QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

Prepared for:

Mr. Mohinder S. & Dr. Joginder K. Sikand
1300 Ptarmigan Drive, #1
Walnut Creek, California 94595

March 28, 2003

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

2380 Salvio Street, Suite 202
Concord, CA 94520
Phone: (925) 363-1999
e-mail: aars@earthlink.net

ADVANCED ASSESSMENT AND REMEDIATION SERVICES (AARS)

2380 SALVIO STREET, SUITE 202
CONCORD, CALIFORNIA 94520-2137
TEL: (925) 363-1999 FAX: (925) 363-1998
e-mail: aars@earthlink.net
www.aaars.com

March 28, 2003

Mr. Scott Seery
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Subject: Quarterly Groundwater Monitoring and Sampling for
Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, California

Dear Mr. Seery:

The enclosed report presents the results and findings of the February 2003, quarterly groundwater monitoring and sampling for the above-referenced facility.

Should you have any questions regarding this report please contact Tridib Guha at (925) 363-1999.

Sincerely,

Advanced Assessment and Remediation Services

Tridib K. Guha, R.G., R.E.A.
Principal

cc: Mr. Mohinder S. Sikand and Dr. Joginder K. Sikand, Walnut Creek, California
Mr. Larry Oelkers, Albany, California
Mr. Sunil Ramdass, USTCF, Sacramento, California

TG/AHMMQ10/Enclosure

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QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT
For
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

1.0 INTRODUCTION

Advanced Assessment and Remediation Services (AARS) completed quarterly groundwater sampling of the wells at the site as specified in the letter dated October 3, 2002. This report presents the results and findings of February 2003, quarterly groundwater monitoring and sampling performed at 800 San Pablo Avenue, Albany, California. This report is intended to fulfill quarterly self-monitoring requirements and to establish a groundwater monitoring history for the site. A site vicinity map is shown in Figure 1.

2.0 GROUNDWATER MONITORING WELLS

This section presents water level monitoring, field observations, sampling and analysis procedures, as well as analytical results. The location of the monitoring wells is presented in Figure 2. The work and related field sampling activities were conducted in accordance with the guidelines and requirements of the Alameda County Environmental Health Department (ACEHD) and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

2.1 Groundwater Level Monitoring and Surveying

The site was surveyed as per Geotracker standard by PLS Surveys, Inc., a California licensed surveyor on November 11, 2002, and then resurveyed on February 10, 2003. Groundwater levels in each well were measured to the nearest 0.01 foot from the top of the PVC casing, using an electronic sounder tape. A groundwater surface elevation map, based on interpretation of groundwater level measurements taken on February 14, 2003, and survey data are presented in Figure 3. The survey data and water level measurements are presented in Table 1. **Groundwater depth of monitoring wells MW-7, MW-8 and MW-9 were not used for groundwater surface elevation map.**

2.2 Field Observations

The purged water from all nine monitoring wells, MW-1 through MW-9 were clear initially but with continual purging, some water turned turbid and some turned silty or muddy. However, water samples collected at the time of sampling were clear. Monitoring well MW-9 went dry after purging one casing volume. A groundwater sample was collected from MW-9, before purging, because of extremely slow recharge known from previous sampling events. No floating product was observed in the groundwater samples from all nine monitoring wells. **Sheen was observed in groundwater samples from monitoring wells, MW- 4 and MW-7. In addition, a very strong petroleum odor was noticed in the groundwater samples from all monitoring wells.**

2.3 Sampling and Analytical Procedures

Groundwater samples were collected on February 14, 2003, following water level measurements. Samples were analyzed by North State Environmental Laboratory of South San Francisco, California, which is certified by the California Department of Health Services (DHS) to perform the specified analyses.

Before purging, water levels were measured in all wells with an electronic sounder tape. Purging proceeded sampling in order to ensure collection of non-stagnant water. A minimum of three casing volumes was removed before sampling the wells except for MW-9. The monitoring well, MW-9 went dry after removing one casing volume of groundwater. The purged water was monitored for temperature, pH, and conductivity. Purging was considered complete when these parameters had stabilized. Field parameters of groundwater sampling are presented in Table 3.

To prevent potential cross-contamination, all measuring, purging and sampling equipment was washed in an Alconox detergent solution, rinsed with tap water, and rinsed finally with distilled water between wells.

The sampling procedure for each monitoring well involved extracting well water with a clean PVC bailer on a clean nylon cord. Groundwater collected for analysis of Total Petroleum Hydrocarbon as gasoline (TPHg) and Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), fuel oxygenates was decanted into two 40-milliliter volatile organic analysis vials with Teflon-lined septa. Groundwater collected for analysis of Total Petroleum Hydrocarbon as diesel (TPHd) was decanted into one 1-liter amber glass bottles. Samples to be analyzed for TPHg/BTEX/MTBE and fuel oxygenates were preserved using hydrochloric acid to a pH of 2.0. All samples were labeled and placed in an iced cooler, along with the chain-of-custody document (Appendix A). All samples transported to the laboratory were analyzed within the specified holding time.

Groundwater produced during purging and sampling was contained within 55-gallon steel drums. The drummed water was labeled with the source (i.e. well number) and date.

2.4 Analytical Methods

Samples were analyzed for TPHg/BTEX/MTBE/fuel oxygenates by using GC/MS Method 8260. TPHd by EPA Methods 3510/8015 modified (CATFH).

All nine groundwater samples were re-analyzed three times. A summary of the analytical results of groundwater samples from the monitoring wells is presented in Table 2. The certified analytical reports and chain-of-custody documents for these sampling events are included in Appendix A.

3.0 INTERPRETATION OF RESULTS

The results of water level measurements and groundwater sampling are discussed in the following sections.

3.1 Groundwater Elevations and Gradients

A relative groundwater elevation contours for February 14, 2003, is presented in Figure 3. **The flow direction, based on groundwater level data, was toward the east with an average hydraulic gradient of** 0.001 **foot per foot for this monitoring period.** The average depth to stabilized groundwater in these wells was approximately 9 feet below ground surface.

3.2 Analytical Results

The analytical results for groundwater samples from monitoring wells were found to contain TPHg ranging from 82 to 21,300 parts per billion (ppb); benzene concentrations ranging from 8 to 1,700 ppb; toluene concentrations ranging from ND to 2,200 ppb; ethylbenzene concentrations ranging from 1 to 701 ppb; and xylenes concentrations ranging from ND to 4,970 ppb; TPHd concentrations ranging from ND to 8,200 ppb. However, laboratory reported samples do not match the diesel pattern. The samples showed varied levels of response in the diesel range. The laboratory notes that applied to these samples showed that the results for diesel range hydrocarbons were for peaks that did not match the typical diesel pattern. These samples, with high gasoline values, give responses in the diesel range. These results are typical for samples with high gasoline contaminants and do not indicate the presence of diesel fuel. MTBE was detected in groundwater samples with concentrations ranging from ND to 11,500 ppb. Tertiary Butyl Alcohol was detected in groundwater samples from MW-3, MW-6, MW-7 and MW-8 at 294, 86, 159, and 744 ppb, respectively. Tertiary Amyl Methyl Ether was detected in groundwater samples MW-2, MW-3 and MW-8 at 1, 30 and 73 ppb, respectively. No other fuel oxygenates were detected. TPHg concentrations in groundwater are presented in Figure 4. MTBE concentrations in groundwater are presented in Figure 5. Benzene concentrations in groundwater are presented in Figure 6.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Since the completion of Additional Site Investigation, AARS completed two additional quarterly groundwater monitoring and sampling events. The analytical results for this sampling event detected high concentrations of TPHg, MTBE and benzene in MW-9, MW-8, MW-7, and MW-4. Laboratory reported samples do not match diesel pattern. AARS recommends that we conduct a Feasibility Study/Interim corrective Action Plan for an expedited clean up and closure of the site.

