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

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

January 3, 1997
StID # 3654

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Terry Lewis
900 37th Ave.
Oakland CA 94601

Re: Former State Shingle, 880 Fruitvale Ave., Oakland 94601

Dear Mr. Lewis:

This letter confirms the completion of site investigation and remedial action for the one underground 1,000 gallon gasoline tank 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 is greatly appreciated.

Based upon the available information and with provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to the regulation contained in Title 23, Division 3, Chapter 16, Section 2721 (e) of the California Code of Regulations.

Please contact Barney Chan at (510) 567-6765 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

c: B. Chan, Hazardous Materials Division-files
Kevin Graves, RWQCB
L. Casias, SWRCB (with attachment)
Mr. Greg Shepard, SP Bld., One Market Plaza, San Francisco, CA, 94105 (with attachment)
RACC880F

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date:** 6/11/96

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Parkway Rm 250, Alameda CA 94502**

City/State/Zip: **Alameda** Phone: **(510) 567-6700**

Responsible staff person: Barney Chan Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: Former State Shingle

Site facility address: 880 Fruitvale Ave., Oakland CA 94601

RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: 3654

ULR filing date: 5/30/90 SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. Mr. Terrance Lewis	900 37th Ave., Oakland CA 94601	(510) 535-1311
2. Mr. Greg Shepard SPT Co.	SP Bld., One Market Plaza San Francisco, CA 94105	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	1000	Reg.& UL gas	Removed	05/29/90

III RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: apparent hole in bottom of tank

Site characterization complete? Yes

Date approved by oversight agency:

Monitoring Wells installed? YES Number: 3

Proper screened interval? Yes, from approx. 9.5'-29.5' bgs

Highest GW depth: 10.73'bgs Lowest depth: 17.38' bgs

Flow direction: northwesterly

Most sensitive current use: commercial/industrial

Are drinking water wells affected? No Aquifer name: NA

Is surface water affected? No Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): None

Report(s) on file? **Yes** Where is report(s)? Alameda County
1131 Harbor Bay Parkway,
Room 250, Alameda CA 94502-6577

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tanks	1-1,000 gallon	Disposed @ Erickson Richmond	05/29/90
Liquid waste	20 gallon	Unknown	
Soil	860 cy	Disposed at Redwood Landfill Novato,CA	08/20-8/22/90

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	1Before	After2	3Before	After
TPH (Gas)	3900	6	14,000	ND
Benzene	25	0.13	1,600	ND
Toluene	170	0.46	21	ND
Ethylbenzene	440	0.82	450	ND
Xylenes	75	0.36	1,500	ND
Tetraethyl lead	<0.05			

Comments (Depth of Remediation, etc.):
1 Soil sample, B-S-1, from tank pull
2 From boring, MW-2, 15.5-16.0
3 Initial GW result from monitoring wells

IV. CLOSURE

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

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

IV. CLOSURE

Does corrective action protect public health for current land use? YES

Site management requirements: NA

Should corrective action be reviewed if land use changes? Yes

Monitoring wells Decommisioned: NO, pending closure

Number Decommisioned: 0 Number Retained: 3

List enforcement actions taken: None

List enforcement actions rescinded:None

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Barney M. Chan Title: Hazardous Materials Specialist

Signature: Barney M Chan Date: 7/2/96

Reviewed by

Name: Eva Chu Title: Hazardous Materials Specialist

Signature: Eva Chu Date: 6/17/96

Name: Tom Peacock Title: Manager

Signature: Tom Peacock Date: 7-1-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response:

RWQCB Staff Name: K. Graves Title: AWRCE Date:

