R0261

cook

271 Las Juntas Way, Walnut Creek, CA 94597 Phone 925.937.1759 Cell 925.787.6869 cookenvironmental@att.net

Alameda County

FEB 22 2006

Environmental Health

February 17, 2006

RECEIVED

FEB 21 2006

ENVIRONMENTAL HEALTH SERVICES

Don Hwang
Alameda County Environmental Health
1311 Harbor Bay Pkwy, Ste 250
Alameda, California 94502-6577

Subject: **Addendum to Request for Site Closure**
Express Gas & Mart, 2951 High Street, Oakland
LOP Case No. 1038

Dear Mr. Hwang:

In a telephone conversation on February 9, 2006, we discussed site closure for the subject site. You requested additional information regarding monitoring wells at the site. Specifically, you asked whether monitoring wells with designated prefixes "STMW" were different from wells with "MW" prefixes. For example, are wells STMW-1 through STMW-4 the same as wells MW-1 through MW-4. If these are different wells, you requested information regarding their date of installation and any sampling data from these wells. I replied that I was not familiar with the STMW prefix and that it was likely installed by a previous consultant. I told you that I would search the files in your office to determine when these wells were installed and obtain sampling data from these wells that may not have been included in the *Request for Site Closure* dated October 20, 2005.

Upon completion of the file search conducted on February 16, 2006, I have determined that wells STMW-1 through STMW-4 were installed by Soil Tech Engineering, Inc. on February 15 and 16, 1995. These wells were installed for the previous owner, Zima Center Corporation, under direction from Alameda County Environmental Health. Boring logs, well construction logs and a map showing the location of these wells are included in the *Preliminary Site Assessment for the Property Located at 2951 High Street, Oakland, California*, dated March 8 1995. This document is included as **Appendix A** to this letter.

A comparison in well location and well construction details was made between wells STMW-1 and MW-1 and between STMW-3 and MW-3. Figure 2 of the Soil Tech Engineering report shows that wells STMW-1, STMW-2 and STMW-3 are in the same locations as wells designated MW-1, MW-2 and MW-3 in a Quarterly Groundwater Monitoring Report by Aqua Science Engineers dated July 23, 1998 and included herein as **Appendix B** to this letter. A comparison of well construction logs prepared by Soil Tech Engineers (see Appendix A) with well construction details found in Table 1 of the *Request for Site Closure* included as **Appendix C** to this letter shows that STMW-1 and MW-1 are both 2-inch diameter wells that are 25 feet deep. Likewise, STMW-3 and MW-3 are 2-inch diameter wells that are 25 feet deep Based on this

evidence, I conclude that well STMW-1 is the same as well MW-1 and that STMW-3 is the same as MW-3.

Well STMW-2 is no longer present at the site. It was likely destroyed during previous site remediation activities. However, Figure 2 from the Soil Tech Engineering report shows well MW-4 as a 4-inch diameter well located approximately 10 feet north of the convenience store whereas boring STMW-4 (also designated boring B-2) is approximately 45 feet north of the store. Soil Tech Engineers reports that STMW-4 was a 16 foot deep temporary boring that was sampled and backfilled with Portland cement on February 16, 1995.

Analytical results from the STMW wells are included in **Appendix A**. An evaluation of these results was performed to determine if any of the STMW samples warranted inclusion in the Site Closure Summary. The TPH-g concentration in the soil sample from boring STMW-4 @ 4-6' was 1,900 ppm and worthy of note in the closure summary. All other samples were below the maximum levels listed in this table. There was no sample collection from STMW-4 after completion of remediation. An updated Site Closure Summary is provided in **Appendix D** to this letter.

I trust that this letter responds to your concerns related to the STMW and MW wells at the site. Please call me at (925) 937-1759 if you have additional concerns relative to the request for site closure.

Very truly yours,

Cook Environmental Services, Inc.

Tim Cook, P.E., CEG
Principal

cc: Aziz Kandahari, Express Gas & Mart
Cherie McCaulou, San Francisco Bay RWQCB
Jennifer Rice, Esq.

APPENDIX A

Preliminary Site Assessment
Soil Tech Engineering, Inc.
March 8, 1995

File No. 8-93-558-ST

PRELIMINARY SITE ASSESSMENT
FOR THE PROPERTY
LOCATED AT 2951 HIGH STREET
OAKLAND, CALIFORNIA
MARCH 8, 1995

PREPARED FOR:
MR. MOHAMMAD A. MASHHOON
ZIMA CENTER CORPORATION
2951 HIGH STREET
OAKLAND, CALIFORNIA 94619

BY:
SOIL TECH ENGINEERING, INC.
298 BROKAW ROAD
SANTA CLARA, CALIFORNIA 95050

SOIL TECH ENGINEERING, INC.

