quantification by EPA Method 8021b; second value is confirmation quantification by EPA Method 8260B.

^(b) Table reports only detected fuel oxygenates. Full list of analytes is included in Appendix D.

TEHd = total extractable hydrocarbons- diesel range; TVHg = total volatile hydrocarbons- gasoline range; TBA = tertiary butyl alcohol; ND = not selected above method reporting limits, NA = not analyzed for these constituents

All concentrations are in mg/kg

Table 4
October 2003 Borehole Groundwater Analytical Results
2526 Wood Street, Oakland

Sample I.D.	TEHd	TVHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE ^(a)	Fuel Oxygenates ^(b)
BH-01-GW	120	2,960	< 0.30	< 0.30	< 0.30	< 0.60	1,020 / 764	TAME = 4.7 TBA = 93
BH-02-GW	160	107	< 0.30	< 0.30	< 0.30	< 0.60	103 / 84	ND
BH-03-GW	470	437	1.0	1.9	16	4.1	69 / 55	TBA = 10
BH-04-GW	< 100	< 50	< 0.30	< 0.30	< 0.30	< 0.60	5.0 / 1.1	NA
BH-05-GW	< 100	1,370	< 0.30	< 0.30	< 0.30	< 0.60	737 / 606	NA
BH-06-GW	< 100	92	< 0.30	< 0.30	< 0.30	< 0.60	70 / 59	NA
BH-07-GW	< 100	52	< 0.30	< 0.30	< 0.30	< 0.60	12 / 8.0	NA
BH-08-GW	< 100	< 50	< 0.30	< 0.30	< 0.30	< 0.60	< 5.0	NA
Groundwater ESLs	100 / 640	100 / 500	1.0 / 46	40 / 130	30 / 290	13 / 160	5.0 / 18,000	TAME = NLP TBA = 12 / 18,000

Notes

^(a) First value is quantified by EPA Method ~~821b~~ ⁸⁰²¹; second value is quantified by EPA Method 8260B

^(b) Table reports only detected fuel oxygenates. Full list of analytes is included in Appendix D

TEHd = total extractable hydrocarbons- diesel range; TVHg = total volatile hydrocarbons gasoline range; TAME = tertiary amylmethylether; TBA = tertiary butyl alcohol; ND = not selected above method reporting limits; NA = not analyzed for these constituents; NLP = no level published.

All concentrations are in $\mu\text{g/L}$.

**February 2004 Borehole Soil Analytical Results
2526 Wood Street, Oakland, California ^(a)**

Sample I.D.	Sample Depth (feet)	TEHd	TVHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Fuel Oxygenates and Lead Scavengers ^(b)
MW-1-19.5'	19.5	<1	<0.5	<0.005	<0.005	<0.005	<0.010	0.190	ND
MW-2-4.5'	4.5	<1	<0.5	<0.005	<0.005	<0.005	<0.010	0.108	ND
MW-3-14.5'	14.5	<1	<0.5	<0.005	<0.005	<0.005	<0.010	<0.005	ND
Soil ESLs		100	100	0.044	2.9	3.3	1.5	0.023	Not applicable
Soil Composition (drum profile)		<1	<0.5	<0.005	<0.005	<0.005	0.011	0.039	ND

Notes:

^(a) All concentrations in mg/kg.

^(b) Full list of fuel oxygenates and lead scavengers is included in Appendix G.