5.0 CERTIFICATION

The information provided in this report is based on the groundwater sampling activities conducted at the site. All data presented in this report is believed to be factual and accurate, unless proven otherwise. Any conclusions or recommendations provided within are based on our expertise and experience conducting work of a similar nature.

Advanced Assessment and Remediation Services

Tridib K. Guha, R.G. 5836

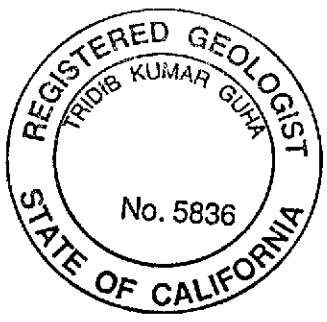

TABLE 1: SURVEY AND WATER LEVEL MONITORING DATA
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

Well No.	Date of Measurement	Casing Elevation (Feet - MSL)	Depth to Groundwater (Feet - MSL)	Product Thickness (Feet)	Groundwater Elevation (Feet - MSL)
MW-1	2/14/03	46.42	10.69	0	35.73
MW-2	2/14/03	45.31	9.59	0	35.72
MW-3	2/14/03	45.08	9.4	0	35.69
MW-4	2/14/03	45.2	9.51	0	35.69
MW-5	2/14/03	44.12	8.66	0	35.66
MW-6	2/14/03	43.88	8.21	0	35.67
MW-7	2/14/03	45.59	10.25*	0	35.34*
MW-8	2/14/03	45.59	9.98*	0	35.61*
MW-9	2/14/03	46.85	10.84*	0	36.01*

Note: A bench mark of United States Coast Geodetic Survey, with an elevation of 45.20 feet above Mean Sea Level (MSL) is located at the northwest corner of Washington and San Pablo Avenue. The elevations at each well were taken on the top of the well casing on November 11, 2002. The top of the well casing elevations for MW-1 through MW-9 were surveyed with reference to the benchmark. The site was resurveyed on February 10, 2003.

* Groundwater depth was not used

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TABLE 1: SURVEY AND WATER LEVEL MONITORING DATA
Albany Hill Mini Mart
800 San Pablo Avenue
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Well No.	Date of Measurement	Casing Elevation (Feet - MSL)	Depth to Groundwater (Feet - MSL)	Product Thickness (Feet)	Groundwater Elevation (Feet - MSL)
MW-1	2/14/03	46.42	10.69	0	35.73
MW-2	2/14/03	45.31	9.59	0	35.72
MW-3	2/14/03	45.08	9.4	0	35.69
MW-4	2/14/03	45.2	9.51	0	35.69
MW-5	2/14/03	44.12	8.66	0	35.66
MW-6	2/14/03	43.88	8.21	0	35.67
MW-7	2/14/03	45.59	*	0	*
MW-8	2/14/03	45.59	*	0	*
MW-9	2/14/03	46.85	*	0	*

Note: A bench mark of United States Coast Geodetic Survey, with an elevation of 45.20 feet above Mean Sea Level (MSL) is located at the northwest corner of Washington and San Pablo Avenue. The elevations at each well were taken on the top of the well casing on November 11, 2002. **The top of the well casing elevations for MW-1 through MW-9 were surveyed with reference to the benchmark. The site was resurveyed on February 10, 2003.**

* Groundwater depth was not used

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TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING
Albany Hill Mini Mart
800 San Pablo Avenue, Albany, California

Sample ID	Date of Sampling	TPHg ug/L	MTBE ug/L	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Xylenes ug/L	TPHd ug/L
MW-1 GW	8/6/99	1500	ND	4.3	2.9	9.1	28	1200
	8/6/99	Polynuclear Aromatic Hydrocarbon Analyses by EPA method 610 were non-detect with detection limit 1.0 ug/L						
	11/5/99	1800	ND	5.1	3.2	8.9	33	1400
	2/7/00	1100	ND	3.3	1.9	5.6	21	890
	5/7/00	970	ND	2.9	1.7	4.9	18	650
	8/3/00	1200	360	190	43	41	160	**270
	11/8/00	4200	*840	990	200	130	560	**230
	2/8/01	2800	390	630	130	51	250	**380
	6/7/01	650	320	97	13	20	62	190
	9/7/01	970	460	260	17	44	140	400
	12/13/01	291	499	91.7	1.4	17.4	7.2	ND
	6/13/02	5120	325	1860	22	316	318	**2160
	11/11/02	824	290	216	ND	22	20	ND
	2/14/03	1783	321	546	5	90	52	**590
MW-2 GW	8/6/99	ND	ND	ND	ND	ND	ND	340
	11/5/99	ND	ND	ND	ND	ND	0.7	420
	2/7/00	ND	ND	ND	ND	ND	0.6	310
	5/7/00	ND	ND	ND	ND	ND	ND	280
	8/3/00	460	3300	79	3	43	8	**70
	11/8/00	200	3000	57	2	13	8	120
	2/8/01	290	3100	50	1	0.6	4	80
	6/7/01	210	2000	18	0.6	3	5	80
	9/7/01	230	2400	51	ND	8	8	ND
	12/13/01	172	1780	53	1.2	7.7	8.4	ND
	6/13/02	86	1830	6	6.7	1.1	4.5	ND
	11/11/02	1040	1250	5	1	ND	5	ND
	2/14/03	82	1520	8	ND	1	ND	ND
MW-3 GW	8/6/99	ND	ND	ND	ND	ND	ND	ND
	11/5/99	92	ND	ND	ND	0.6	1.7	54
	2/7/00	120	ND	ND	0.6	0.8	2.2	71
	5/7/00	100	ND	ND	ND	0.7	1.9	68
	8/3/00	910	*11000	220	9	35	16	**300
	11/8/00	990	8000	320	0.8	18	9	200
	2/8/01	990	*5200	180	21	7	24	110
	6/7/01	370	*6600	62	4	8	13	140
	9/7/01	460	*9400	87	1	11	25	ND
	12/13/01	251	6610	66.8	0.9	2.6	8.4	ND
	6/13/02	3630	*8820	41	60	41	187	ND
	11/11/02	6210	7770	150	ND	5	ND	ND
	2/14/03	176	5040	31	ND	2	ND	ND