VII. ADDITIONAL COMMENTS, DATA, ETC.

The underground tank was located west of the easternmost building at the site. The 1000 gallon gasoline tank was removed on 5/29/90. A hole was found in the south end seam of the tank. Fuel was released as the tank was withdrawn from the pit. Approximately 2' beneath the floor of the pit, two soil samples were taken beneath each end of the tank. Up to 3900 ppm TPHg and 25, 170, 75, 440 ppm BTEX, respectively was found in the soil samples. Based on these results, the contractor, Tank Protect Engineering (TPE),

proposed to drill up to ten (10) borings around the former tank pit and based on these results, convert three borings into monitoring wells. This work was performed in 6/4/90. Soil samples were collected from approximately every five feet in the borings. Up to 5.3 ppm TPHg and 0.13, 0.071, 0.073 and 0.22 ppm BTEX, respectively, was detected in the borings. Tetraethyl lead was not found in any of the borings. During the week of 6/18/90, TPE overexcavated around three sides of the former UST. The fourth side was limited due to its proximity to the building. Eight verification samples, samples at two depths at four locations, were taken. The highest results in these samples was from SN1 @ 8.0' depth which detected 3.3 ppm TPHg and 0.27, 0.47, 0.16 and 0.33 ppm BTEX respectively.

Three monitoring wells were installed on 10/2/90. Initial groundwater results indicated elevated TPHg and BTEX concentrations in MW-3, the downgradient well. In June -July 1993, three (3) additional borings, B-1 through B-3, were advanced slightly south of the three wells. Soil and grab groundwater samples from these borings did not exhibit TPHg or BTEX. Subsequent groundwater monitoring has not identified TPHg or BTEX. The groundwater gradient has consistently been north-northwesterly.

After the stockpile soils were chemically treated with hydrogen peroxide, they were disposed at Redwood Sanitary Landfill in Novato, CA.

Aggressive soil excavation has removed the majority of soil contamination. Long term monitoring has shown that groundwater was not impacted adversely. No further work is recommended.

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS FOR
SAMPLES COLLECTED DURING TANK REMOVAL
(ppm)

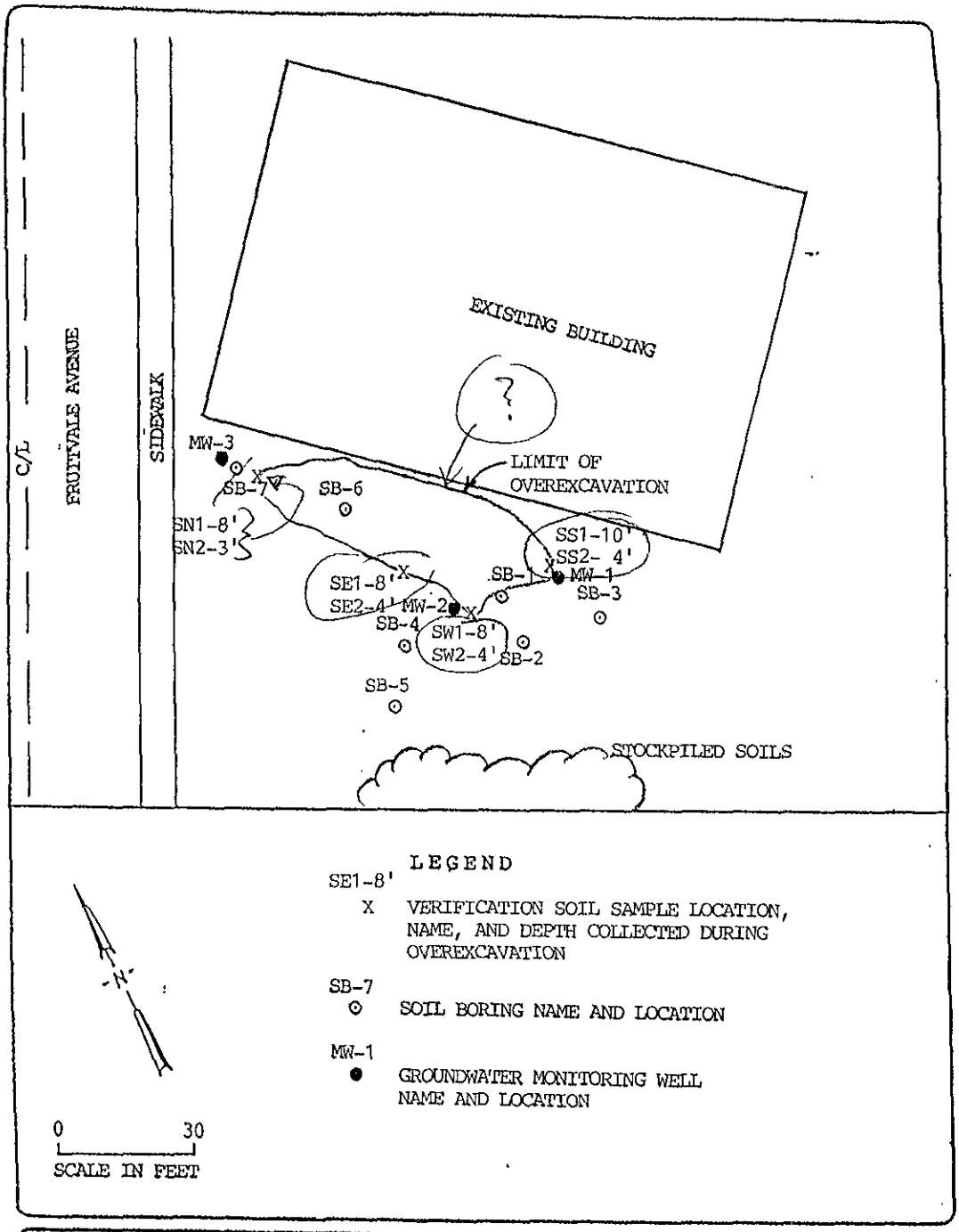
ORIGINAL SOIL SAMPLES FROM TANK PIT FLOOR