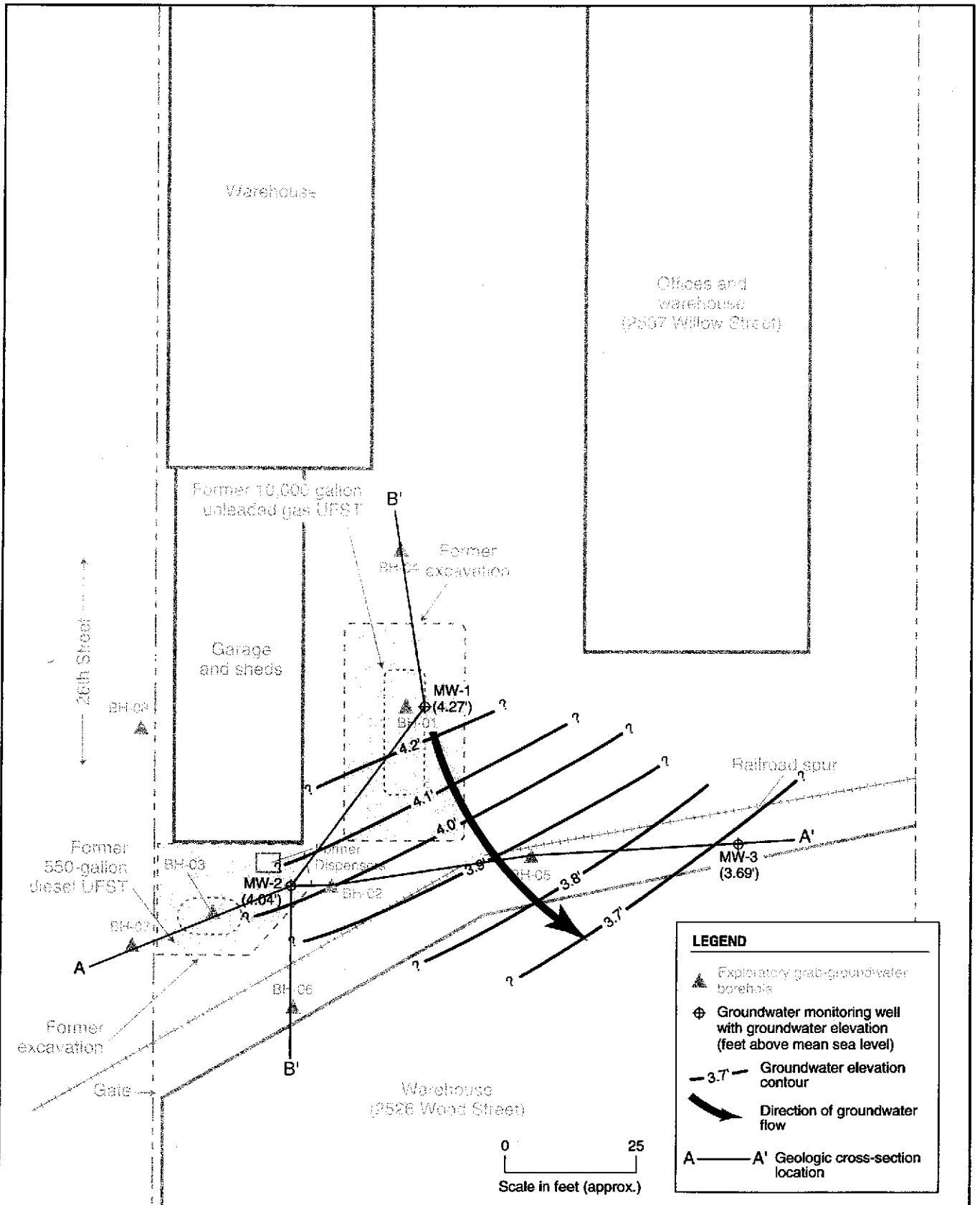
TEHd = Total extractable hydrocarbons- diesel range

TVHg = Total volatile hydrocarbons- gasoline range.

MTBE = Methyl tertiarybutyl ether.

ESLs = Regional Water Quality Control Board, San Francisco Bay Region Environmental Screening Levels (RWQCB, 2003).