CONTINUED

				B	T	E	X	TPH-D
TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING								
		TPH-G	MTBE	**(Continued)**				
MW-4/GW	6/13/02	4460	32	425	409	115	730	**1500
MW-4/GW	11/11/02	5150	ND	2010	74	399	252	**2380
MW-4/GW	2/14/03	6360	ND	1560	82	274	573	**2410
MW-5/GW	6/13/02	536	11	6.4	0.6	22	23	ND
MW-5/GW	11/11/02	3270	ND	ND	ND	28	8	**1230
MW-5/GW	2/14/03	1260	ND	9	7	22	5	**610
MW-6/GW	6/13/02	2980	310	31	2.3	3.8	12	**1460
MW-6/GW	11/11/02	3570	95	336	5	ND	ND	**1210
MW-6/GW	2/14/03	3770	122	429	12	7	10	**1620
MW-7/GW	6/13/02	24100	951	2310	657	945	5430	**1570
MW-7/GW	11/11/02	4760	702	1820	21	316	1141	**2160
MW-7/GW	2/14/03	4320	1410	1020	7	223	293	**2380
MW-8/GW	6/13/02	20000	12000	2200	1140	1050	4090	**7760
MW-8/GW	11/11/02	5010	16600	187	ND	15	ND	**2010
MW-8/GW	2/14/03	1980	11500	607	6	113	40	ND
MW-9/GW	6/27/02	19000	ND	1430	1750	501	5410	NS
MW-9/GW	11/11/02	19000	549	3390	4540	1020	9050	**13300
MW-9/GW	2/14/03	21300	ND	1700	2200	701	4970	**8200
SB-1/TW	6/7/01	1400	33	120	160	48	240	**250
SB-2/TW	6/7/01	8900	26	1100	1900	280	1300	**770
SB-3/TW	6/7/01	2400	3600	280	31	110	340	**430
SB-4/TW	6/7/01	8800	*4500	1400	190	86	230	**19000
SB-6/GW	6/6/02	4270	*5300	332	226	127	511	**1340
RL		50	0.5	0.5	0.5	0.5	1	50

Notes:

ND- Not Detected RL- Reporting Limit

ug/L- Microgram per liter (parts per billion)

TPHg- Total petroleum hydrocarbon as gasoline (EPA method modified 8015)

TPHd- Total petroleum hydrocarbon as diesel (EPA method modified 8015)

MTBE- Methyl Tertiary Butyl Ether (EPA Method 8020; after 9/24/01 by Method 8260)

BTEX- Benzene, toluene, ethylbenzene, and xylenex (EPA Method 8020)

PAH- Polynuclear Atomic Hydrocarbon (EPA method 610)

Fuel Oxygenates: Ethanol (non-detect), Di-isopropyl Ether (non-detect), Ethyl-t-Butyl Ether (non-detect)
Tertiary Butyl Alcohol (MW-3, MW-6, MW-7 and MW-8 at 294, 86, 159 and 744 ppb respectively)
Tertiary Amyl Methyl Ether (MW-2, MW-3, and MW-8 at 1, 30, 73 ppb respectively),
(EPA Method 8260)

** Does not match diesel pattern

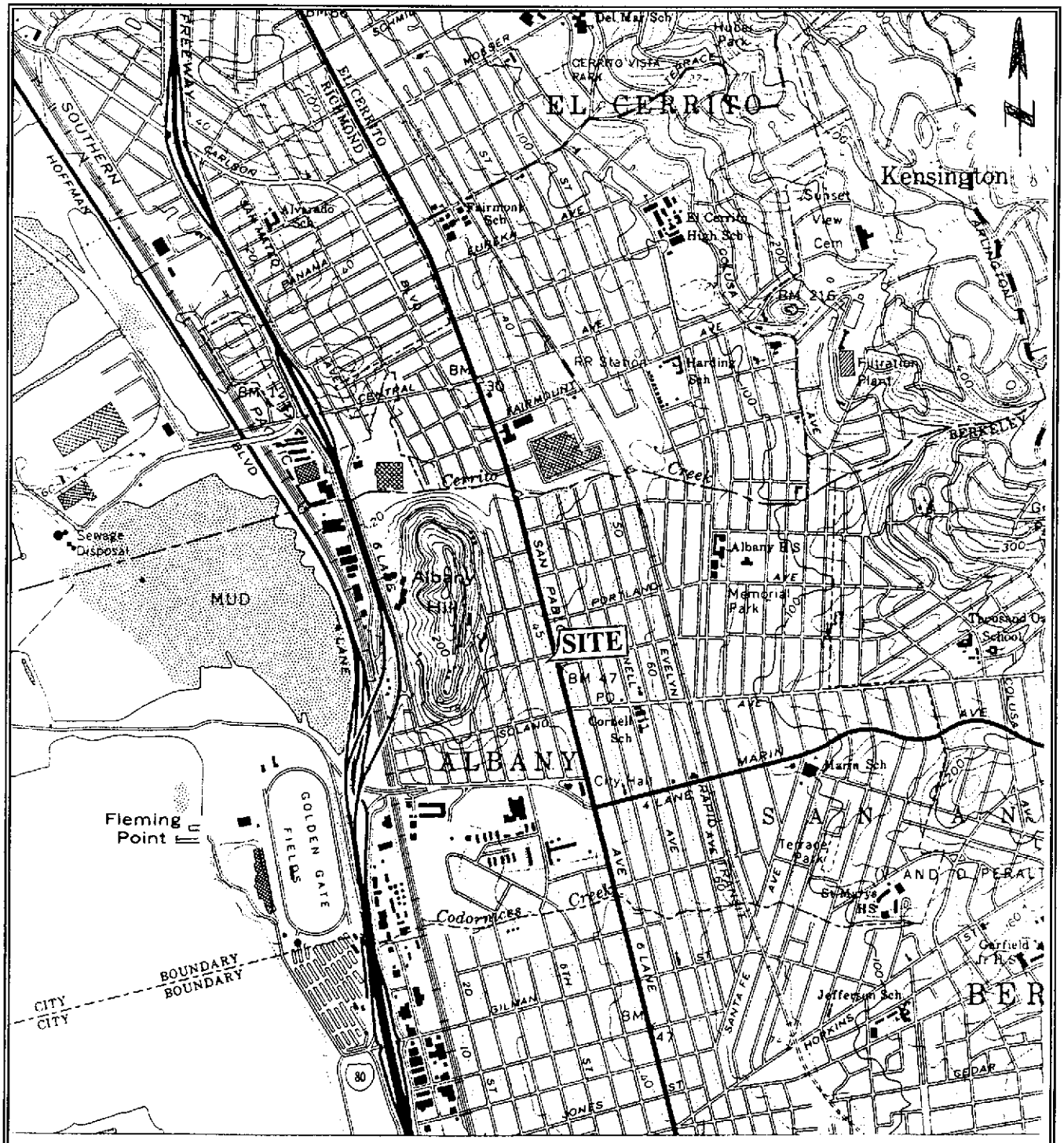
* Confirmed by GC/MS method 8260

TABLE 3: FIELD PARAMETERS OF GROUNDWATER SAMPLING
Albany Hill Mini Mart
800 San Pablo Avenue
Albany , California

