ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

December 14, 2006

Mr. Jerry Ni
5882 Turnberry Drive
Dublin, CA 94568-7473

Mr. Aziz Kandahari
Himalaya Trading Company
5196 Grayhawk Lane
Dublin, CA 94568

Mr. Mohammad Mashoon
Zima Center Corporation
5 Admiral Drive, #301
Emeryville, CA 94608

Clifford and Diana Lee
645 16th Avenue
San Francisco, CA 94118

Subject: Fuel Leak Case No. RO0000261, ARCO, 2951 High Street, Oakland, CA 94619

Dear Mr. Ni, Mr. Kandahari, Mr. Mashoon, and Clifford and Diana Lee:

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 up to 3,100 milligrams per kilogram (mg/kg) of Total Petroleum Hydrocarbons as gasoline remain in soil at the site.
- Residual concentrations of up to 490 micrograms per liter (µg/L) of MTBE remain in groundwater at the site.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

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

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

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

Mr. Leroy Griffin (w/enc)
City of Oakland Fire Department
250 Frank Ogawa Plaza, Suite 3341
Oakland, CA 94612

Ms. Jennifer Rice
Law Offices of Jennifer Rice
2175 North California Blvd., Suite 575
Walnut Creek, CA 94596

Jerry Wickham (w/orig enc), D. Drogos (w/enc), R. Garcia (w/enc)

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645 16th Avenue
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REMEDIAL ACTION COMPLETION CERTIFICATE

Dear Mr. Ni, Mr. Kandahari, Mr. Mashoon, and Clifford and Diana Lee:

Subject: Fuel Leak Case No. RO0000261, ARCO, 2951 High Street, Oakland, CA 94619

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 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 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,

Arta Levi
Director
Alameda County Environmental Health

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

I. AGENCY INFORMATION

Date: November 13, 2006

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6791
Responsible Staff Person: Jerry Wickham	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: ARCO		
Site Facility Address: 2951 High Street, Oakland, CA 94619		
RB Case No.: 01-0100	Local Case No.: 1038	LOP Case No.: RO0000261
URF Filing Date: 05/25/1990	SWEEPS No.: ---	APN: 32-2057-8-4

Responsible Parties	Addresses	Phone Numbers
Jerry Ni	5882 Turnberry Drive, Dublin, CA 94568	
Aziz Kandahari, Himalaya Trading Company	5196 Grayhawk Lane, Dublin, CA 94568	510-332-3383
Mohammad Mashoon, Zima Center Corporation	5 Admiral Drive, #301, Emeryville, CA 94608	
Clifford and Diana Lee	645 16th Avenue, San Francisco, CA 94118	

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	300 gallons	Waste Oil	Removed	09/1993
2 and 3	6,000 gallons	Gasoline	Removed	05/2001
4 and 5	4,000 gallons	Gasoline	Removed	05/2001
Piping			Removed	05/2001

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. No holes, cracks, or other signs of failure were observed in the tanks during removal.	
Site characterization complete? Yes	Date Approved By Oversight Agency: -----

Monitoring wells installed? Yes	Number: 8	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 2 feet below ground surface (bgs)	Lowest Depth: 21 feet bgs	Flow Direction: Southwest
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: The nearest water supply well is a domestic well, which is located approximately 1.4-miles west of the site at 2627 Minna Street. The well is perforated from 115 to 155 feet and 178 to 211 feet bgs. The total depth of the well is 211 feet bgs. Based on the extent of off-site contamination, distance of the well from the site, and the construction of the water supply well, the well is not expected to be a receptor for the site.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Peralta Creek is approximately 3,780 feet northwest of site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	1 - 300 gallon tank 2 - 6,000 gallon tanks 2 – 4,000 gallon tanks	No information Sims Metal America, Richmond, CA	09/1993 05/2001
Piping	Approximately 200 feet	Fiberglass piping was cleaned on-site and disposed off-site in sanitary landfill	05/2001
Free Product	---	---	---
Soil	40 cubic yards 3,965 tons	Excavated and disposed off-site at Forward Landfill in Stockton, CA Excavated and disposed off-site at B&J Landfill in Vacaville, CA	10/1993 05/09/2001 to 09/27/2001
Groundwater	Unknown	Groundwater was treated using an ozone sparge system consisting of 10 sparge wells located in the vicinity of the USTs	04/14/2004 to 01/04/2005

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRAT No information available from tank removals IONS BEFORE AND AFTER CLEANUP (Please see Attachments 1 through 7 for additional information on contaminant locations and concentrations)				
Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	4,000	3,100	120,000	<50
TPH (Diesel)	410	410	470	NA(1)
Oil and Grease	3,700	NA	18,000	NA(1)
Benzene	30	30	28,000	<0.5
Toluene	69	69	16,000	<0.5
Ethylbenzene	82	55	2,600	<0.5
Xylenes	410	120	10,000	<0.5
Heavy Metals	41(2)	41(3)	360(4)	NA(1)
MTBE	85(5)	12(5)	87,000(6)	490(7)
Other (8240/8270)	0.042(8)	0.005(8)	ND(9)	ND(9)

(1) No analyses performed for these analytes following ozone sparging.
(2) Total lead = 6.6 ppm; nickel = 380 ppm; chromium = 160 ppm; cadmium = ND; and zinc = 180 ppm.
(3) Total lead = 4.9 ppm; nickel = 380 ppm; chromium = 160 ppm; cadmium = ND; and zinc = 180 ppm.
(4) Nickel = 360 ppb; all other metals not detected at various detection limits.
(5) MTBE; no other fuel oxygenates or lead scavengers analyzed in soil.
(6) MTBE = 87,000 ppb on 11/23/1998; TBA = 300 ppb; DIPE, ETBE, TAME, methanol, ethanol, and EDB not detected at various detection limits; EDC = 3.2 ppb in groundwater.
(7) Results are from most recent sampling event on October 4, 2005. MTBE = 490 ppb; TBA, DIPE, ETBE, TAME, methanol, ethanol, EDB, and EDC not detected at various detection limits in groundwater.
(8) Tetrachloroethene (PCE); 1,1,2,2-tetrachloroethane = 0.009 ppm; 1,2,2-trichloroethane = 0.085 ppm; no other VOCs or SVOCs detected in soil.
(9) VOCs not detected at various detection limits.

Site History and Description of Corrective Actions:

The site is currently an active retail fuel station and convenience store. Land use in the surrounding area is mixed commercial and residential. One monitoring well, originally designated MW-1 but apparently later designated MW-4, was installed south of the area of the USTs in February 1989. Well MW-1 was screened from a depth of 17 to 32 feet bgs; however, the PVC screen ruptured allowing the filter pack to enter the casing. Sediment inside the casing was bailed out to a depth of 27.5 feet bgs and a groundwater sample was collected. During the initial sampling of the well in 1989, total volatile hydrocarbons and benzene were detected in groundwater from the monitoring well at concentrations of 1,200 and 72 ppb, respectively. During later groundwater monitoring, petroleum odor and sheen were observed in the well. Two additional soil borings were advanced to depths of 12 to 14 feet bgs at the site in March 1990. Gasoline odors were observed and fuel hydrocarbons were detected in soil in each of the borings.

A 300-gallon waste oil tank was removed from the site in September 1993. One soil sample was collected beneath the tank and one soil sample was collected from the stockpile of excavated soil. TPHg, BTEX, and total oil and grease were detected at low concentrations in both soil samples. In addition, 1,1, 2,2-tetrachloroethane was detected at concentrations of 0.036 to 0.091ppm and 1,2,2-trichloroethane was detected at concentrations of 0.034 to 0.085 ppm in the two soil samples. Metals were detected at concentrations that are generally consistent with ambient metals concentrations and semi-volatile organic compounds were not detected. Approximately 30 cubic yards of soil was excavated from the area of the former waste oil tank on October 14 and 15, 1993. Following excavation, five confirmation soil samples were collected from the sidewalls and bottom of the excavation. The maximum concentration of TPHg and TPHd detected in the confirmation soil samples was 2.6 ppm. Total oil and grease (TOG) was detected at a concentration of 3,700 ppm in one of the confirmation soil samples; the next highest concentration of TOG detected in the confirmation soil samples was 120 ppm.

In February 1995, four soil borings were advanced at the site to investigate the extent of contamination from the former waste oil tank. Three of the borings were converted into monitoring wells (STMW-1 through STMW-3 and later designated MW-1 through MW-3). During two quarterly monitoring events following well installation, up to 4,600 ppb of TPHg, 39 ppb of benzene, 18 ppb of toluene, 21 ppb of ethylbenzene, and 39 ppb of xylenes were detected. No TPHd, total oil and grease, or other VOCs were detected in the groundwater samples. Five direct push borings were advanced at the site on June 26, 1996. Relatively high concentrations of fuel hydrocarbons (up to 23,000 ppb of TPHg) were detected in grab groundwater samples from borings north and west of the USTs. Monitoring wells MW-5 and MW-6 were installed at the site in December 1996. Elevated concentrations of fuel hydrocarbons were detected in soil and groundwater from well MW-5, located at the northern property boundary. Between May 28, 1997 and June 24, 1997, 2,550 pounds of Oxygen Releasing Compound was injected into borings along the northern and eastern sides of the USTs. An increase in dissolved oxygen was observed in the adjacent monitoring wells between August and December 1997.

Six soil samples were collected from a pipe trench located on the south side of the property in the area of the dispensers on February 28, 2001. High concentrations of fuel hydrocarbons were detected in the soil samples and product was observed in low areas of the trench. Six soil borings were advanced and sampled in the area of the dispensers in April 2001. Sampling results from the borings confirmed that soil and groundwater in the area of the dispensers were impacted. In May 2001, the dispensers, products lines, two 6,000-gallon USTs, and two 4,000-gallon USTs were removed from the site. Soil samples from the base and sides of the USTs contained high concentrations of fuel hydrocarbons. Between May 9 and September 27, 2001, approximately 3,965 tons of contaminated soil was overexcavated and disposed off-site. Residual concentrations of fuel hydrocarbons were left in place along the foundations of the canopy on the eastern edge of the excavation and the building on the southern edge of the excavation to avoid undermining the structures.

Four additional monitoring wells (MW-7 through MW-10) were installed at the site between March 24, 2003 and April 4, 2003. Well MW-7 replaced well MW-4, which was destroyed during soil excavation in April 2001. An ozone sparging system, consisting of ten sparge wells, was installed at the site in April 2004. The system operated from April 14, 2004 to January 3, 2005. Significant decreases in dissolved hydrocarbons and fuel oxygenate concentrations were observed from April 2004 to January 2005. Verification monitoring was conducted for four quarters from January 2005 through October 2005. During the October 2005 groundwater sampling event, TPHg and BTEX constituents were not detected in any monitoring wells. MTBE was detected in several wells in October 2005; the maximum concentration of MTBE was 490 ppb in downgradient monitoring well MW-10.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? ---		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? ---		
Does corrective action protect public health for current land 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: Case closure for the fuel leak site is granted for commercial land use only. 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. This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination posing a nuisance for subsurface utility work.		
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: 2	Number Retained: 8 monitoring wells and 10 sparge wells
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: --		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

Fuel oxygenates other than MTBE, ethylene dibromide, and 1,2-dichloroethane were not analyzed in soil.

Residual soil contamination was left in place beneath the canopy and service station building. The residual contamination does not pose a threat to current commercial use of the site or groundwater resources in the area. Case closure for commercial land use only is recommended based on the residual contamination left in place.

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 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.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Jerry Wickham	Title: Hazardous Materials Specialist
Signature: Jerry Wickham	Date: 11/13/06
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature:	Date: 11/13/06

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: 11/13/06
Signature: Cherie McCaulou	Date: 11/29/06

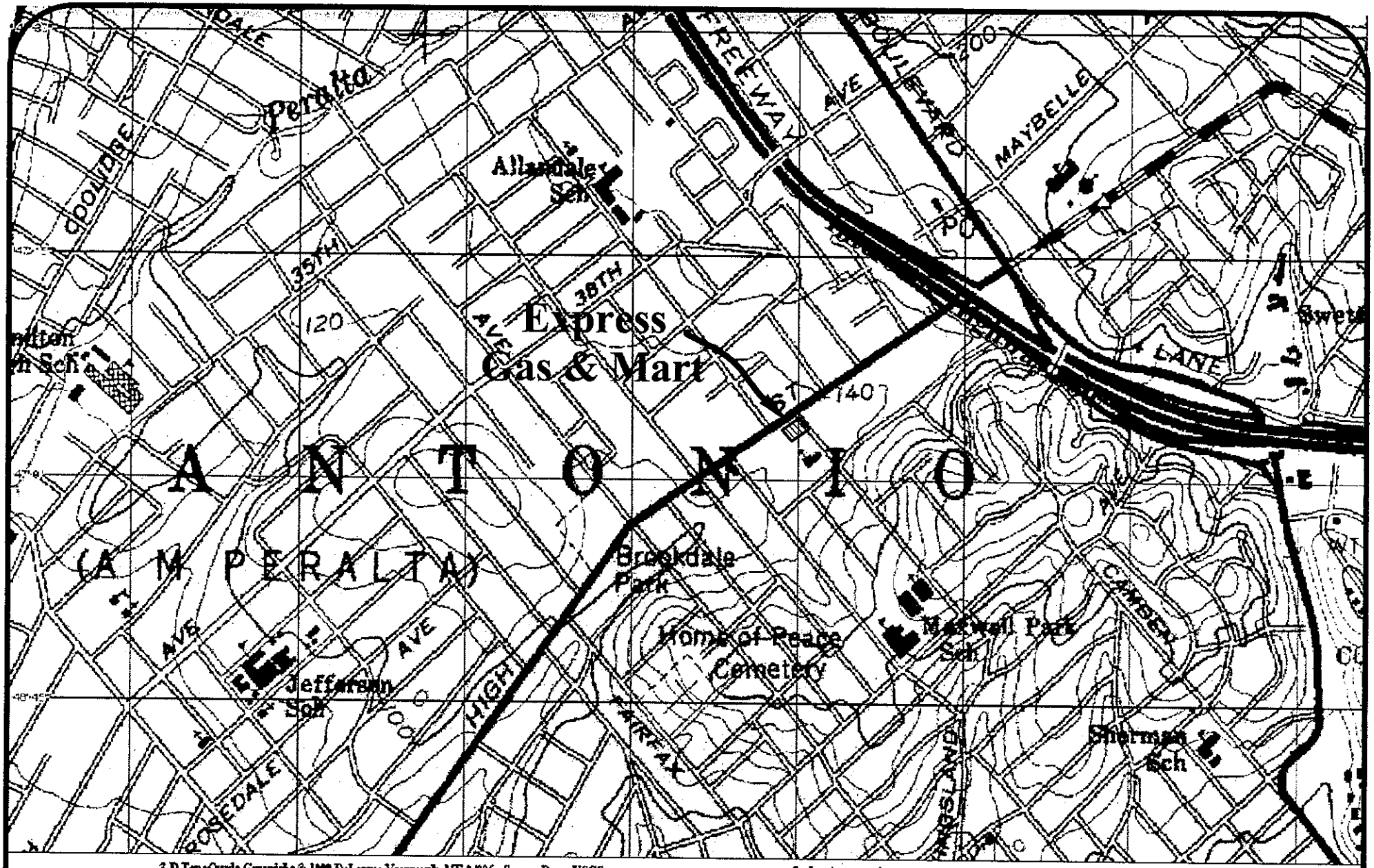
VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: 11/29/06	Date of Well Decommissioning Report: 12/05/06	
All Monitoring Wells Decommissioned: (Yes) No	Number Decommissioned: 18	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature:		Date: 12/14/06

Attachments:

1. Site Location Map and Site Features (2 pages)
2. Groundwater Elevations on October 4, 2005, MTBE Concentrations on October 4, 2005, Groundwater Results from Geoprobe Borings, and MTBE Concentrations Over Time (5 pages)
3. Site Maps from Previous Investigations (20 pages)
4. Soil Analytical Data (17 pages)
5. Groundwater Analytical Data (7 pages)
6. Monitoring Well Construction Information and Boring Logs (35 pages)

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.



Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94597
(925) 937-1759 work
(925) 937-6869 cell
cookenvironmental@att.net

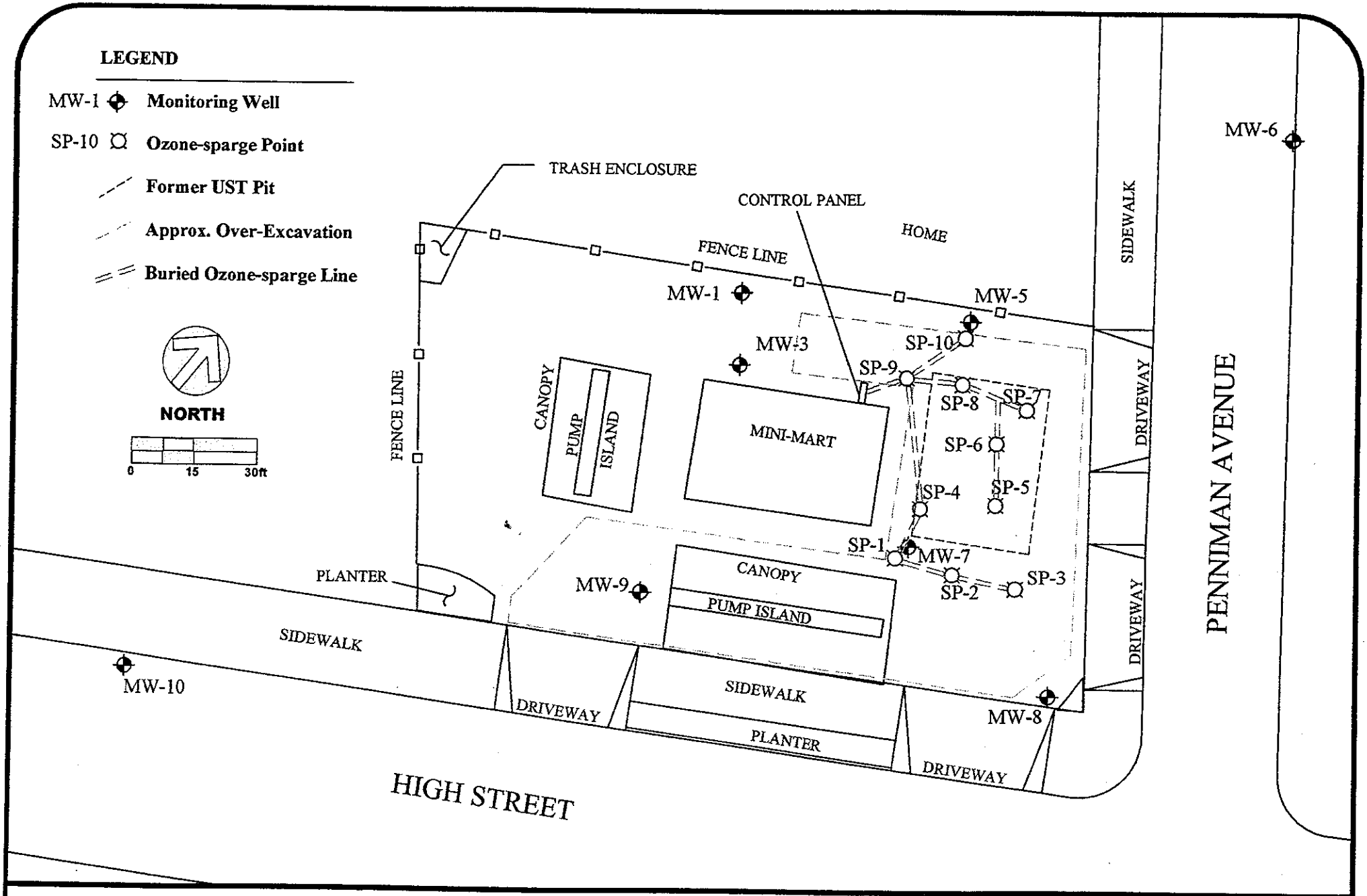
Site Location Map

Express Gas & Mart
2951 High Street
Oakland, California

NORTH

Project #: 1004	Figure: 1
Date: 10/20/05	

ATTACHMENT 1



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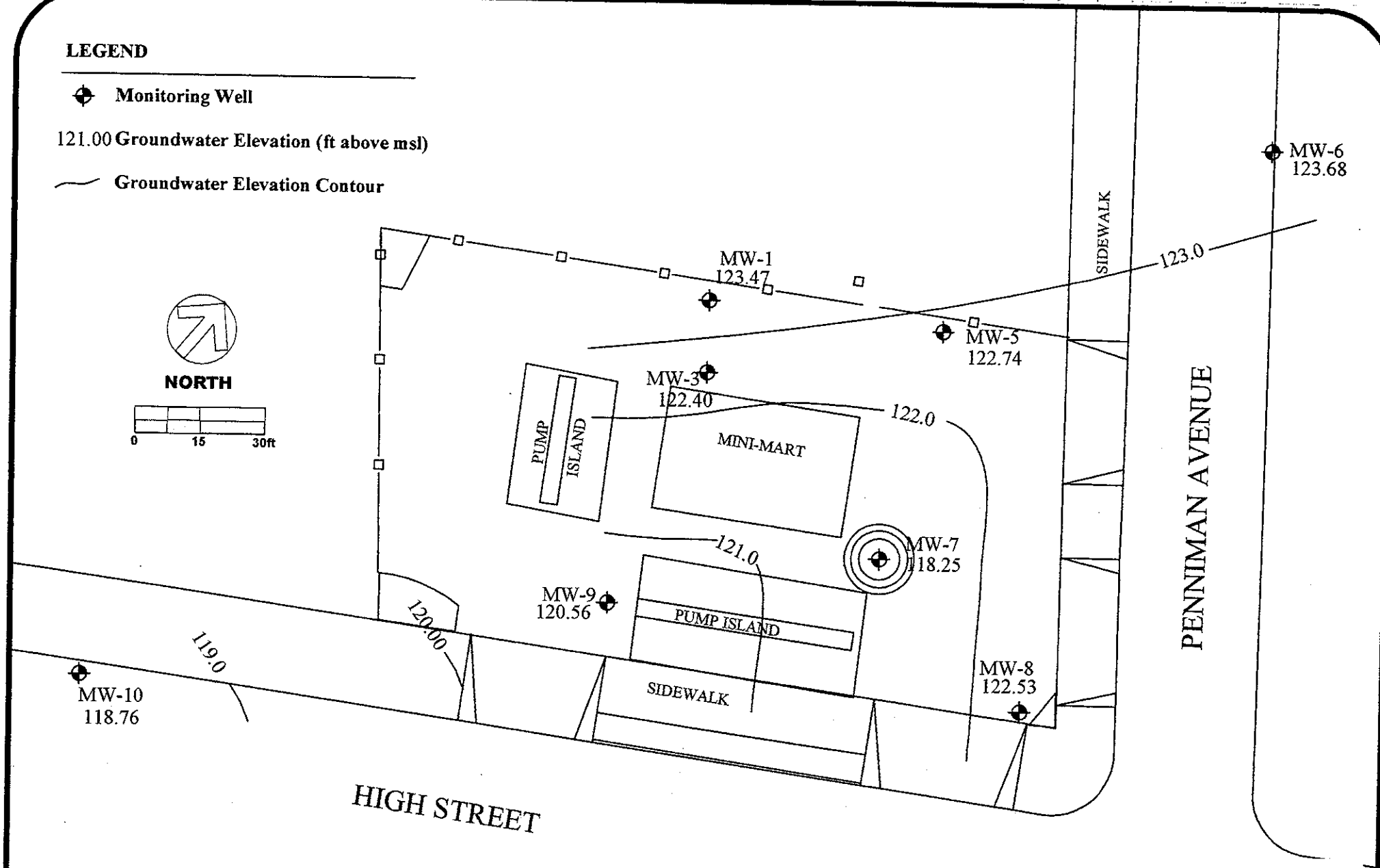
Site Features

Express Gas & Mart
2951 High Street
Oakland, California

Project #: 1004	Figure: 2
Date: 10/20/05	
Scale: 1"=30'	



ATTACHMENT 2

Cook Environmental Services, Inc.
271 Las Juntas Way
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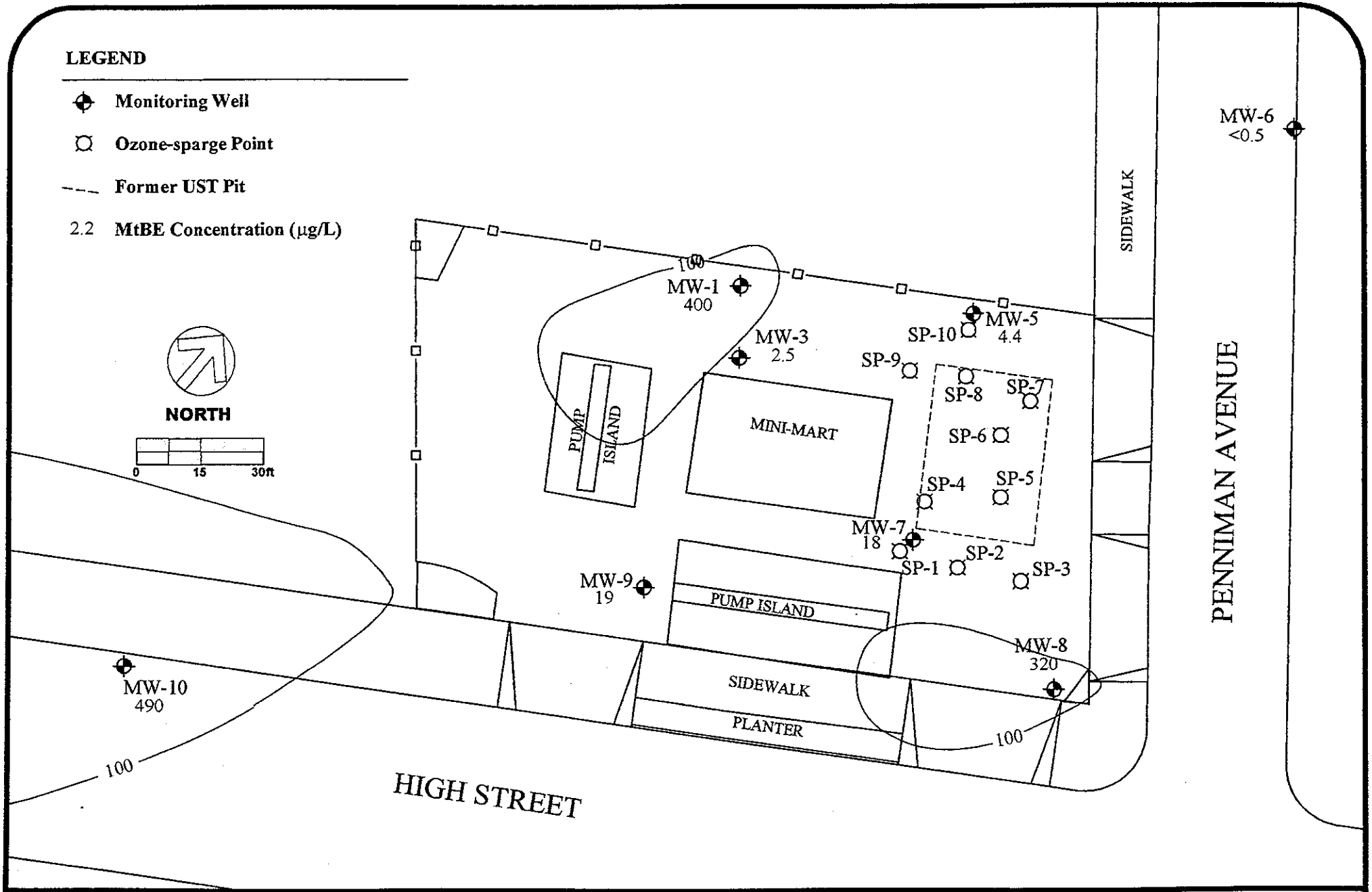
(925) 937-1759 work
(925) 937-6869 cell
cookenvironmental@att.net

Groundwater Elevations on October 4, 2005

Express Gas & Mart
2951 High Street
Oakland, California

Project #: 1004	Figure: 3
Date: 10/20/05	
Scale: 1"=30'	



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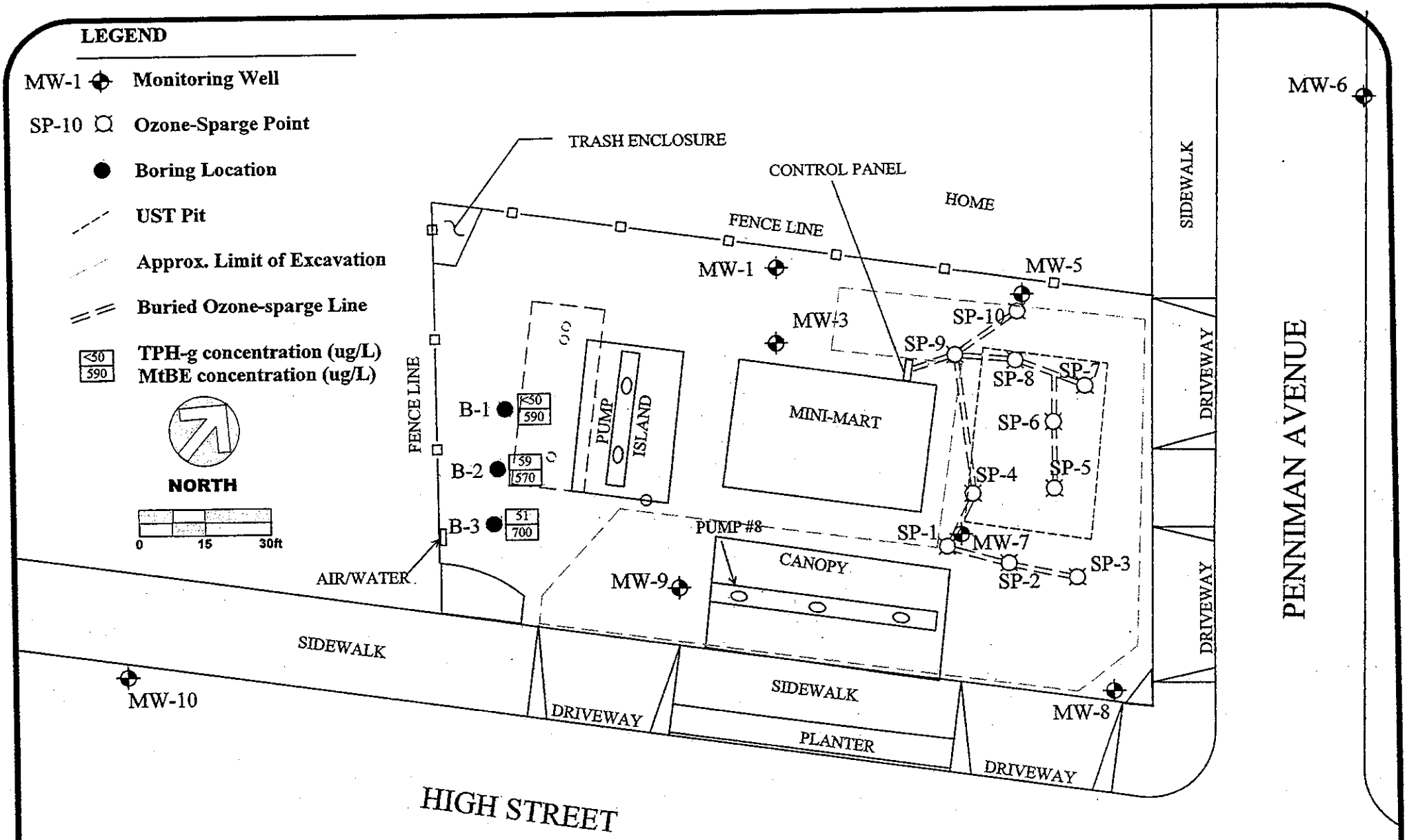
Walnut Creek, CA 94597
(925) 937-1759 work
(925) 937-6869 cell
cookenvironmental@att.net