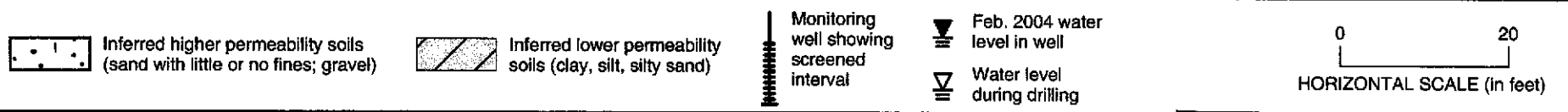
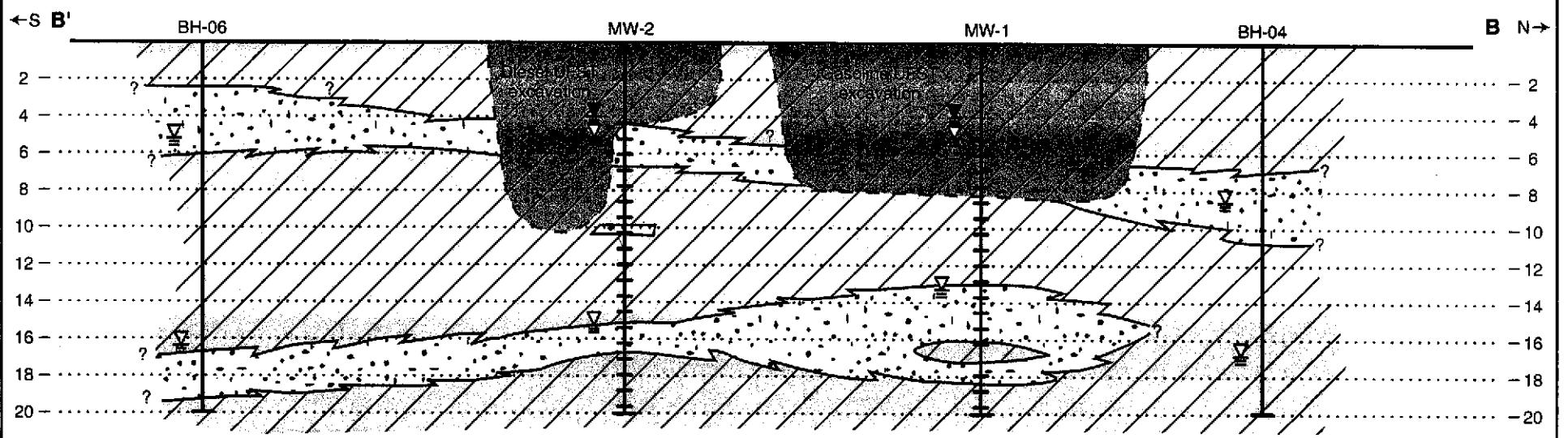
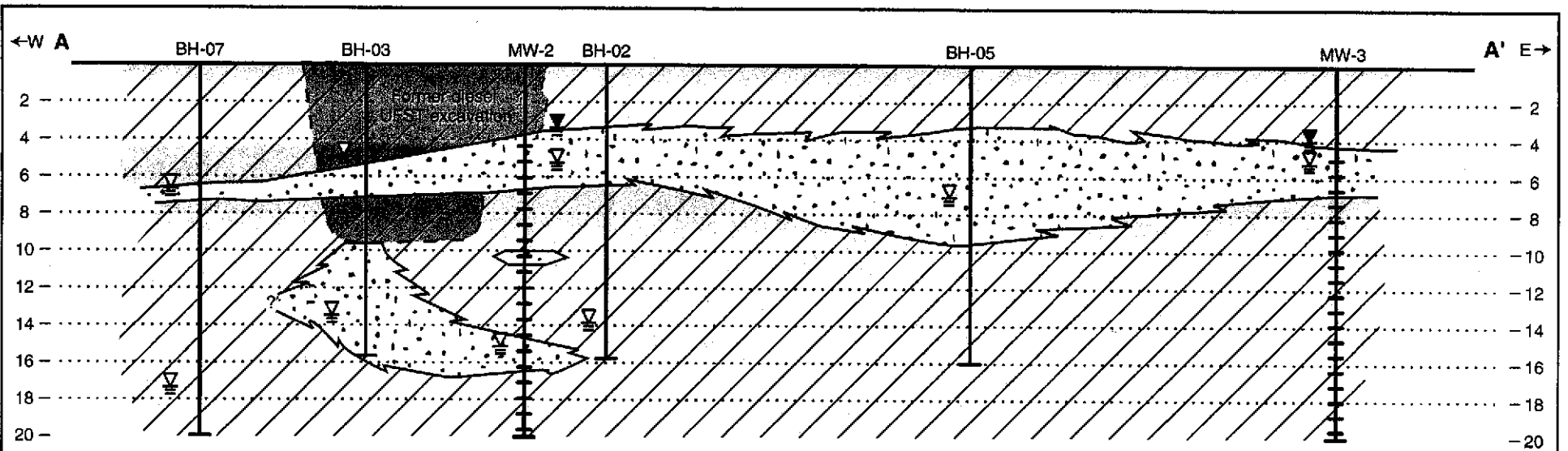
ND = Not detected above method reporting limits.