Sample I.D. No.	Date of Sampling	Temperature °F	pH	Conductivity uS
MW-1	6/13/02	65.6	7.43	2168
MW-1	11/11/02	65.6	6.84	1952
MW-1	2/14/03	62.9	7.02	1948
MW-2	6/13/02	67.3	7.23	1023
MW-2	11/11/02	67.8	7.46	932
MW-2	2/14/03	63.1	7.15	1016
MW-3	6/13/02	68.6	7.39	1437
MW-3	11/11/02	69.4	7.02	1340
MW-3	2/14/03	65.4	6.73	1425
MW-4	6/13/02	66.2	7.07	4287
MW-4	11/11/02	65.8	6.86	3012
MW-4	2/14/03	64	6.87	2887
MW-5	6/13/02	66.1	7.17	2888
MW-5	11/11/02	67.3	7.05	648
MW-5	2/14/03	64.4	7.15	571
MW-6	6/13/02	66.2	7.08	2112
MW-6	11/11/02	68.9	6.86	1038
MW-6	2/14/03	65.4	6.97	1003
MW-7	6/13/02	65.5	7.1	3638
MW-7	11/11/02	64.8	6.9	2646
MW-7	2/14/03	62.5	6.95	2556
MW-8	6/13/02	65.6	7.18	3886
MW-8	11/11/02	65.4	6.97	2094
MW-8	2/14/03	62.6	7.04	1794
MW-9	11/11/03	66.5	7.04	1174
MW-9	6/13/02	63.9	7.08	1312

Note:

°F = degree Fahrenheit
uS = microSiemens



Source: U.S.G.S. Map Richmond Quadrangle
7.5 Minute Series (Topographic)
Aerial Photograph taken 1959 Map Edited 1980

SCALE 1:24000

0 1 MILE

3000 4000 5000 6000 7000 FEET

FIGURE 1: SITE VICINITY MAP
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, California

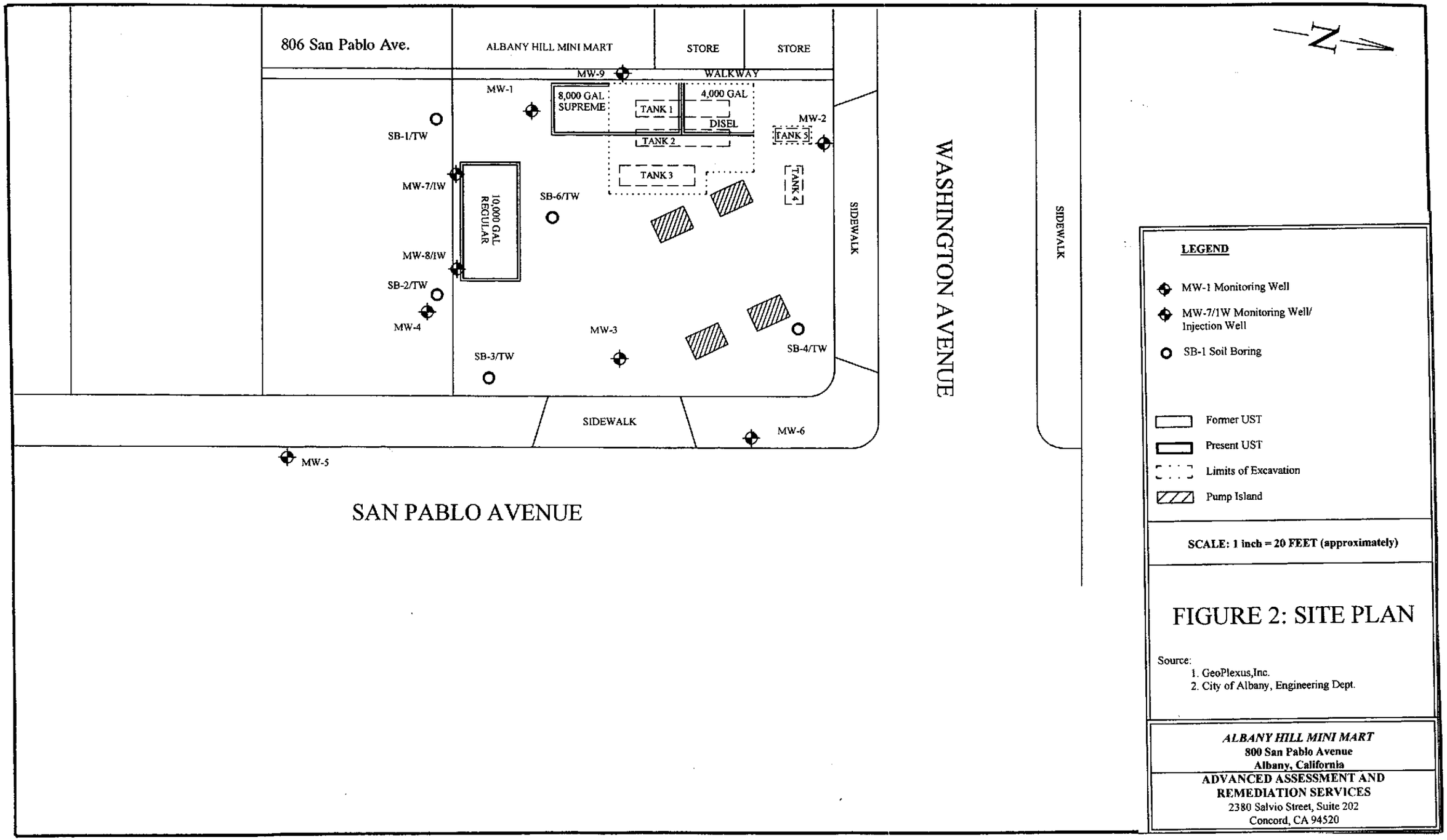
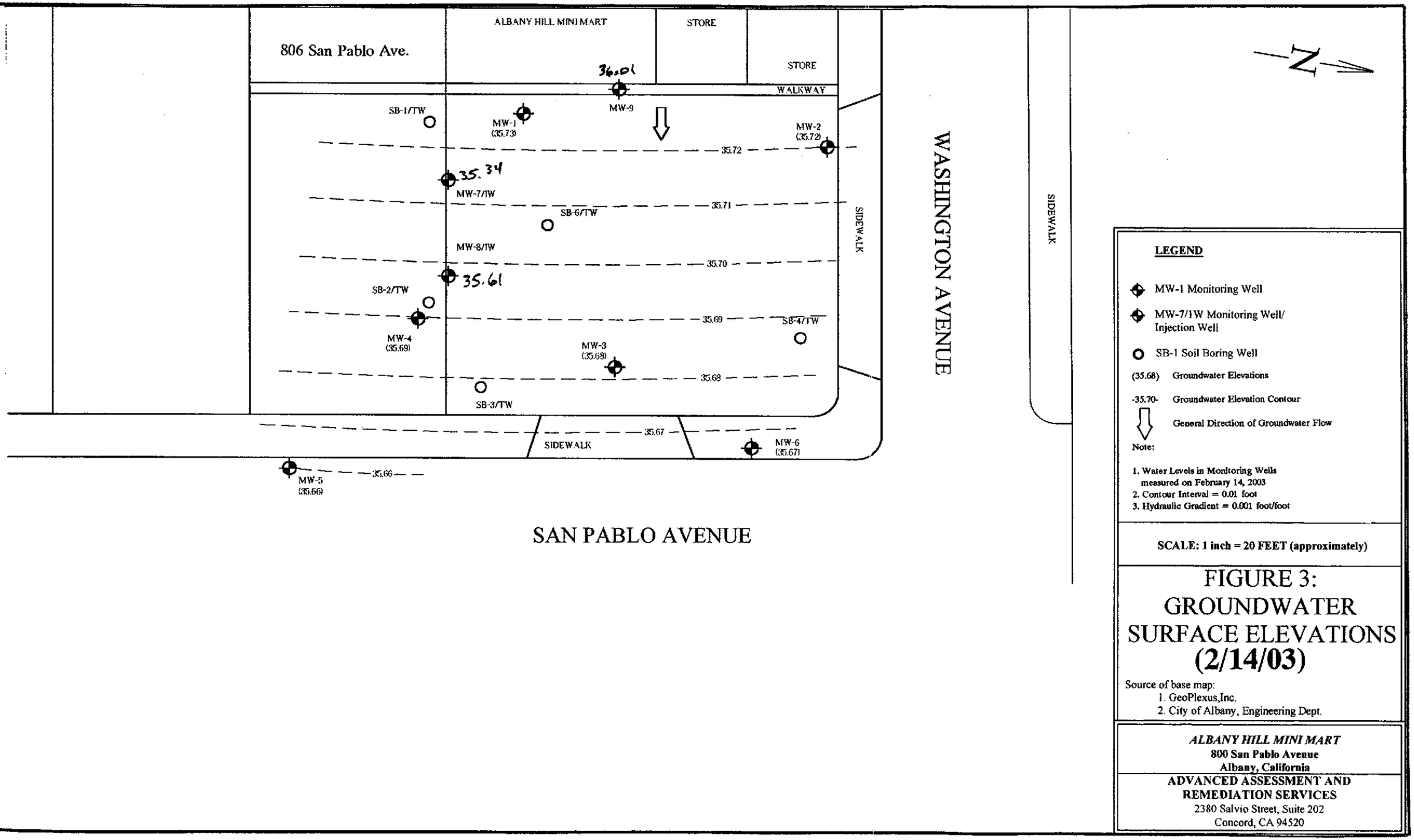