SOIL TECH ENGINEERING
Soil, Foundation and Geological Engineers
298 BROKAW ROAD, SANTA CLARA, CA 95050 ■ (408) 496-0265 OR (408) 496-0266

March 8, 1995

File No. 8-93-558-ST

Mr. Mohammad A. Mashhoon
Zima Center Corporation
2951 High Street
Oakland, California 94619

SUBJECT: PRELIMINARY SOIL AND GROUNDWATER ASSESSMENT FOR THE PROPERTY Located at 2951 High Street, in Oakland, California

Dear Mr. Mashhoon:

Enclosed is a copy of the preliminary soil and groundwater assessment report, dated March 8, 1995, for the section of your property located at 2951 High Street, in Oakland, California.

The report describes the results of field activities conducted to evaluate the concentrations and the extent of dissolved hydrocarbons, Volatile Organic Compounds (VOC's) and Total Oil & Grease (TOG) in the soil and groundwater in the vicinity of the former location of an underground waste oil storage tank.

Soil samples collected by STE during the removal of the waste oil tank and during the subsequent remedial excavation activities at the site indicated that the soil had been impacted by inadvertent spillage and a leak in the tank.

District--Zone 7 Water Agency (ACFCWCD-Zone 7) prior to drilling. Copies of the well permits are included in the Appendix "G" of this report. all utility lines were located prior to drilling.

STE initiated the field work for this phase of investigation between February 15, 1995, and February 23, 1995. Field work included the advancement of four soil borings STMW-1, STMW-2, STMW-3 and STMW-4 (B-4), soil sampling, installation of three monitoring wells (STMW-1, STMW-2 and STMW-3), development of the wells, water sampling and chemical analyses of soil and groundwater samples. The approximate locations of the soil borings and monitoring wells, and the former location of the underground waste oil storage tank are shown in Figure 2.

The exploratory borings were advanced on February 15 and 16, 1995. Three of the borings (STMW-1, STMW-2 and STMW-3) were converted to groundwater monitoring wells. The drilling, soil sampling and construction of the on-site wells were conducted in accordance with STMW's Standard Operating Procedures (SOP) included in Appendix "C" in this report.

Borings STMW-1 and STMW-3 were drilled to a depth of approximately 25 feet below grade, boring STMW-2 to a depth of approximately 20 feet below grade, and boring STMW-4 (B-4) to a depth of approximately 16½ feet below grade. During drilling operations, soil samples were collected at approximately 6 feet and 11 feet below grade in borings STMW-1 and STMW-2, and at approximately 6

feet, 11 feet and 16 feet below grade in borings STMW-3 and STMW-4 (B-4). Soil samples were classified in the field according to the Unified Soil Classification System by STE's geologist and were retained for chemical analysis. Soil boring STMW-4 (B-4) was back-filled with portland cement on February 16, 1995.

During drilling, a slight gasoline odor was detected in boring STMW-2 in the sample collected from a depth of 11 feet below grade. A strong gasoline odor was also detected in boring STMW-4 (B-4) in the soil samples collected from the depths of 6 feet and 11 feet below grade.

Each soil sample was labeled with an identification number, sealed and stored in a chilled ice chest until delivery to a certified analytical laboratory. The completed exploratory boring logs are included in Appendix "D" of this report.

The well heads of STMW-1, STMW-2 and STMW-3 monitoring wells were protected by traffic rated vaults placed flush with grade.

After the wells were completed, they were developed by hand bailer, pumping and surging to clean the soil around the well screens. Each well was developed by a surface bailer until at least 6 to 8 well casing volumes were removed and the pH, conductivity and temperature were stabilized.