MtBE Concentrations in Groundwater on October 4, 2005

Express Gas & Mart
2951 High Street
Oakland, California

Project #: 1004	Figure: 5
Date: 10/20/05	
Scale: 1"=30'	



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Groundwater Results from Geoprobe Borings

Express Gas & Mart
2951 High Street
Oakland, California

Project #: 1004	Figure: 1
Date: 8/17/06	
Scale: 1"=30'	

Figure 6

MtBE Concentrations vs. Time in Wells MW-3, MW-5, MW-7 and MW-8
2951 High Street, Oakland, California

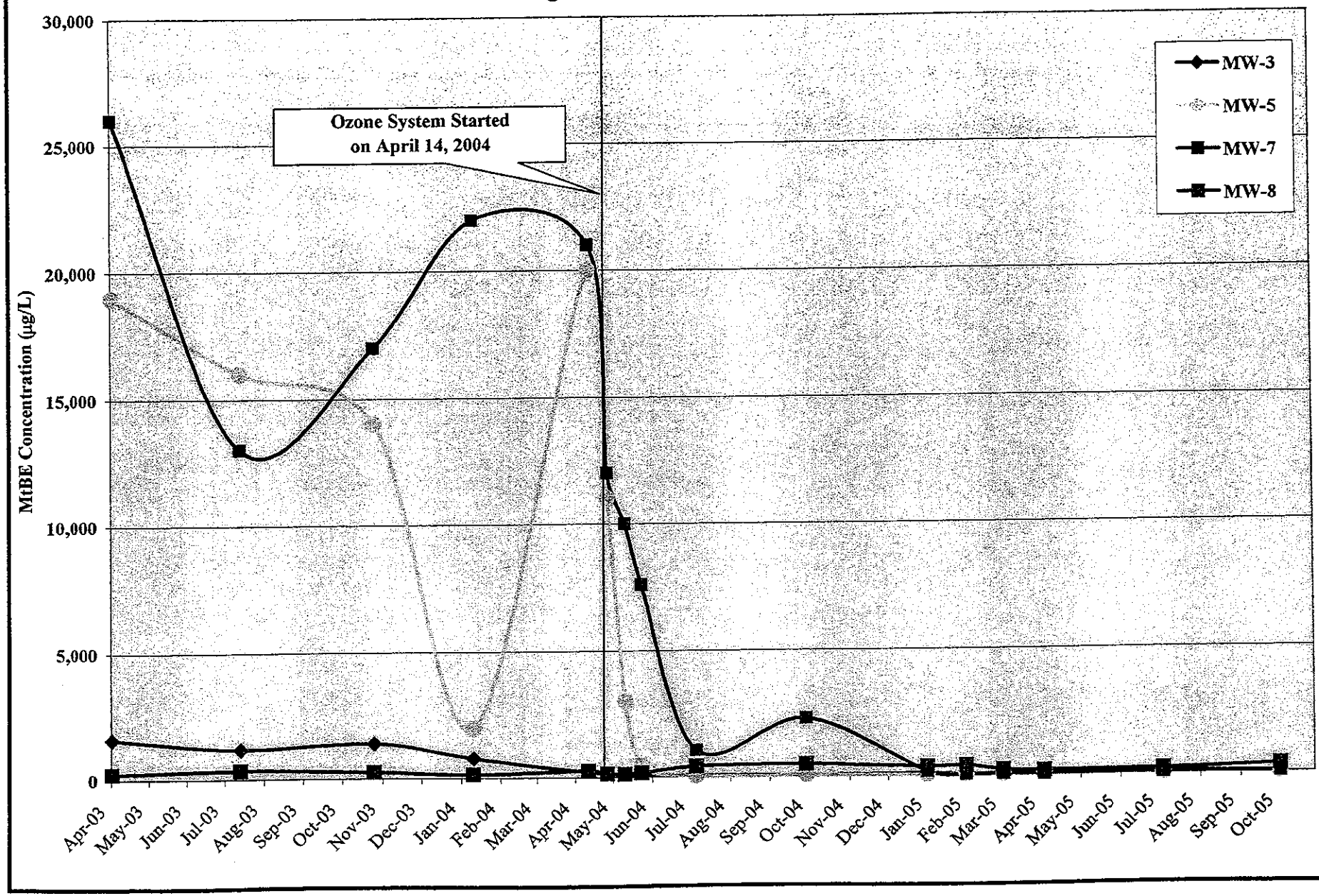


Figure 7

MtBE Concentrations versus time in Wells MW-1, MW-9 and MW-10
2951 High Street, Oakland, California

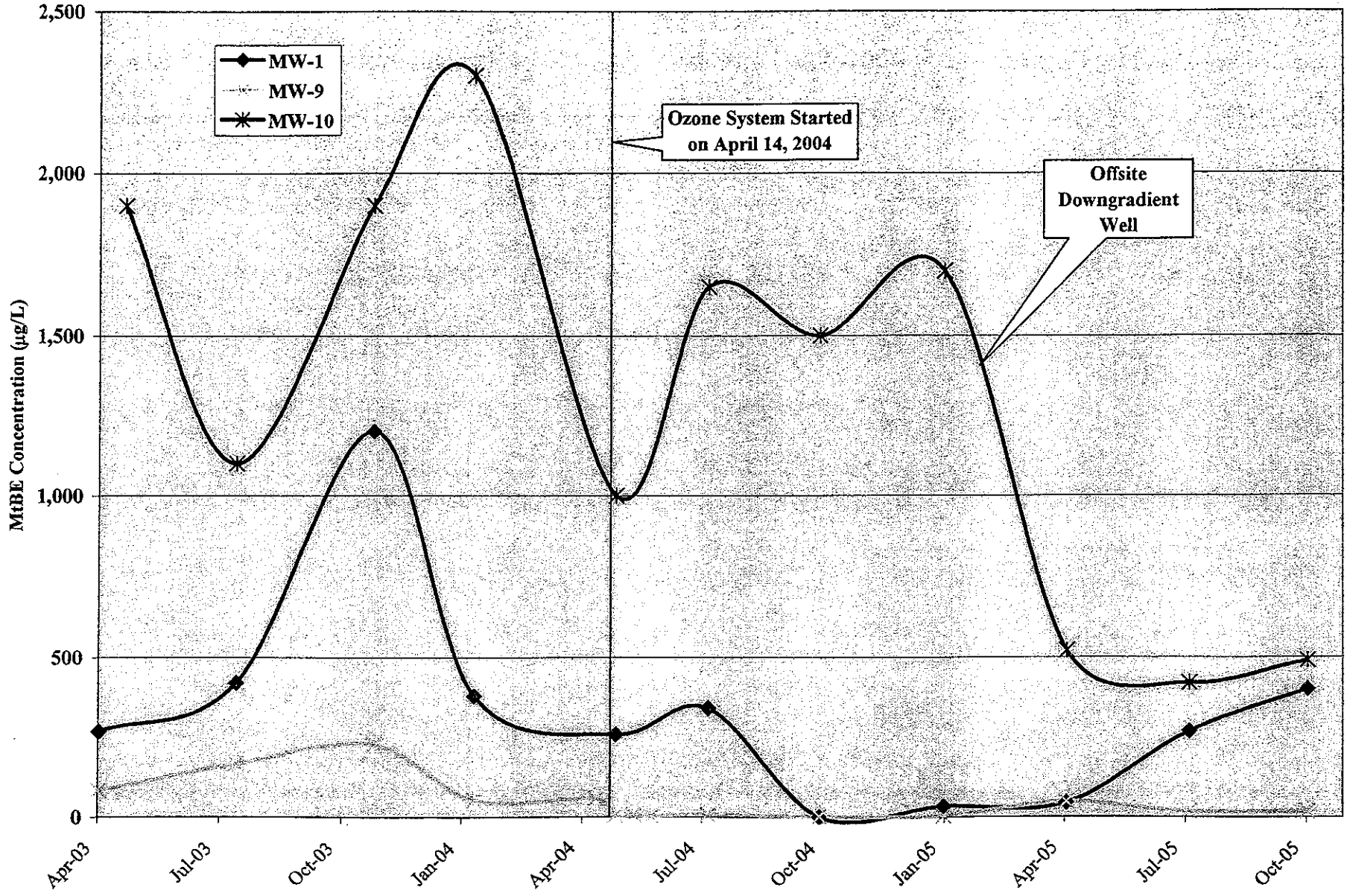
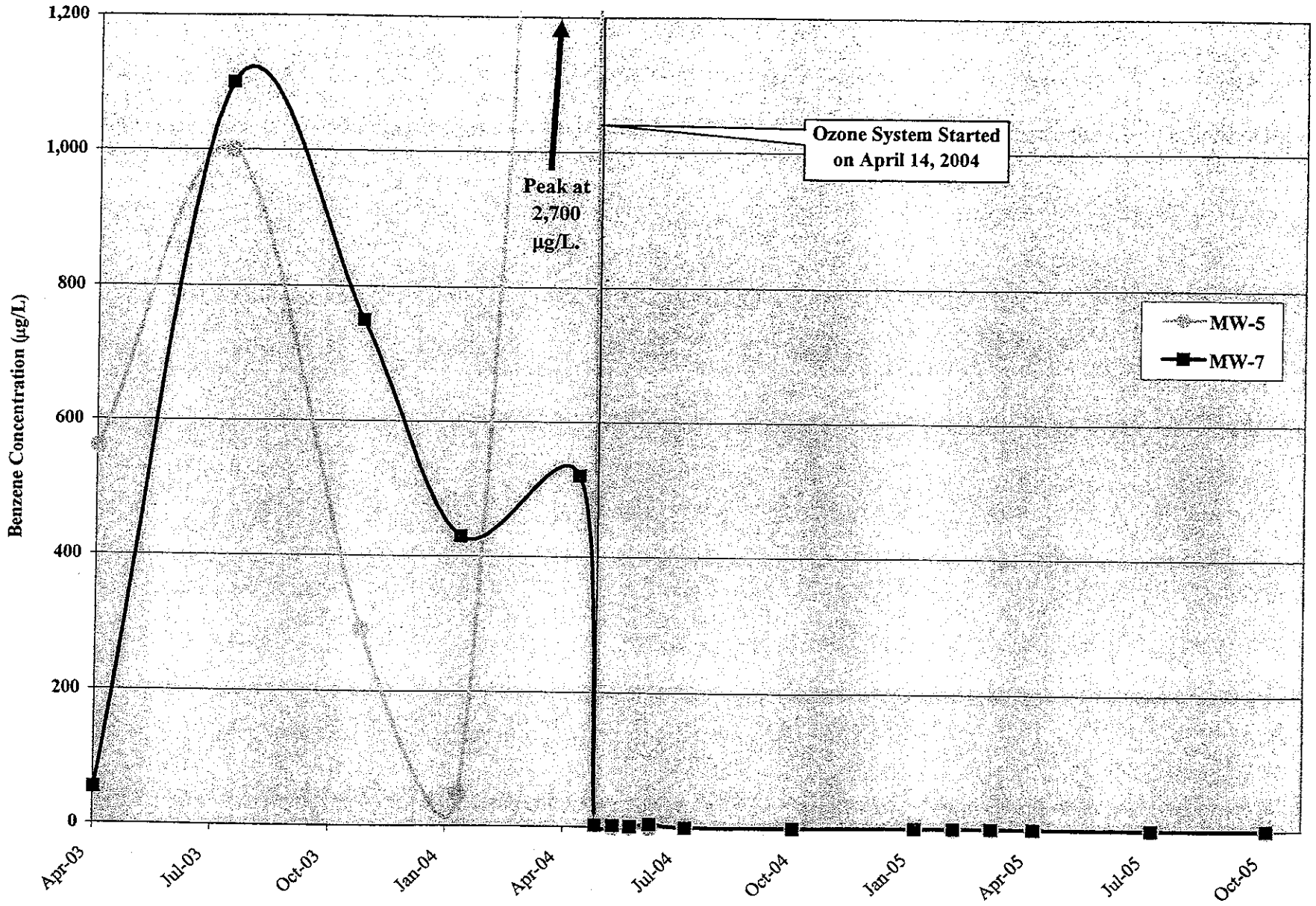


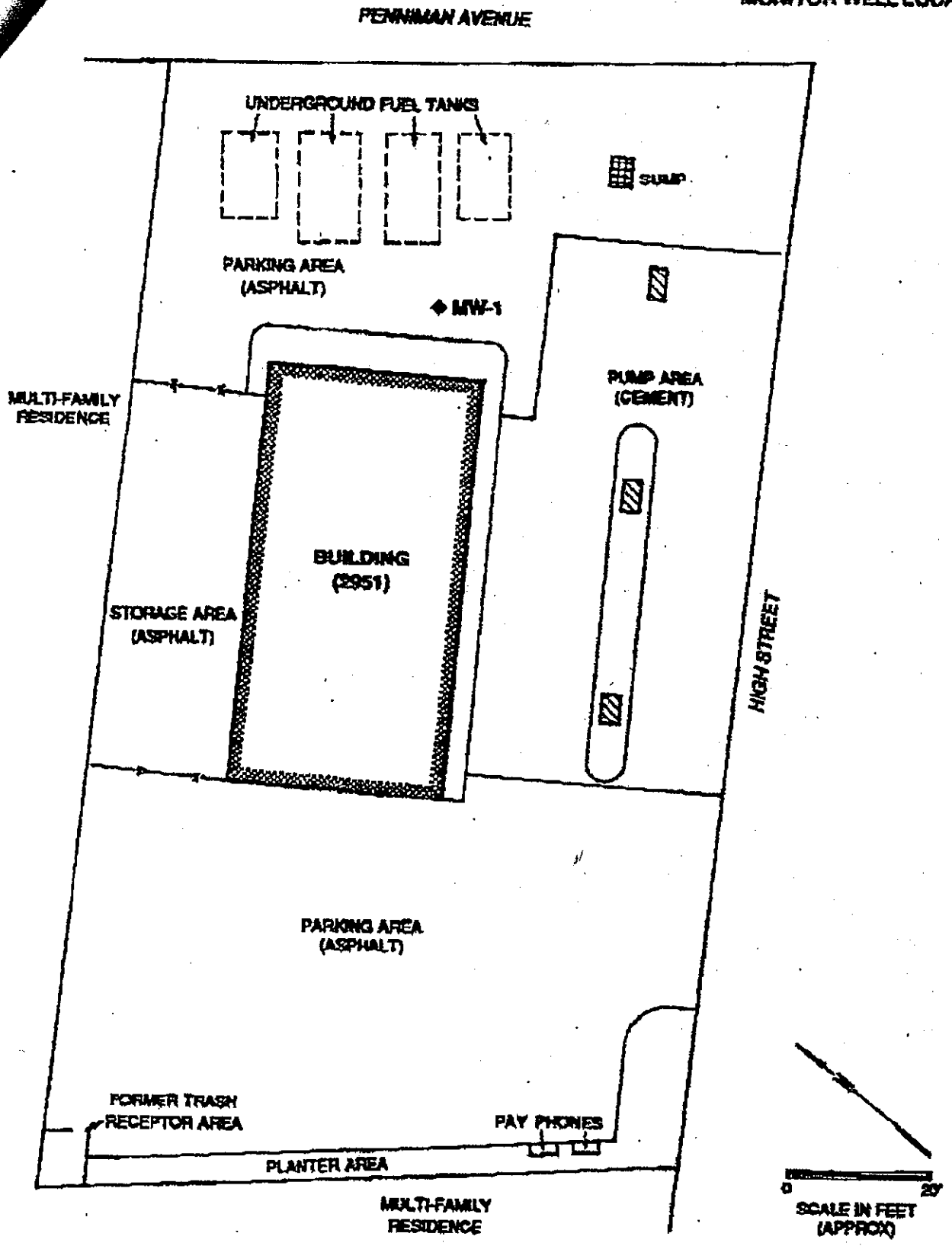
Figure 8

Benzene Concentrations vs. Time in Wells MW-5 and MW-7
2951 High Street, Oakland, California



R0261 11/6/06

FIGURE 2
SITE PLAN AND
MONITOR WELL LOCATION



McLaren

ATTACHMENT 3

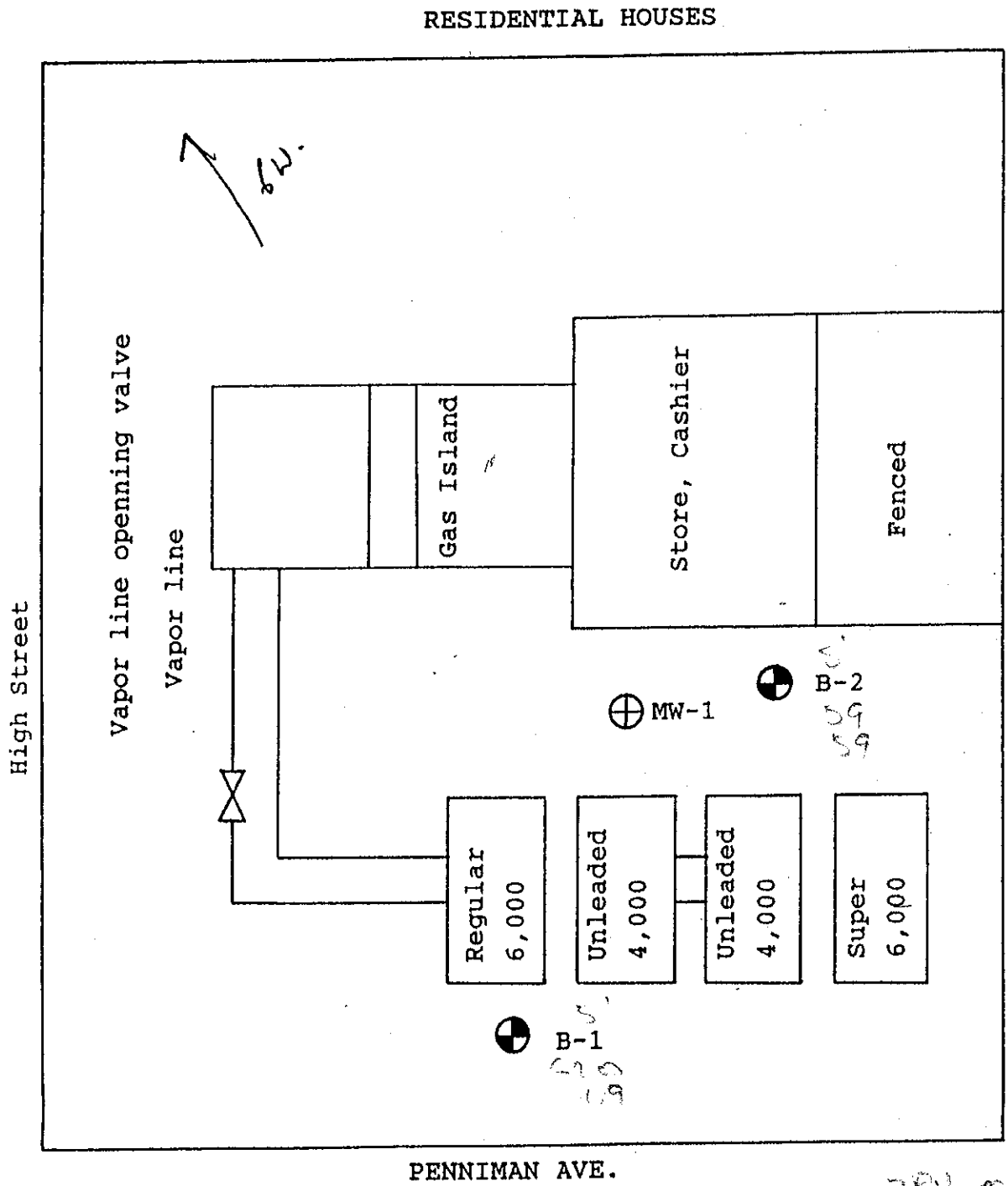


Figure 2

United Soil Engineering, Inc.

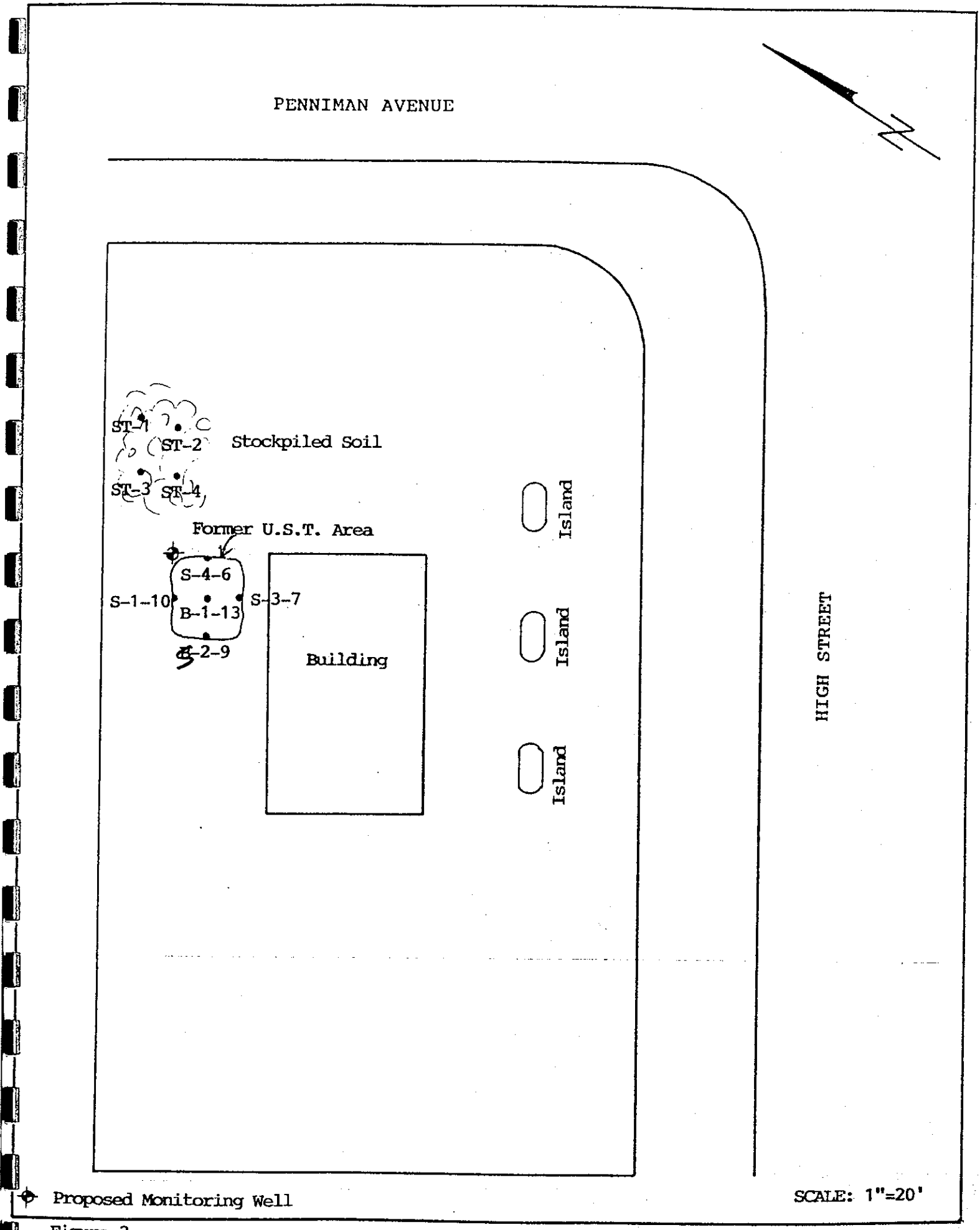


Figure 2

SOIL TECH ENGINEERING, INC.

M2

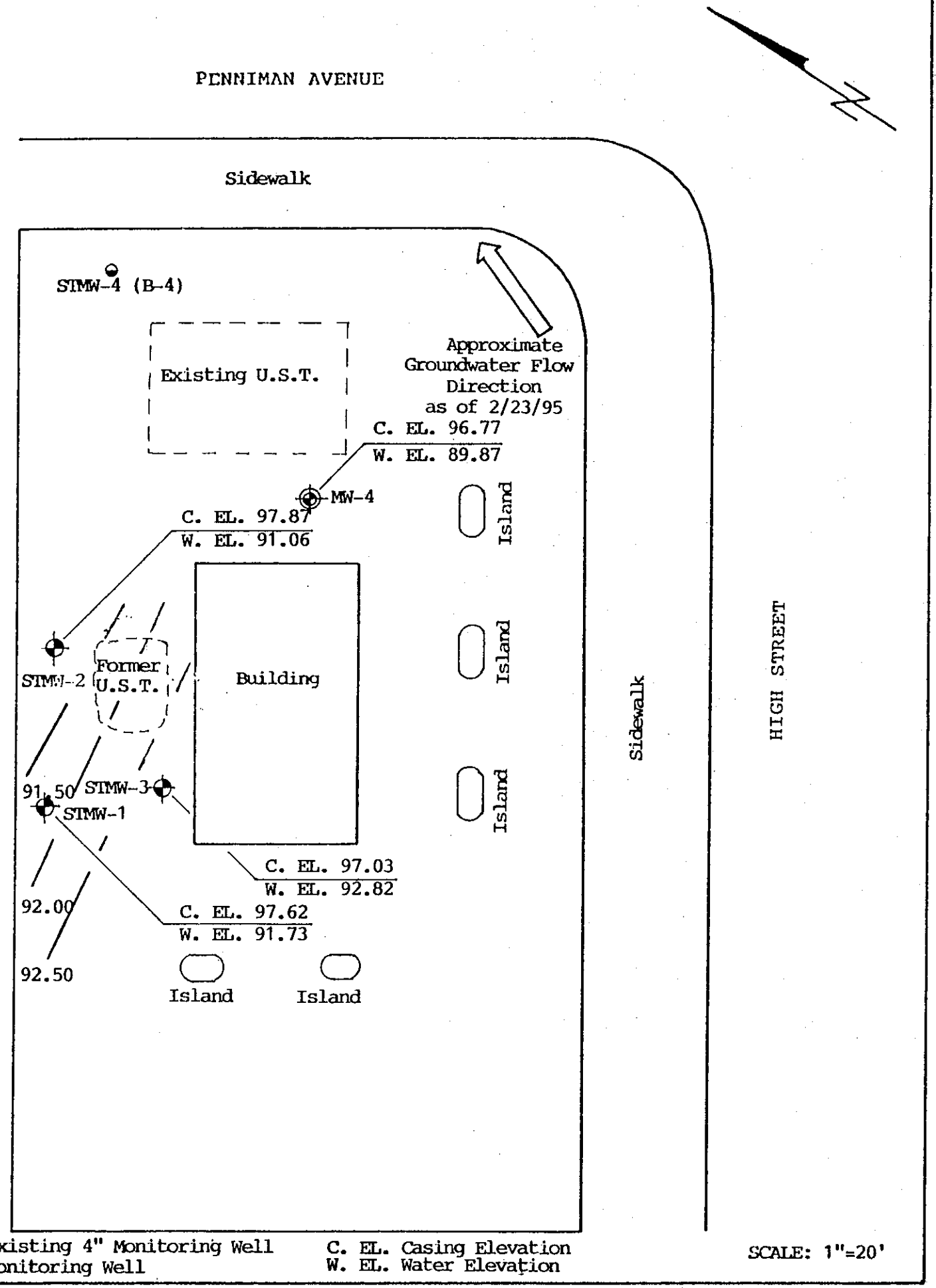
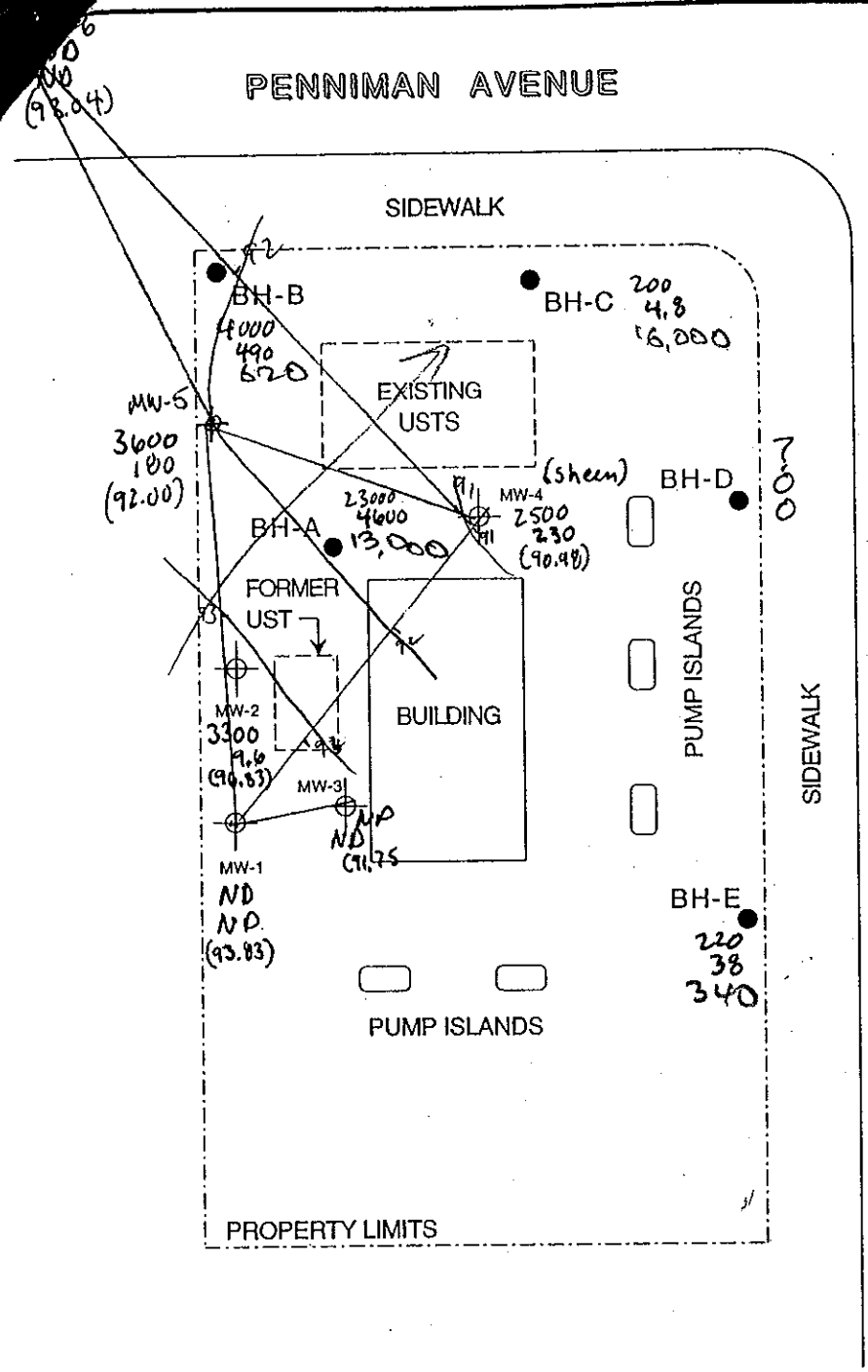


Figure 2

SOIL TECH ENGINEERING, INC.