LEGEND

- Exploratory grab-groundwater borehole
- Groundwater monitoring well with groundwater elevation (feet above mean sea level)
- 3.7 Groundwater elevation contour
- Direction of groundwater flow
- A—A' Geologic cross-section location

2003-41-25



★ Stellar Environmental Solutions, Inc.
Geoscience & Engineering Consulting

GEOLOGIC CROSS SECTIONS A-A' AND B-B'
2526 Wood Street, Oakland, CA

by: MJC

MARCH 2004

2003-41-28

BORING NUMBER BH-01 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 11.5 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED 4 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/27/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0					Gravel paving	"Instrument" is a photoionization detector (PID), "readings" are in parts per million by volume air (ppmv).
2					Black clayey gravel (fill)	
4					4' Wet	Sample recovery is 100% unless specified otherwise.
6				△		
8				△	? — ? — ? — ? — ?	Previous tank removal report indicates that excavation depth was 8'. Material in that interval is fill.
8				△	Black clayey sand (SC), wet, sl. cohesive, friable, minor small gravel	
10				△	Dark grey sand (SP), medium-grained, wet, friable	
10				△	Dark grey clayey gravel (GC), wet, no cohesion, gravel is small to medium	4'-8': 2' recovery
12					Bottom of borehole = 11.5' (drilling refusal)	Collected groundwater sample "BH-01-GW"
14						
16						
18						
20						

BORING NUMBER BH-02 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 16 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED ~14 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/27/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0	Fill				Asphalt, base rock, gravelly fill	"Instrument" is a photoionization detector (PID), "readings" are in parts per million by volume air (ppmv).
2				<1	Blue grey silty clay (CL), sl. moist, sl. stiff, v. cohesive, not friable	
4				<1	Brown sand (SW), moist, sl. cohesive, v. friable, gravelly from 4 to 4.5'	Sample recovery is 100% unless specified otherwise.
6				<1	Blue grey clayey sand (SC), mod. stiff, cohesive, v. moist	
8		BH-02-6.5'		<1	Blue grey clay (CL), moist, sl. stiff	8' to 12': 50% recovery
10				<1	Blue grey clay (CH), soft, v. cohesive, high plasticity	
12				<1	Blue grey silty clay (CL), sl. stiff, cohesive, moist	Collected groundwater sample "BH-02-GW"
14				<1	14' Becomes saturated and loose	
16		BH-02-16'		<1	15.5' Becomes gravelly (small ~30%)	
18					Bottom of borehole = 18.5'	
20						

BORING NUMBER BH-03 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 16 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED 5 ft. and 13.5 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/27/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0					Asphalt, then base rock	"Instrument" is a photoionization detector (PID), "readings" are in parts per million by volume air (ppmv). Sample recovery is 100% unless specified otherwise.
2	Fill				Clayey gravel	
4				<1	5' Becomes wet	
4.5	BH-03-4.5'			<1		
6				<1		
8				<1	Blue grey-black clayey sand (SC), wet, sl. stiff, sl. cohesive, friable, petroleum odor	Hole swells shut at 4.5' after each sample run. 8-12': 1' recovery (all gravel)
10				<1 (depth of sample uncertain)		
12						Water level = 4.7' after drilling to 16'
14				<1	Dark grey clayey gravel (GC), wet, no cohesion, gravel is small-med.	
14.5	BH-03-15'			<1	14.5' Gravel becomes large, clay is cohesive, moist	
16				<1	15' Gravel becomes small	Previous tank removal report indicates former excavation depth was 10'. Material logged in that interval is likely fill.
18					Bottom of borehole = 16'	
20						

BORING NUMBER BH-04 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED 8 ft. and 16.5 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/27/03 & 10/28/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0					Concrete then base rock	"Instrument" is a photolization detector (PID), "readings" are in parts per million by volume air (ppmv).
2				<1	Clayey sand (possibly fill), dry, not cohesive	
4				<1	Dark grey silty clay (CL), sl. stiff to soft, v. moist, cohesive	Sample recovery is 100% unless specified otherwise.
6				<1	Dark grey clay (CH), soft, v. moist, cohesive, sticky	
8				<1	Dark grey-black clayey sand (SC), v. moist, sl. cohesive, friable	Hole swells shut at 4' after drilling to 8'.
10				<1	10' Becomes saturated	4'-8': 3' recovery
12				<1 (depth of sample uncertain)	Dark grey clay (CH), v. moist, soft, sticky, high plasticity	Water on rods after drilling to 12'. Water level = 11.3'
14				<1	Dark grey silty clay (CL), v. moist, sl. stiff, cohesive	
16				<1	15.5' Becomes v. stiff, sl. moist	16' to 20': 2' recovery
18				<1	16.5' Becomes gravelly and saturated	Collected groundwater sample "BH-04-GW"
20				<1	18' Color change to red brown, becomes sandy and silty clay (no gravel), dry, v. stiff, mod. cohesive	
					Bottom of borehole = 20'	