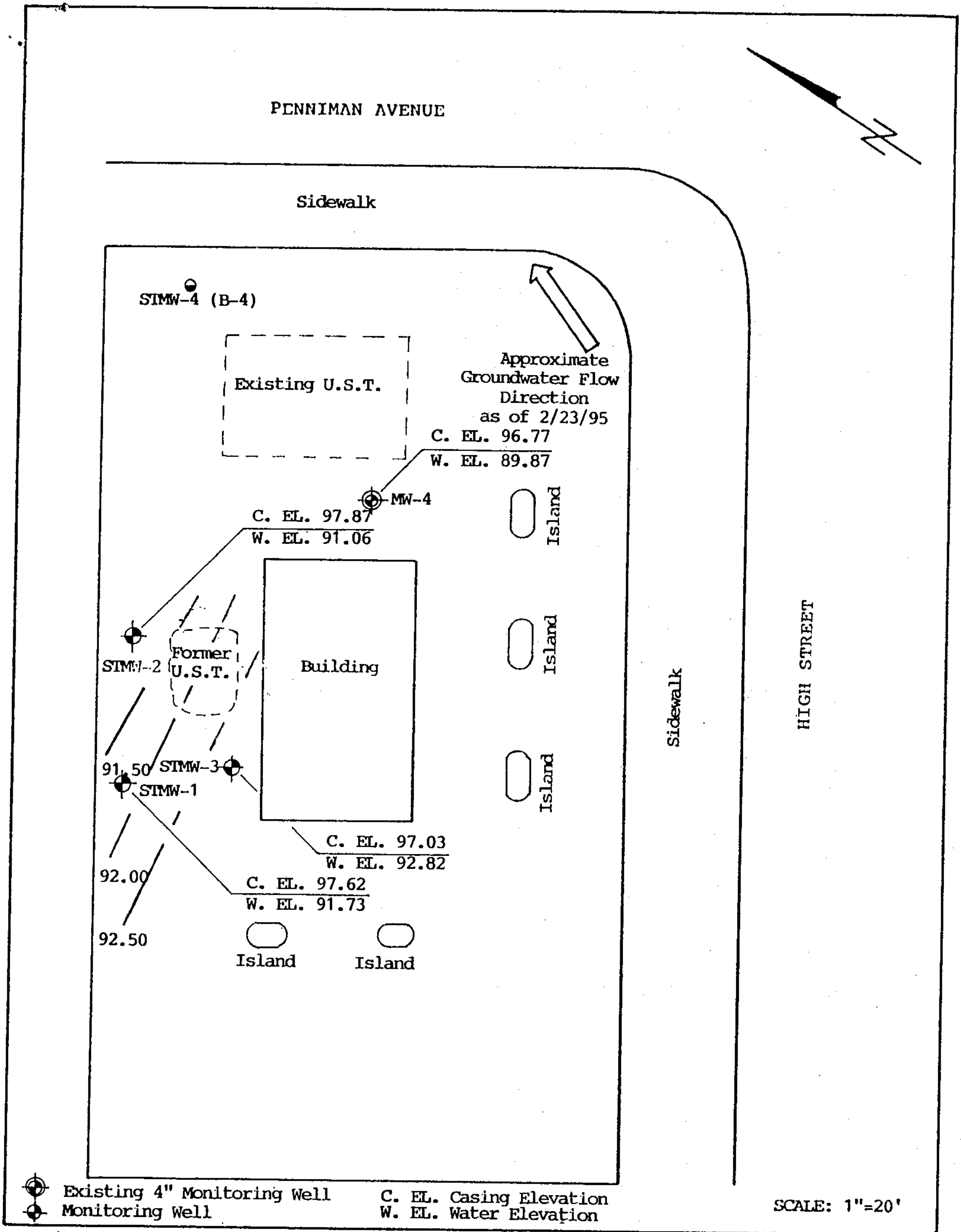

PENNIMAN AVENUE
Sidewalk
STMW-4 (B-4)
Existing U.S.T.
Approximate
Groundwater Flow
Direction
as of 2/23/95
C. EL. 96.77
W. EL. 89.87
MW-4
C. EL. 97.87
W. EL. 91.06
Island
Island
Island
Former
U.S.T.
STMW-2
Building
Sidewalk
HIGH STREET
91.50
STMW-3
STMW-1
C. EL. 97.03
W. EL. 92.82
92.00
C. EL. 97.62
W. EL. 91.73
92.50
Island
Island
Existing 4" Monitoring Well
Monitoring Well
C. EL. Casing Elevation
W. EL. Water Elevation
SCALE: 1"=20'

Figure 2

File No. 8-93-558-ST

TABLE 1
GROUNDWATER MONITORING DATA

Date	Well No./ Elevation	Water Level Elevation	Water Depth in feet	FFP Thickness	Odor
2/23/95	STMW-1 (97.62)	91.73	5.89	None	None
	STMW-2 (97.87)	91.06	6.81	None	None
	STMW-3 (97.03)	92.82	4.21	None	None
	MW-4 (96.77)	89.87	6.90	Rainbow Sheen	Strong Petroleum

FFP - Free Floating Product

File No. 8-93-558-ST

TABLE 2
SUMMARY OF SOIL SAMPLES RESULTS
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

1. TPHd, TPHg and BTEX Results

Date	Sample #	Depth Feet	TPHd	TPHg	B	T	E	X
2/15/95	STMW-1-6	6	ND	ND	ND	ND	ND	ND
	STMW-1-11	11	ND	ND	ND	ND	ND	ND
	STMW-2-6	6	ND	ND	ND	ND	ND	ND
	STMW-2-11	11	ND	3.5	ND	0.005	0.0058	0.054
2/16/95	STMW-3-6	6	ND	ND	ND	ND	ND	ND
	STMW-3-11	11	ND	ND	ND	ND	ND	ND
	STMW-3-16	16	ND	ND	ND	ND	ND	ND
	STMW-4-6	6	110	1,900	3.5	4.7	3.9	11
	STMW-4-11	11	ND	4.6	0.048	0.026	0.037	0.06
	STMW-4-16	16	ND	ND	ND	ND	ND	ND