M2



NORTH

SCALE
1" = 30'

Data in ug/l
TPHG
Benzene
MTBE

1996

LEGEND

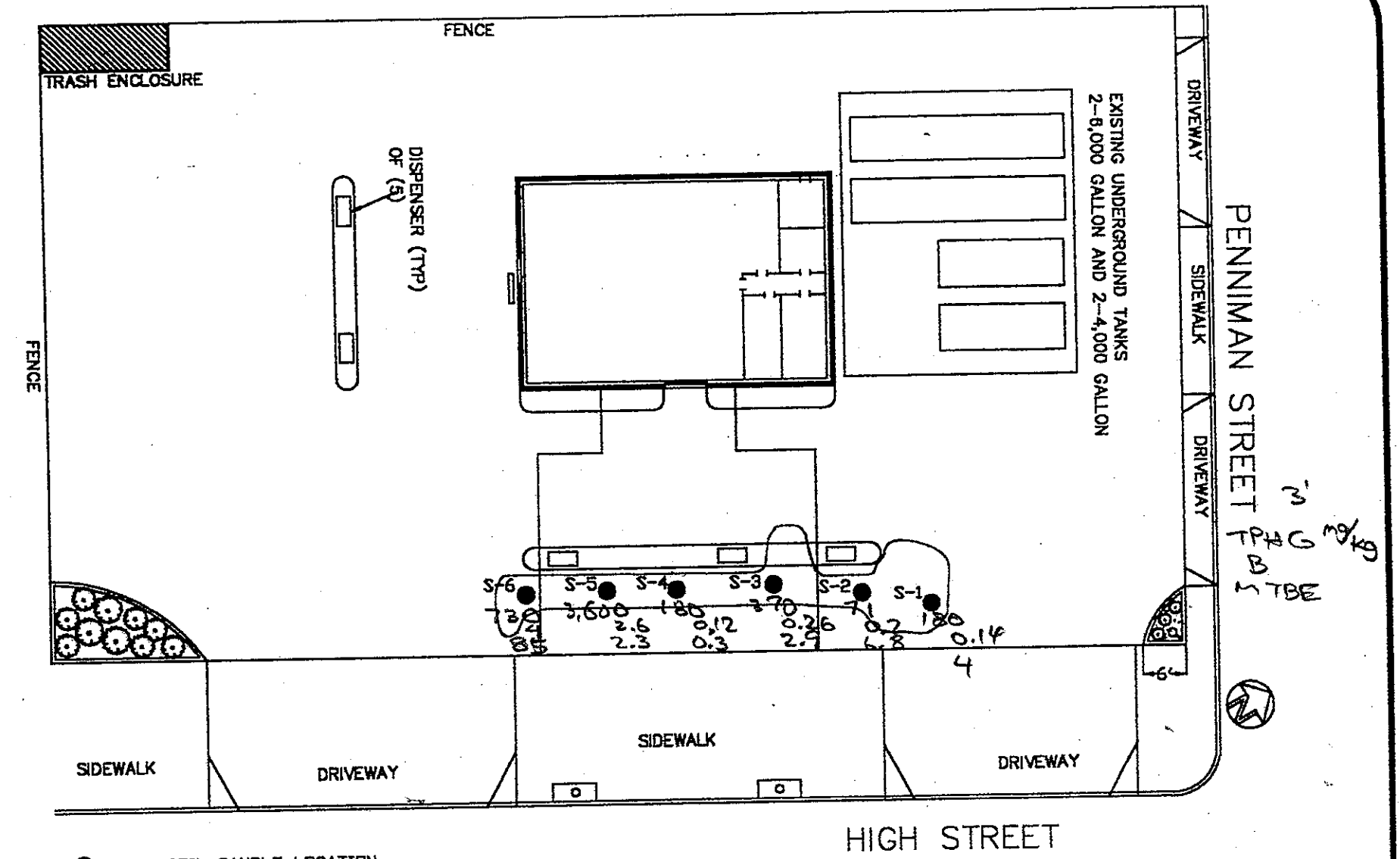
MW-1 — MONITORING WELL

BH-E — SOIL BORING

SOIL BORING LOCATION MAP

ZIMA CENTER CORPORATION
2951 HIGH STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 2



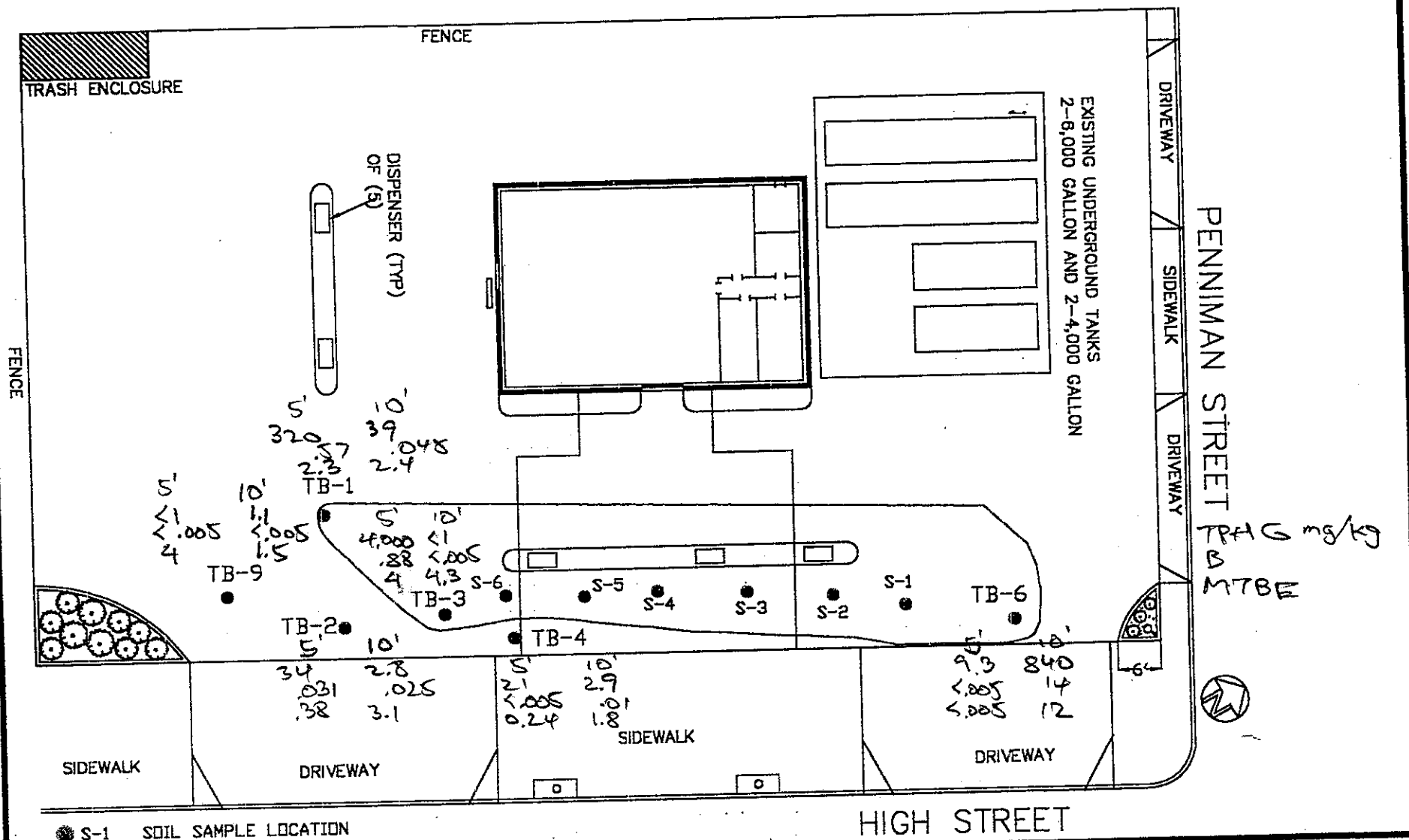
mg/kg
TPH G
B
TBE

W.A. Craig, Inc.
6940 Tremont Road LIC# 455752
Dixon, California 95620-9603
PH# (707) 693-2929

SOIL SAMPLE LOCATIONS

2951 High Street
Oakland California

Project: 3936	Figure: 3
Date: 3/27/01	
Scale: 1" = 20'	

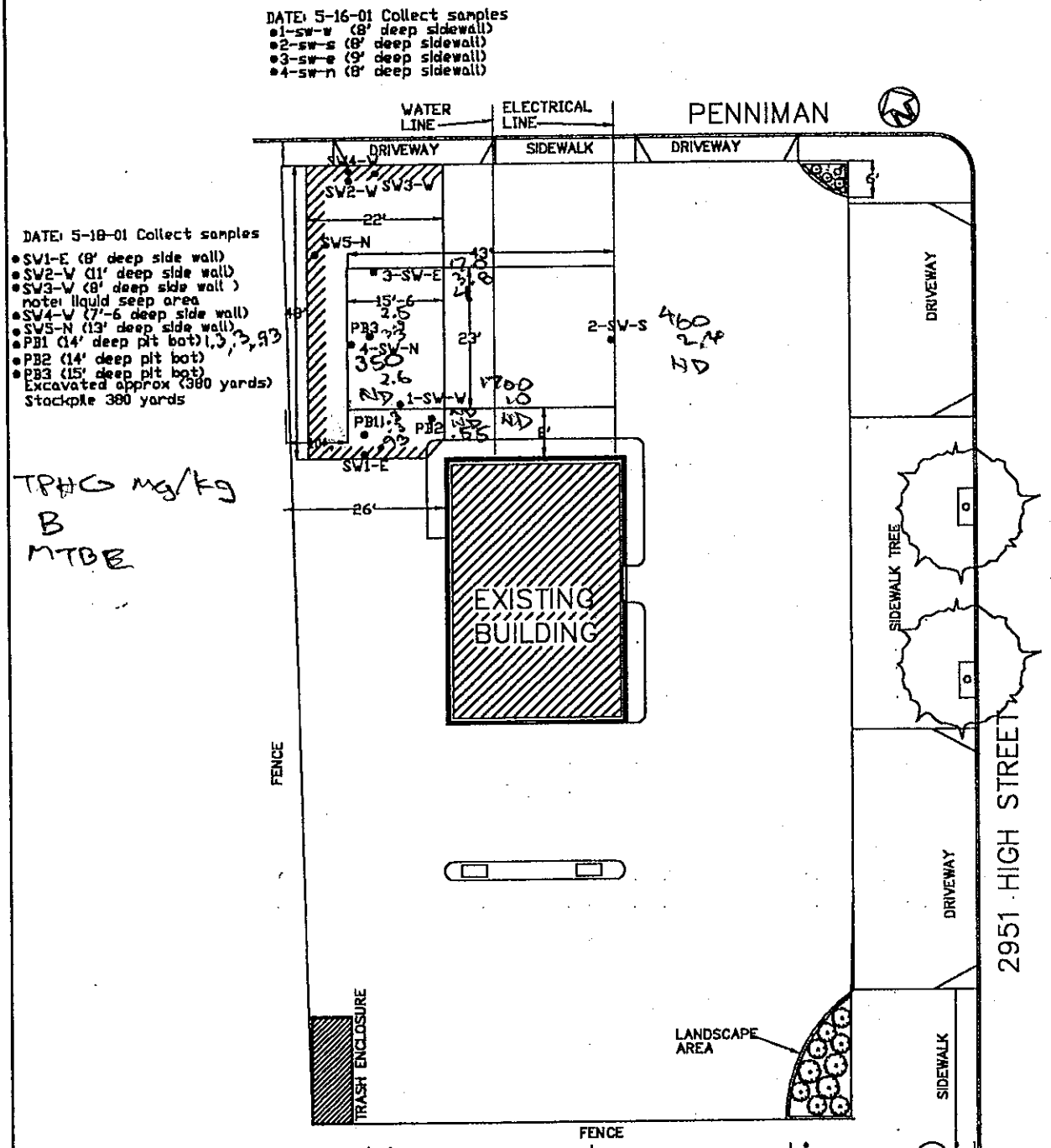


W.A. Craig, Inc.
6940 Tremont Road LIC# 455752
Dixon, California 95620-9603
PH# (707) 693-2929

Sample Locations

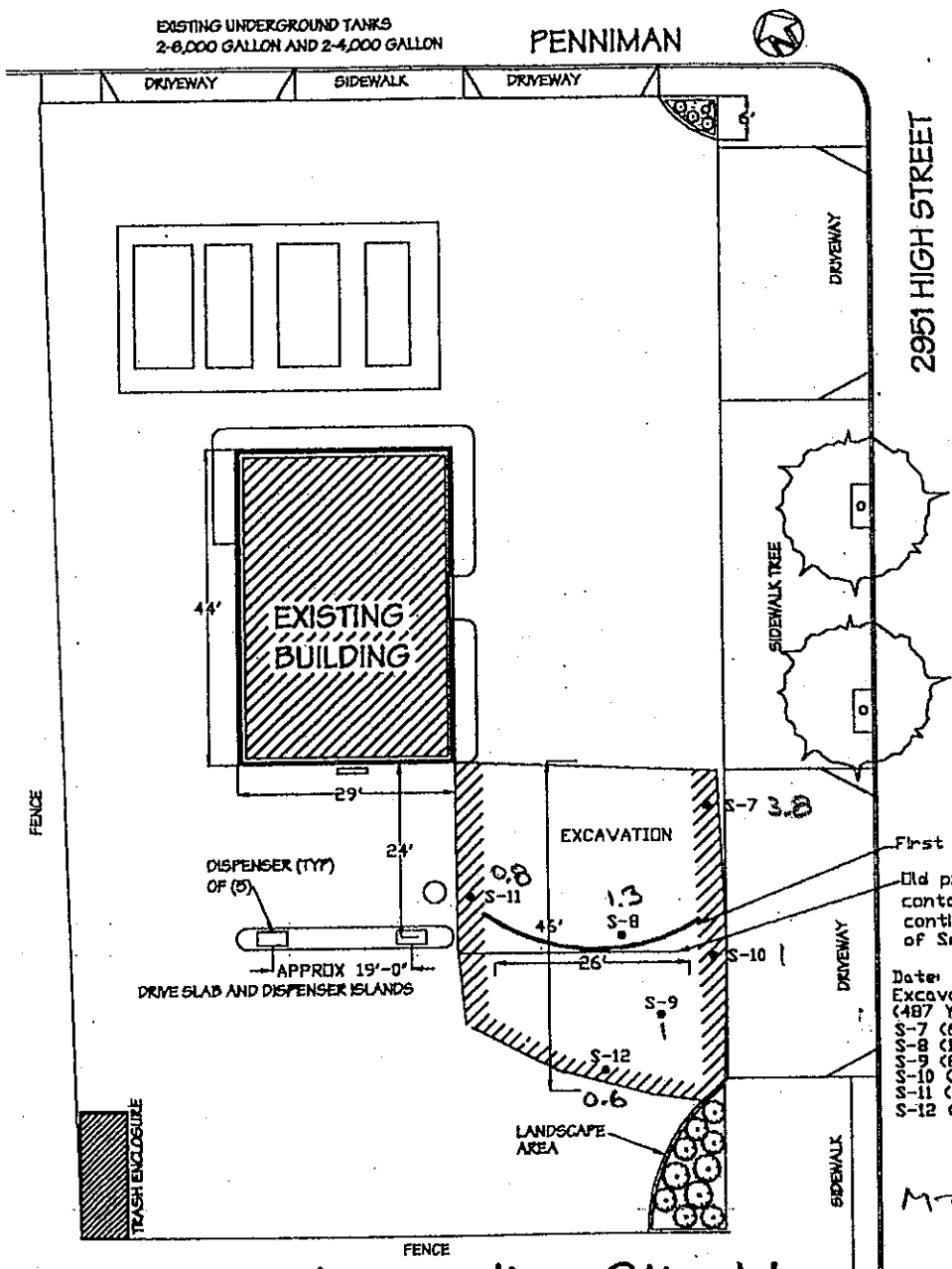
2951 High Street
Oakland California

Project: 3936	Figure: 1
Date: 05/03/01	
Scale: 1" = 20'	



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING	Project Name and Address	FIGURE #
W.A. CRAIG, INC. 6940 TREMONT ROAD DIXON, CALIFORNIA 95620 PH# (707) 693-2929 LIC# 455752	EXPRESS GAS & MART 2951 HIGH STREET OAKLAND, CA JOB # 3936	2



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

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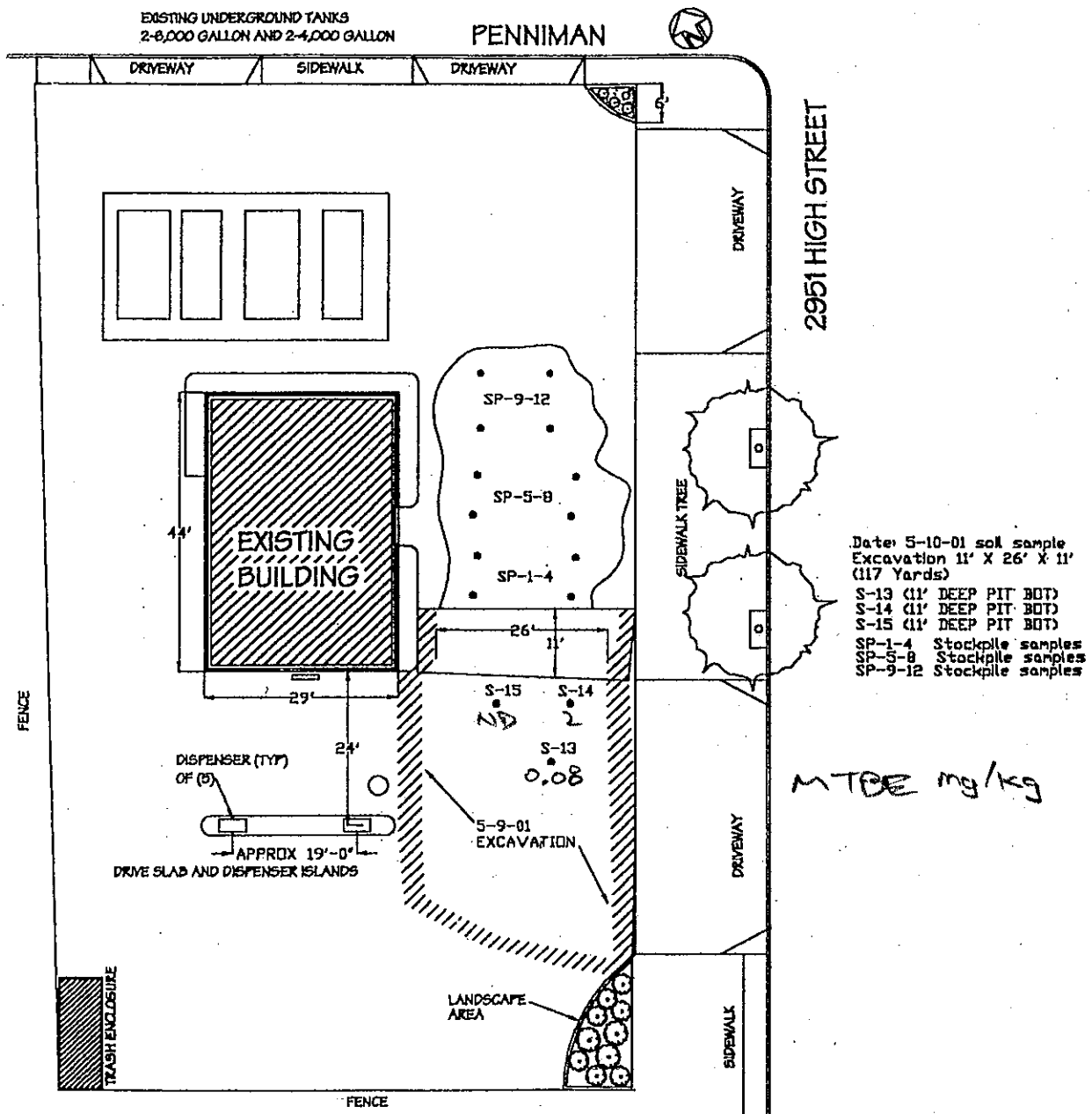
DIXON, CALIFORNIA 95620
PH# (707) 693-2929
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #

5-9-01



Excavation and sampling Site Map

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PH# (707) 693-2929
LIC# 455752

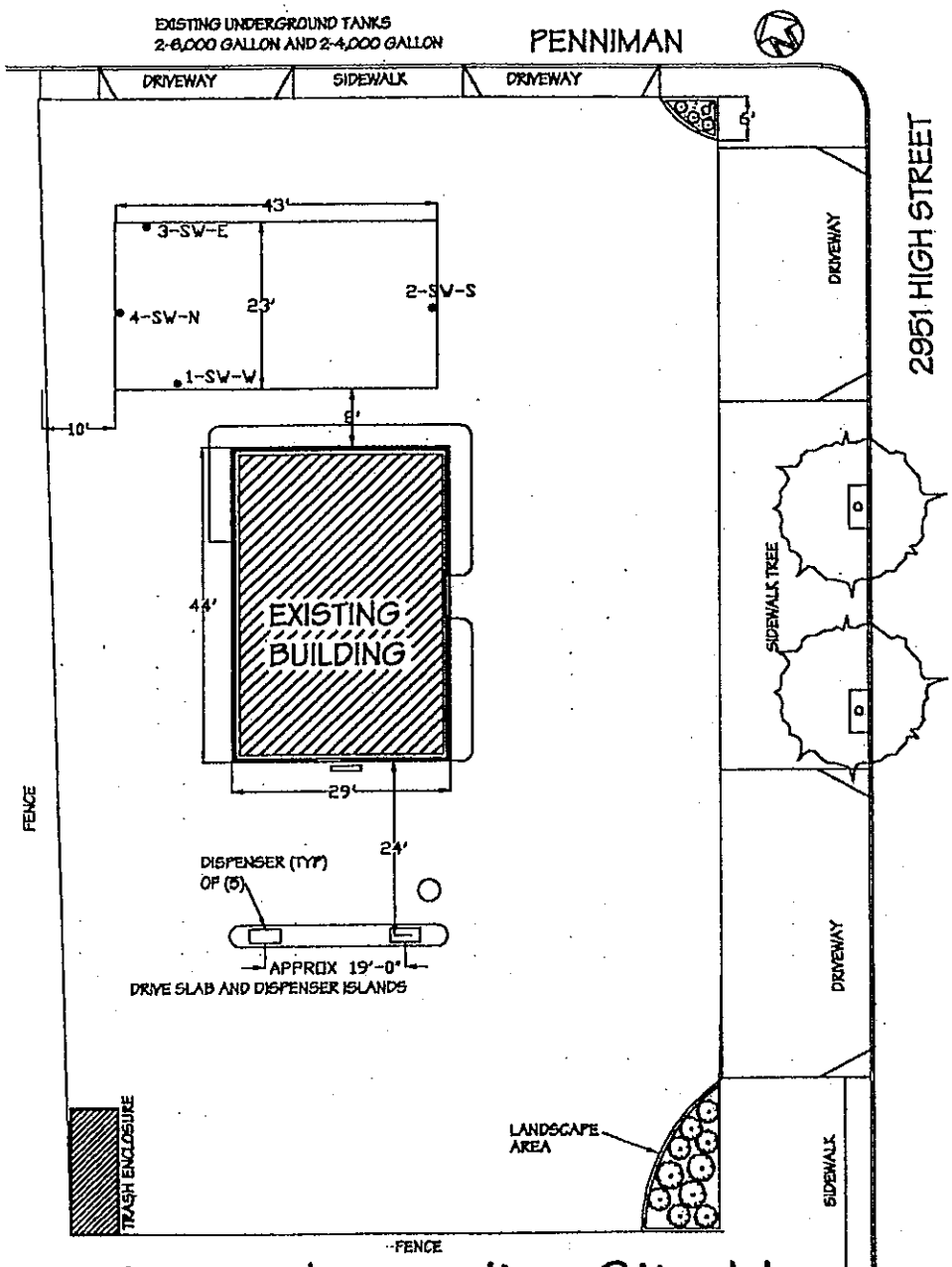
Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #

5-10-01

DATE: 5-16-01 Collect samples
•1-sw-w (8' deep sidewall)
•2-sw-s (8' deep sidewall)
•3-sw-e (9' deep sidewall)
•4-sw-n (8' deep sidewall)



Excavation and sampling Site Map

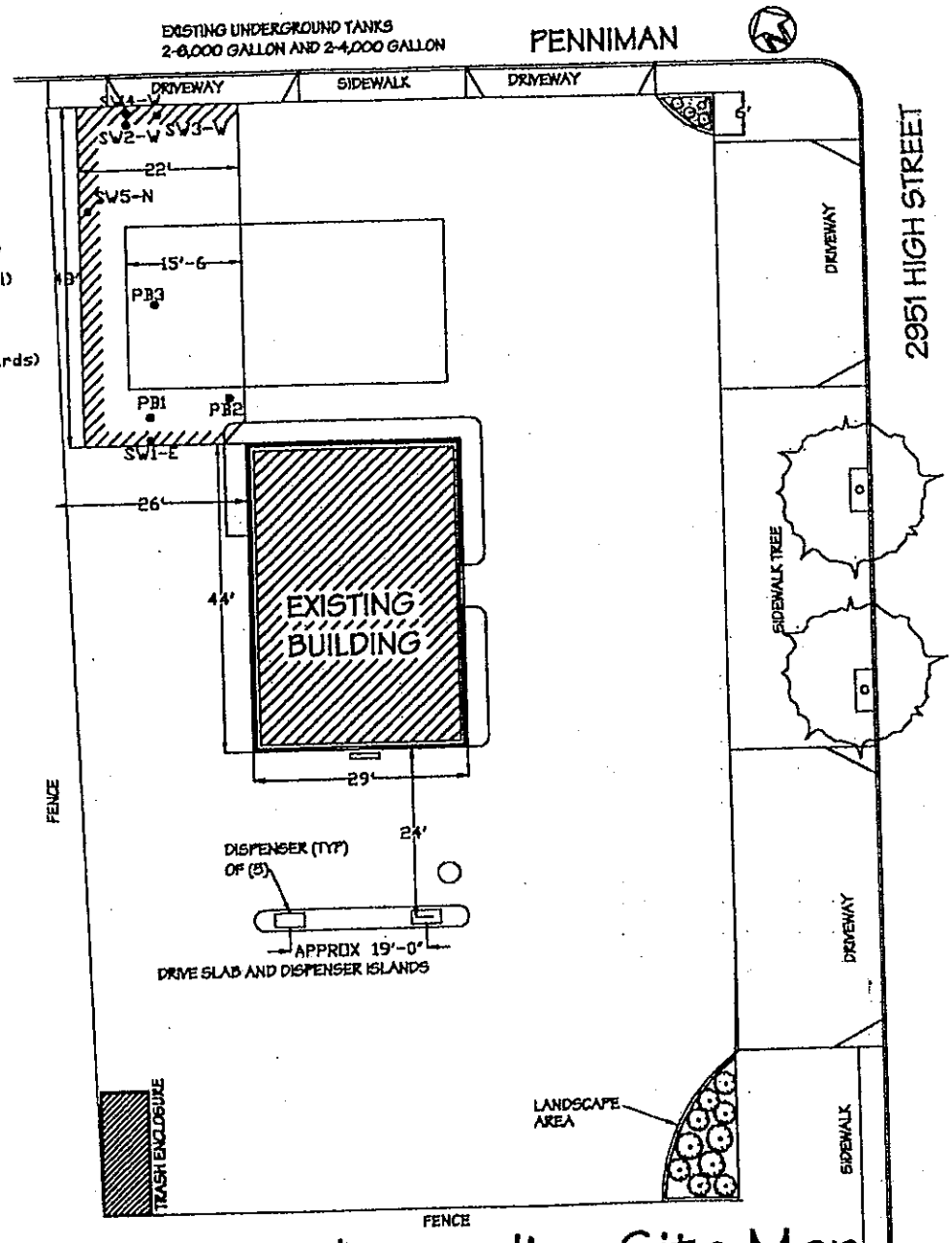
ENVIRONMENTAL CONSULTING AND CONTRACTING

W.A. CRAIG, INC.
6940 TREMONT ROAD
DIXON, CALIFORNIA 95620
PH# (707) 693-2929
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #
5-16-01



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

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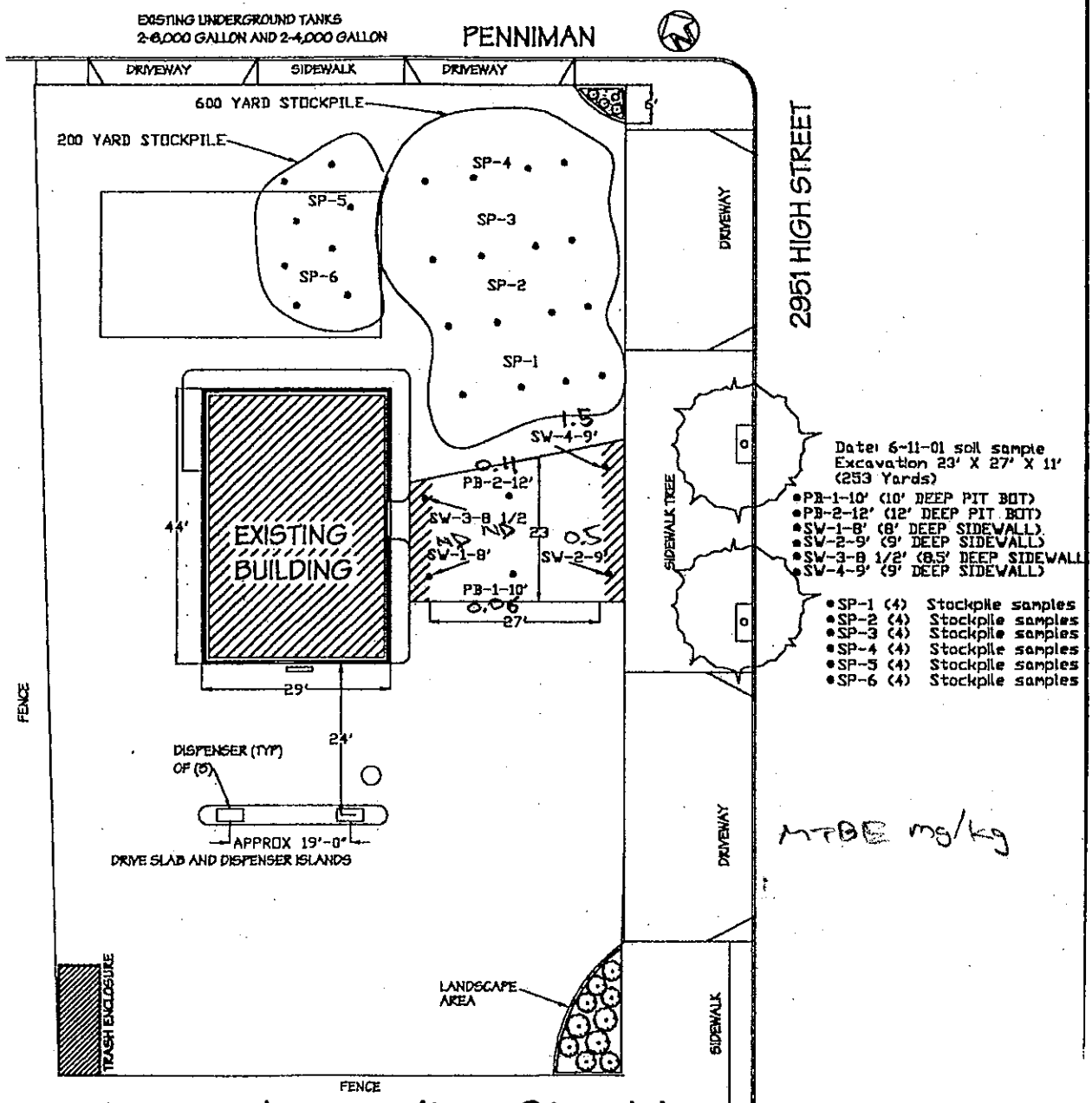
PH# (707) 693-2929
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #
5-18-01