2003-41-03

BORING NUMBER BH-05 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 16 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED 7 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/27/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0	Fill				Asphalt then base rock	"Instrument" is a photoionization detector (PID), "readings" are in parts per million by volume air (ppmv).
2						
4	BH-05-6'			<1	Grey clayey sand (SC); fine grained, dry	Sample recovery is 100% unless specified otherwise.
6				<1	Light brown sand (SP), fine grained, sl. moist, no cohesion	
8	BH-05-15.5'			<1	6' Becomes gravelly (small, ~20%), dry, iron oxidation	4' to 8': 50% recovery
10				<1	Dark grey clayey sand (SC), wet, sl. cohesive	
12				<1	Dark grey clay (CH), soft, v. moist, v. cohesive, sticky, high plasticity	12' to 16': 75% recovery
14				<1	Dark grey silty clay (CL), sl. stiff, mod. cohesive, moist	
16				<1	14.5' Becomes mod. stiff	
18				<1	15.5' Becomes gravelly (small, ~30%), sl. moist, dense, cohesive	
20					Bottom of borehole = 16'	Collected groundwater sample "BH-05-GW"

BORING NUMBER BH-06 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED 5.5 ft. & 16.5 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/27/03 & 10/28/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0	Fill				Asphalt then baserock	"Instrument" is a photoionization detector (PID), "readings" are in parts per million by volume air (ppmv). Sample recovery is 100% unless specified otherwise.
2				<1	Blue grey silty clay (CL), sl. moist, sl. stiff, v. cohesive, not friable	
4				<1	Brown sand (SW), moist, sl. cohesive, v. friable, gravelly from 4 to 4.5'	
6				<1	Grey clayey sand (SC), wet, loose, friable, fine-grained	
8				<1	Dark grey clay (CH), v. moist to wet, soft, cohesive	Borehole terminated at 16' on 10/27/03. Due to inadequate recharge, borehole was deepened to 20' on 10/28/03.
10	BH-06-8.5'			<1		
12				<1	Dark grey silty clay (CL), v. moist, sl. stiff, cohesive	
14				<1		
16	BH-06-15.5'			<1	15.5' Becomes gravelly (small-med., ~30%), sl. moist, cohesive	
18				<1	Dark grey clayey sand (SC), wet, loose, minor small gravel	Collected groundwater sample "BH-06-GW"
20	BH-06-19.5'			<1	Red-brown silty clay (CL), sl. moist, cohesive, stiff	
					Bottom of borehole = 20'	

2003-41-11

BORING NUMBER BH-07 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED 6.5 ft. & 17.5 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/28/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0	Fill				Unpaved ground then gravelly sandy fill	"Instrument" is a photoionization detector (PID), "readings" are in parts per million by volume air (ppmv).
2						
4				<1	Dark grey silty clay (CL), sl. moist, mod. stiff, cohesive, minor gravel	Sample recovery is 100% unless specified otherwise.
6				<1	6' Becomes sandy clay, soft, v. moist	
8				<1	Dark grey clayey sand (SC), wet, loose	
10				<1	Dark grey clay (CH), soft, v. moist, v. cohesive	
12				<1	? — ? — ? — ? — ? Dark grey silty clay (CL), sl. stiff, v. moist, v. cohesive	
14				<1		8'-12': 2' recovery
16				<1	15' Becomes v. stiff and gravelly, sl. moist, cohesive, gravel is small & occ. medium	
18				<1	15.5' Color change to red-brown	Collected groundwater sample "BH-07-GW"
20				<1	Dark grey clay (CH), wet, loose, minor sand and small gravel	
				<1	Red-brown silty to sandy clay (CL), sl. moist, mod. stiff, v. cohesive, 20' Becomes v. stiff and dry	
					Bottom of borehole = 20'	














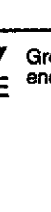



BORING NUMBER BH-08 Page 1 of 1

PROJECT Russ Elliott, Inc. OWNER Elliott Trust
 LOCATION 2526 Wood St., Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20 feet BOREHOLE DIA. 2-inch
 SURFACE ELEV. ~50 ft. amsl WATER FIRST ENCOUNTERED 7 ft. & 16.5 ft.
 DRILLING COMPANY Precision Sampling DRILLING METHOD Geo Probe
 DRILLER Fernando GEOLOGIST B. Rucker DATE DRILLED 10/28/03