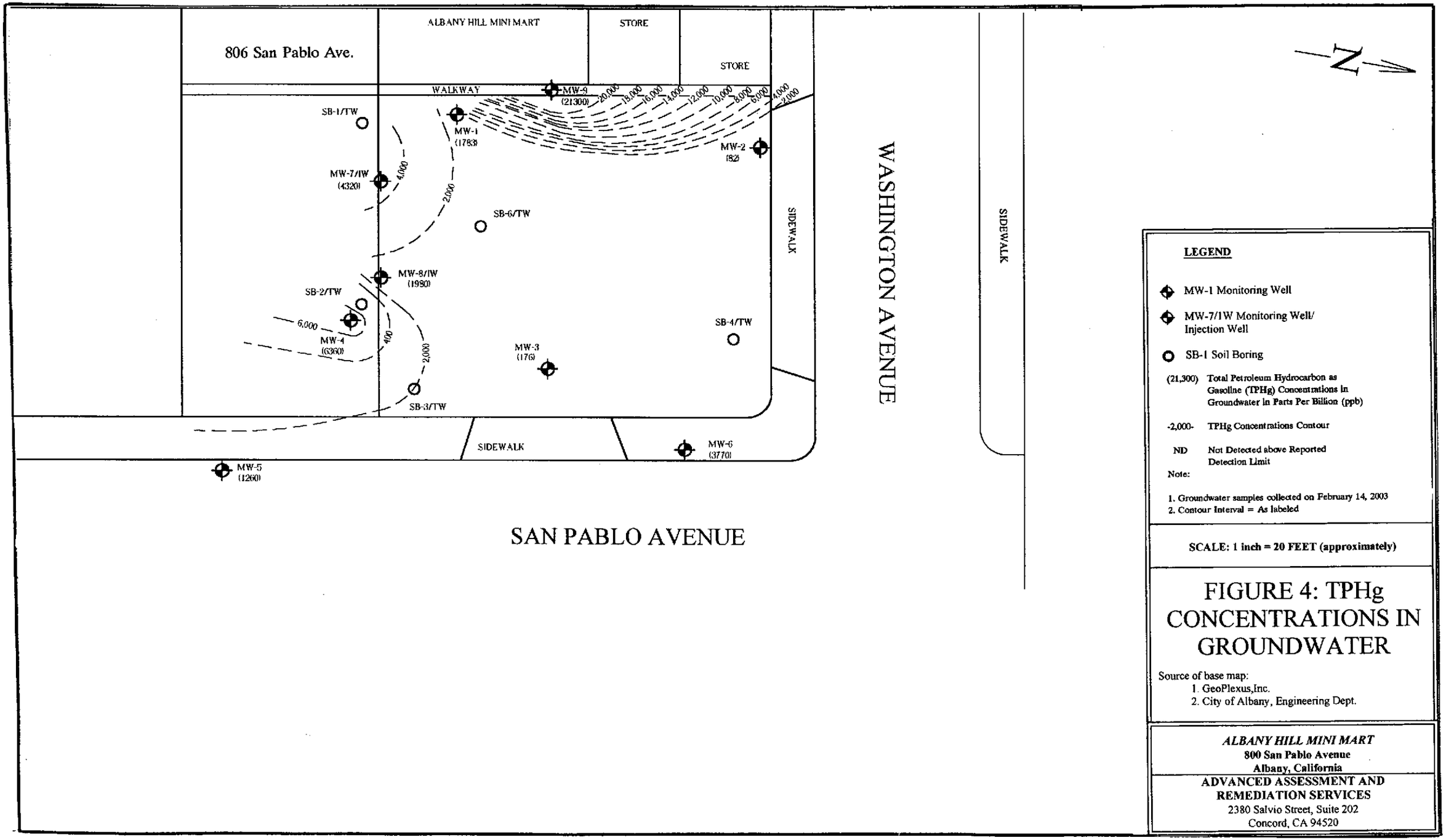
FIGURE 2: SITE PLAN

Source:
1. GeoPlexus,Inc.
2. City of Albany, Engineering Dept.

ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, CA 94520


806 San Pablo Ave.
ALBANY HILL MINI MART
STORE
STORE
WALKWAY
36.01
MW-9
SB-1/TW
MW-1
(35.73)
MW-2
(35.72)
35.72
35.34
MW-7/1W
35.71
SB-6/TW
SIDEWALK
MW-8/1W
35.70
35.61
SB-2/TW
35.69
SB-4/TW
MW-4
(35.69)
MW-3
(35.69)
35.68
SB-3/TW
35.67
SIDEWALK
MW-6
(35.67)
MW-5
(35.66)
35.66
WASHINGTON AVENUE
SIDEWALK
SAN PABLO AVENUE
N
LEGEND
MW-1 Monitoring Well
MW-7/1W Monitoring Well/ Injection Well
SB-1 Soil Boring Well
(35.68) Groundwater Elevations
-35.70- Groundwater Elevation Contour
General Direction of Groundwater Flow
Note:
1. Water Levels in Monitoring Wells measured on February 14, 2003
2. Contour Interval = 0.01 foot
3. Hydraulic Gradient = 0.001 foot/foot
SCALE: 1 inch = 20 FEET (approximately)
FIGURE 3:
GROUNDWATER SURFACE ELEVATIONS
(2/14/03)
Source of base map:
1. GeoPlexus,Inc.
2. City of Albany, Engineering Dept.
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California
ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, CA 94520


806 San Pablo Ave.
ALBANY HILL MINI MART
STORE
STORE
WALKWAY
MW-9
(21300)
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
SB-1/TW
MW-1
(1783)
MW-2
(82)
MW-7/IW
(4320)
4,000
2,000
SB-6/TW
SIDEWALK
MW-8/IW
(1980)
SB-2/TW
6,000
4,000
2,000
MW-4
(6360)
MW-3
(176)
SB-4/TW
SB-3/TW
SIDEWALK
MW-6
(3770)
MW-5
(1260)
WASHINGTON AVENUE
SIDEWALK
SAN PABLO AVENUE
N
LEGEND
MW-1 Monitoring Well
MW-7/1W Monitoring Well/ Injection Well
SB-1 Soil Boring
(21,300) Total Petroleum Hydrocarbon as Gasoline (TPHg) Concentrations in Groundwater in Parts Per Billion (ppb)
-2,000- TPHg Concentrations Contour
ND Not Detected above Reported Detection Limit
Note:
1. Groundwater samples collected on February 14, 2003
2. Contour Interval = As labeled
SCALE: 1 inch = 20 FEET (approximately)
FIGURE 4: TPHg CONCENTRATIONS IN GROUNDWATER
Source of base map:
1. GeoPlexus,Inc.
2. City of Albany, Engineering Dept.
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California
ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
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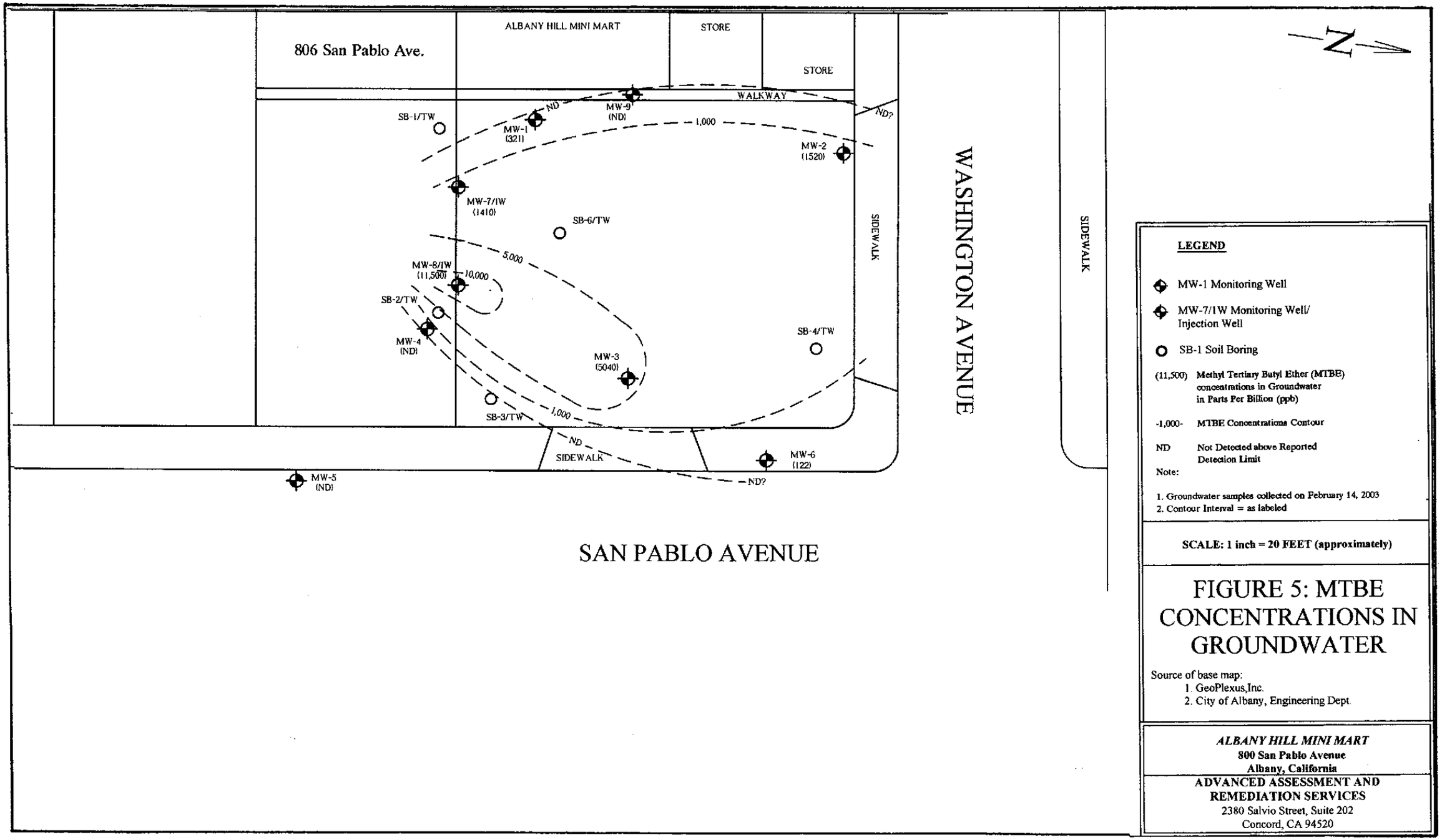


LEGEND

- MW-1 Monitoring Well
- MW-7/1W Monitoring Well/ Injection Well
- SB-1 Soil Boring
- (11,500) Methyl Tertiary Butyl Ether (MTBE) concentrations in Groundwater in Parts Per Billion (ppb)
- -1,000- MTBE Concentrations Contour
- ND Not Detected above Reported Detection Limit