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

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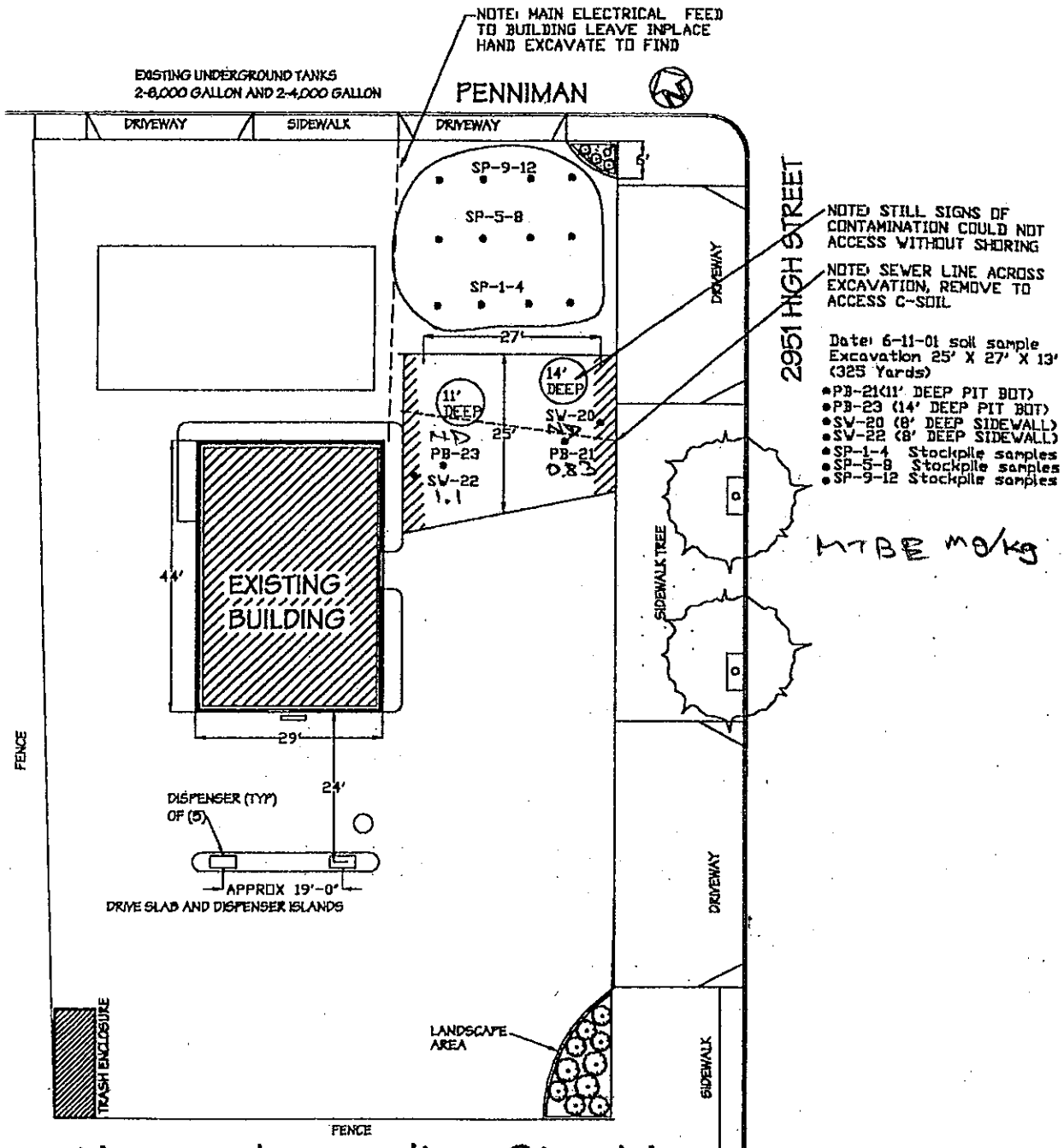
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #

5-31-01



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

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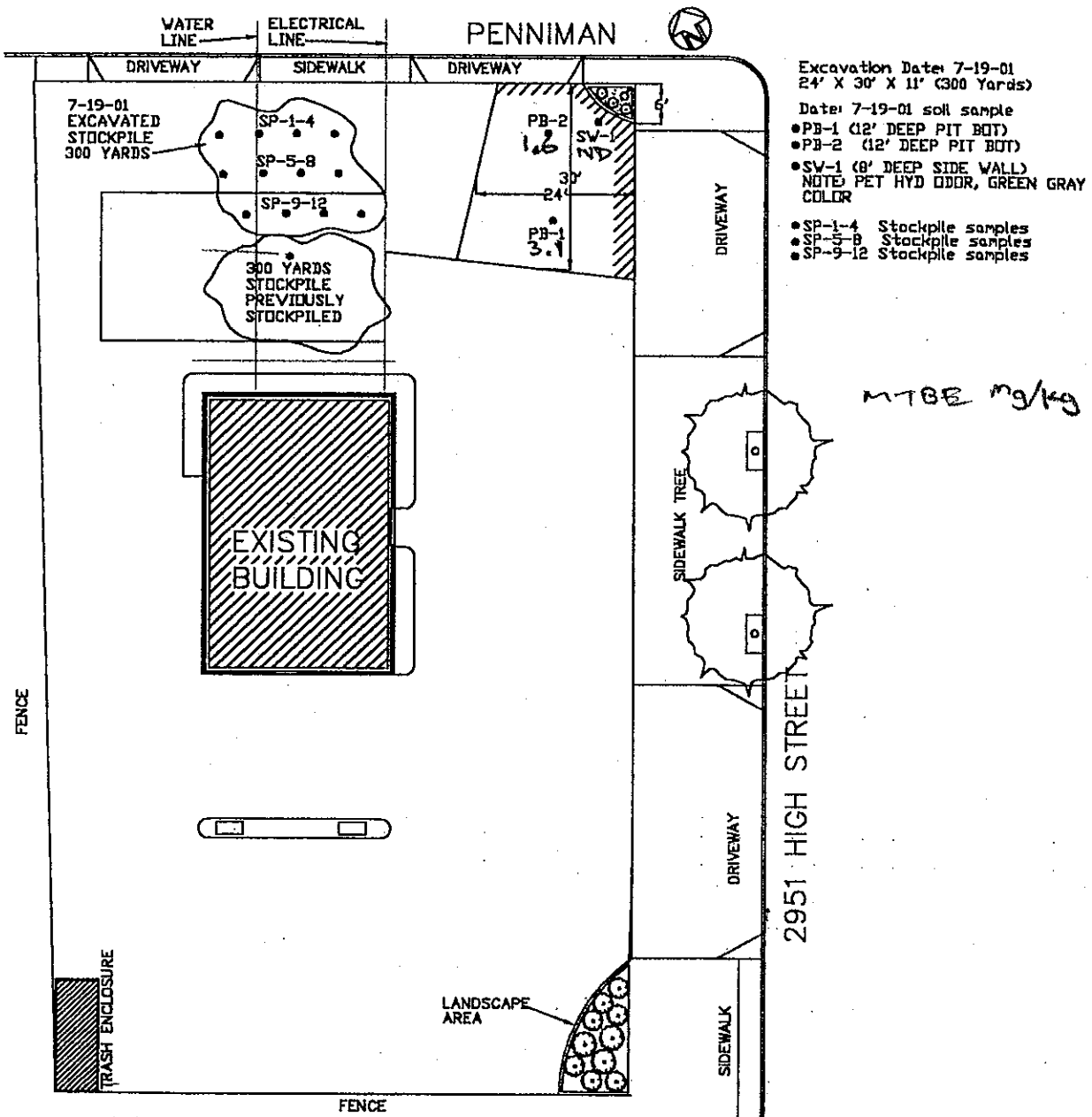
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #

6-11-01



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

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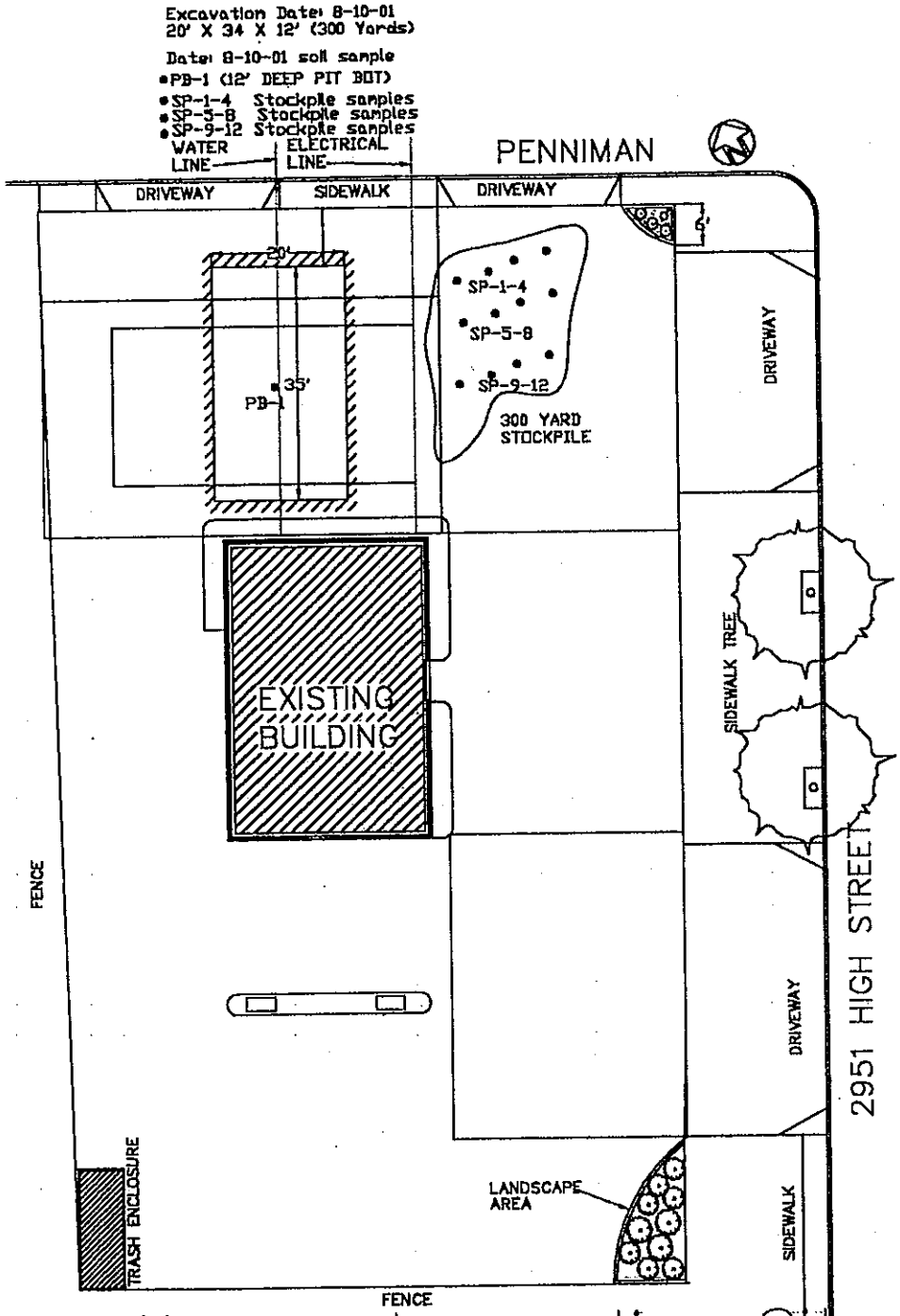
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #
7-19-01



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

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PH# (707) 693-2929
LIC# 455752

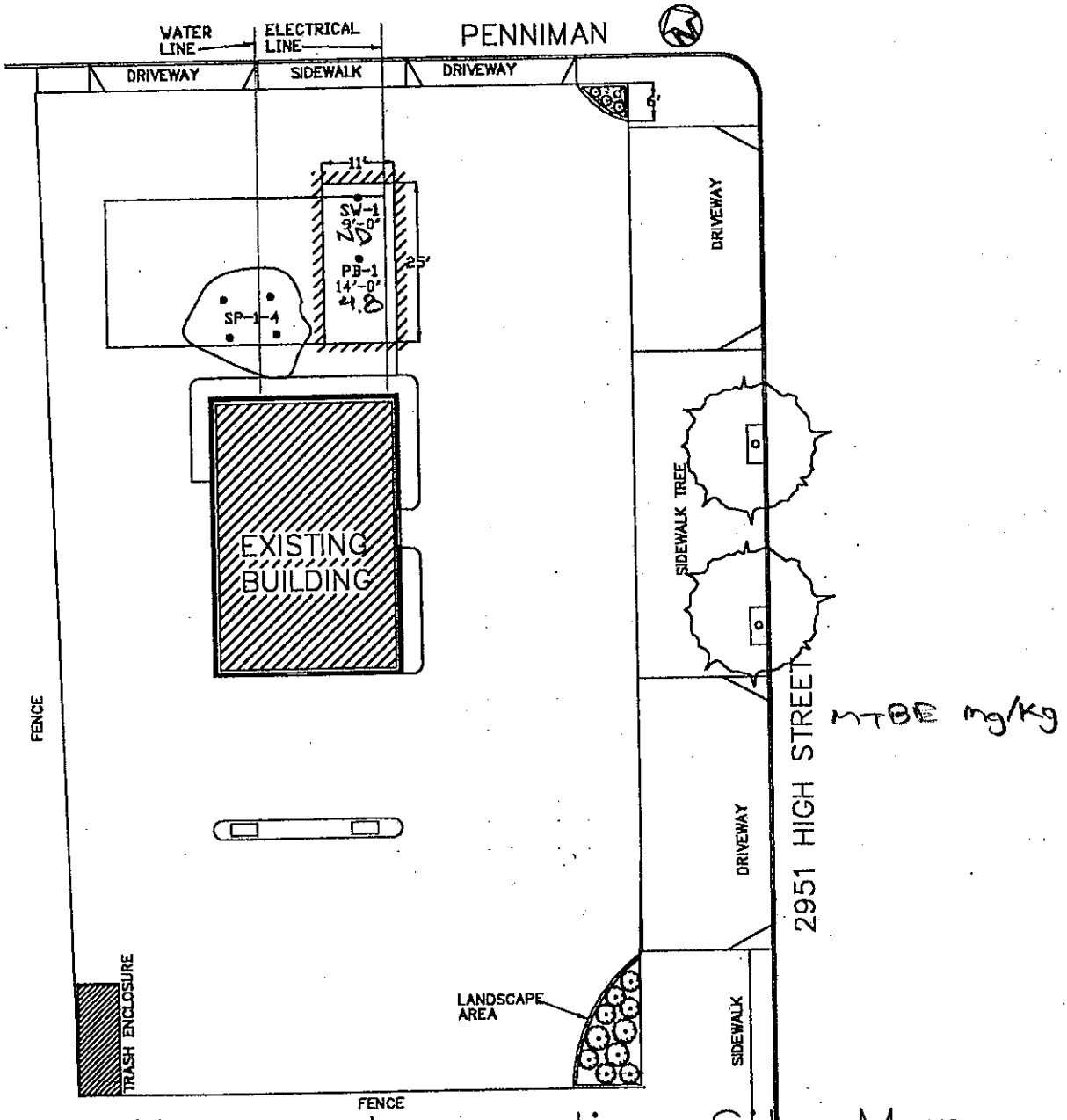
Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #
8-10-01

Excavation Date: 8-27-01
11' X 25' X 14' (150 Yards)

Date: 8-28-01 soil sample
- PB-1 (14' DEEP PIT BOT) no odor or color
- SW-1 Side wall samples 9'-0" below grade strong pet hyd odor
- SP-1-4 (1) 4 POINT COMPOSITE STOCKPILE



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

W.A. CRAIG, INC.
6940 TREMONT ROAD
DIXON, CALIFORNIA 95620
PH# (707) 693-2929
LIC# 455752

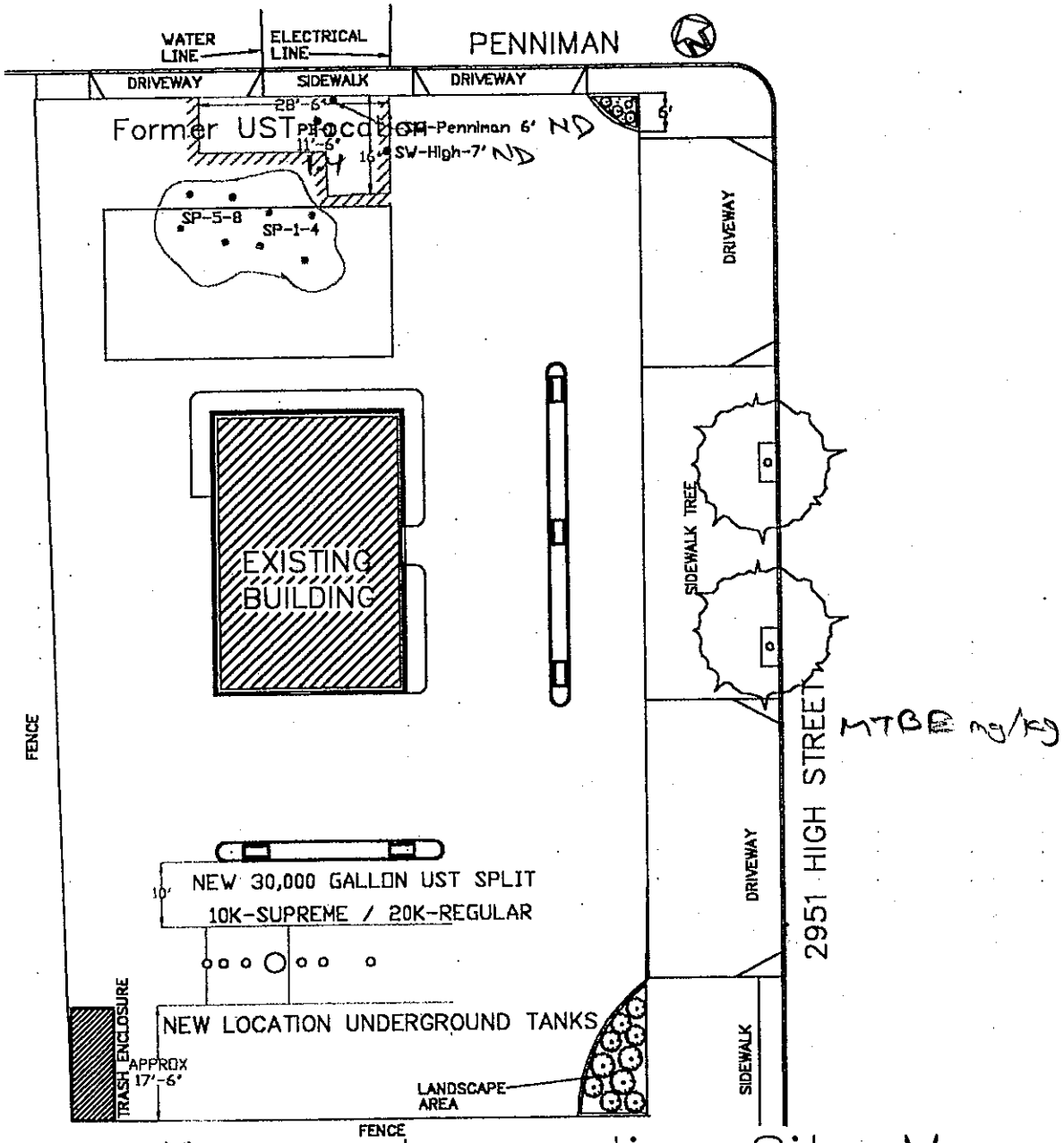
Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #
8-28-01

Excavation Date: 9-4-01
16' X 28'-6" X 13' Approx. (120 Yards)

Date: 9-4-01 soil sample
- PB-1 (11.5' DEEP PIT BOT)
- SW-High-7' Side wall samples 7'-0" below grade
- SW-Penniman 6' Side wall samples 6'-0" below grade
- SP-1-4 (1) 4 POINT COMPOSITE STOCKPILE
- SP-5-8 (1) 4 POINT COMPOSITE STOCKPILE



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

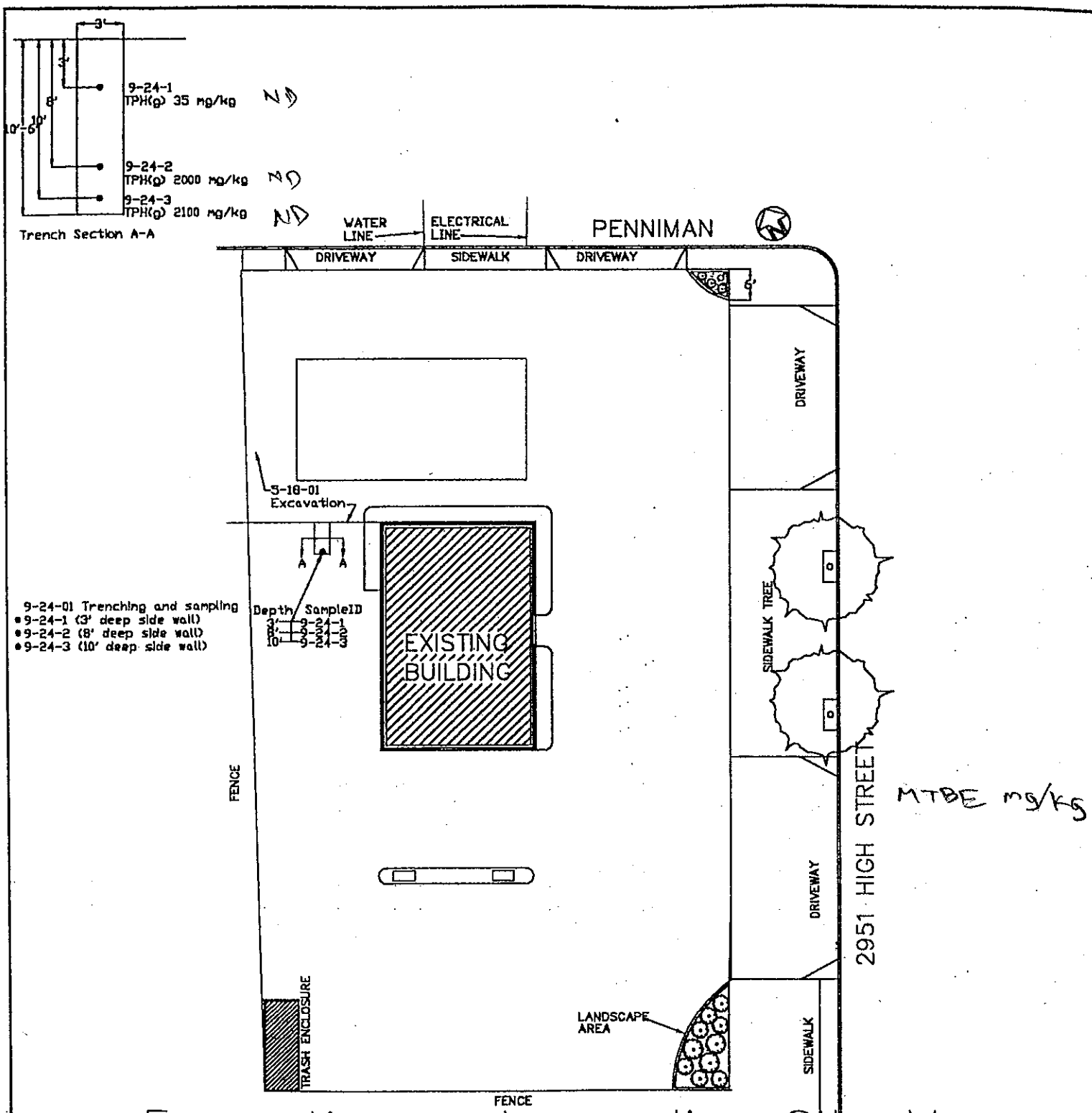
W.A. CRAIG, INC.

6340 TREMONT ROAD
DIXON, CALIFORNIA 95620
PH# (707) 693-2929
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #
9-4-01



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

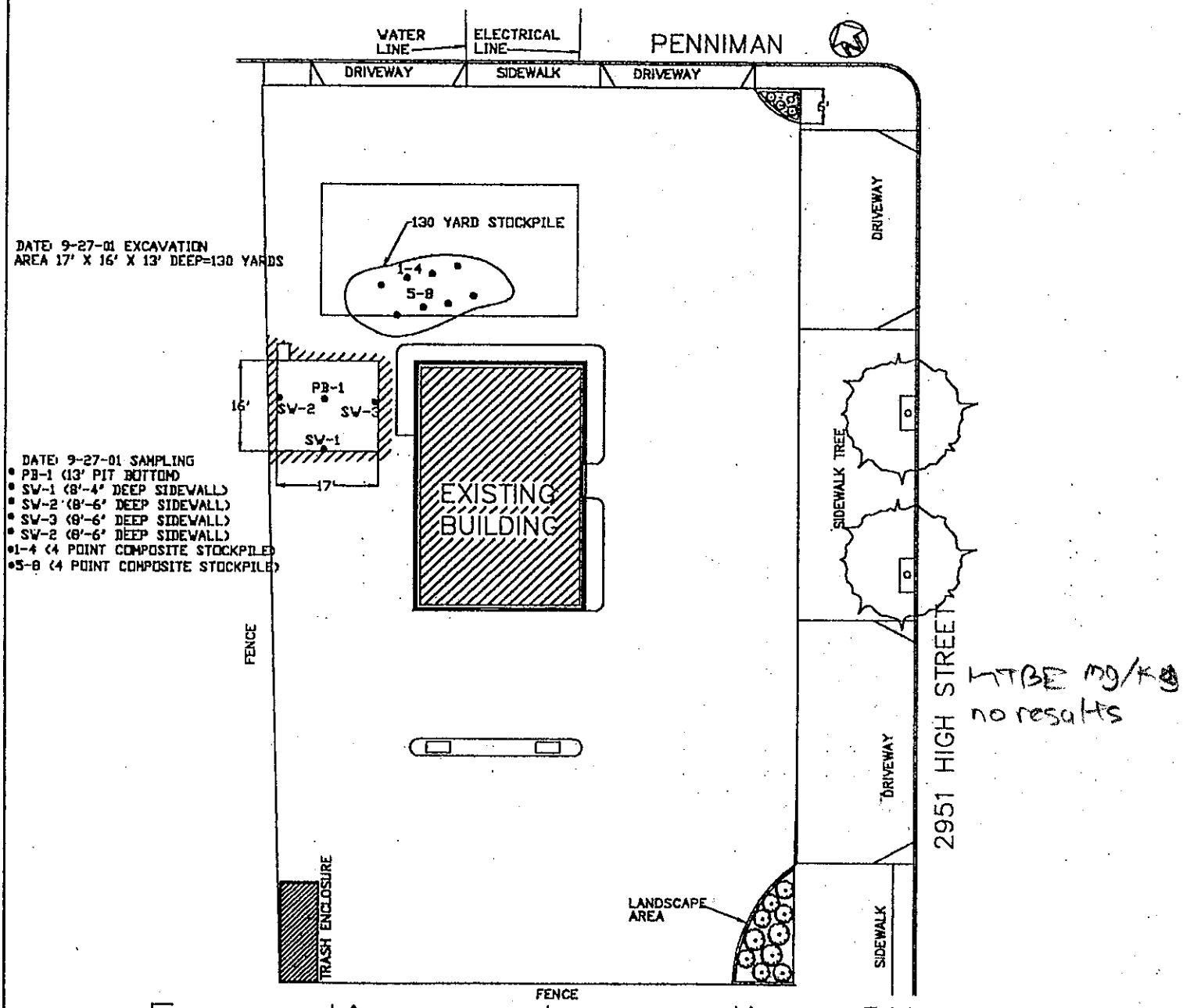
W.A. CRAIG, INC.

6940 TREMONT ROAD
DIXON, CALIFORNIA 95620
PH# (707) 693-2929
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #
9-24-01



Excavation and sampling Site Map

ENVIRONMENTAL CONSULTING AND CONTRACTING

W.A. CRAIG, INC.
6940 TREMONT ROAD
DIXON, CALIFORNIA 95620
PH# (707) 693-2929
LIC# 455752

Project Name and Address

EXPRESS GAS & MART
2951 HIGH STREET
OAKLAND, CA
JOB # 3936

FIGURE #

9-27-01

MW-1 = MW-1

TABLE 1

PHASE II SOIL ANALYTICAL RESULTS
TOTAL VOLATILE HYDROCARBONS AND VOLATILE AROMATICS
µg/g (parts per million, ppm)

Sample Location	Depth (Feet)	Date Sampled	TVHs	B	T	E	X
MW-1	5.0-5.5	2/20/90	460	ND	3.	ND	15.
MW-1	10.0-10.5	2/20/90	ND	0.5	ND	ND	ND
MW-1	15.0-15.5	2/20/90	ND	ND	ND	ND	ND

ABBREVIATIONS:

TVHs - Total Volatile Hydrocarbons by EPA Method 8020
B - Benzene, Volatile Aromatic Compound by EPA Method 8020
T - Toluene, Volatile Aromatic Compound by EPA Method 8020
E - Ethylbenzene, Volatile Aromatic Compound by EPA Method 8020
X - Xylenes, Volatile Aromatic Compound by EPA Method 8020
ND - Analytes Not Detected (see Attachment I for detection limits)

0309dan1

McLaren

ATTACHMENT 4

Table 1

UST Removal Analytical Data

Himalaya Trading Company

Sample	Location	Sample Date	TPH-g	MtBE	benzene	toluene	ethyl-benzene	xylenes
1-SW-W	West side wall of excavation, 8 fbgs	05/16/01	1700	ND	10	28	34	170
2-SW-S	South side wall of excavation, 8 fbgs	05/16/01	460	ND	2.4	20	7.7	44
3-SW-E	East side wall of excavation, 9 fbgs	05/16/01	170	4	3.8	8.8	3.4	19
4-SW-N	North side wall of excavation, 8 fbgs	05/16/01	350	ND	2.6	2.7	17	2.5
PB-1	14 fbg pit bottom	05/18/01	1.3	0.93	0.3	ND	0.017	ND
PB-2	14 fbg pit bottom	05/18/01	ND	0.55	ND	ND	ND	ND
PB-3	15 fbg pit bottom	05/18/01	2.5	33	0.9	0.049	0.035	0.059

Notes: Units for soil are milligrams per kilogram (mg/kg)

ND - Analyte below detection limits

TPH-g = Total Petroleum Hydrocarbons as gasoline

MtBE = Methyl tert-Butyl Ether

Chemical Analysis	Soils
Total Petroleum Fuel Hydrocarbons with BTEX Distinction (Low Boiling Point)	EPA 5030/8015/8020
Total Petroleum Fuel Hydrocarbons (High Boiling Point)	EPA 3550/8015
Total Recoverable Petroleum Oil	SM 503 D&E (Gravimetric)

ANALYSIS OF SAMPLES

The laboratory testing results are shown in Appendix "C". The results of the analytical tests of soil samples taken from the borings B-1 and B-2 are detailed as follows. The soil samples taken from the borings show elevated levels of hydrocarbons. The detected chemicals in the soil samples are:

Soil Sample	Low/Med. Hydro-carbons ppm	High Hydro-carbons ppm	Benzene ppm	Toluene ppm	Ethyl Benzene ppm	Xylene ppm
1-1	620	120	1.9	13	10	66
1-2	N.D.	N.D.	N.D.	0.0058	0.01	0.28
2-1	59	19	59	0.12	0.91	4.8
2-2	N.D.	N.D.	N.D.	0.005	N.D.	N.D.