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0					Unpaved ground then gravelly sandy fill	"Instrument" is a photolization detector (PID), "readings" are in parts per million by volume air (ppmv).
2						
4					Brown sand (SP), fine-med. grained, dry, loose, no cohesion	Sample recovery is 100% unless specified otherwise.
6				<	7' Becomes v. moist to wet	4'-8' = 2' recovery
8				<	Dark grey clay (CH), soft, v. moist, cohesive	8'-12' = 3' recovery
10		BH-08-10'		<	Dark grey clay (CL), sl. stiff, v. moist, cohesive	
12				<		12'-16' = 3' recovery
14				<	15' Becomes silty, stiff, sl. moist to dry	
16				<	16' to 16.5' Wet	
18				<	17' Becomes light brown silty clay (CL), dry, stiff, cohesive	Collected groundwater sample "BH-08-GW"
20		BH-08-19.5'		<	Bottom of borehole = 20'	

BORING NUMBER MW-1 Page 1 of 2

PROJECT Former Russ Elliott, Inc. Facility OWNER Mrs. Jeanette Elliott
 LOCATION 2526 Wood St. Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20' BOREHOLE DIA. 8-inch
 SURFACE ELEV. 7.17' amsl WATER FIRST ENCOUNTERED ~5' & 13'
 DRILLING COMPANY HEW Drilling DRILLING METHOD hollow-stem auger
 DRILLER Jorge GEOLOGIST B. Rucker/J. Dinan DATE DRILLED 2/18/04

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
						MW-1	
0				Former UFST excavation backfill: black, clayey gravel (per previous borehole at this location and from cuttings)	"Instrument" is a photo-ionization detector (PID)		
1				No recovery 0'-3' (shoe clogged)	"Readings" are in parts per million per volume air (ppmv)		
2	Fill				Continuous core soil sampling conducted throughout		
3							
4							
5			<1	Saturated at 5', no cohesion, gravel is small-medium			
6							
7	Fill						
8				8'-13' no recovery (sample falling out of shoe)			
9				Previous log at this location showed gravel to 8' then sand to 10', then clayey gravel to 11.5', then drilling refusal			
10	Sand and gravel						

2003-41-16

Well Construction Legend:

-  2x PVC screen (0.010-in. slots)
-  Hydrated bentonite pellets
-  #2/12 Monterey Sand
-  Portland cement & water grout
-  Groundwater encountered

Bottom of Borehole

BORING NUMBER MW-1 Page 2 of 2

PROJECT Former Russ Elliott, Inc. Facility OWNER Mrs. Jeanette Elliott
 LOCATION 2526 Wood St. Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20' BOREHOLE DIA. 8-inch
 SURFACE ELEV. 7.17' amsl WATER FIRST ENCOUNTERED ~5' & 13'
 DRILLING COMPANY HEW Drilling DRILLING METHOD hollow-stem auger
 DRILLER Jorge GEOLOGIST B. Rucker/J. Dinan DATE DRILLED 2/18/04

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
							MW-1
10				No recovery			
11							
12							
13	?-?-?			?-?-?-?-?-?-?	▼ ≡		
14			<1	Dark grey clayey sand (SC), sl. cohesive, saturated, medium-grained sand (poorly sorted)			
15			<1	Dark grey clayey gravel (GC), wet, v. cohesive, gravel is small-med., 15' color change to tan-buff, dense, moist			
16				15' color change to tan-buff, dense, moist			
17			<1	Tan-buff gravelly clay (CL), stiff, cohesive, moist 16.5' gravel absent, mod. stiff			
18				Tan-buff clayey sand (SC), stiff, sl. moist, sand is fine-grained			
19				Tan-buff silty clay (CL), stiff, cohesive, sl. moist			
20		Soil sample MW-1-19.5'	<1				
				Bottom of borehole = 20'			Bottom of Borehole

2003-41-17

Well Construction Legend:

- 2 1/2" PVC screen (0.010-in. slots)
- Hydrated bentonite pellets
- #2/12 Monterey Sand
- Portland cement & water grout
- Groundwater encountered

BORING NUMBER MW-2 Page 1 of 2

PROJECT Former Russ Elliott, Inc. Facility OWNER Mrs. Jeanette Elliott
 LOCATION 2526 Wood St. Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20' BOREHOLE DIA. 8-inch
 SURFACE ELEV. 6.66' amsl WATER FIRST ENCOUNTERED ~5' & 15'
 DRILLING COMPANY HEW Drilling DRILLING METHOD hollow-stem auger
 DRILLER Jorge GEOLOGIST B. Rucker/J. Dinan DATE DRILLED 2/18/04