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

TABLE 2 CONT'D
SUMMARY OF SOIL SAMPLES RESULTS
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

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

Date	Sample #	Depth Feet	TOG	EPA 8010	Cd	Cr	Pb	Ni	Zn
2/15/95	STMW-1-6	6	ND	ND	1.1	70	2.7	40	250
	STMW-1-11	11	ND	ND	2.2	74	6.1	110	300
	STMW-2-6	6	21	ND	3.7	57	9.2	230	48
	STMW-2-11	11	ND	ND	9.5	81	23	150	340
2/16/95	STMW-3-6	6	ND	ND	1.3	58	3.0	69	290
	STMW-3-11	11	ND	ND	ND	54	ND	5.5	350
	STMW-3-16	16	ND	ND	1.4	43	2.5	8.2	47
	STMW-4-6	6	200	ND	2.4	65	6.2	180	380
	STMW-4-11	11	ND	ND	1.7	55	5.7	490	380
	STMW-4-16	16	ND	ND	4.1	61	11	20	120

EPA 8010 - Chlorinated Hydrocarbon
TOG - Total Oil and Grease
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 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

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: 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				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

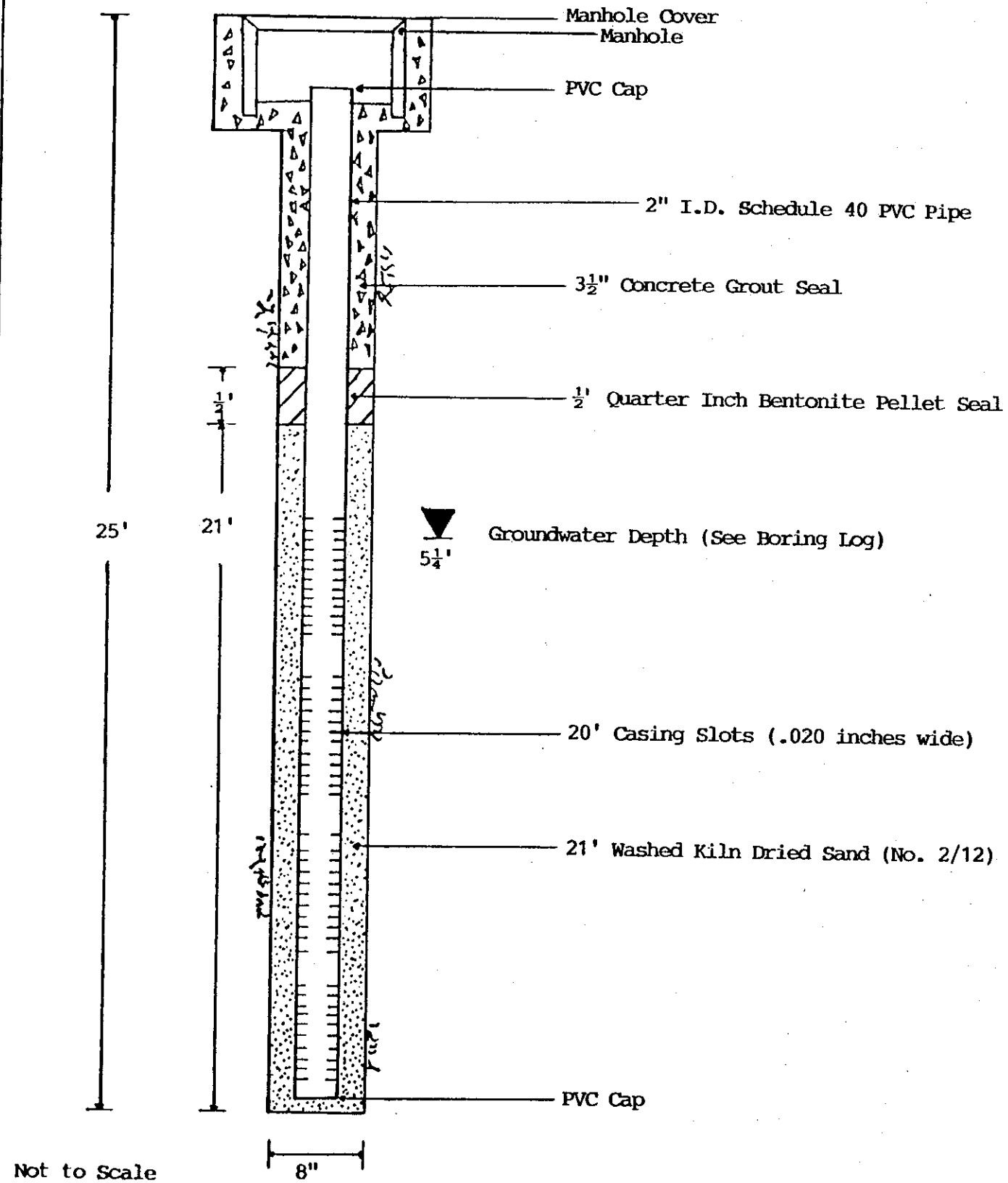
File No. 8-93-558-ST

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



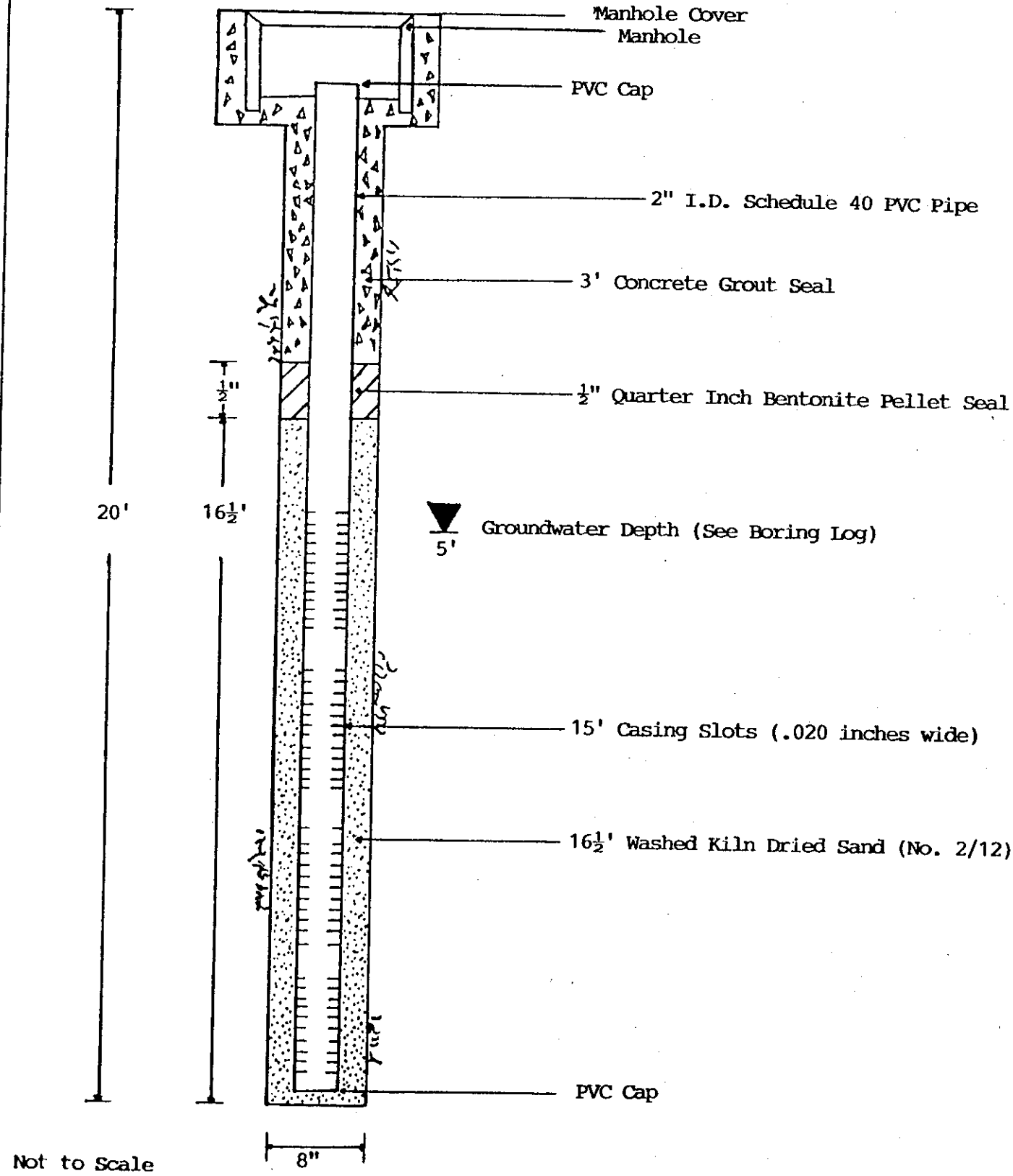
STMW-1

Piezometer Schematic

SOIL TECH ENGINEERING, INC.