No detection of oil and grease was found in the soil samples.

TABLE ONE

Summary of Chemical Analysis of **SOIL** Samples
All results are in **parts per million**

6/26/96

Boring	Depth Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
BH-A	5.0'	39	0.43	0.086	0.47	1.0	0.90
	15.0'	<1	0.026	< 0.005	< 0.005	< 0.005	0.069
BH-B	5.0'	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	15.0'	<1	0.045	0.043	< 0.005	0.021	2.0
BH-C	5.0'	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	15.0'	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-D	5.0'	<1	< 0.005	< 0.005	< 0.005	< 0.005	0.072
	15.0'	<1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-E	5.0'	<1	< 0.005	< 0.005	< 0.005	< 0.005	1.7

Notes:
Non-detectable concentrations noted by the less than symbol (<) followed by the detection limit

39 ppm TPH-G, 0.43 ppm benzene, 0.086 ppm toluene, 0.47 ppm ethylbenzene, 1 ppm total xylenes and 0.90 ppm MTBE were detected in the soil sample collected from 5.0-feet bgs in boring BH-A. Lower BTEX and MTBE concentrations were detected in the soil sample collected from 15.0-feet bgs in this boring. 0.045 ppm benzene, 0.043 ppm toluene, 0.021 ppm total xylenes and 2.0 ppm MTBE were detected in the soil sample collected from 15.0-feet bgs in boring BH-B. No hydrocarbons were detected in the soil sample collected from 5.0-feet bgs in boring BH-B. No TPH-G or BTEX were detected in the soil samples collected from borings BH-C, BH-D and BH-E. MTBE concentrations in these samples ranged from non-detectable at a detection limit of 0.005 ppm to 1.7 ppm.

6.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by Chromalab for TPH-G by modified EPA Method 5030/8015 and BTEX and MTBE by EPA Method 8020. The analytical results are tabulated in Table Two, and the certified analytical report and chain of custody forms are included in Appendix D.

File No. 8-93-558-ST

TABLE 3
SUMMARY OF GROUNDWATER SAMPLES RESULTS
IN
MILLIGRAMS PER LITER (mg/L)

1. TPHd, TPHg, BTEX and TOG Results

Date	Sample No.	TPHd	TPHg	B	T	E	X	TOG
2/23/95	STMW-1	0.28	ND	ND	ND	ND	ND	0.6
	STMW-2	0.47	3.3	0.0096	0.013	0.008	0.028	18
	STMW-3	ND	ND	ND	ND	ND	ND	ND

2. EPA 8010, Cadmium, Chromium, Lead, Nickel and Zinc Results

Date	Sample No.	EPA 8010	Cd	Cr	Pb	Ni	Zn
2/23/95	STMW-1	ND	ND	ND	ND	ND	ND
	STMW-2	ND	ND	ND	ND	ND	ND
	STMW-3	ND	ND	ND	ND	ND	ND

EPA 8010 - Chlorinated Hydrocarbons
TPHd - Total Petroleum Hydrocarbons as diesel
TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes
Cd - Cadmium
Cr - Chromium
Pb - Lead
Ni - Nickel
Zn - Zinc
ND - Not Detected (Below Laboratory Detection Limit)

File No. 8-93-558-ST

TABLE 3
SUMMARY OF SOIL ANALYSIS RESULTS
FOR VOC'S AND TOG
IN
PARTS PER MILLION (ppm)

Date	Sample Number	Depth feet	TOG	VOC's Detected	
10/15/93	S-1-10	10	120	Tetrachloroethylene	0.005
	S-2-9	9	50	None Detected	
	S-3-7	7	ND	Tetrachloroethylene	0.005
	S-4-6	6	3,700	Tetrachloroethylene	0.042
	B-1-13	13	ND	Not Detected	
	ST-1,2,3,4	Stock pile	210	Tetrachloroethylene	0.006

VOC's - Volatile Organic Compounds
TOG - Total Oil & Grease
ND - Not Detected (Below Laboratory Detection Limit)

File No. 8-93-558-ST

TABLE 2
SUMMARY OF SOIL ANALYSIS RESULTS
FOR METALS (CAM 5)
IN
PARTS PER MILLION (ppm)

Date	Sample Number	Depth feet	Cd	Cr	Pb	Ni	Zn	CAM STLC
10/15/93	S-1-10	10	ND	100	4.5	190	91	NA
	S-2-9	9	ND	77	3.2	230	130	NA
	S-3-7	7	ND	130	4.9	320	110	NA
	S-4-6	6	ND	160	0.3	380	120	0.67
	B-1-13	13	ND	68	1.4	110	180	NA
	ST-1,2,3,4	Stock pile	150	ND	6.6	88	310	NA

← STL = Spl

STLC - Soluble Threshold Limit Concentration
Cd - Cadmium
Cr - Chromium
Pb - Lead
Ni - Nickel
Zn - Zinc
NA - Not Analyzed
ND - Not Detected (Below Laboratory Detection Limit)

File No. 8-93-558-ST

TABLE 1
SUMMARY OF SOIL ANALYSIS RESULTS
FOR TPHD, TPHG AND BTEX
IN
PARTS PER MILLION (ppm)

Date	Sample Number	Depth feet	TPHd	TPHg	B	T	E	X
10/15/93	S-1-10	10	ND	1.5	ND	0.008	0.005	0.015
	S-2-9	9	ND	ND	0.012	0.013	ND	0.017
	S-3-7	7	ND	ND	0.014	ND	ND	0.015
	S-4-6	6	ND	2.6	0.013	ND	0.008	0.018
	B-1-13	13	ND	ND	ND	ND	ND	ND
	ST-1,2,3,4	Stock-pile	ND	1.2	ND	ND	ND	0.028

TPHd - Total Petroleum Hydrocarbons as diesel
TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene and Total Xylenes
ND - Not Detected (Below Laboratory Detection Limit)

File No. 8-93-558-ST

TABLE 3
SUMMARY OF SOIL ANALYSIS RESULTS
FOR VOC'S AND TOG
IN
PARTS PER MILLION (ppm)

Date	Sample Number	Depth feet	TOG	VOC's Detected	
10/15/93	S-1-10	10	120	Tetrachloroethylene	0.005
	S-2-9	9	50	None Detected	
	S-3-7	7	ND	Tetrachloroethylene	0.005
	S-4-6	6	3,700	Tetrachloroethylene	0.042
	B-1-13	13	ND	Not Detected	
	ST-1,2,3,4	Stock pile	210	Tetrachloroethylene	0.006

VOC's - Volatile Organic Compounds
TOG - Total Oil & Grease
ND - Not Detected (Below Laboratory Detection Limit)

TABLE ONE
Summary of Chemical Analysis of **SOIL** Samples
All results are in **parts per million**

Boring & Depth	TPH-G	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-5 - 6.0'	1,600	17	69	39	170	<7.6
MW-6 - 21.0'	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005

Notes:
Non-detectable concentrations are noted by the less than sign (<) followed by the detection limit.

Elevated hydrocarbon concentrations were detected in the soil sample collected from boring MW-5 with the benzene concentration of 17 ppm exceeding the United States Environmental Protection Agency (US EPA) Region IX Preliminary Remediation Goals (PRGs) for residential soil of 1.4 ppm and industrial soil of 3.2 ppm.

No hydrocarbons were detected in the soil sample collected from 21.0-feet bgs in boring MW-6.

6.0 MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Groundwater monitoring wells MW-5 and MW-6 were constructed in borings MW-5 and MW-6, respectively. The monitoring wells were constructed with 2-inch diameter, 0.020-inch slotted, flush-threaded, Schedule 40 PVC well screen and blank casing. The wells are screened between 5-feet bgs and 30-feet bgs (the total depth of the borings) to monitor the first water bearing zone encountered. Each monitoring well is constructed as follows. Lonestar #3 Monterey sand occupies the annular space between the borehole and the casing from the bottom of the boring to approximately 1.5-feet above the well screen. A 0.5-foot thick hydrated bentonite layer separates the sand from the overlying cement surface seal. The wellheads are secured with locking wellplugs beneath at-grade traffic-rated vaults.

ASE environmental specialist Scott Ferriman developed monitoring well MW-5 on December 11, 1996 and monitoring well MW-6 on January 10, 1997. Each monitoring well was developed using at least two episodes of surge-block agitation and bailer evacuation. Over ten well casing volumes

TABLE 2
Remediation Soil Samples
High Street Station

Sample ID	Date	TPH-g	TPH-d	MtBE	benzene	toluene	ethyl-benzene	xylenes	lead
S-7	05/09/01	ND	NT	3.8	ND	ND	ND	ND	NT
S-8	05/09/01	ND	NT	1.3	0.011	ND	0.024	0.037	NT
S-9	05/09/01	ND	NT	1	0.006	0.005	0.07	0.011	NT
S-10	05/09/01	ND	NT	1	0.007	0.005	0.018	0.043	NT
S-11	05/09/01	ND	NT	0.84	ND	ND	ND	ND	NT
S-12	05/09/01	ND	NT	0.55	ND	ND	ND	ND	NT
S-13	05/10/01	ND	NT	0.076	0.014	ND	ND	ND	NT
S-14	05/10/01	ND	NT	2	ND	ND	ND	ND	NT
S-15	05/10/01	ND	NT	ND	ND	ND	ND	ND	NT
SP 1-4	05/10/01	790	NT	ND	2	20	12	73	16
SP 5-8	05/10/01	860	NT	ND	4	22	15	69	36
SP 9-12	05/10/01	170	NT	ND	ND	3.1	1.9	12	12
SP 13-16	05/15/01	110	71	ND	ND	0.34	0.19	3.1	20
SP 17-20	05/15/01	1100	200	ND	0.41	8	3.3	67	16
SP 21-24	05/15/01	1100	260	ND	0.6	9.8	2	120	19
SP 25-28	05/15/01	930	190	ND	3.7	28	10	100	16
SP 29-32	05/15/01	760	220	ND	ND	3.2	1.4	45	20
SP 33-36	05/15/01	57	16	ND	0.45	0.35	2	2	14
1-SW-W	05/16/01	1700	NT	ND	10	28	34	170	7.6
2-SW-S	05/16/01	460	NT	ND	2.4	20	7.7	44	10
3-SW-E	05/16/01	170	NT	3.5	3.8	8.8	3.4	19	5.9
4-SW-N	05/16/01	350	NT	ND	2.6	2.7	17	2.5	9.1
PB-1	05/18/01	1.3	NT	0.93	0.3	ND	0.017	ND	NT
PB-2	05/18/01	ND	NT	0.55	ND	ND	ND	ND	NT
PB-3	05/18/01	2.5	NT	33	0.9	0.049	0.035	0.059	NT
SW-1-E	05/18/01	17	NT	5.6	2	0.085	1.3	0.98	NT
SW-2-W	05/18/01	590	NT	7.4	16	47	18	97	NT
SW-3-W	05/18/01	700	NT	ND	4.3	9.9	14	59	NT
SW-4-W	05/18/01	56	NT	ND	0.68	0.35	1.4	4.9	NT
SW-5-N	05/18/01	74	NT	12	2.2	4.4	1.7	9.8	NT
SP-1	05/31/01	100	11	ND	0.033	0.45	0.67	2.6	6.9
SP-2	05/31/01	41	25	ND	0.029	0.21	0.25	1.5	7.8
SP-3	05/31/01	120	13	ND	0.044	0.41	0.94	5.4	6.3
SP-4	05/31/01	46	7.2	ND	0.029	0.18	0.3	1.3	5
SP-5	05/31/01	35	9.2	ND	0.071	0.23	0.32	1.3	12
SP-6	05/31/01	15	8.8	ND	0.12	0.1	0.35	1.2	6
PB-1	05/31/01	2.7	NT	0.061	ND	0.021	0.008	0.009	NT
PB-2	05/31/01	ND	NT	0.11	ND	ND	ND	ND	NT

TABLE 2
Remediation Soil Samples
High Street Station

Sample ID	Date	TPH-g	TPH-d	MtBE	benzene	toluene	ethyl-benzene	xylenes	lead
SW-1	05/31/01	74	NT	ND	0.65	0.43	1.2	3	NT
SW-2	05/31/01	13	NT	0.5	0.032	0.19	0.081	0.11	NT
SW-3	05/31/01	320	NT	ND	0.55	9.2	7.3	39	NT
SW-4	05/31/01	48	NT	1.5	0.54	0.22	1.7	6.5	NT
SP 1-4	06/11/01	63	280	ND	0.033	0.42	0.091	0.47	7.5
SP 5-8	06/11/01	2.3	10	ND	ND	0.008	0.01	0.035	ND
SP 9-12	06/11/01	40	53	0.47	0.047	0.22	0.48	2.2	3.2
PB-21	06/11/01	ND	NT	0.83	ND	ND	ND	ND	NT
PB-22	06/11/01	ND	NT	ND	ND	ND	ND	ND	NT
SW-20	06/11/01	190	NT	ND	0.59	ND	4.8	4.7	NT
SW-22	06/11/01	4	NT	1.1	ND	0.044	0.013	0.13	NT
PB-1	07/19/01	ND	NT	3.1	ND	ND	ND	ND	NT
PB-2	07/19/01	ND	NT	1.6	0.14	ND	0.011	0.02	NT
SW-1	07/19/01	360	NT	ND	0.66	1.6	4.5	26	NT
SP 1-4	07/19/01	52	NT	ND	0.18	0.38	0.54	2.9	8.8
SP 5-8	07/19/01	130	NT	ND	0.42	1.1	1.2	6.3	7.8
SP 9-12	07/19/01	42	NT	ND	0.073	0.3	0.34	2	1.3
PB-1	08/10/01	ND	ND	2.1	ND	ND	ND	ND	ND
SP 1-4	08/10/01	49	32	ND	ND	0.21	0.17	1.2	ND
SP 5-8	08/10/01	67	80	ND	ND	0.2	0.12	1	5.1
SP 9-12	08/10/01	110	92	ND	0.13	1.9	1.2	8.9	4.7
SP 1-4	08/28/01	100	170	0.2	0.18	0.85	0.64	5	18
PB-1	08/28/01	ND	ND	4.8	ND	ND	ND	ND	NT
SW-1	08/28/01	3100	410	ND	30	27	55	250	NT
SW-H	09/04/01	170	NT	ND	ND	0.48	0.36	0.38	NT
SW-P	09/04/01	2.1	NT	ND	0.045	0.005	ND	0.005	NT
PB-M	09/04/01	ND	NT	1.4	ND	ND	ND	ND	NT
SP 1-4	09/04/01	86	NT	7.8	4.5	0.14	0.45	1.5	11
SP 5-8	09/04/01	240	NT	ND	0.37	0.74	4.7	15	11
PB-12'	09/13/01	1.4	NT	6.1	0.006	0.012	ND	0.024	6.2
SW-Penn	09/13/01	230	NT	<.30	0.1	0.055	0.38	0.75	7.7
SP 1-4	09/13/01	290	80	<1.0	0.39	1.9	2.2	12	5.7
SP 5-8	09/13/01	130	39	0.63	0.72	0.76	1.3	5.5	8.4

8'
9'
8½'
9'

14'
9'
7'
6'
11½'

TABLE 2

Remediation Soil Samples

High Street Station

		TPHG	TPHD	MTBE	B	T	E	X	Pb
PB 11 1/2'	09/18/01	ND	NT	9	ND	0.006	ND	0.015	11
SW 1-7'	09/18/01	2200	NT	<2.0	13	120	44	260	15
SW 2-6'	09/18/01	730	NT	<10	6.4	13	12	66	12
SW 3-8'	09/18/01	90	NT	<.20	0.12	ND	0.29	0.64	7.2
SP 1-4	09/18/01	100	36	<1.0	1.7	4.3	2	11	9.5
9-24-1	09/24/01	35	NT	ND	0.009	0.04	ND	0.013	NT
9-24-2	09/24/01	2000	NT	ND	10	14	35	210	NT
9-24-3	09/24/01	2100	NT	ND	12	14	33	180	NT
SP 1-4	09/27/01	110	49	0.33	0.2	0.78	1.3	6.6	8.2
SP 5-8	09/27/01	78	63	0.44	0.28	0.84	1.4	6.7	9.4

3' 8' 8'

TABLE 1
Boring Analytical Data
High Street Station
Oakland, CA

Sample ID	Date	Media	Depth (fbg)	TPH-g	MtBE	TAME	benzene	toluene	ethyl-benzene	xylenes
S-1	02/28/01	soil	3	**180**	4	0.17	0.14	**5.8**	**3.2**	**22**
S-2	02/28/01	soil	3	71	6.8	0.19	0.2	**2.8**	1.7	**6.2**
S-3	02/28/01	soil	3	**370**	2.9	0.13	0.26	**2.1**	**2.5**	**15**
S-4	02/28/01	soil	3	**180**	0.3	<0.01	0.12	0.95	1.3	**16**
S-5	02/28/01	soil	3	**3,600**	2.3	<1	**2.6**	**15**	**49**	**340**
S-6	02/28/01	soil	3	**730**	**85**	4.7	**4**	**49**	**8.6**	**62**
TB-1	04/26/01	soil	5	**320**	2.3	<0.050	0.57	1.3	**5.4**	**30**
TB-1	04/26/01	soil	10	39	2.4	0.042	0.045	0.2	0.71	**3.3**
TB-2	04/26/01	soil	5	34	0.38	0.024	0.031	0.19	0.5	1.5
TB-2	04/26/01	soil	10	2.8	3.1	0.071	0.025	0.012	0.14	0.11
TB-3	04/26/01	soil	5	**4,000**	4	<0.5	0.88	**21**	**82**	**410**
TB-3	04/26/01	soil	10	<1	4.3	0.054	<0.005	<0.005	<0.005	0.014
TB-4	04/26/01	soil	5	21	0.24	<0.005	<0.005	0.11	0.032	0.21
TB-4	04/26/01	soil	10	2.9	1.8	0.039	0.01	0.014	0.055	0.056
TB-6	04/26/01	soil	5	9.3	<0.005	<0.005	<0.005	0.052	0.02	<0.005
TB-6	04/26/01	soil	10	**840**	**12**	<0.35	**14**	**7.7**	**17**	**76**
TB-9	04/26/01	soil	5	<1	4	0.037	<0.005	<0.005	<0.005	<0.005
TB-9	04/26/01	soil	10	1.1	1.5	0.044	<0.005	<0.005	<0.005	<0.005
SSTL		soil		100	9.7	NE	2.6	1.6	1.9	2.8
TB-1	04/26/01	water	NA	78,000	**37,000**	1,500	**880**	**490**	**3,200**	**15,000**
TB-3	04/26/01	water	NA	44,000	**52,000**	<1,700	**390**	**53**	**2,600**	**8,900**
SSTL		water		NE	8,400	NE	200	270	180	470

Notes: Soil sample units are mg/kg
Groundwater sample units are ug/l
Results higher than SSTLs are in **bold**

Table 1. Soil Sample Results

Sample ID	Depth (fbg)	TPH-g	MtBE	TAME	benzene	toluene	ethyl-benzene	xylenes
S-1	3	**180**	4	0.17	0.14	**5.8**	**3.2**	**22**
S-2	3	71	6.8	0.19	0.20	**2.8**	1.7	**6.2**
S-3	3	**370**	2.9	0.13	0.26	**2.1**	**2.5**	**15**
S-4	3	**180**	0.3	<0.01	0.12	0.95	1.3	**16**
S-5	3	**3,600**	2.3	<1	**2.6**	**15**	**49**	**340**
S-6	3	**730**	**85**	4.7	**4.0**	**49**	**8.6**	**62**
TB-1	5	**320**	2.3	<0.050	0.57	1.3	**5.4**	**30**
TB-1	10	39	2.4	0.042	0.045	0.20	0.71	**3.3**
TB-2	5	34	0.38	0.024	0.031	0.19	0.50	1.5
TB-2	10	2.8	3.1	0.071	0.025	0.012	0.14	0.11
TB-3	5	**4,000**	4.0	<0.5	0.88	**21**	**82**	**410**
TB-3	10	<1	4.3	0.054	<0.005	<0.005	<0.005	0.014
TB-4	5	21	0.24	<0.005	<0.005	0.11	0.032	0.21
TB-4	10	2.9	1.8	0.039	0.010	0.014	0.055	0.056
TB-6	5	9.3	<0.005	<0.005	<0.005	0.052	0.020	<0.005
TB-6	10	**840**	**12**	<0.35	**14**	**7.7**	**17**	**76**
TB-9	5	<1	4.0	0.037	<0.005	<0.005	<0.005	<0.005
TB-9	10	1.1	1.5	0.044	<0.005	<0.005	<0.005	<0.005
SSTL		100	9.7	NE	2.6	1.6	1.9	2.8

Notes: units are mg/kg

Results higher than SSTLs are in **bold**

SSTLs for all constituents except TPH-g were established in *Addendum to Risk Assessment for Zima Center Corporation, 2951 High Street, Oakland, CA,*, Christopher M. Palmer Consulting Hydrogeologist, August 22, 1997.

The TPH-g action level is a Tier 1 action level established in *Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater (Interim Final)*, California Regional Water Quality Control Board, San Francisco Bay Region, August 2000.

Table 2. Groundwater Sample Results

Sample ID	TPH-g	MtBE	TAME	benzene	toluene	ethyl-benzene	xylenes
TB-1	78,000	**37,000**	1,500	**880**	**490**	**3,200**	**15,000**
TB-3	44,000	**52,000**	<1,700	**390**	**53**	**2,600**	**8,900**
SSTL	NE	8,400	NE	200	270	180	470

Notes: units are ug/l

Results higher than SSTLs are in **bold**

SSTLs were established in *Addendum to Risk Assessment for Zima Center Corporation, 2951 High Street, Oakland, CA,*, Christopher M. Palmer Consulting Hydrogeologist, August 22, 1997

Sampled 7/27/05

Table 1. Soil Analytical Results
2951 High Street, Oakland

Sample ID	Depth (ft)	TPH-g	MtBE	benzene	toluene	ethyl-benzene	xylenes
B-1	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
B-1	14	<1.0	0.048	<0.005	<0.005	<0.005	<0.005
B-1	18	<1.0	0.012	<0.005	<0.005	<0.005	<0.005
B-2	10	<1.0	0.068	<0.005	<0.005	<0.005	<0.005
B-2	14	<1.0	0.015	<0.005	<0.005	<0.005	<0.005
B-2	18	<1.0	0.015	<0.005	<0.005	<0.005	<0.005
B-3	10	<1.0	0.017	<0.005	<0.005	<0.005	<0.005
B-3	14	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
B-3	18	<1.0	0.017	<0.005	<0.005	<0.005	<0.005
SSTL		NE	9.7	2.6	1.6	1.9	2.8

Notes:

Units are milligrams per kilogram (mg/Kg). <0.005 = less than the specified laboratory detection limit
TPH-g = total petroleum hydrocarbons as gasoline, MtBE = methyl tert butyl ether
SSTL = site-specific threshold level established in a Tier 2 Risk-Based Corrective Action (RBCA) analysis (Christopher Palmer, August 1997) approved by ACEH in a letter dated October 21, 1997.

TABLE 5

Analytical Results for Soil Boring Samples
2951 High Street, Oakland, California

Boring	Sample Depth	Sample Date	TPH-g	Benzene	Toluene	Ethyl-benzene	Xylenes	MtBE	Lead*
MW-7	8	3/24/03	48	0.52	0.26	0.47	0.34	<0.470	41
MW-8	7	3/24/03	92	<0.09	0.28	<0.09	0.11	<0.460	
MW-9	10	3/25/03	3.4	0.014	0.047	0.037	0.13	0.031	
MW-10	4	4/4/03	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NT

Notes:

All results are milligrams per kilogram (mg/kg). Sample depths listed in feet below grade.

* Lead analysis performed on a composite sample composed of equal parts of soil from MW-7, MW-8, and MW-9.

NT, analyte not tested. TPH-g = total petroleum hydrocarbons as gasoline. MtBE = methyl tert-butyl ether.

Table 3
Analytical Results for Groundwater Samples
2951 High Street
Oakland, California

Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-1	02/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	05/26/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	08/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	270	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	420	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	1,200	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/13/04	58	0.85	<0.5	3.1	8.4	380	<0.5	<0.5	<0.5	<5.0	<50	<5	<0.5	<0.5
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	260	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	341	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	44	<0.5	<0.5	<0.5	6.8	<500	<50	<0.5	<0.5
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	270	<5	<5	<5	<50	<5,000	<500	<5	<5
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	400	<5	<5	<5	<50	<5,000	<500	<5	<5
MW-3	02/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	05/26/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	08/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	1,600	<25	<25	<25	<250	<25,000	<2,500	<25	<25
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	1,200	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	1,400	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/13/04	<200	<2	<2	<2	<2	790	<2	<2	<2	<20	<200	<20	<2	<2
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	140	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	24.3	<0.5	<1	<1	<10	NT	<100	<1.0	<1.0
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	4.0	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	49	<1.0	<1.0	<1.0	<10	<1000	<100	<1.0	<1.0
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.9	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	32	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	1.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	44	<1.0	<1.0	<1.0	<10	<1000	<100	<1.0	<1.0
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5

ATTACHMENT 5

Table 3
Analytical Results for Groundwater Samples
2951 High Street
Oakland, California

Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-5	12/13/96	3,600	180	350	81	510	430	NT	NT	NT	NT	NT	NT	NT	NT
	03/27/97	120,000	28,000	16,000	2,600	10,000	64,000	NT	NT	NT	NT	NT	NT	NT	NT
**	06/27/97	6,300	10,000	2,400	290	4,500	43,000	NT	NT	NT	NT	NT	NT	NT	NT
	09/22/97	<50,000	7.9	3.3	0.6	3.3	30,000	NT	NT	NT	NT	NT	NT	NT	NT
	12/06/97	<5,000	33	12	<5	7.3	33,000	NT	NT	NT	NT	NT	NT	NT	NT
	03/23/98	29,000	150	160	130	320	34,000	NT	NT	NT	NT	NT	NT	NT	NT
	06/10/98	53,000	7,000	2,400	540	3,400	67,000	NT	NT	NT	NT	NT	NT	NT	NT
	07/23/98	36,000	1,000	270	<120	740	51,000	NT	NT	NT	NT	NT	NT	NT	NT
***	09/16/98	56,000	3,400	1,300	430	1,800	84,000	NT	NT	NT	NT	NT	NT	NT	NT
	11/23/98	63,000	5,700	2,900	500	2,200	87,000	NT	NT	NT	NT	NT	NT	NT	NT
	03/05/99	42,000	<250	<250	<250	<250	38,000	NT	NT	NT	NT	NT	NT	NT	NT
	06/17/99	37,000	510	85	5.6	89	61,000	NT	NT	NT	NT	NT	NT	NT	NT
	09/15/99	54,000	8,500	1,800	420	2,400	55,000	NT	NT	NT	NT	NT	NT	NT	NT
ORC	12/09/99	34,000	1,600	230	130	570	33,000	NT	NT	NT	NT	NT	NT	NT	NT
	03/06/00	21,000	7,800	870	440	2,100	30,000	NT	NT	NT	NT	NT	NT	NT	NT
	06/07/00	<50,000	11,000	890	570	3,000	68,000	NT	NT	NT	NT	NT	NT	NT	NT
	09/18/00	40,000	4,900	<250	<250	1,700	46,000	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	1,800	560	<5.0	<5.0	30	19,000	<330	<330	<330	<3,300	<330,000	<33,000	<330	<330
	07/16/03	2,800	1,000	<5	10	80	16,000	<200	<200	<200	<2,000	<200,000	<20,000	<200	<200
	10/28/03	740	290	<5.0	<5.0	7.2	14,000	<170	<170	<170	<1,700	<170,000	<17,000	<170	<170
	01/13/04	<500	48	<5	<5	<5	2,000	<5	<5	<5	<50	<500	<50	<5	<5
	04/14/04	6,600	2,700	<50	<50	260	20,000	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
*	04/29/04	<500	6.3	<5	<5	7.8	11,000	<250	<250	<250	<2,500	<250,000	<25,000	<250	<250
	05/13/04	<50	<0.5	<0.5	<0.5	<0.5	3,000	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	05/26/04	<50	<0.5	<0.5	<0.5	<0.5	460	<10	<10	<10	<100	<10,000	<1,000	<10	<10
Ozonk	06/10/04	<50	<0.5	<0.5	<0.5	<0.5	38	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	<0.5
	07/08/04	<50	1.5	<0.5	<0.5	<1.0	9.6	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	2.2	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.2	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	14	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	6.2	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	4.4	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5

Table 3
Analytical Results for Groundwater Samples
2951 High Street
Oakland, California

Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-6	01/13/97	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/27/97	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/27/97	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	09/22/97	<50	<0.5	<0.5	<0.5	<0.5	24	NT	NT	NT	NT	NT	NT	NT	NT
	12/06/97	94	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/23/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/10/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	07/23/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	09/16/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/05/99	55	<0.5	0.92	0.5	1.3	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/17/99	<50	<0.5	<0.5	<0.5	<0.5	8.0	NT	NT	NT	NT	NT	NT	NT	NT
	09/15/99	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	12/09/99	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/06/00	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/07/00	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	0.54	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	01/13/04	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<50	<5	<0.5	<0.5
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5

Table 3
Analytical Results for Groundwater Samples
2951 High Street
Oakland, California

Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-7	04/04/03	1,400	**54**	27	15	180	**26,000**	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
	07/16/03	18,000	**1,100**	**630**	**1,100**	**2,000**	**13,000**	<200	<200	<200	<2,000	<200,000	<20,000	<200	<200
	10/28/03	10,000	**750**	**370**	**750**	**1,000**	**17,000**	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
	01/13/04	7,200	**430**	150	**560**	**550**	**22,000**	<50	<50	<50	<500	<5000	<500	<50	<50
	04/14/04	8,900	**520**	**360**	**640**	**1,100**	**21,000**	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
*	04/29/04	<500	<5	<5	<5	12	**12,000**	<250	<250	<250	<2,500	<250,000	<25,000	<250	<250
	05/13/04	660	<5.0	28	25	120	**10,000**	<170	<170	<170	<1,700	<170,000	<17,000	<170	<170
	05/26/04	380	<2.5	15	15	79	7,600	<200	<200	<200	<2,000	<200,000	<20,000	<200	<200
	06/10/04	<1,000	<10	<10	<10	<10	4,900	<10	<10	<10	300	<10,000	<100	<10	<10
	07/08/04	67	<0.5	<0.5	1.3	10	1,040	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	85	<0.5	<0.5	0.63	6.0	2,300	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	130	<2.5	<2.5	<2.5	<25	<2500	<250	<2.5	3.2
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	2.9
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	21	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	6.7	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	3.2
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	18	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	2.0
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	18	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	1.1
MW-8	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	230	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	340	<5	<5	<5	<50	<5,000	<500	<5	<5
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	250	<5.0	<5.0	<5.0	<50	<5,000	<500	<5	<5.0
	01/13/04	<50	<0.5	<0.5	<0.5	<0.5	140	<0.5	<0.5	<0.5	<5.0	<50	<5	<0.5	<0.5
	04/14/04	<50	<0.5	<0.5	<0.5	<0.5	260	<5	<5	<5	<50	<5,000	<500	<5	<5
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	130	<5	<5	<5	<50	<5,000	<500	<5	<5
	05/13/04	<50	<0.5	<0.5	<0.5	<0.5	110	<2.5	<2.5	<2.5	<25	<2,500	<250	<2.5	<2.5
	05/26/04	<50	<0.5	<0.5	<0.5	<0.5	150	<2.5	<2.5	<2.5	<25	<2,500	<250	<2.5	<2.5
	06/10/04	<50	<0.5	<0.5	<0.5	<0.5	290	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	<0.5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	395	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	450	<10	<10	<10	<100	<10,000	<5.0	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	330	<5	<5	<5	<50	<5,000	<500	<5	<5
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	360	<5	<5	<5	53	<5,000	<500	<5	<5
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	180	<5	<5	<5	53	<5,000	<500	<5	<5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	140	<2.5	<2.5	<2.5	29	<2500	<250	<2.5	<2.5
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	160	<2.5	<2.5	<2.5	29	<2500	<250	<2.5	<2.5
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	320	<5	<5	<5	<50	<5,000	<500	<5	<5

Table 3
Analytical Results for Groundwater Samples
2951 High Street
Oakland, California

Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-9	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	85	<1.5	<1.5	<1.5	<12	<1,200	<120	<1.5	2
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	170	<2.5	<2.5	3	27	<2,500	<250	<2.5	<2.5
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	230	<5.0	<5.0	<5.0	57	<5,000	<500	<5.0	<5.0
	01/13/04	<50	<0.5	<0.5	<0.5	<0.5	55	<0.5	<0.5	0.72	5.8	<50	<5	<0.5	1
	04/14/04	<50	<0.5	<0.5	<0.5	<0.5	58	<1	<1	<1	<10	<1,000	<100	<1	<1
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	4.7	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	0.63
	05/13/04	<50	<0.5	<0.5	<0.5	<0.5	5.9	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	0.66
	05/26/04	<50	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	0.53
	06/10/04	<50	<0.5	<0.5	<0.5	<0.5	14	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	0.60
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	7.3	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.0	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	48	<0.5	<0.5	0.75	13	<500	<50	<0.5	<0.5
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	18	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
MW-10	04/23/03	79	<0.5	<0.5	<0.5	<0.5	1,900	<25	<25	58	<250	<25,000	<2,500	<25	<25
	07/16/03	73	20	<0.5	<0.5	<0.5	1,100	<20	<20	39	<200	<20,000	<2,000	<20	<20
	10/28/03	76	<0.5	<0.5	<0.5	<0.5	1,900	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/13/04	<500	<5	<5	<5	<5	2,300	<5	<5	72	<50	<500	<50	<5	<5
*	04/29/04	54	<0.5	<0.5	<0.5	<0.5	1,000	<17	<17	24	<170	<17,000	<1,700	<17	<17
	07/08/04	76	<0.5	<0.5	<0.5	<1.0	1,650	<0.5	<1	37	211	NT	<100	<1.0	<0.5
	10/01/04	67	<0.5	<0.5	<0.5	<0.5	1,500	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/03/05	62	<0.5	<0.5	<0.5	<0.5	1,700	<25	<25	<25	<250	<25,000	<2,500	<25	<25
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	520	<17	<17	<17	230	<17,000	<1,700	<17	<17
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	420	<5	<5	12	<50	<5,000	<500	<5	<5
	10/04/05	<50	<0.5	<0.5	<0.5	<0.5	490	<10	<10	<10	<100	<10,000	<1,000	<10	<10
SSTL		NE	34	270	180	470	8,400	NE	NE	NE	NE	NE	NE	NE	NE

Notes:

SSTLs are site-specific target levels developed for the site by Aqua Science Engineers, Inc. in 1997. **Bold** concentrations exceed the SSTL.
Concentrations are micrograms per liter (ug/L). NE, SSTL not established for this compound. NT, analyte not tested.
Data prior to April 2003 are from *Groundwater Monitoring Report for September 2000 Sampling* by Aqua Science Engineers, Inc. dated 11/14/2000.

* First sampling event after the OS system was started up on April 14, 2004.
** Oxygen Release Compound (ORC) was injected into borings on the south side of MW-5 in late June 1997.
*** ORC socks were placed in MW-5 in August 1998 and removed in September 2000.

TPH-g total petroleum hydrocarbons as gasoline
MtBE methyl tert-butyl ether
DIPE di-isopropyl ether
EtBE ethyl tert-butyl ether
tAME tert-amyl methyl ether
tBA tert-butyl alcohol
EDB ethylene dibromide (1,2-dibromoethane)
DCA 1,2-dichloroethane

TABLE TWO
Summary of Chemical Analysis of **GROUNDWATER** Samples
All results are in **parts per billion**

Well or Boring	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-4	2,500	230	64	99	110	5,700
BH-A	23,000	4,600	2,800	700	2,700	13,000
BH-B	4,000	490	680	100	520	620
BH-C	200	4.8	1.4	3.8	5.8	16,000
BH-E	220	38	5.8	9.0	16	340
DTSC MCL	NE	1.0	100*	680	1,750	NE

Notes:
Non-detectable concentrations noted by the less than symbol (<), followed by the detection limit.

DTSC MCL is the California Department of Toxic Substances Control maximum contaminant level for drinking water.

NE = DTSC MCLs are not established.

* = DTSC recommended action level for drinking water; MCL is not established.

Relatively high hydrocarbon concentrations were detected in most of the water samples analyzed, especially those from borings BH-A, BH-B and monitoring well MW-4. All of these borings are to the north or west of the existing USTs. All of the groundwater samples analyzed contained benzene concentrations above the California Department of Toxic Substances Control (DTSC) maximum contaminant level (MCL) for drinking water. In addition, the ethylbenzene and toluene concentrations detected in groundwater samples collected from boring BH-A exceeded DTSC MCLs for drinking water. The toluene concentrations detected in groundwater samples collected from borings BH-A and BH-B exceeded the DTSC recommended action level (RAL) for drinking water. Although elevated MTBE concentrations were detected in groundwater samples collected from borings at the site, MTBE is not currently regulated.

sampled 7/17/06

Table 2. Groundwater Analytical Results
2951 High Street, Oakland

Sample ID	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	TAME	tBA	DIPE
B-1	<50	<0.5	<0.5	<0.5	<0.5	590	<17	<170	<17
B-2	59	<0.5	<0.5	<0.5	<0.5	570	<17	<170	<17
B-3	51	<0.5	<0.5	<0.5	<0.5	700	18	<120	<12
SSTL	NE	200	270	180	470	8,400	NE	NE	NE

Notes:
Units are micrograms per liter (ug/L). <0.005 = less than the specified laboratory detection limit
TPH-g = total petroleum hydrocarbons as gasoline, MtBE = methyl tert
TAME = tert-amyl methyl ether, TBA = tert-butyl alcohol, DIPE = di-isopropyl ether
SSTL = site specific threshold level established in a Tier 2 Risk-Based Corrective Action (RBCA) analysis (Christopher Palmer, August 1997) approved by ACEH in a letter dated October 21, 1997.
NE = no SSTL established

Table 1
Monitoring and Ozone-Sparge Well Construction Information
2951 High Street
Oakland, California

Well ID	Date Installed	Casing Diameter (inches)	Total Depth (fbg)	Screened Interval (fbg)	Water-Bearing Unit	Top of Casing Elevation (feet amsl)	Northing (feet)	Easting (feet)
MW-1	2/95	2	25	N/A	N/A	131.64	2,112,552.39	6,070,038.16
MW-3	2/95	2	25	N/A	N/A	131.05	2,112,539.60	6,070,048.55
MW-5	12/9/96	2	30	5-30	N/A	131.99	2,112,582.04	6,070,083.59
MW-6	12/7/97	2	30	5-30	N/A	132.58	2,112,662.53	6,070,118.49
MW-7	3/24/03	2	25	15-25	gravelly sandy silt	130.93	2,112,533.18	6,070,106.31
MW-8	3/24/03	2	25	15-25	gravelly sandy silt	131.15	2,112,527.86	6,070,153.72
MW-9	3/25/03	2	25	15-25	silty gravelly sand	130.00	2,112,484.75	6,070,065.55
MW-10	4/4/03	2	25	15-25	sandy silt	127.19	2,112,393.29	6,069,984.72
SP-1	3/25/04	3/4	37	30.5-33	clayey sand	130.39	2,112,529.17	6,070,105.65
SP-2	3/25/04	3/4	31	26.5-29	sandy clay	130.07	2,112,534.87	6,070,118.37
SP-3	3/24/04	3/4	32	28.5-31	gravelly sandy clay	130.66	2,112,541.87	6,070,131.76
SP-4	3/25/04	3/4	33	14.5-17	gravelly sandy clay	130.51	2,112,541.66	6,070,102.66
SP-5	3/26/04	3/4	30	20-22.5	clayey gravelly sand	130.55	2,112,553.75	6,070,115.66
SP-6	3/26/04	3/4	30	21.5-24	clayey sandy gravel	130.88	2,112,564.81	6,070,106.43
SP-7	3/26/04	3/4	30	25.5-28	gravelly sand	131.20	2,112,575.20	6,070,106.74
SP-8	3/26/04	3/4	31	28.5-31	gravelly sandy clay	130.98	2,112,569.95	6,070,091.53
SP-9	3/25/04	3/4	33	25-27.5	clayey sand	130.85	2,112,562.57	6,070,080.59
SP-10	3/26/04	3/4	30	21.5-24	gravelly clay	131.23	2,112,578.47	6,070,085.11

Notes:

MW denotes monitoring wells. SP denotes sparge wells.

fbg = feet below grade; amsl = above mean sea level; N/A = data not available.

Monitoring wells surveyed by Virgil Chavez Land Surveying on April 15, 2003.

Ozone-sparge wells surveyed by Virgil Chavez Land Surveying on April 22, 2004.

MW-1, MW-3, MW-5, and MW-6 were installed by Aqua Science Engineers, Inc.

MW-7, MW-8, MW-9, MW-10, and SP-1 through SP-10 were installed by W.A. Craig, Inc.

ATTACHMENT 6

8-93-558-ST

Logged By: Robert Baker	Exploratory Boring Log	Boring No. STMW-1
Date Drilled: 2/15/95	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L	Sampling Method	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification	DESCRIPTION
1				CH	2-inch asphalt, 4-inch aggerate baserock. Very dark brown fat clay with sand, moist, firm, 15% subangular medium grained sand. Munsell Soil Color: 10YR 2/2
2					
3				CH	Brownish-yellow fat clay with sand, moist, firm to stiff, 15% subangular medium grained sand. Munsell Soil Color: 10YR 6/6
4					Becomes very stiff to hard at approximately 4 feet.
5					▼ Static groundwater encountered at 5¼ feet.
6	STMW-1-6		300 psi	SC	Dark yellowish-brown clayey sand, moist, very dense, 15% clayey fines, 85% poorly sorted angular fine to medium grained sand. Munsell Soil Color: 10YR 3/6
7					
8					
9					
10					
11	STMW-1-11		300 psi		With 10% angular gravel clasts to 1-inch diameter at approximately 11 feet.
12					
13					
14					▽ First groundwater encountered at 14 feet.
15					
16					

Remarks

File No. 8-93-558-ST

Logged By	Robert Baker	Exploratory Boring Log	Boring No.	STMW-1
Date Drilled	2/15/95	Approx. Elevation	Boring Diameter	8-inch

Drilling Method: Mobile drill rig B-40L

Sampling Method:

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					With 10% angular gravel clasts to 1-inch diameter.
18					
19					
20					
21					
22				SP-SM	Dark yellowish-brown poorly graded sand with silt, wet, medium dense, 10% silty fines, 90% fine to medium grained poorly sorted angular sand.
23					Munsell Soil Color: 10YR 3/6
24					
25					Boring terminated at 25 feet.
26					
27					
28					
29					
30					
31					
32					

Remarks

File No. 8-93-558-ST

Logged By: Robert Baker	Exploratory Boring Log	Boring No. STMW-2
Date Drilled: 2/15/95	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L	Sampling Method	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification	DESCRIPTION
1				CH	2-inch asphalt on 4-inch aggerate baserock. Very dark greyish-brown fat clay with sand, moist, stiff, 20% medium grained sand.
2					
3				SC	Olive-grey clayey sand with gravel, moist, medium dense, 45% fat clay fines, 15% angular gravel clasts to 1-inch diameter, 40% poorly sorted fine to coarse grained sand.
4					
5					Munsell Soil Color: 5Y 4/2 ▼ Static groundwater encountered at 5 feet.
6	STMW-2-6		30/8"		
7					
8					
9					
10					▽ First groundwater encountered at 10 feet.
11	STMW-2-11			SP-SC	Becomes poorly graded sand with clay, wet with free water in fractures, 10% clayey fines, slight gasoline odor in sample.
12					
13					
14					
15					
16					

Remarks

File No. 8-93-558-ST

Logged By: Robert Baker	Exploratory Boring Log	Boring No. STMW-2
Date Drilled: 2/15/95	Approx. Elevation	Boring Diameter: 8-inch

Drilling Method	Sampling Method
Mobile drill rig B-40L	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17				CH	Yellowish-brown sandy fat clay, moist to wet, stiff, 25% poorly sorted fine to medium grained sand. Munsell Soil Color: 10YR 5/4
18					
19					
20					Boring terminated at 20 feet.
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Remarks

File No. 8-93-558-ST

Logged By: Robert Baker	Exploratory Boring Log	Boring No. STMW-3
Date Drilled: 2/16/95	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L	Sampling Method	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification	DESCRIPTION
1				CH	2-inch asphalt on 2-inch aggerate baserock. Yellowish-brown fat clay, moist, stiff, with 5% coarse grained sand and angular gravel clasts to $\frac{1}{2}$-inch diameter. Munsell Soil Color: 10YR 5/6
2					
3				CL	Brownish-yellow lean clay with sand, damp, hard, 20% fine to medium grained sand. Munsell Soil Color: 10YR 6/6
4					
5					
6	STMW-3-6		300 psi		
7					
8					
9					
10					Brownish-yellow lean clay with sand, damp, hard, 20% fine to medium grained sand with light grey mottles at 10 feet. Munsell Soil Color: 10YR 7/2
11	STMW-3-11		300 psi		
12					
13					
14					
15				GC	Brown clayey gravel with sand, moist, medium dense, 15% clayey fines, 45% subangular gravel clasts to 1-inch diameter, 40% poorly sorted fine to coarse grained sand. Munsell Soil Color: 10YR 4/3
16	STMW-3-16		275 psi		

Remarks

File No. 8-93-558-ST

Logged By: Robert Baker	Exploratory Boring Log	Boring No. STMW-3
Date Drilled 2/16/95	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					▽ First groundwater encountered at 17 feet.
18					
19					
20					
21					
22				CH	Dark yellowish-brown sandy fat clay, moist, stiff, 30% fine to medium grained angular sand. Munsell Soil Color: 10YR 4/4
23					
24					
25					Boring terminated at 25 feet.
26					
27					
28					
29					
30					
31					
32					

Remarks

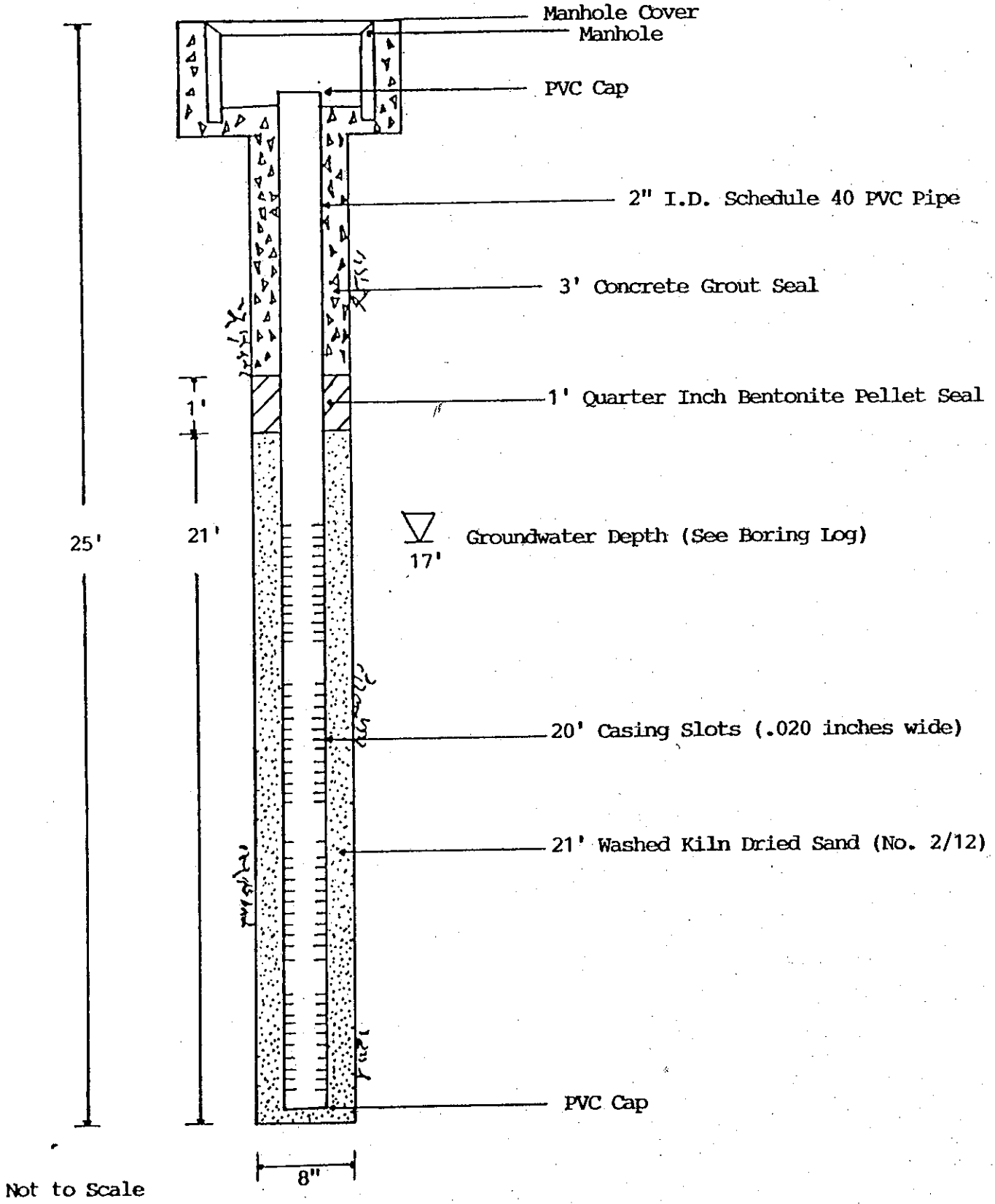
File No. 8-93-558-ST

Logged By: Robert Baker	Exploratory Boring Log	Boring No. STMW-4 (B-4)
Date Drilled: 2/16/95	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification	DESCRIPTION
1				CH	2-inch asphalt on 3-inch aggerate baserock. Dark greenish-grey fat clay with sand, damp, stiff, 20% fine to coarse grained sand, strong gasoline odor. Munsell Soil Color: 5GY 4/1
2					
3					
4				SC	Olive clayey sand, damp to moist, medium dense, 15% clayey fines, 5% angular gravel clasts to 1-inch diameter, 80% poorly sorted fine to coarse grained sand, strong gasoline odor. Munsell Soil Color: 5Y 4/3
5					
6	STMW-4-6		30/18"		
7					
8					
9					
10					▽ First groundwater encountered at 10½ feet.
11	STMW-4-11			SP-SM	Dark greenish-grey poorly graded sand with silt, wet, medium dense, 10% silty fines, strong gasoline odor. Munsell Soil Color: 5GY 4/1
12					
13					Dark yellowish-brown fat clay with sand, damp, very stiff to hard, 20% medium grained sand, slight gasoline odor. Munsell Soil Color: 10YR 4/4
14					
15					No apparent odor at 15 feet.
16	STMW-4-16				Borig terminated at 16½ feet.

Remarks

File No. 8-93-558-ST



STMW-3

PS3

Piezometer Schematic

SOIL TECH ENGINEERING, INC.

SOIL DRILLING LOG

McLAREN

SB/MW # : MW-1
D-
Page 1 of 2
Sampler: J.WAHLER

PROJECT BLUE CHIP-1 (14101) LOCATION 2951 HIGH ST., OAKLAND (LEE'S ARCO)
ELEVATION MONITORING DEVICE HNu
SAMPLING DATE(S) 2/20/90 START 9:30 FINISH 2:00
SAMPLING METHOD CALIF. MODIFIED SPLIT SPOON SUBCONTRACTOR & EQUIPMENT EXPLORATION GEOSERVICES MIKE YAEGER
MEMO *SAMPLES ANALYZED BY McLAREN ANALYTICAL LABORATORY
**SAMPLE PUT ON HOLD

Depth Below Surface(ft.)	Penetration Results: Blows 6"-6"-6"	BPF	Sample Depth (Interval ft.)	Sample ID#	Hnu reading (ppm)	Soil Description: Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
						0-1.0' Asphalt and sub-base	AC			Vault box
						1.0'-2.5' Clayey silt: dark gray (5Y 4/1) <2% sand; 88-90% silt; 10% clay; slightly moist; very stiff; low plasticity; hydrocarbon odor.	ML			Locking well cap
	28-40-50/3"	90	4.0-5.5	5385	850	2.5'-4.0' Clayey sand: olive gray (5Y 5/2) 75% very fine to medium sand; 10% silt; 15% clay; moist; stiff; medium plasticity; strong hydrocarbon odor.	SC			2.0' Neat cement
5							SM			4" Sch. 40 PVC blank casing
	16-20-35	65	9.0-10.5	5386	250	4.0'-7.0' Silty sand: light yellowish brown (2.5Y 6/4) 85% well graded sand; 10% silt; 5% clay; slightly moist; very dense; strong hydrocarbon odor.	SC			
10						7.0'-10.5' Clayey sand: olive gray (5Y 5/2) 85% well graded sand; 15% clay; saturated; very dense; very strong hydrocarbon odor. Perched water between 9.0'-9.5'.	ML			
15	26-30-50/5"	80	14.0-15.5	5387	4	10.5'-17.0' Clayey silt/sandy silt: yellowish brown (10YR 5/6) 15% well graded sand; 70% silt; 15% clay; slightly moist; hard caliche; semi-consolidated; no hydrocarbon odor.			14.5' 15.0' 17.0'	Bentonite pellets
2/20/90	16-23-36	61	18.0-20.5	5388	3	17.0'-24.5' Clayey sand: yellowish brown (10YR 5/4) 85% medium to very coarse sand; 15% clay; moist to saturated; very dense; semi-consolidated; no hydrocarbon odor. Saturated below 19.5'.	SC			4" Sch. 40 PVC 0.020" slot screen casing
20										8/20 Mesh sand
	30-50/5"	80	24.0-25.5		4	24.5'-26.0' Sandy gravel: brownish yellow (10YR 6/6) 75% fragmented gravel; 15% well graded sand; 10% clay; very dense; saturated.	GC			
25										
	16-30-40	70	29.5-30.5		3	26.0'-30.0' Silty sand: yellow (10YR 7/6) 70% very fine to medium sand; 20% silt; 10% clay; dense; saturated.	SM			
30										

2/20/90 (perched)

SIGNATURE OF FIELD SUPERVISOR
TITLE ASSOCIATE GEOLOGIST

SIGNATURE OF REVIEWER
TITLE SUPERVISING ENGINEER, P.E.

SOIL DRILLING LOG

McLAREN

SB/MW # : MW-1
D-
Page 2 of 2
Sampler: J. WAHLER

PROJECT BLUE CHIP-1 (14101) LOCATION 2951 HIGH ST., OAKLAND (LEE'S ARCO)
ELEVATION MONITORING DEVICE HNU
SAMPLING DATE(S) 2/20/90 START 9:30 FINISH 2:00
SAMPLING METHOD CALIF. MODIFIED SPLIT SPOON SUBCONTRACTOR & EQUIPMENT EXPLORATION GEOSERVICES MIKE YAEGER
MEMO *SAMPLES ANALYZED BY McLAREN ANALYTICAL LABORATORY

Depth Below Surface (ft.)	Penetration Results: Blows 6"-6"-6"	Penetration Results: BPF	Sampler Depth (interval ft.)	Sample ID #	Hnu reading (ppm)	Soil Description: Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
35	19-29-31	60	34.0-35.5			30.0'-32.5' Sandy gravel: light yellowish brown (10YR 6/4) 65% fragmented gravel; 35% very fine to coarse sand; 10% clay; very dense; saturated.	G C			32.0' End cap; 34.6' Bentonite pellets; 35.5' T.D.
						32.5'-35.5' sigity clay: yellowish brown (10YR 5/6) 10% medium to very coarse sand; 40% silty; 50% clay; hard; saturated; semi-consolidated; caliche.	C L			
40										
45										
50										
55										
60										

SIGNATURE OF FIELD SUPERVISOR
ASSOCIATE GEOLOGIST
TITLE

SIGNATURE OF REVIEWER
SUPERVISING ENGINEER, P.E.
TITLE

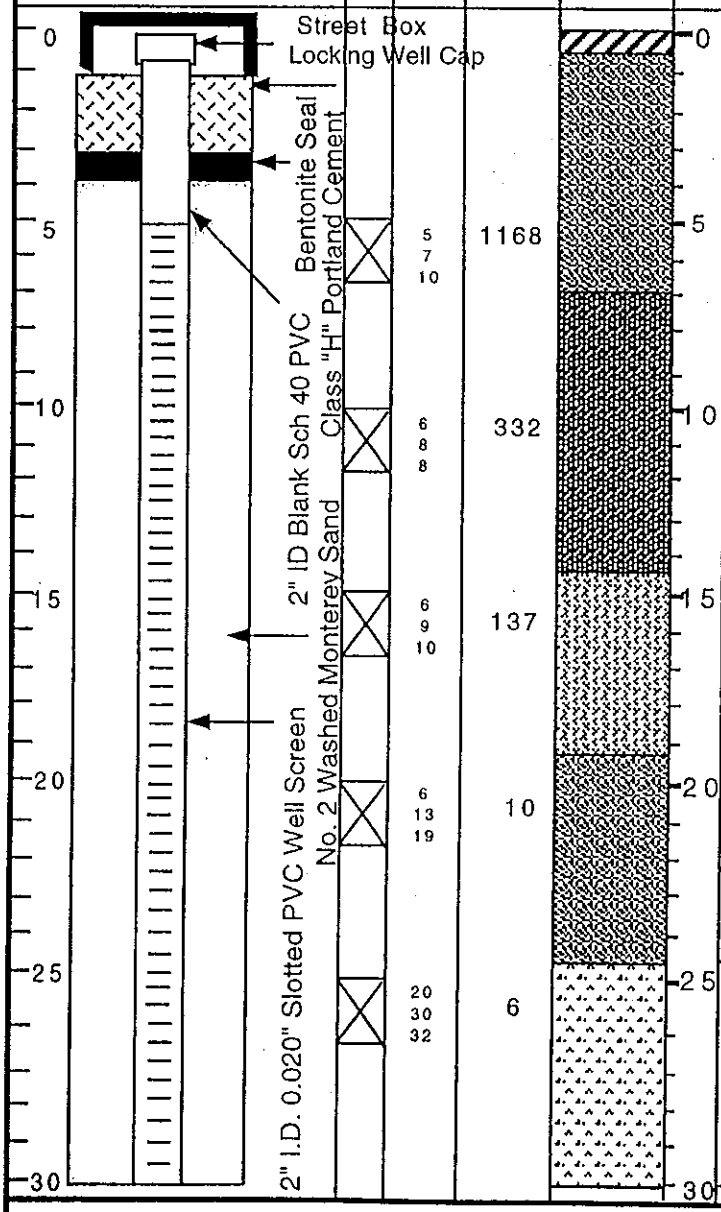
SOIL BORING LOG AND WELL COMPLETION DETAILS

Monitoring Well MW-5

Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 1 of 1
Driller: Soils Exploration Services	Type of Rig: CME 55	Size of Drill: 8" O.D. Hollow-Stem Augers
Logged By: Robert E. Kitay	Date Drilled: December 9, 1996	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: 22'	Total Depth of Well Completed: 30.0'
Static Depth of Water in Well: 6.5'	Well Screen Type and Diameter: 2" Diameter PVC
Total Depth of Boring: 30.0'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2.0" I.D. California Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Asphaltic concrete

Sandy SILT (ML); brown; stiff; damp; 65% silt; 20% fine to coarse sand; 10% subangular pebbles to 0.5" diameter; 5% clay; slight plasticity; low estimated K; moderate hydrocarbon odor

▽ *Static Groundwater Level*

Clayey SILT (MH); brown; stiff; moist; 75% silt; 15% clay; 5% coarse sand; 5% subangular pebbles to 0.5" diameter; high plasticity; low estimated K; slight hydrocarbon odor

Silty SAND (SM); brown; medium dense; wet; 65% medium to coarse sand; 20% silt; 10% subangular pebbles to 0.5" diameter; 5% clay; low plasticity; low estimated K; slight hydrocarbon odor