Note:

1. Groundwater samples collected on February 14, 2003
2. Contour Interval = as labeled

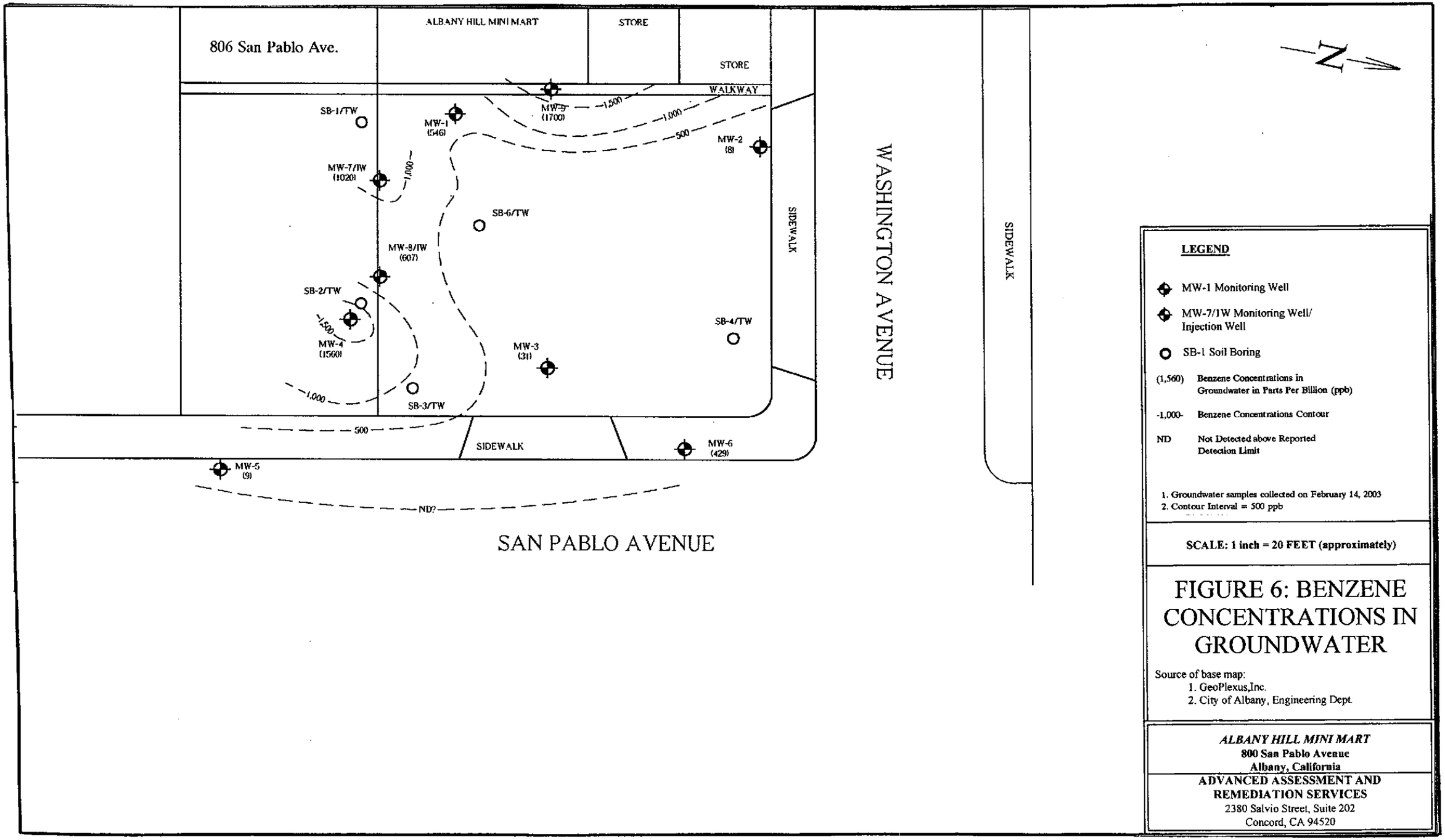
SCALE: 1 inch = 20 FEET (approximately)

FIGURE 5: MTBE CONCENTRATIONS IN GROUNDWATER

Source of base map:
1. GeoPlexus,Inc.
2. City of Albany, Engineering Dept.

ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, CA 94520


806 San Pablo Ave.
ALBANY HILL MINI MART
STORE
STORE
WALKWAY
SB-1/TW
MW-1
(546)
MW-9
(1700)
-1,500
-1,000
-500
MW-2
(8)
MW-7/IW
(1020)
-1,000
SB-6/TW
MW-8/IW
(607)
SB-2/TW
-1,500
MW-4
(1560)
SB-4/TW
MW-3
(31)
-1,000
SB-3/TW
-500
SIDEWALK
MW-6
(429)
MW-5
(9)
ND?
SIDEWALK
WASHINGTON AVENUE
SIDEWALK
SAN PABLO AVENUE
N
LEGEND
MW-1 Monitoring Well
MW-7/1W Monitoring Well/
Injection Well
SB-1 Soil Boring
(1,560) Benzene Concentrations in
Groundwater in Parts Per Billion (ppb)
-1,000- Benzene Concentrations Contour
ND Not Detected above Reported
Detection Limit
1. Groundwater samples collected on February 14, 2003
2. Contour Interval = 500 ppb
SCALE: 1 inch = 20 FEET (approximately)
FIGURE 6: BENZENE CONCENTRATIONS IN GROUNDWATER
Source of base map:
1. GeoPlexus,Inc.
2. City of Albany, Engineering Dept.
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California
ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, CA 94520

North State Labs
CA ELAP # 1753
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • **(650) 266-4563** • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 03-0211
Client: Advanced Assessment & Remd.
Project: 800 San Pablo Ave., Albany

Date Reported: 02/25/2003

Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 03-0211-01 Client ID: MW-1/GW				02/14/2003	W
Diesel Fuel #2	CATFH	*0.59	MG/L		02/22/2003
Sample: 03-0211-02 Client ID: MW-2/GW				02/14/2003	W
Diesel Fuel #2	CATFH	ND<0.05	MG/L		02/22/2003
Sample: 03-0211-03 Client ID: MW-3/GW				02/14/2003	W
Diesel Fuel #2	CATFH	ND<0.05	MG/L		02/22/2003
Sample: 03-0211-04 Client ID: MW-4/GW				02/14/2003	W
Diesel Fuel #2	CATFH	*2.41	MG/L		02/22/2003
Sample: 03-0211-05 Client ID: MW-5/GW				02/14/2003	W
Diesel Fuel #2	CATFH	*0.61	MG/L		02/22/2003
Sample: 03-0211-06 Client ID: MW-6/GW				02/14/2003	W
Diesel Fuel #2	CATFH	*1.62	MG/L		02/22/2003
Sample: 03-0211-07 Client ID: MW-7/GW				02/14/2003	W
Diesel Fuel #2	CATFH	*2.38	MG/L		02/22/2003

*Does not match diesel pattern.