PS1

File No. 8-93-558-ST



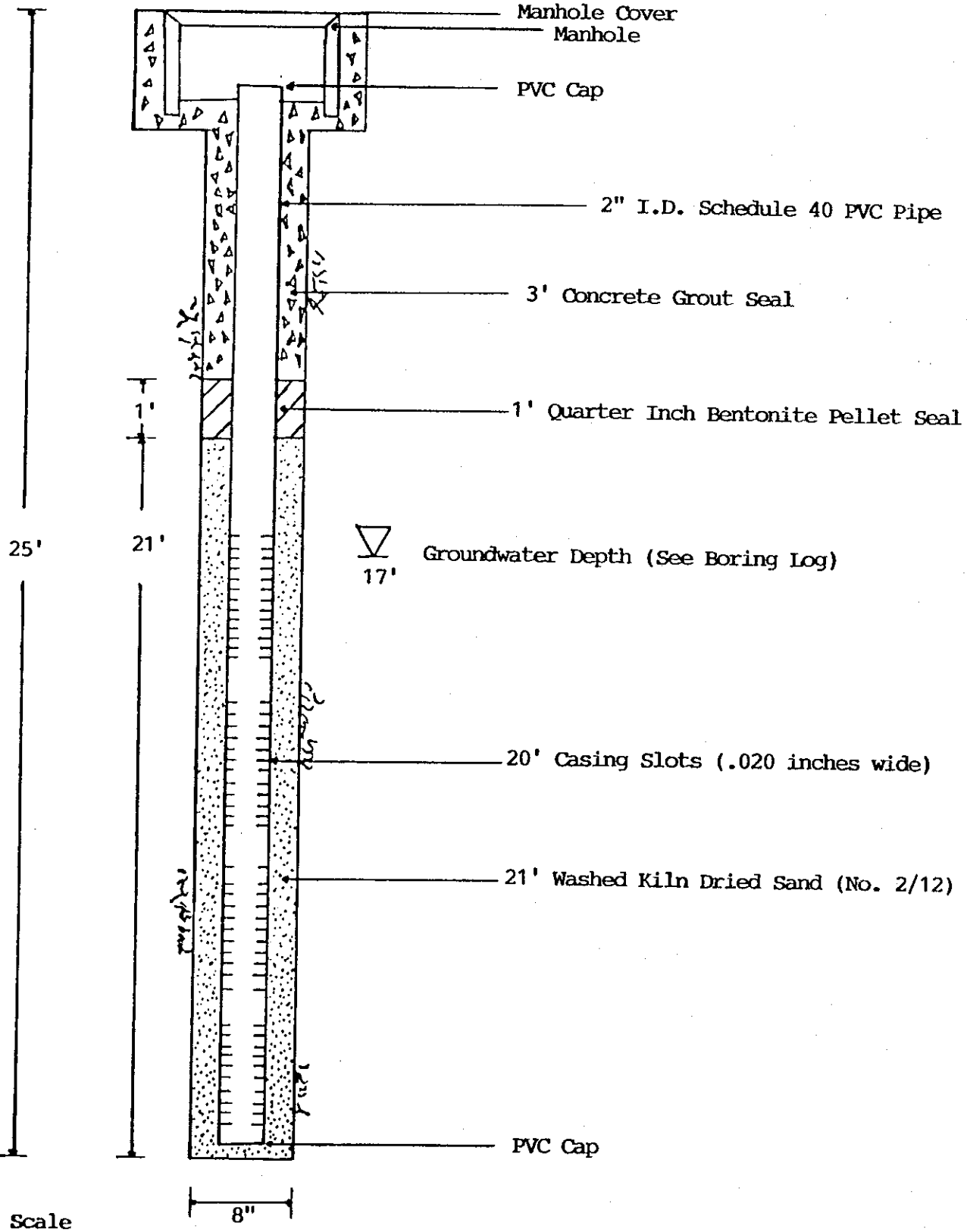
SIMW-2

Piezometer Schematic

SOIL TECH ENGINEERING, INC.