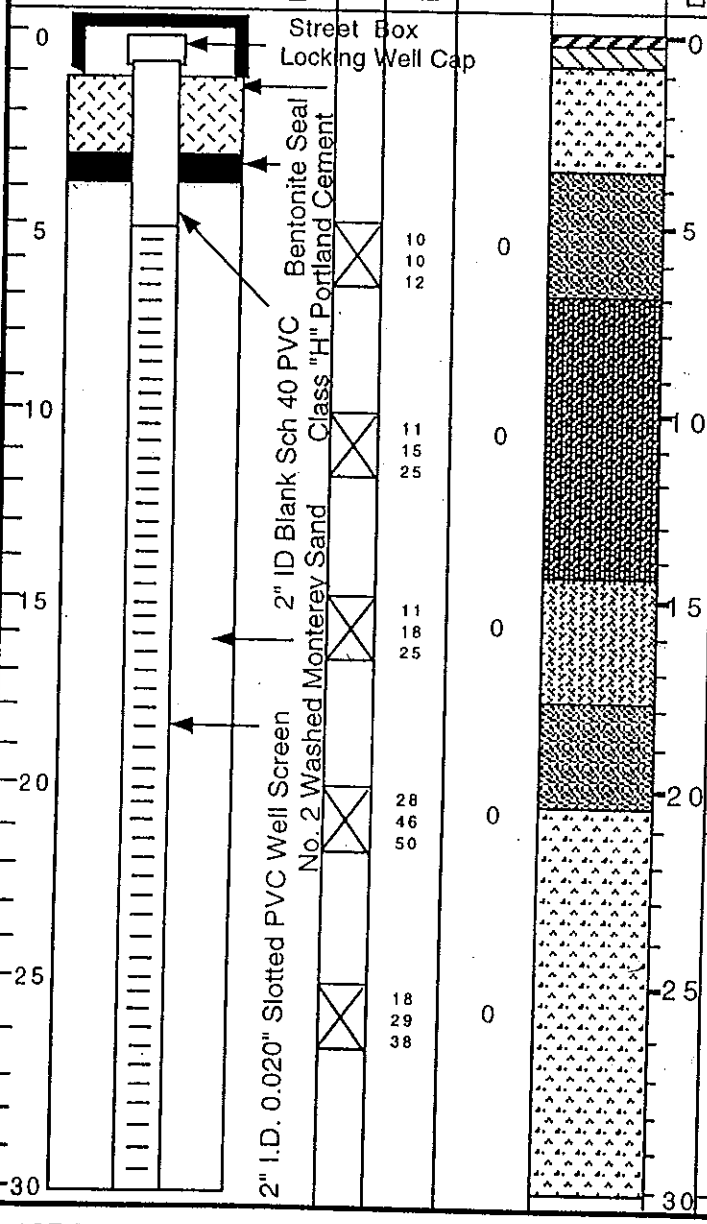
Sandy SILT (ML); brown; stiff; moist; 85% silt; 10% fine to medium sand; 5% subangular pebbles to 0.5" diameter; non-plastic; low estimated K; no odor

▼ *Groundwater First Encountered*

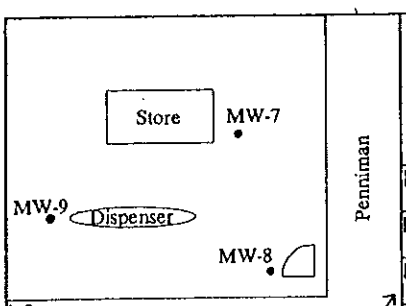
Gravelly SAND (SM); brown; dense; wet; 60% medium to coarse sand; 30% subangular pebbles to 1" diameter; 10% silt; non-plastic; medium estimated K; no odor

SOIL BORING LOG AND WELL COMPLETION DETAILS		Monitoring Well MW-6
Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 1 of 1
Driller: Soils Exploration Services	Type of Rig: CME 55	Size of Drill: 8" O.D. Hollow-Stem Augers
Logged By: Robert E. Kitay	Date Drilled: January 7, 1997	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered: 22'	Total Depth of Well Completed: 30.0'
Static Depth of Water in Well: 6.5'	Well Screen Type and Diameter: 2" Diameter PVC
Total Depth of Boring: 30.0'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2.0" I.D. California Sampler



SOIL/ROCK SAMPLE DATA					DESCRIPTION OF LITHOLOGY
Depth in Feet	Interval	Blow Ct.	OVM (ppmv)	Graphic Log	standard classification, texture, relative moisture, density, stiffness, odor-staining; USCS designation.
0					Asphalt
					Concrete
					Gravelly SAND (SW); grey; wet; dense; 65% medium to coarse sand; 25% subangular to subrounded pebbles to 2.5" diameter; 10% silt; non-plastic; high est K; no odor
5		10 10 12	0		Sandy SILT (ML); yellow brown; medium stiff; moist; 65% silt; 20% fine to coarse sand; 10% subangular pebbles to 0.5" diameter; 5% clay; slight plasticity; low estimated K; no odor
10		11 15 25	0		Clayey SILT (MH); brown; stiff; moist; 70% silt; 15% clay; 10% coarse sand; 5% subangular pebbles to 0.5" diameter; high plasticity; low estimated K; no odor
15		11 18 25	0		Silty SAND (SM); brown; medium dense; wet; 65% medium to coarse sand; 20% silt; 10% subangular pebbles to 0.5" diameter; 5% clay; low plasticity; low estimated K; no odor
20		28 46 50	0		Sandy SILT (ML); brown; stiff; moist; 85% silt; 10% fine to medium sand; 5% subangular pebbles to 0.5" diameter; non-plastic; low estimated K; no odor ▼ *Groundwater First Encountered*
25		18 29 38	0		Gravelly SAND (SM); brown; dense; wet; 60% medium to coarse sand; 30% subangular pebbles to 1" diameter; 10% silt; non-plastic; medium estimated K; no odor
30					



SITE MAP

W.A. Craig, Inc.
Environmental Contracting and Consulting
6940 Tremont Road
Dixon, California 95620-9603
Lic. #455752
(707) 693-2929
Fax (707) 693-2922

PROJECT: High Street	PROJECT #: 3936	BORING #: MW-7
DRILLING CONTRACTOR: Vironex	START: 11:30 FINISH:	DATE: 3/24/03
DRILLING METHOD: Geoprobe 6600	TOTAL DEPTH: 25'	DEPTH TO WATER:
SAMPLER: 5 ft Split Spoon	SCREEN INT: 15' - 25'	CASING: 2" PVC
HAMMER WT: N/A DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION (SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE)
					Well Box	✳	No recovery, hand augered 0'-5'
5				8.4		GM	Gravelly sandy silt, reddish brown, lean, hard
	MW-7 @ 8'						
10				0.8		CL	Silty sandy clay, lean, moist, dark brown, moderate HC odor
				40.5			Silt, low moisture, hard, no HC odor Silt, dark gray, moderate HC odor
15				117		ML	Silt, reddish brown, moist, interbedded with gravelly sandy silt, hard, gravel to 1/8" diameter, medium HC odor
				300			Gravelly sandy silt, reddish brown, dry, strong HC odor, gravel to 1/4" diameter
20							As above, very hard, silty, moist
				17		GM	As above
25					Total Depth 25'		As above
30							General Comment: No obvious wet zones in this boring, no recycled concrete encountered in this boring. Soils appear to be native alluvial fan sediments. Low to medium HC odor in places. No gross contamination observed.
35							
40							

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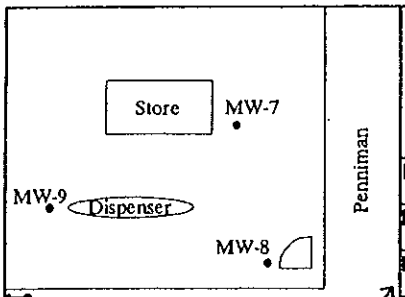
NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.



SITE MAP

W.A. Craig, Inc.

Environmental Contracting and Consulting

6940 Tremont Road
Dixon, California 95620-9603
Lic. #455752
(707) 693-2929
Fax (707) 693-2922

PROJECT: High Street	PROJECT #: 3936	BORING #: MW-8
DRILLING CONTRACTOR: Vironex	START: 8:15 FINISH: 11:30	DATE: 3/24/03
DRILLING METHOD: Geoprobe 6600	TOTAL DEPTH: 25'	DEPTH TO WATER: 16'
SAMPLER: 5 ft Split Spoon	SCREEN INT: 15' - 25'	CASING: 2" PVC
HAMMER WT: N/A DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION (SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE)
5	MW-8 @ 7'			3.2	Well Box	ML	Silt, moist, red oxide, no HC odor
				80		GM	Gravelly sandy silt, brown, moist, reddish oxide stain, strong HC odor, gravel to 1/2" diameter, greenish staining from HC contamination
10				160			
						✳	No recovery, core stuck in barrel, very lean clay at head of core barrel
15				80	▽		Gravelly sandy silt, reddish brown, moist, with gravel to 1/4" diameter, with very wet silt, dark gray, very strong HC odor
				300		GM	
20				10			Gravelly sandy silt, very hard, reddish oxide with gravel to 1/2", dry, with very wet sandy silt, dark gray, strong HC odor
				180			
25					Total Depth 25'		Gravelly sandy silt, hard, reddish oxide, gravel to 1" diameter
30							General Comment: Red gravelly clay was very hard, dry and interbedded with very wet sandy silt with an HC odor.
35							
40							

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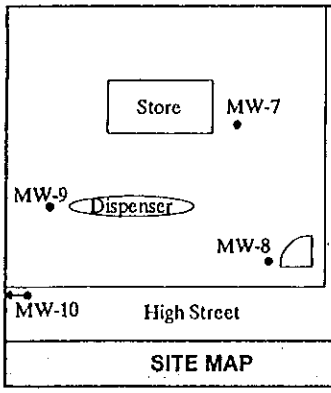
NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.



SITE MAP

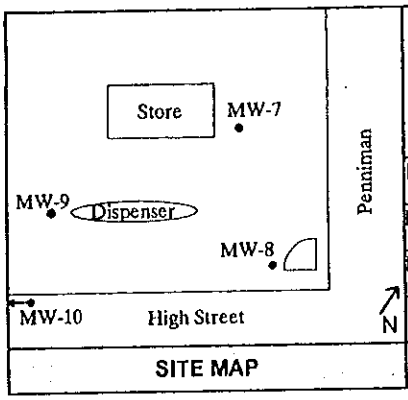
W.A. Craig, Inc.
Environmental Contracting and Consulting
6940 Tremont Road
Dixon, California 95620-9603
Lic. #455752
(707) 693-2929
Fax (707) 693-2922

PROJECT: High Street	PROJECT #: 3936	BORING #: MW-9
DRILLING CONTRACTOR: Vironex	START: 8:10 FINISH:	DATE: 3/25/03
DRILLING METHOD: Geoprobe 6600	TOTAL DEPTH: 25'	DEPTH TO WATER:
SAMPLER: 5 ft Split Spoon	SCREEN INT: 15' - 25'	CASING: 2" PVC
HAMMER WT: N/A DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION (SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE)
5				0.8	Well Box	Fill	Recycled concrete, dry, granular, gray
							As above but more moist
							Same as above
10	MW-9 @ 10'			0		GM	Gravelly sandy silt, brownish gray, with medium to very fine sand, <10% gravel up to 1/8", red oxide, hard, staining, no HC odor, native soil
15				0			Gravelly sandy silt, as above, red oxide color, hard, moist, no HC odor
				0			As above, with gravel to 1/4" diameter
20				0		SM	Silty gravelly sand, red oxide, no HC odor, moist, not wet
				0		GM	Gravelly sandy silt, fine to coarse sand, gravel to 1/8" diameter, red oxide, hard, slightly more moist than above, no HC odor
25				0	Total Depth 25'	SM	Silty gravelly sand, medium to coarse sand, gravel to 1/2" diameter, red oxide, moist not wet, crumbles easly
30							General Comment: No wet zone, backfill material to 10', no HC odor throughout. Two sandy zones observed but not saturated
35							
40							

CentralProjectFiles\3936 high street\reports\boring logs\mw-9.dwg

NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.



SITE MAP

W.A. Craig, Inc.

Environmental Contracting and Consulting

6940 Tremont Road
Dixon, California 95620-9603
Lic. #455752
(707) 693-2929
Fax (707) 693-2922

PROJECT: High Street	PROJECT #: 3936	BORING #: MW-10
DRILLING CONTRACTOR: Vironex	START: 9:05 FINISH:	DATE: 4/4/03
DRILLING METHOD: Geoprobe 6600	TOTAL DEPTH: 25'	DEPTH TO WATER: 4'
SAMPLER: 5 ft Split Spoon	SCREEN INT:	CASING: 2" PVC
HAMMER WT: N/A DROP:	FIELD GEOLOGIST: T. Cook	

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE
					Well Box		Asphalt and asphalt base material
5	MW-10 @ 4'			0		GM	Gravelly sandy silt, gravel ~5% up to 1/4", fine to medium sand, reddish-brown, moist, no odor
					▽		As above, encountered groundwater at 4', wet
				0		CL	Sandy silty clay, with angular gravel to 1/4", fine to medium sand, reddish-brown, wet, no odor
10				0		GM	Silty sandy gravel, angular gravel to 1/2", medium to coarse sand, dark brown with reddish-oxide stain, wet, no odor
						ML	Sandy silt, dark brown, fine sand, no odor, wet
				0		SM	Grades to a soft silty fine sand at 14', wet, no odor
15							Sandy silt, medium to coarse sand, dark brown, stiff, wet
				0		ML	Sandy silt, with gravel to 1/4", reddish brown, stiff, wet, no odor
20				0			
						SM	Silty fine sand, soft, brown, wet
				0		ML	Sandy silt, with gravel to 1/4", stiff, reddish-oxide stain, with gray mottling, wet, no odor
25					Total Depth 25'		
30							
35							
40							

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NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.

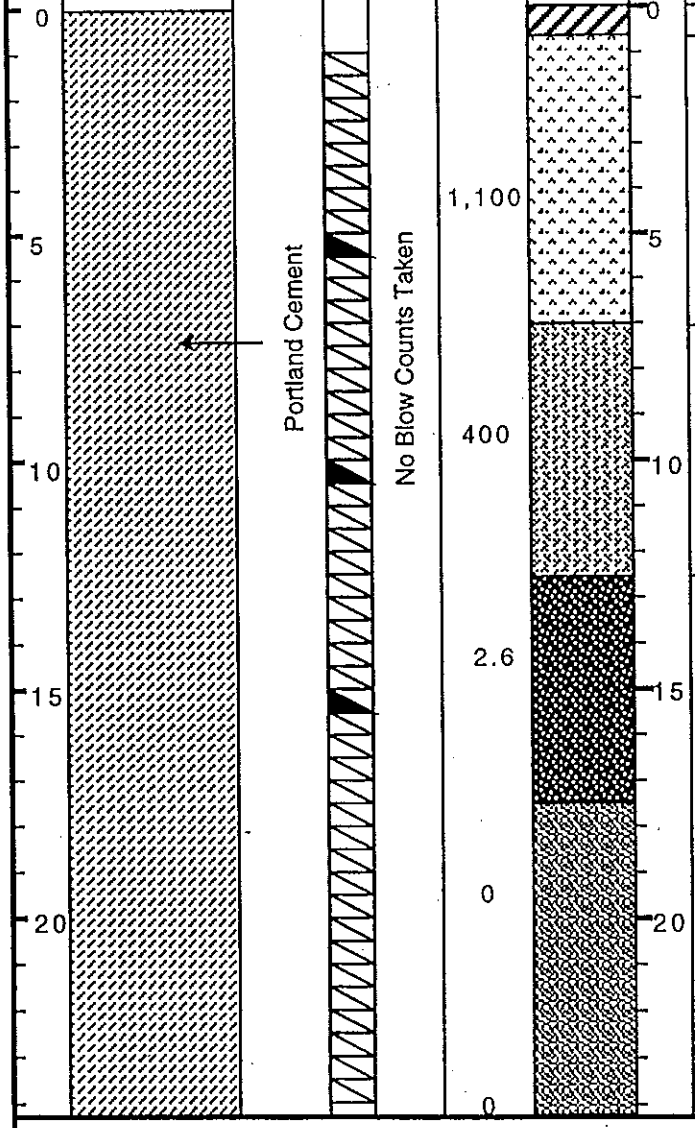
SOIL BORING LOG AND COMPLETION DETAILS

BORING NO.: BH-A

Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 1 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 26'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Asphalt

Gravelly SAND (SW); yellow brown; medium dense; dry; 60% medium to coarse sand; 30% subangular pebbles to 1" diameter; 10% silt; non-plastic; high estimated K; slight hydrocarbon odor

SAND (SP); yellow brown; medium dense; damp; 90% medium to coarse sand; 5% silt; non-plastic; medium estimated K; slight hydrocarbon odor

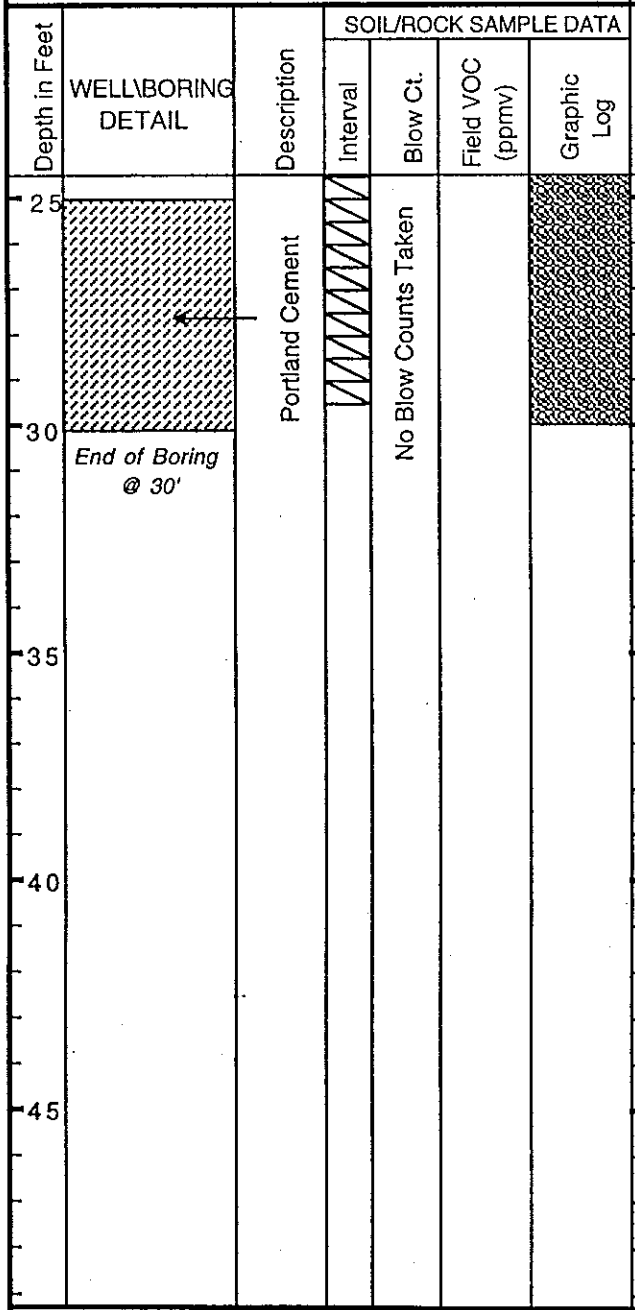
Clayey SILT (ML); brown; medium stiff; damp; 90% silt; 10% clay; slight plasticity; low estimated K; very slight hydrocarbon odor

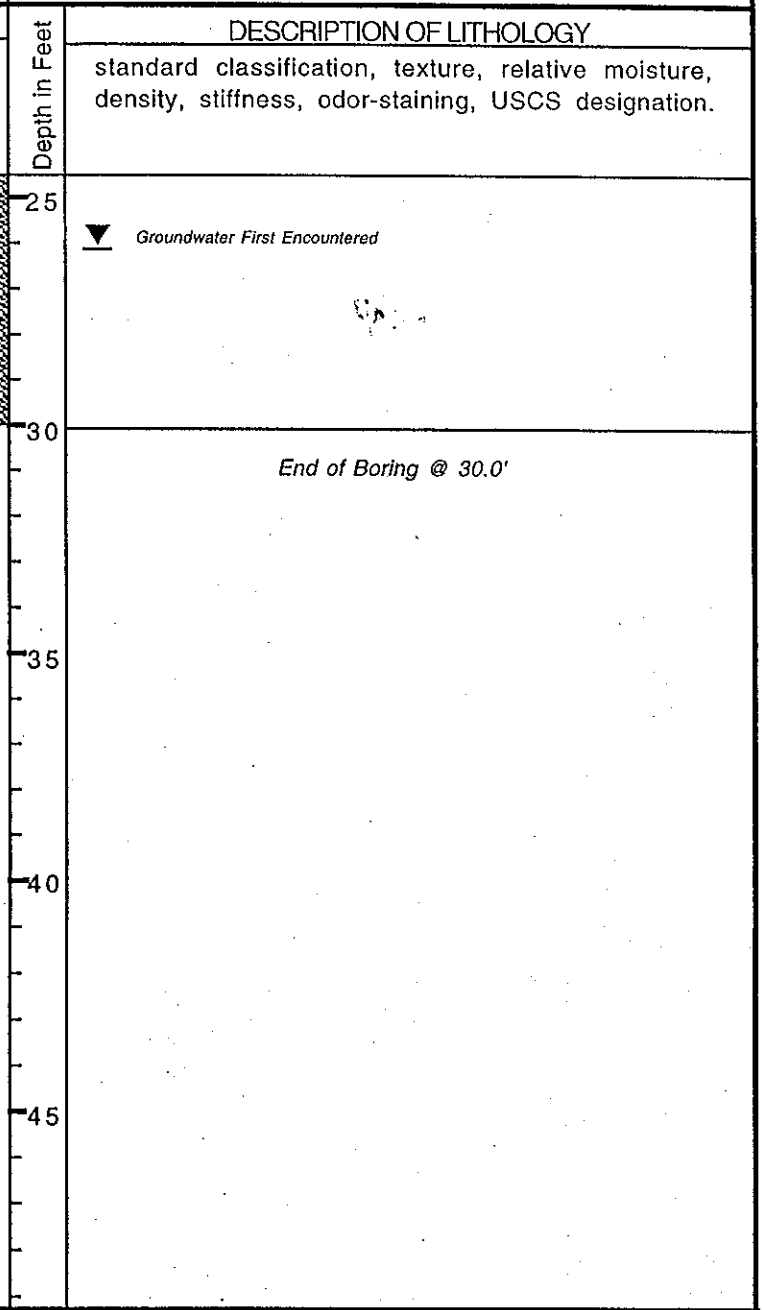
Clayey SAND (SC); yellow brown; medium dense; damp; 90% medium to coarse sand; 10% clay; slight plasticity; low estimated K; no odor

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND COMPLETION DETAILS		BORING NO.: BH-A
Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 2 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

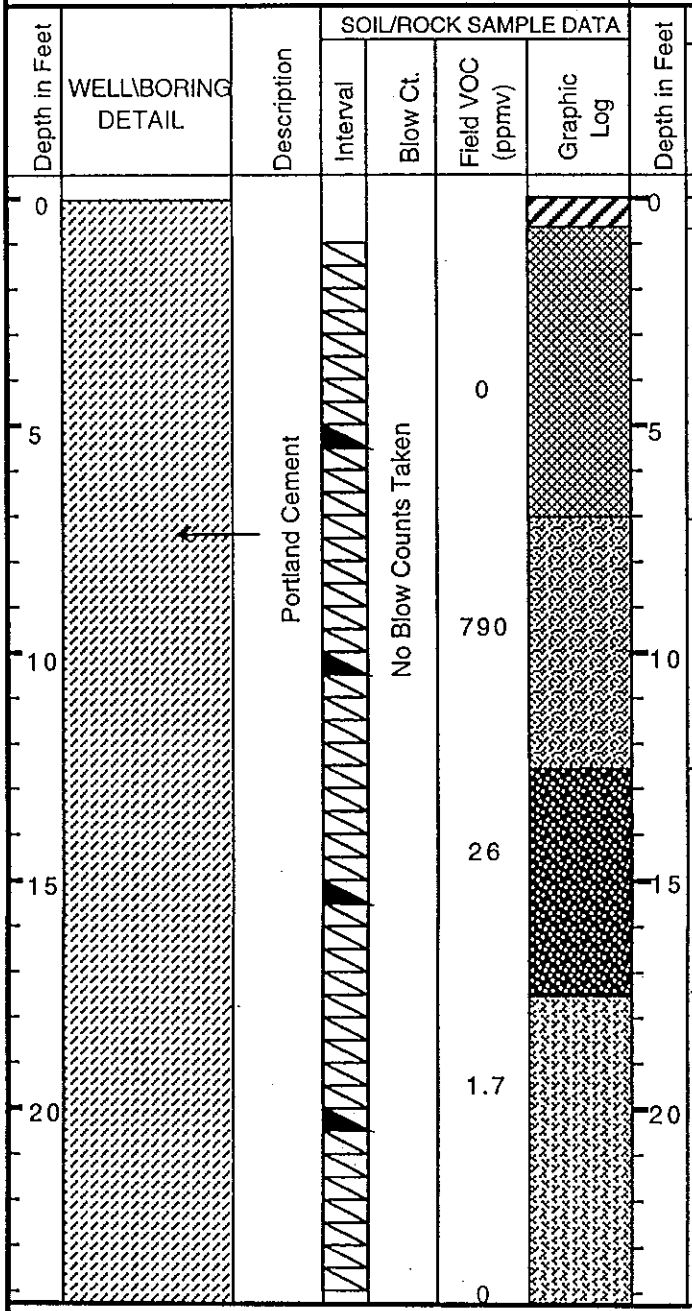
WATER AND WELL DATA	
Depth of Water First Encountered: 26'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler





SOIL BORING LOG AND COMPLETION DETAILS		BORING NO.: BH-B
Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 1 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 26'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Asphalt

Gravelly SILT (ML); brown; stiff; damp; 60% silt; 30% subangular pebbles to 0.5" diameter; 5% fine to coarse sand; 5% clay; slight plasticity; low estimated K; no odor

Sandy SILT (ML); brown; medium stiff; moist; 65% silt; 25% medium to coarse sand; 5% clay; 5% subrounded pebbles to 0.5" diameter; slight plasticity; low estimated K; slight hydrocarbon odor

Clayey SILT (ML); yellow brown; stiff; moist; 85% silt; 10% clay; 5% fine sand; slight plasticity; low estimated K; very slight hydrocarbon odor

Silty SAND (SM); yellow brown; medium dense; moist; 65% fine to coarse sand; 25% silt; 10% clay; slight plasticity; low estimated K; no odor

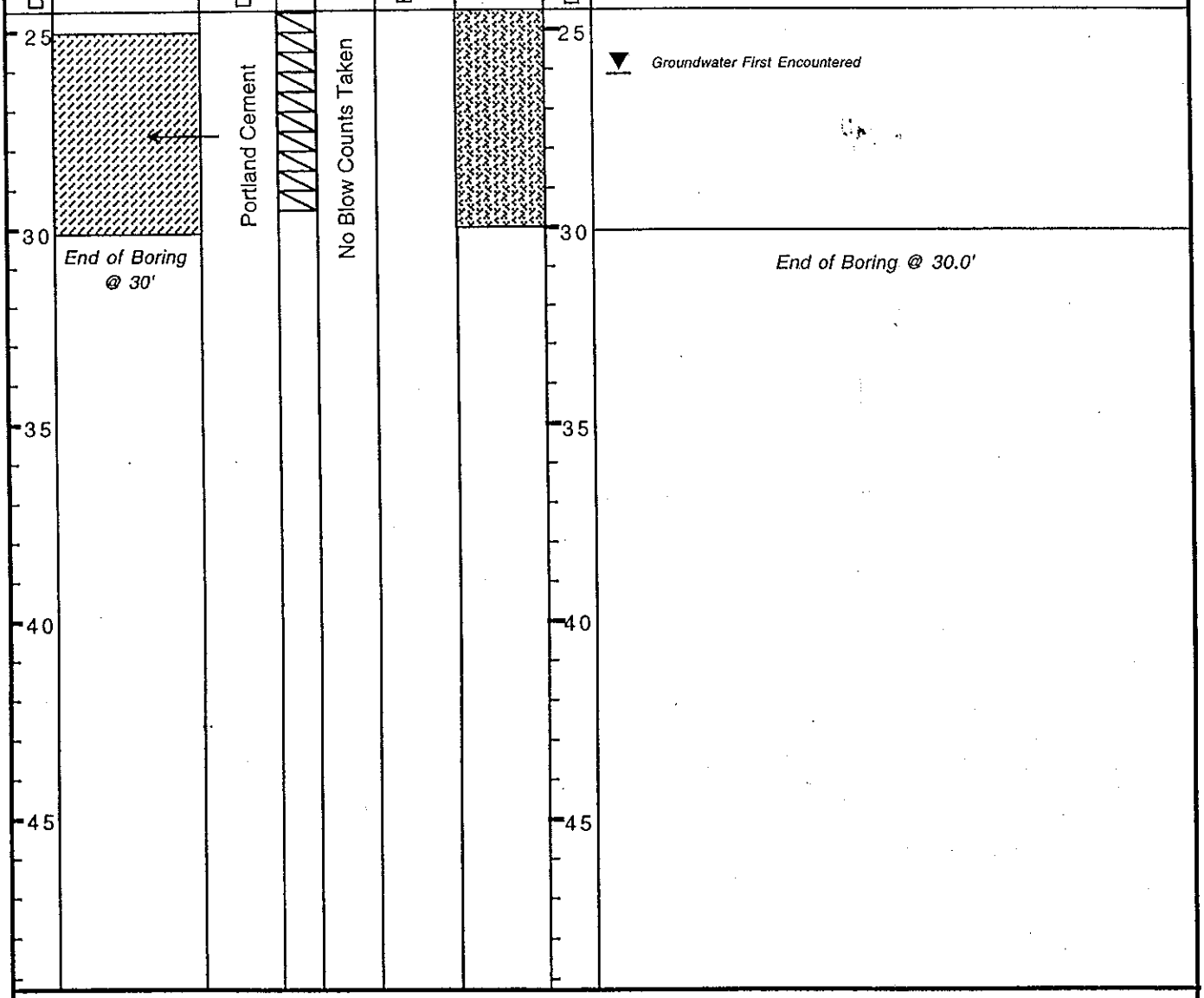
SOIL BORING LOG AND COMPLETION DETAILS

BORING NO.: BH-B

Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 2 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 26'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



AQUA SCIENCE ENGINEERS, INC.

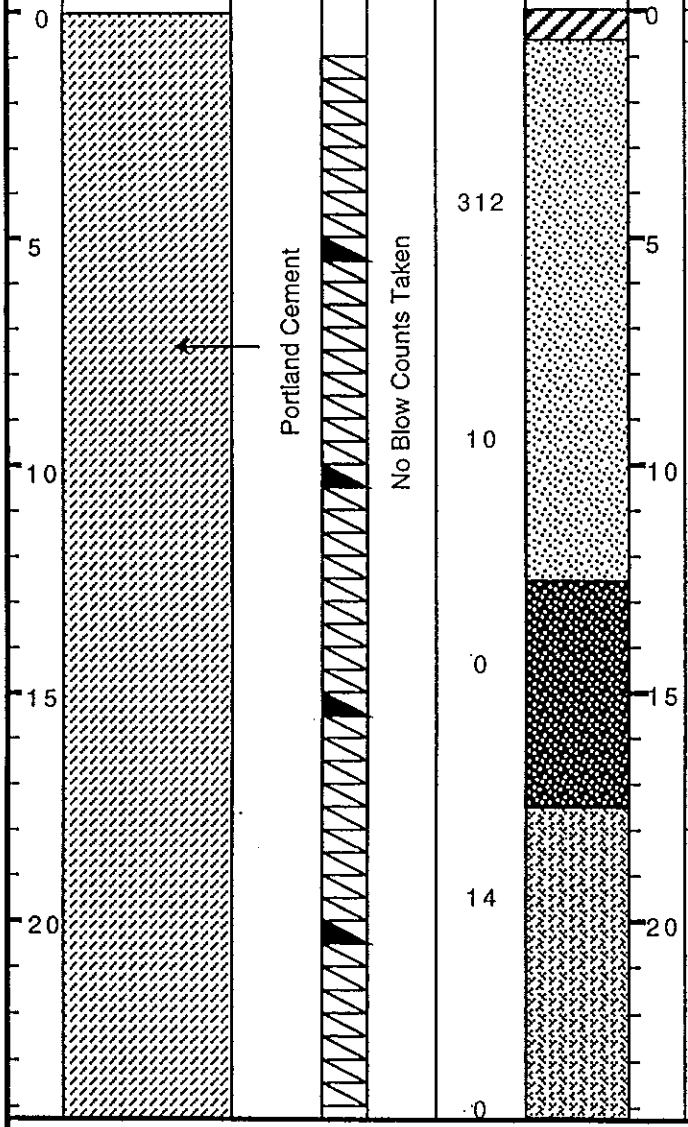
SOIL BORING LOG AND COMPLETION DETAILS

BORING NO.: BH-C

Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 1 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 26'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Asphalt
	SILT (ML); yellow brown; medium stiff; damp; 90% silt; 5% subangular pebbles to 0.5" diameter; 5% fine to coarse sand; non-plastic; low estimated K; moderate hydrocarbon odor
5	olive at 4'
10	yellow brown; no odor at 9'
15	Clayey SILT (ML); yellow brown; stiff; moist; 70% silt; 25% clay; 5% subangular to subrounded pebbles to 0.3" diameter; medium plasticity; very low estimated K; no odor
20	Silty SAND (SM); yellow brown; dense; damp; 75% medium to coarse sand; 20% silt; 5% clay; slight plasticity; low estimated K; no odor

AQUA SCIENCE ENGINEERS, INC.