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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 03-0211
Client: Advanced Assessment & Remd.
Project: 800 San Pablo Ave., Albany

Date Reported: 02/25/2003

Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 03-0211-08 Client ID: MW-8/GW				02/14/2003	W
Diesel Fuel #2	CATFH	ND<0.05	MG/L		02/22/2003
Sample: 03-0211-09 Client ID: MW-9/GW				02/14/2003	W
Diesel Fuel #2	CATFH	*8.2	MG/L		02/22/2003

*Does not match diesel pattern.

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C E R T I F I C A T E O F A N A L Y S I S

Quality Control/Quality Assurance

Lab Number: 03-0211
Client: Advanced Assessment & Remd.
Project: 800 San Pablo Ave., Albany

Date Reported: 02/25/2003

Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Diesel Fuel #2	CATFH	0.05	MG/L	ND	101/92	9

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy,Laboratory Director

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 03-0211
Client : Advanced Assessment & Remd.
Project : 800 San Pablo Ave., Albany

Date Sampled : 02/14/2003
Date Analyzed: 02/19/2003
Date Reported: 02/25/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	03-0211-01	03-0211-02	03-0211-03	03-0211-04	03-0211-05
Client ID	MW-1/GW	MW-2/GW	MW-3/GW	MW-4/GW	MW-5/GW
Matrix	W	W	W	W	W
Analyte	UG/L	UG/L	UG/L	UG/L	UG/L
Methyl-tert-butyl ether	321	1520	5040	ND<1	ND<1
Ethyl tert-butyl ether	ND<1	ND<1	ND<1	ND<1	ND<1
tert-Amyl methyl ether	ND<1	1	30	ND<1	ND<1
Di-isopropyl ether (DIPE)	ND<1	ND<1	ND<1	ND<1	ND<1
tert-Butyl alcohol	ND<50	ND<50	294	ND<50	ND<50
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1
1,2-Dibromoethane	ND<1	ND<1	ND<1	ND<1	ND<1
Ethanol	ND<100	ND<100	ND<100	ND<100	ND<100
Benzene	546	8	31	1560	9
Toluene	5	ND<1	ND<1	82	7
Ethylbenzene	90	1	2	274	22
Xylene, Isomers m & p	47	ND<2	ND<2	371	5
o-xylene	5	ND<1	ND<1	202	ND<1
Gasoline Range Organics	1783	82	176	6360	1260
SUR-Dibromofluoromethane	85	85	90	82	91
SUR-Toluene-d8	92	91	92	93	91
SUR-4-Bromofluorobenzene	79	80	82	81	83

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 03-0211
Client : Advanced Assessment & Remd.
Project : 800 San Pablo Ave., Albany

Date Sampled : 02/14/2003
Date Analyzed: 02/20/2003
Date Reported: 02/25/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	03-0211-06	03-0211-07	03-0211-08	03-0211-09
Client ID	MW-6/GW	MW-7/GW	MW-8/GW	MW-9/GW
Matrix	W	W	W	W
Analyte	UG/L	UG/L	UG/L	UG/L
Methyl-tert-butyl ether	122	1410	11500	ND<1
Ethyl tert-butyl ether	ND<1	ND<1	ND<1	ND<1
tert-Amyl methyl ether	ND<1	ND<1	73	ND<1
Di-isopropyl ether (DIPE)	ND<1	ND<1	ND<1	ND<1
tert-Butyl alcohol	86	159	744	ND<50
1,2-Dichloroethane	ND<1	ND<1	ND<1	ND<1
1,2-Dibromoethane	ND<1	ND<1	ND<1	58
Ethanol	ND<100	ND<100	ND<100	ND<100
Benzene	429	1020	607	1700
Toluene	12	7	6	2200
Ethylbenzene	7	223	113	701
Xylene, Isomers m & p	8	218	25	3370
o-xylene	2	75	15	1600
Gasoline Range Organics	3770	4320	1980	21300
SUR-Dibromofluoromethane	85	86	87	83
SUR-Toluene-d8	95	88	90	96
SUR-4-Bromofluorobenzene	90	83	83	79

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 03-0211
Client : Advanced Assessment & Remd.
Project : 800 San Pablo Ave., Albany

Date Sampled : 02/14/2003
Date Analyzed: 02/20/2003
Date Reported: 02/25/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Laboratory Number	03-0211	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Methyl-tert-butyl ether	ND<1				
Ethyl tert-butyl ether	ND<1				
tert-Amyl methyl ether	ND<1				
Di-isopropyl ether (DIPE)	ND<1				
tert-Butyl alcohol	ND<50				
1,2-Dichloroethane	ND<1				
1,2-Dibromoethane	ND<1				
Ethanol	ND<100				
Benzene	ND<1	108/110	2	74-135	21
Toluene	ND<1	104/108	4	61-141	19
Ethylbenzene	ND<1				
Xylene, Isomers m & p	ND<2				
o-xylene	ND<1				
Gasoline Range Organics	ND<50				
Chlorobenzene	ND<2	114/116	2	70-139	19
1,1-Dichloroethene	ND<1	114/112	2	61-121	25
Trichloroethene	ND<2	114/110	4	69-129	20
SUR-Dibromofluoromethane	103	98/94	4	67-129	21
SUR-Toluene-d8	90	95/97	2	72-119	16
SUR-4-Bromofluorobenzene	84	87/84	4	78-121	19

Reviewed and Approved

John A. Murphy
Laboratory Director

03-0211

North State Labs

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis

Lab Job No.:__________ Page 1 of 1

Client: ADVANCED ASSESSMENT + REMD. SVC.	Report to: TRIDIB GUHA	Phone: 925-363-1999	Turnaround Time: 5 DAY
Mailing Address: 2380 SALVIO ST, STE 202 CONCORD, CA 94520	Billing to: SAME	Fax:	Date: 2-14-03
		email:	
		PO# AHMA	Sampler: T. GUHA

Project / Site Address / Global ID: 800 SAN PABLO AVE, ALBANY

Analysis Requested

EDF ☐

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TPHG/MBTEX FUEL OXY 8260B	TPH-D						Field Point ID
1	MW-1/GW	WATER	2 VOAS 1-L-AMB	HCL	2/14/03	X	X						
2	MW-2/GW	↓	''	''	↓ 11:30	X	X						
3	MW-3/GW		''	''	11:40	X	X						
4	MW-4/GW		''	''	11:50	X	X						
5	MW-5/GW		''	''	12:00	X	X						
6	MW-6/GW		''	''	12:10	X	X						
7	MW-7/GW		''	''	12:20	X	X						
8	MW-8/GW		''	''	12:40	X	X						
9	MW-9/GW	↓	''	''	↓ 12:30	X	X						SAMPLES RECEIVED IN GOOD CONDITION

Relinquished by: [signature]	Date: 2/14/03	Time: 13:10	Received by: [signature] NS LABS
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Lab Comments/ Hazards