PS2

File No. 8-93-558-ST



STMW-3

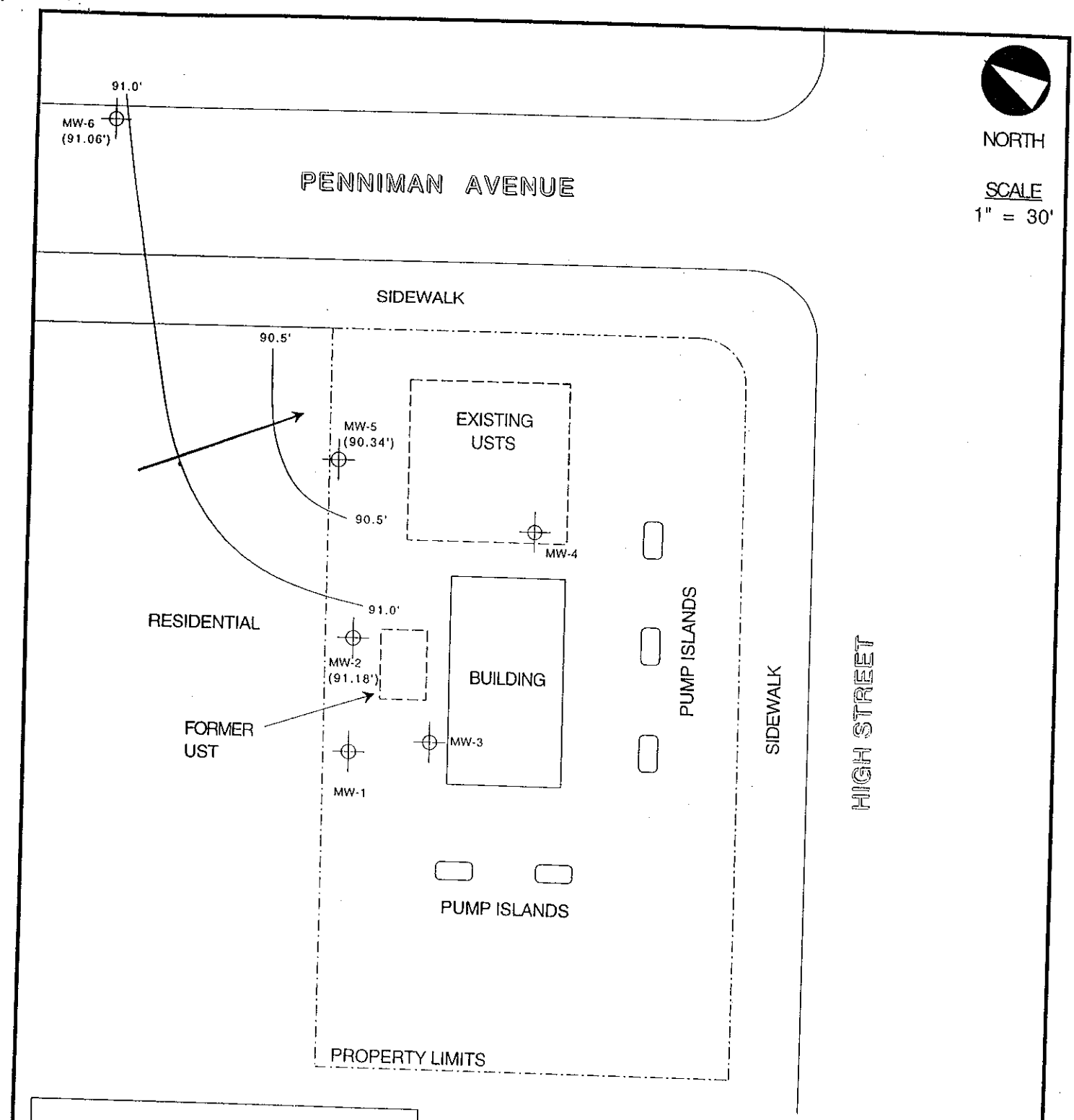
Piezometer Schematic

PS3

SOIL TECH ENGINEERING, INC.

APPENDIX B

Site Map from Quarterly Monitoring Report
Aqua Science Engineers, Inc.
July 23, 1988



LEGEND

MW-6 (91.06') — Monitoring well with groundwater elevation

91.0' — Groundwater elevation contour

Approximate groundwater flow direction

GROUNDWATER ELEVATION CONTOUR MAP - 07/23/98

ZIMA CENTER CORPORATION
2951 HIGH STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 2

APPENDIX C

Well Construction Details

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	12/9/1996	2	30	5-30	N/A	131.99	2,112,582.04	6,070,083.59
MW-6	1/7/1997	2	30	5-30	N/A	132.58	2,112,662.53	6,070,113.49
MW-7	3/24/2003	2	25	15-25	gravelly sandy silt	130.93	2,112,533.18	6,070,106.31
MW-8	3/24/2003	2	25	15-25	gravelly sandy silt	131.15	2,112,527.86	6,070,153.72
MW-9	3/25/2003	2	25	15-25	silty gravelly sand	130.00	2,112,484.75	6,070,065.55
MW-10	4/4/2003	2	25	15-25	sandy silt	127.19	2,112,393.29	6,069,984.72
SP-1	3/25/2004	3/4	37	30.5-33	clayey sand	130.39	2,112,529.17	6,070,105.65
SP-2	3/25/2004	3/4	31	26.5-29	sandy clay	130.07	2,112,534.87	6,070,118.37
SP-3	3/24/2004	3/4	32	28.5-31	gravelly sandy clay	130.66	2,112,541.87	6,070,131.76
SP-4	3/25/2004	3/4	33	14.5-17	gravelly sandy clay	130.51	2,112,541.66	6,070,102.66
SP-5	3/26/2004	3/4	30	20-22.5	clayey gravelly sand	130.55	2,112,553.75	6,070,115.66
SP-6	3/26/2004	3/4	30	21.5-24	clayey sandy gravel	130.88	2,112,564.81	6,070,106.43
SP-7	3/26/2004	3/4	30	25.5-28	gravelly sand	131.20	2,112,575.20	6,070,106.74
SP-8	3/26/2004	3/4	31	28.5-31	gravelly sandy clay	130.98	2,112,569.95	6,070,091.53
SP-9	3/25/2004	3/4	33	25-27.5	clayey sand	130.85	2,112,562.57	6,070,080.59
SP-10	3/26/2004	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.

APPENDIX D

Site Closure Summary

SITE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: February 16, 2006

Agency Name: Alameda County Envir. Health	Address: 1311 Harbor Bay Pkwy, Ste 250
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6746
Responsible Staff Person: Don Hwang	Title:

II. SITE INFORMATION

Site Facility Name: Express Gas & Mart		
Site Facility Address: 2951 High Street		
RB Case Nos.: 01-0100	Local or LOP Case No.: 1038	Priority: groundwater and soil
URF Filing Date: 03/23/1990	SWEEPS No.:	
Responsible Parties (include addresses and phone numbers)		
Attn: Aziz Kandahari, (510) 332-3383		
Kandahari Trading Company		
5196 Grayhawk Lane		
Dublin, CA 94568		

Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
1	10,000	Unleaded gas	Removed	5/2001
2	10,000	Unleaded gas	Removed	5/2001
3	10,000	Unleaded gas	Removed	5/2001
4	10,000	Unleaded premium	Removed	5/2001
	500	Waste Oil	Removed	1995