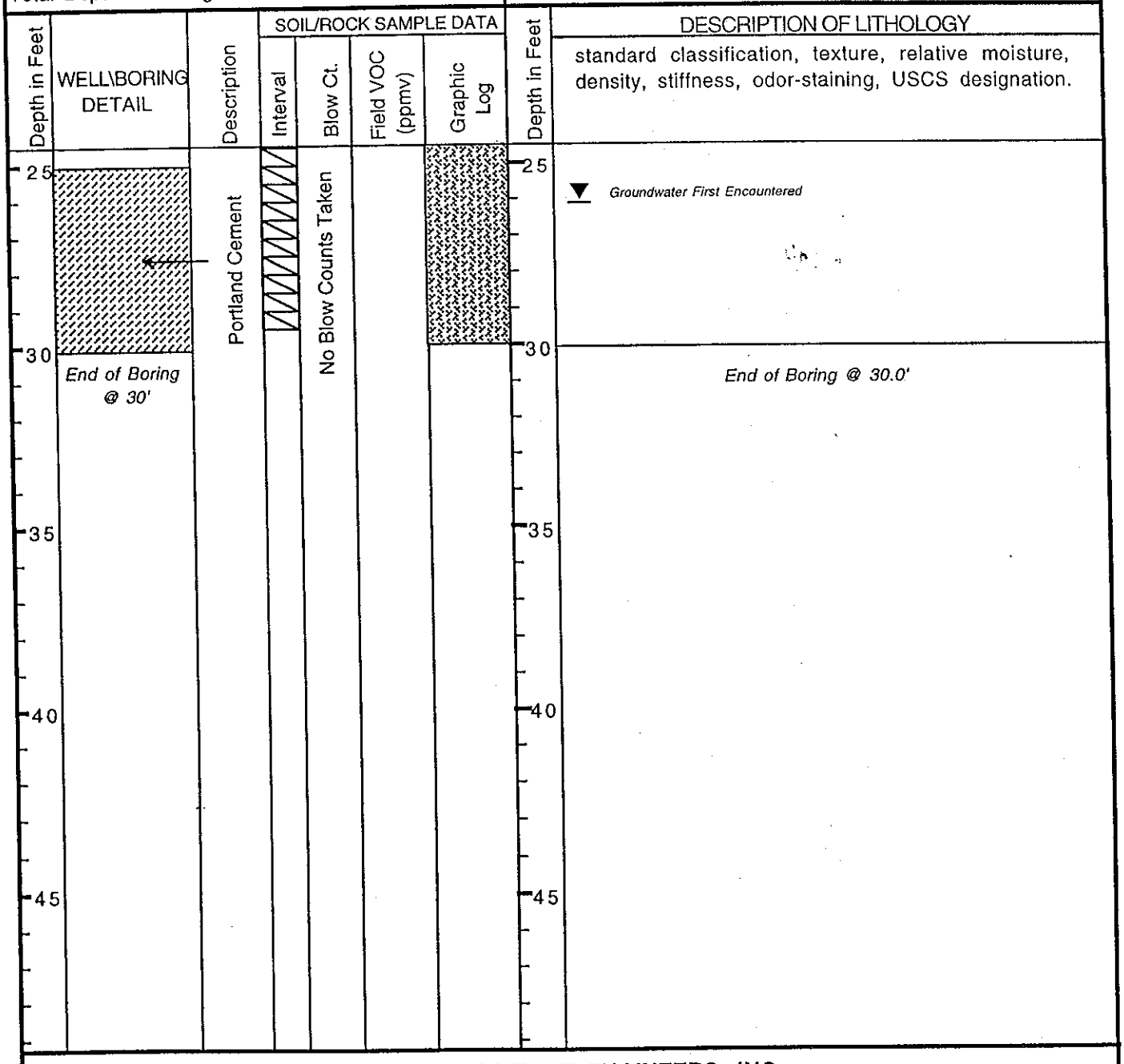
SOIL BORING LOG AND COMPLETION DETAILS

BORING NO.: BH-C

Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 2 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

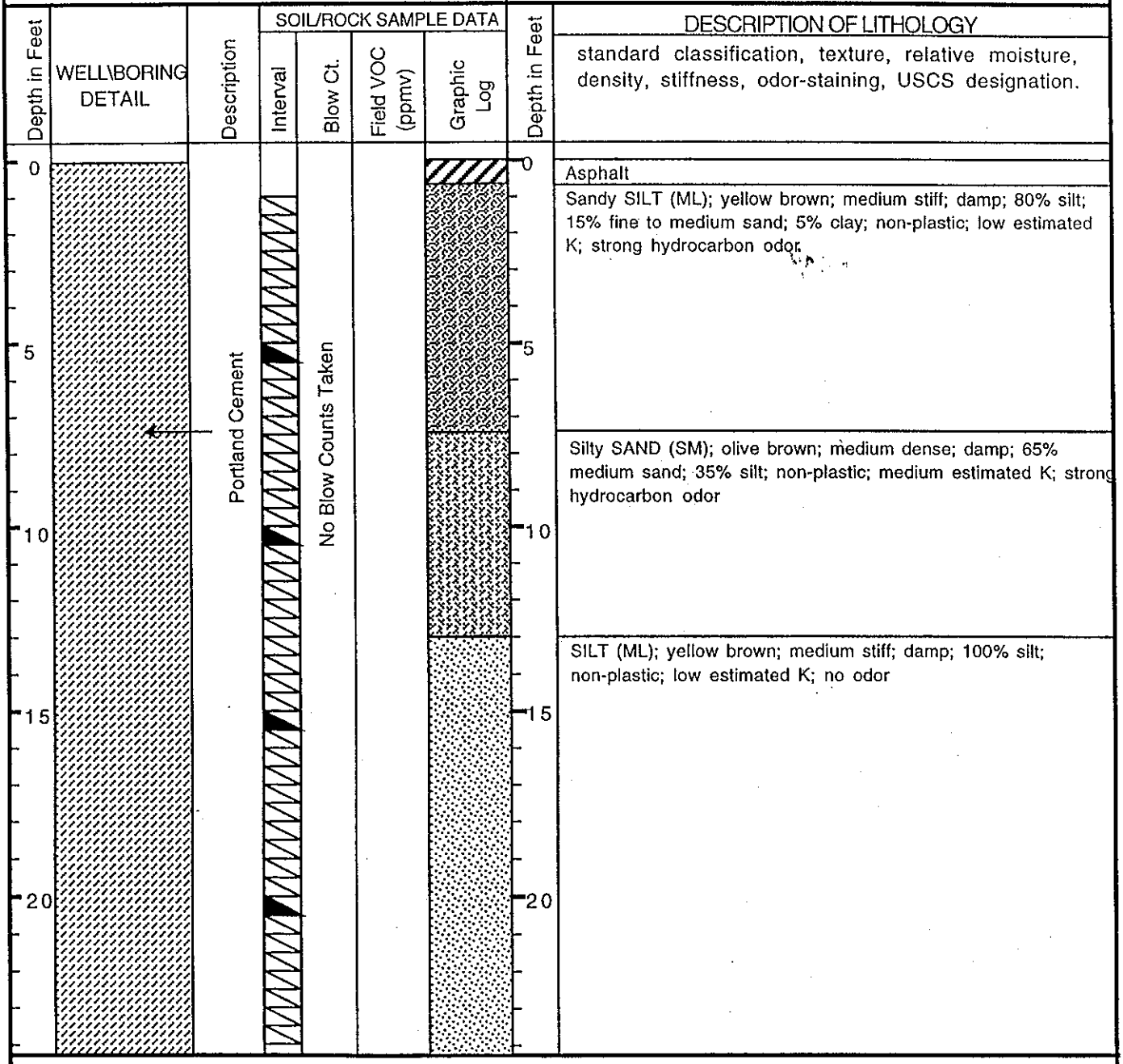
WATER AND WELL DATA

Depth of Water First Encountered: 26'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



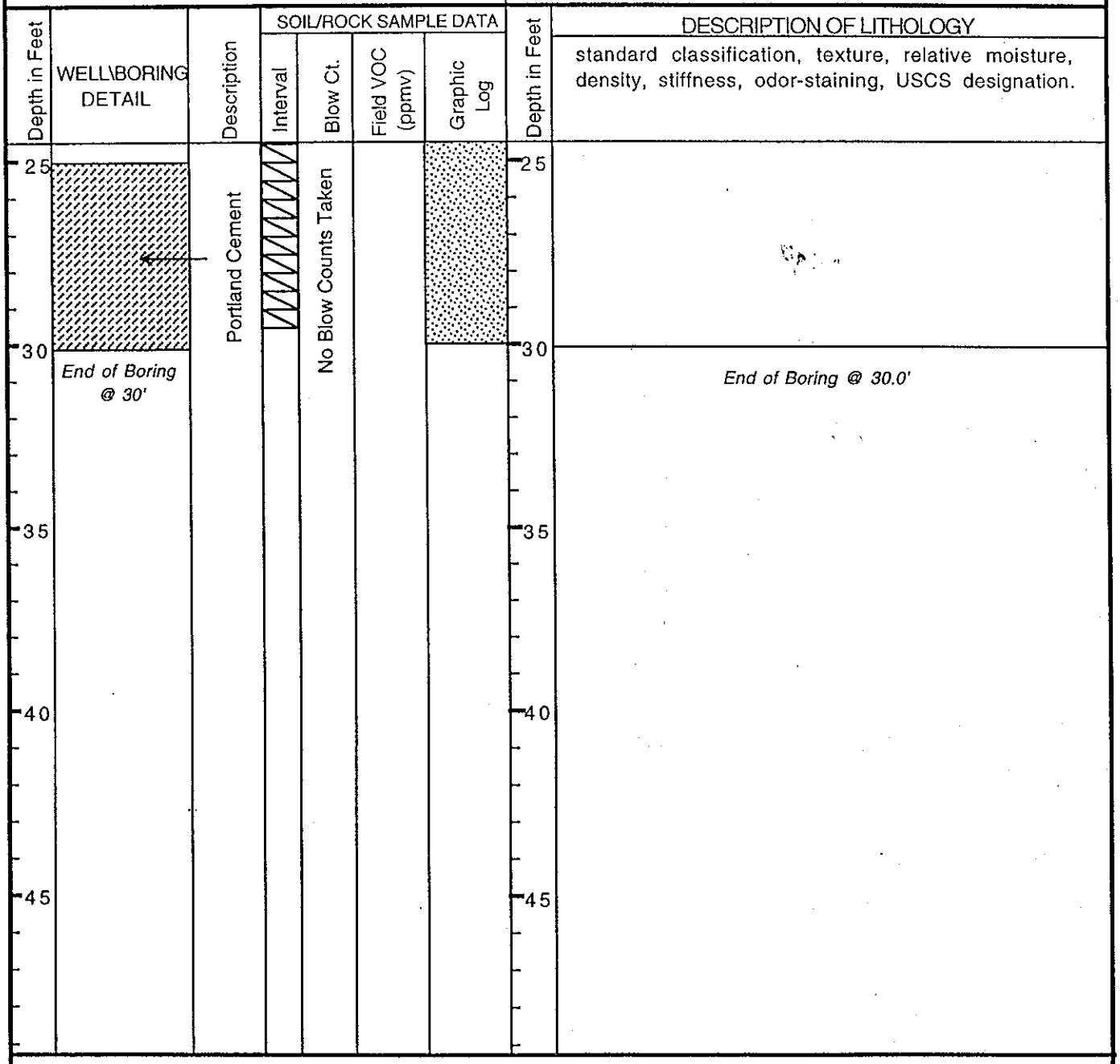
SOIL BORING LOG AND COMPLETION DETAILS		BORING NO.: BH-D
Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 1 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: NA	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'.	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



SOIL BORING LOG AND COMPLETION DETAILS		BORING NO.: BH-D
Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 2 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: NA	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



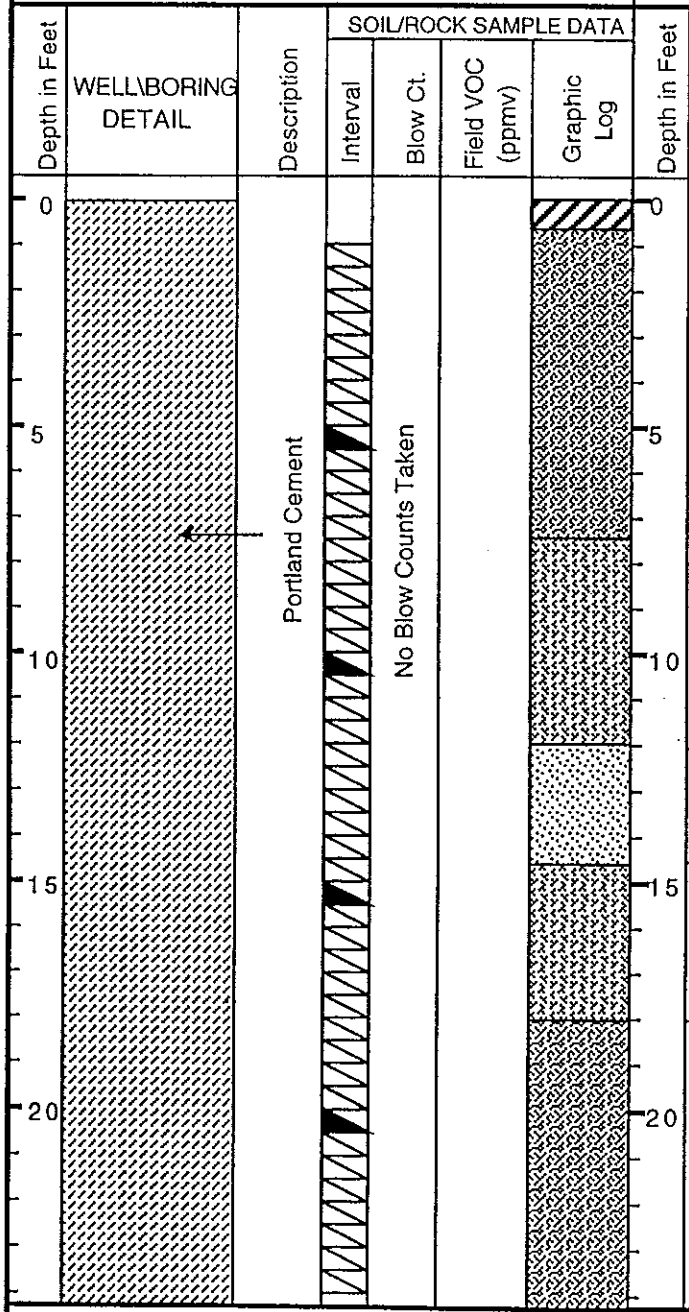
SOIL BORING LOG AND COMPLETION DETAILS

BORING NO.: BH-E

Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 1 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: NA	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

0 Asphalt

Sandy SILT (ML); yellow brown; medium stiff; damp; 80% silt; 15% fine to medium sand; 5% clay; non-plastic; low estimated K; no odor

Silty SAND (SM); yellow brown; medium dense; moist; 80% medium to coarse sand; 20% silt; non-plastic; medium estimated K; no odor

SILT (ML); yellow brown; medium stiff; damp; 100% silt; non-plastic; low estimated K; no odor

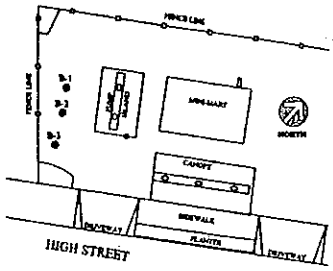
Silty SAND (SM); yellow brown; medium dense; damp; 75% fine to coarse sand; 25% silt; non-plastic; medium estimated K; no odor

Sandy SILT (ML); yellow brown; medium stiff; damp; 75% silt; 25% medium to coarse sand; non-plastic; low estimated K; no odor

SOIL BORING LOG AND COMPLETION DETAILS		BORING NO.: BH-E
Project Name: Zima Center Corporation	Project Location: 2951 High Street, Oakland, CA	Page 2 of 2
Driller: Vironex	Type of Rig: Geoprobe	Type and Size of Auger: Direct push
Logged By: Robert Kitay	Date Drilled: 6/26/96	Checked By: Michael Marello, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 26'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 30'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" Diameter Sampler

Depth in Feet	WELL\BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA: Interval	Blow Ct.	Field VOC (ppmv)	Graphic Log	Depth in Feet	DESCRIPTION OF LITHOLOGY: standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
25	Portland Cement	Portland Cement		No Blow Counts Taken			25	▼ Groundwater First Encountered
30	End of Boring @ 30'						30	End of Boring @ 30.0'
35							35	
40							40	
45							45	



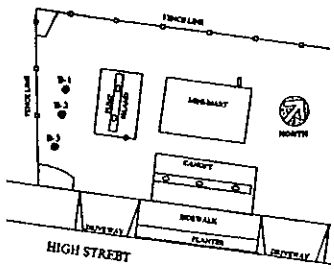
Cook Environmental Services, Inc.

271 Las Juntas Way, Walnut Creek, CA 94597, (925) 937-1759
(925) 787-6869 cell, cookenvironmental@att.net

PROJECT: Express Gas & Mart, 2951 High St.	PROJECT NO. 1004	BORING NO: B-1
DRILLING CONTRACTOR: RSI	START TIME: 0930 FINISH TIME: 1100	DATE: 7/27/06
DRILLING METHOD: GeoProbe	TOTAL DEPTH: 20'	DEPTH TO WATER:
SAMPLER: 4Ft. Dual Tube	SCREEN INT.: 15-20'	CASING: (Temp) 3/4" PVC
HAMMER WEIGHT: NA DROP: NA	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0							Asphalt to 4 inches
							Pea Gravel Backfill
2.5						Fill	
5							
7.5							Gravelly Sandy Claystone - reddish brown, moist, firm, no odor, gravel to 1" dia.
	B-1 @10'					CL	
10							Gravelly Sandy Claystone - reddish brown, moist, firm, no odor, gravel to 1" dia.
12.5							Gravelly Sandy Claystone - reddish brown, wet, firm, no odor, increasing clay content, gravel to 1" dia.
	B-1 @14'						Claystone with some gravel to 1/8" dia., reddish brown, moist, very firm, no odor
15							Gravelly Claystone - reddish brown, moist, very firm to hard, no odor
17.5	B-1 @18'						
20							Gravelly Claystone - reddish brown, moist, very firm to hard, no odor

Checked by: TC



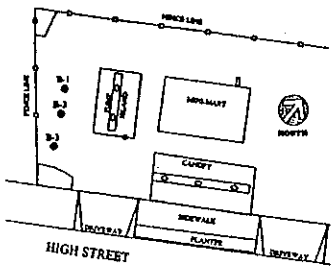
Cook Environmental Services, Inc.

271 Las Juntas Way, Walnut Creek, CA 94597, (925) 937-1759
(925) 787-6869 cell, cookenvironmental@att.net

PROJECT: Express Gas & Mart, 2951 High St.	PROJECT NO. 1004	BORING NO: B-2
DRILLING CONTRACTOR: RSI	START TIME: 1100 FINISH TIME: 1210	DATE: 7/27/06
DRILLING METHOD: GeoProbe	TOTAL DEPTH: 20'	DEPTH TO WATER:
SAMPLER: 4Ft. Dual Tube	SCREEN INT.: 15-20'	CASING: (Temp) 3/4" PVC
HAMMER WEIGHT: NA DROP: NA	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0							Asphalt to 4 inches
							Pea Gravel Backfill
2.5						Fill	
5							
7.5						CL	Gravelly Sandy Claystone with some pea gravel - brown to dark brown, moist, soft to moderately firm, no odor
	B-2 @10'						Claystone with some gravel to 1/8" dia., reddish brown, moist, very firm, no odor
10							Gravelly Sandy Claystone - reddish brown, moist, firm, no odor, gravel to 1/2" dia.
12.5	B-2 @14'						Gravelly Sandy Claystone - reddish brown, moist, very firm, gravel to 1/4" dia., no odor
							Gravelly Sandy Claystone - reddish brown, increasing moisture, soft, gravel to 1/4" dia., no odor
15							Gravelly Sandy Claystone - reddish brown, decreasing moisture, hard, gravel to 1/4" dia., no odor
							Claystone - reddish brown, moist, firm to hard, decreasing gravel, no sand, no odor
17.5	B-2 @18'						
20							Gravelly Claystone - reddish brown, moist, very firm to hard, no odor

Checked by: TDC



Cook Environmental Services, Inc.

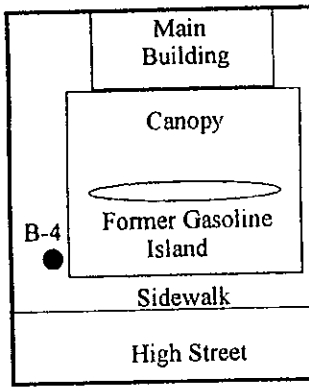
271 Las Juntas Way, Walnut Creek, CA 94597, (925) 937-1759
(925) 787-6869 cell, cookenvironmental@att.net

PROJECT: Express Gas & Mart, 2951 High St.	PROJECT NO. 1004	BORING NO: B-3
DRILLING CONTRACTOR: RSI	START TIME: 1100 FINISH TIME: 1210	DATE: 7/27/06
DRILLING METHOD: GeoProbe	TOTAL DEPTH: 20'	DEPTH TO WATER:
SAMPLER: 4Ft. Dual Tube	SCREEN INT.: 15-20'	CASING: (Temp) 3/4" PVC
HAMMER WEIGHT: NA DROP: NA	FIELD GEOLOGIST: T. Cook	

DEPTH (FEET)	SAMPLE No	INTERVAL	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION DETAIL	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0							Asphalt to 4 inches, AB Fill to 8 inches, Apahalt to 10 inches
							Gravelly Sandy Clay - reddish brown, moist, soft Clay - tan, moist, soft, no odor
2.5							Clay - reddish brown, gravelly
5							Clay with some gravel to 1/4" dia. - reddish brown, moist, very firm, no odor
7.5							Gravelly Claystone - reddish brown, moist, hard, no odor, gravel to >1" dia.
10	B-3 @10'					CL	
12.5	B-3 @14'						Gravelly Claystone - reddish brown, moist, stiff, no odor, gravel to >1" dia.
15							Claystone with trace gravel to 1/8" dia. - reddish brown, very stiff, no odor
17.5							
20							Claystone with trace gravel to 1/4" dia. - reddish brown, hard, no odor

Checked by: TDC

BORING LOG



W. A. Craig, Inc.
Environmental Contracting and Consulting
6940 Tremont Road
Dixon, California 95620
Cal License #455752
(707) 693-2929
FAX (707) 693-2922

PROJECT: 2951 High Street	**PROJECT#** 3936	**BORING NO:** B-4
DRILLING CONTRACTOR: Gregg Drilling & Sampling	**START TIME:** 2:30 pm **FINISH TIME:** 3:15 pm	**DATE:** 04/26/01
DRILLING METHOD: Direct-Push	**TOTAL DEPTH:** 15'	**DEPTH TO WATER:**
SAMPLER:	**SCREEN INT.:**	**CASING:**
HAMMER WEIGHT: **DROP:**	**FIELD GEOLOGIST:** O'Grady	

DEPTH	SAMPLE No	SAMPLE	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION	LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION Description, Color, Density, Moisture
				20			AC pavement with Class II AB (CL) Clay/silt-some gravel, green/brown, moist, cohesive, low-medium plasticity. Strong petroleum odor/mottling present.
5	B-4 @5'			20			(GC) Clayey gravel, grown/green, damp, cohesive, no plasticity. Strong petroleum odor/some mottling. (CL) Silt/vfs/clay, brwn/grn, damp, cohesive, low plasticity. Odor/mottling present.
10	B-4 @ 10'			20			(GC) Clayey gravel, brown, dry-damp, cohesive, no plasticity. Strong petroleum odor/mottling. (CL) Vfs/clay, brown, damp, cohesive, stiff, no plasticity. Odor/some mottling.
				7			(GC)
15							
20							
25							
30							Soil sampled @ 2:50 and 3:07 pm.
35							
40							

Checked by:TDC

BORING LOG

W. A. Craig, Inc.
Environmental Contracting and Consulting
6940 Tremont Road
Dixon, California 95620
Cal License #455752
(707) 693-2929
FAX (707) 693-2922

Main Building

Canopy

B-6 ●

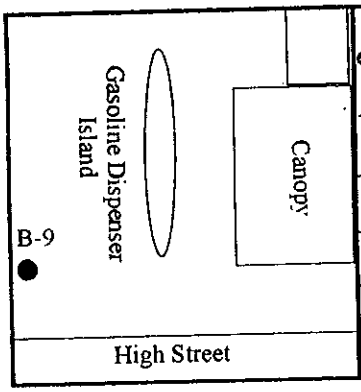
High Street

PROJECT: 2951 High Street	**PROJECT number** 3936	**BORING NO:** B-6
DRILLING CONTRACTOR: Gregg Drilling & Sampling	**START TIME:** 3:30 pm **FINISH TIME:** 4:05 pm	**DATE:** 04/26/01
DRILLING METHOD: Direct-Push	**TOTAL DEPTH:** 13'	**DEPTH TO WATER:**
SAMPLER:	**SCREEN INT.:**	**CASING:**
HAMMER WEIGHT: **DROP:**	**FIELD GEOLOGIST:** O'Grady	

DEPTH	SAMPLE No	SAMPLE	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION	LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION Description, Color, Density, Moisture
0				0			AC Pavement over Class II AB **(CL)** Clay/silt, brown, damp, cohesive, low plasticity. No petroleum odor/ mottling.
5	B-6 @5'			20			**(CL)** Clay/gravel(< .5', subangular), brown, damp, low plasticity, somewhat stiff, cohesive. Petroleum odor/mottling present.
				20			**(GC)** Gravel/clay (>1"pebbles), brown, damp-dry, no plasticity, compacted, cohesive. Petroleum odor/mottling present.
10	B-6 @10'			20			**(GC)**
						TD 13'	Refusal @ 13'
15							
20							
25							
30							Soil sampled @ 3:47 and 4:03 pm.
35							
40							

Checked by:TDC

BORING LOG



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PROJECT: 2951 High Street	**PROJECT#** 3936	**BORING NO:** B-9
DRILLING CONTRACTOR: Gregg Drilling & Testing	**START TIME:** 8:45 am **FINISH TIME:** 9:25 am	**DATE:** 04/26/01
DRILLING METHOD: Direct-Push	**TOTAL DEPTH:** 22'	**DEPTH TO WATER:**
SAMPLER:	**SCREEN INT.:**	**CASING:**
HAMMER WEIGHT: **DROP:**	**FIELD GEOLOGIST:** O'Grady	

DEPTH	SAMPLE No	SAMPLE	BLOWS/ 0.5 FOOT	PID [ppm]	BORING/WELL CONSTRUCTION	LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION Description, Color, Density, Moisture
							AC Pavement over Class II AB
				1			(GC) Clayey gravel, green, wet, no cohesiveness. No petroleum odor/mottling.
5	B-9 @ 5'			12			(CL) Silty clay (larger percentage clay), medium brown, cohesive, medium-high plasticity, moist-slightly wet.
10	B-9 @10'			7			(CL) Clay/gravel/sand, brown-reddish brown, damp, cohesive, low plasticity. No petroleum odor/mottling present.
				0			(GC) Clayey gravel-some coarse grained sand, various shades of brown, cohesive, low-medium plasticity, dry-moist. Some petroleum odor/ no mottling
15				0			(GC) Clayey gravel, brown, stiff, damp, compacted, no plasticity, cohesive. No petroleum odor/mottling present.
				0			
20				0			(CL) Clay/silt -some gravel present, brown, stiff, dense, cohesive, damp, no-low plasticity. No petroleum odor/mottling present.
25							TD 22'
30							Soil sampled @ 9:04 and 9:15 am.
35							
40							

Checked by:TDC

Logged By: J.U.

Date Drilled: 3-23-90

EXPLORATORY BORING LOG

Hole No. B-1

Job No. 90-3842-SE

Dry Density p.c.f.	Moisture Content %	Penet. Resist. Blows/ft.	Unconf. Comp. Strength, k.s.f.	Direct Shear Test "C" k.s.f.	Direct Shear Test "ø" Degree	Sample Number	Depth in Feet	Boring Log	DESCRIPTION
									Asphalt 4", baserock 6"
									Greenish silty sandy CLAY plastic, medium stiff,*
									Brown greenish silty CLAY plastic, medium stiff, *
		52				1-1	5		Greenish gray silty sandy gravelly CLAY, stiff, gasoline odor
									Increase in gravel
							10		Light brown, silty sandy gravelly CLAY, stiff and moist, gasoline odor
		50				1-2			TERMINATED AT 12'

Remarks: * slightly moist, fill material
** slightly moist, fill material

Figure 3 - Log of Boring

UNITED SOIL ENGINEERING, INC.

Logged By: J.U.

Date Drilled: 3-23-90

EXPLORATORY BORING LOG

Hole No. B-2

Job No. 90-3842-SE

Dry Density p.c.f.	Moisture Content %	Penet. Resist. Blows/ft.	Unconf. Comp. Strength, k.s.f.	Direct Shear Test "C" k.s.f.	Direct Shear Test "ϕ" Degree	Sample Number	Depth in Feet	Boring Log	DESCRIPTION
									Asphalt 4", Baserock 6"
									Greenish sandy silty CLAY plastic, slightly moist, gasoline odor
		49				2-1	5		Greenish gray, very gravelly sandly, silty CLAY, slightly moist, medium stiff, pieces of rocks, bricks, gasoline odor
		68				2-2	10		Light brown sandy silty gravelly CLAY, moist, stiff gasoline odor Increase in sand and silt material gasoline odor
									TERMINATED AT 14'

Remarks:

Figure 4 - Log of Test Boring

UNITED SOIL ENGINEERING, INC.