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
						MW-2	
0	Fill			Former UFST excavation backfill: black, clayey gravel (per previous borehole at this location and from cuttings)	"Instrument" is a photo-ionization detector (PID)		
1			No recovery 0'-4.5' (sample falling out of samples)	"Readings" are in parts per million per volume air (ppmv)			
2					Continuous core soil sampling conducted throughout		
3							
4							
5			<1	Brown clayey sand (SC), wet, sl. cohesive			
6				6'-6.5' small-med. gravel, ~40%			
7			<1	Blue grey clay (CH), soft, wet, cohesive, much organic fragments			
8							
9							
10							

2003-41-18

Well Construction Legend:

- 2 1/2" PVC screen (0.010-in. slots)
- Hydrated bentonite pellets
- #2/12 Monterey Sand
- Portland cement & water grout
- Groundwater encountered

Bottom of Borehole

BORING NUMBER MW-2 Page 2 of 2

PROJECT Former Russ Elliott, Inc. Facility OWNER Mrs. Jeanette Elliott
 LOCATION 2526 Wood St. Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20' BOREHOLE DIA. 8-inch
 SURFACE ELEV. 6.66' amsl WATER FIRST ENCOUNTERED ~5' & 15'
 DRILLING COMPANY HEW Drilling DRILLING METHOD hollow-stem auger
 DRILLER Jorge GEOLOGIST B. Rucker/J. Dinan DATE DRILLED 2/18/04

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
						MW-2	
10			1.8 ppm	Blue grey sand (SP), med.-grained, wet, sl. cohesive			
11				Blue grey silty clay (CH), soft, wet, cohesive			
12			<1				
13							
14							
15		Soil sample MW-2-14.5'		Blue grey/green gravelly sandy clay (CL), stiff, sl. moist	▼		
16			1.3 ppmv	Brown, clayey gravel (GC), wet, sl. cohesive, gravel is small			
17			<1	Tan silty clay (CL), sl. moist, stiff, cohesive			
18							
19							
20				Bottom of borehole = 20'			Bottom of Borehole

2003-41-19

Well Construction Legend:

- 2x PVC screen (0.010-in. slots)
- Hydrated bentonite pellets
- #2/12 Monterey Sand
- Portland cement & water grout
- Groundwater encountered

BORING NUMBER MW-3 Page 1 of 2

PROJECT Former Russ Elliott, Inc. Facility OWNER Mrs. Jeanette Elliott
 LOCATION 2526 Wood St. Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20' BOREHOLE DIA. 8-inch
 SURFACE ELEV. 7.28' amsl WATER FIRST ENCOUNTERED 5'
 DRILLING COMPANY HEW Drilling DRILLING METHOD hollow-stem auger
 DRILLER Jorge GEOLOGIST B. Rucker/J. Dinan DATE DRILLED 2/18/04

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
						MW-3	
0				Asphalt, then base rock, then gravelly sandy fill	"Instrument" is a photo-ionization detector (PID)		
1	Fill				"Readings" are in parts per million per volume air (ppmv)		
2				Blue-grey silty clay (CL), cohesive, moist, mod. stiff	Continuous core soil sampling conducted throughout		
3			<1	3' color change to tan			
4				Tan sand (SW), moist, friable, sl. cohesive, fine-med. grained	▼ ≡		
5		Soil sample MW-3-4.5'	<1				
6				Grey clayey sand (SC), wet, loose			
7				Blue-grey clay (CH), wet, soft, cohesive, much organic fragments			
8			<1				
9							
10			<1				
							Bottom of Borehole

2003-41-20

Well Construction Legend: 2x PVC screen (0.010-in. slots) Hydrated bentonite pellets #2/12 Monterey Sand Portland cement & water grout Groundwater encountered

BORING NUMBER MW-3 Page 2 of 2

PROJECT Former Russ Elliott, Inc. Facility OWNER Mrs. Jeanette Elliott
 LOCATION 2526 Wood St. Oakland, CA PROJECT NUMBER 2003-41
 TOTAL DEPTH 20' BOREHOLE DIA. 8-inch
 SURFACE ELEV. 7.28' amsl WATER FIRST ENCOUNTERED ~5'
 DRILLING COMPANY HEW Drilling DRILLING METHOD hollow-stem auger
 DRILLER Jorge GEOLOGIST B. Rucker/J. Dinan DATE DRILLED 2/18/04