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: USTs and/or related piping and dispensers		
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: 2.12'	Lowest Depth: 20.80'	Flow Direction: southwesterly
Most Sensitive Current Use: surface water (approx ½ mile to Peralta Creek and 2 miles to San Leandro Bay)		
Most Sensitive Potential Use and Probability of Use	Drinking water potential Low probability of use	
Are drinking water wells affected? no	Aquifer Name: shallow	
Is surface water affected? Not sampled, no surface water bodies within 0.5 mi of site	Nearest surface water name: Peralta Creek, 3,780 feet northwest of site	
Off-Site Beneficial Use Impacts (Addresses/Locations): none within 2000'		
Report(s) on file? yes	Where is report(s) filed? LUFT file	

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	**Amount (Include Units)**	**Action (Treatment or Disposal w/Destination)**	**Date**
Tank	4 USTs	Steel tanks cleaned onsite and disposed of offsite	5/2001
Piping	Approx 200'	Fiberglass pipe cleaned onsite and disposed of offsite in a sanitary landfill.	5/2001
Free Product	Approx 200 gals	Sucked from USTs and disposed of as used product offsite.	5/2001
Soil	3,700 tons	Disposed of offsite at the B&J landfill near Vacaville, CA as non-hazardous waste	5/9/01 to 9/27/01
Groundwater	Unknown	Ozone sparging insitu, 10 sparge wells installed in and around former USTs	4/14/04 to 1/4/05
Barrels	10-20 55-gal barrels	Barrels contained purge water from sampling wells. Water was disposed of offsite at licensed treatment facility	1995 through 2005

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS--BEFORE AND AFTER CLEANUP

POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
MtBE in well MW-1	NS	NS	1,200	400	Benzene in well MW-5	NS	NS	2,700	<0.5
MtBE in well MW-3	NS	NS	1,600	2.5	Benzene in well MW-7	0.52	NS	1,100	<0.5
MtBE in well MW-5	NS	NS	87,000	4.4	TPH-g in well MW-5	NS	NS	120,000	<50
MtBE in well MW-7	NS	NS	26,000	18	TPH-g in well MW-7	48	NS	18,000	<50
MtBE in well MW-8	NS	NS	340	320	TPH-g in boring STMW-4 @ 4-6'	1,900	NS	NS	NS

Comments (Depth of Remediation, etc.):

MtBE is the only constituent of concern. A health risk assessment determined that 8,400 ppb is adequate for protection of potential beneficial uses of groundwater in this locale (Palmer, August 1997).

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? yes		
Does corrective action protect public health for current land use? yes		
Site Management Requirements: Provide environmental documents to new owners:		
Housing. Site is commercial, there is residential land use within 100 feet of site.		
Monitoring Wells Decommissioned: 8	Number Decommissioned: 8	Number Retained: 0
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. TECHNICAL REPORTS, CORRESPONDENCE, ETC. THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

Title: *Verification Monitoring Report, First Quarter 2005*, Cook Environmental Services	Date: Feb 10, 2005
Title: *Verification Monitoring Report, Second Quarter 2005*, Cook Environmental Services	Date: May 2, 2005
Title: *Verification Monitoring Report, Third Quarter 2005*, Cook Environmental Services	Date: Jul 22, 2005
Title: *Request for Site Closure and Verification Monitoring Report, Fourth Quarter 2005*, Cook Environmental Services, Inc	Date: Oct 20, 2005

VI. ADDITIONAL COMMENTS, DATA, ETC.

PLEASE INCLUDE/ATTACH THE FOLLOWING AS APPROPRIATE:

1) SITE MAP INDICATING TANK PIT LOCATION, MONITORING WELL LOCATION, GROUNDWATER GRADIENT, ETC.; AND

2) SITE COMMENTS WORTHY OF NOTICE (E.G., AREA OF RESIDUAL POLLUTION LEFT IN PLACE, DEED NOTICES ETC.)

Attached are Figures 6, 7, and 8 of *Request for Site Closure and Verification Monitoring Report, Fourth Quarter 2005*, Cook Environmental Services, Inc. that clearly show benzene and MtBE concentrations in monitoring wells decreased dramatically after the ozone sparging system was turned on in April 2004. It also shows that concentrations of these same constituents remain significantly below the cleanup goal after the system was turned off on January 4, 2005.

MtBE plume has been fully characterized; MtBE has remained below the Site cleanup goal of 8,400 ppb for 18 months (11 consecutive groundwater sampling events). Trends in data collected after the ozone sparge system was turned off on January 4, 2005 show that MtBE concentrations remain significantly below the cleanup goal with no significant rebound concentrations. Groundwater is not used as a drinking water resource within 2,000 feet of the Site.

Attached is Figure 3 showing the former UST pit location, monitoring well locations and the groundwater gradient.

Attached is Figure 5 showing residual dissolved MtBE left in place below the cleanup goal of 8,400 ppb.

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