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
							MW-3
10				10' becomes moist			
11							
12							
13			<1				
14				Blue-grey silty clay (CL), stiff, minor small gravel, sl. moist			
15			<1				
16				16' color change to tan. Becomes sandy, gravel <10%, sl. friable			
17			<1	17' gravel absent			
18				17' to 20': Increasingly stiff with decreasing moisture			
19							
20				Bottom of borehole = 20'			Bottom of Borehole

2003-41-21

Well Construction Legend:

- 2" PVC screen (0.010-in. slots)
- Hydrated bentonite pellets
- #2/12 Monterey Sand
- Portland cement & water grout
- Groundwater encountered

**Table C-1
Historical Groundwater Monitoring Well Groundwater Analytical Results
2526 Wood Street, Oakland**

Sample I.D.	TEHd	TVHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates ^(a)
February 2004 Event								
MW-1	<50	172	1.2	<0.5	<0.5	<1.0	578	TAME = 3 TBA = 19
MW-2	<50	72	<0.5	<0.5	<0.5	<1.0	16.4	ND
MW-3	<50	58	<0.5	0.6	<0.5	<1.0	<0.5	ND
May 2004 Event								
MW-1	<50	< 50	<0.5	<0.5	<0.5	<1.0	399	TAME = 2
MW-2	<50	83	<0.5	<0.5	<0.5	<1.0	1,230	TAME = 52 DIPE = 0.6 TBA = 243
MW-3	<50	< 50	<0.5	<0.5	<0.5	<1.0	<0.5	ND
August 2004 Event								
MW-1	<50	< 50	<0.5	<0.5	<0.5	<1.0	1,210	TAME = 3 TBA = 78
MW-2	<50	< 50	<0.5	<0.5	<0.5	<1.0	769	TAME = 6 TBA = 81
MW-3	<50	< 50	<0.5	<0.5	<0.5	<1.0	<0.5	ND
November 2004 Event								
MW-1	<50	< 50	<0.5	<0.5	<0.5	<1.0	83	ND
MW-2	<50	271	102	<0.5	<0.5	1.3	1,820	TAME = 139 TBA = 486
MW-3	<50	< 50	<0.5	<0.5	<0.5	<1.0	<0.5	ND
February 2005 Event								
MW-1	<50	< 50	<0.5	<0.5	<0.5	<1.0	12.6	ND
MW-2	<50	< 50	<0.5	<0.5	<0.5	<1.0	4.8	ND
MW-3	<50	< 50	<0.5	<0.5	<0.5	<1.0	<0.5	ND
May 2005 Event								
MW-1	<50	< 50	<0.5	<0.5	<0.5	<1.0	116	ND
MW-2	<50	< 50	<0.5	<0.5	<0.5	<1.0	100	TAME = 4 TBA = 48
MW-3	<50	< 50	<0.5	<0.5	<0.5	<1.0	<0.5	ND



Table C-1 continued

Sample I.D.	TEHd	TVHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates ^(a)
August 2005 Event								
MW-1	<500	220	<0.5	<0.5	<0.5	<1.0	310	ND
MW-2	<50	110	<0.5	<0.5	<0.5	<1.0	100	ND
MW-3	<50	< 50	<0.5	<0.5	<0.5	<1.0	<1.0	ND
November 2005 Event								
MW-1	<50	<50	<4.0	<4.0	<4.0	<4.0	97	ND
MW-2	<50	<50	<0.5	<0.5	<0.5	<0.5	7.7	ND
MW-3	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	ND
February 2006 Event								
MW-1	<50	<50	<0.5	<0.5	<0.5	<1.0	36	ND
MW-2	<50	<50	<0.5	<0.5	<0.5	<1.0	27	ND
MW-3	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	TBA = 10
August 2006 Event								
MW-1	<50	82	<0.5	<0.5	<0.5	<1.0	240	ND
MW-2	<50	50	<0.5	<0.5	<0.5	<1.0	120	ND
MW-3	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	TBA = 10

Notes:

^(a) Table reports only detected fuel oxygenates and lead scavengers.

DIPE = di-isopropyl ether

MTBE = methyl *tertiary*-butyl ether

TAME = *tertiary*-amyl methyl ether

TBA = *tertiary*-butyl alcohol

TEHd = total extractable hydrocarbons – diesel range

TVHg = total volatile hydrocarbons – gasoline range

ND = not detected above method reporting limits

All results are in µg/L.