Sample Identification	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes
B-N-1	~~120~~	0.69	3.3	2.0	9.4
B-S-1	3,900	25	170	75	440
Composite (S-M-1,S-M-2 S-S-1,S-S-2)	79	0.38	1.3	1.2	6.3

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS
FOR SOIL SAMPLES COLLECTED
FROM SOIL BORINGS AND DURING OVEREXCAVATION
(ppm)

Sample Identification	Depth (feet)	TPHG	Benzene	Toluene	Ethyl-Benzene	Xylenes	Tetra-ethyl-Lead	
SB-1	05.0-05.5	3.1	0.0084	0.0320	0.0370	0.1700	<0.050	
SB-1	10.5-11.0	<1.0	0.0058	0.0068	<0.0050	0.0220	<0.050	
SB-2	05.5-06.0	<1.0	0.0062	<0.0050	<0.0050	0.0077	<0.050	
SB-2	09.5-10.0	<1.0	0.0073	<0.0050	<0.0050	0.0046	<0.050	
SB-2	14.5-15.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	
SB-3	04.5-05.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	
SB-3	09.5-10.0	<1.0	0.0058	<0.0050	<0.0050	<0.0050	<0.050	
SB-3	14.5-15.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	
SB-4	04.5-05.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	
SB-4	09.5-10.0	<1.0	0.0110	<0.0050	<0.0050	<0.0050	<0.050	
SB-5	04.0-04.5	<1.0	<0.0050	<0.0050	<0.0050	0.0057	<0.050	
SB-5	09.0-09.5	<1.0	0.0095	<0.0050	<0.0050	<0.0050	<0.050	
SB-5	14.0-14.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	
SB-6	04.0-04.5	<1.0	0.0280	<0.0050	<0.0050	<0.0050	<0.050	
SB-6	09.0-09.5	<1.0	<0.0050	<0.0050	<0.0050	0.0081	<0.050	
SB-7	04.0-04.5	<1.0	<0.0050	<0.0050	<0.0050	0.0160	<0.050	
SB-7	09.0-09.5	<1.0	0.0450	<0.0050	<0.0050	<0.0050	<0.050	
SB-7	14.0-14.5	5.3	0.1300	0.0710	0.0730	0.2200	<0.050	
MW-1	05.5-0.60	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	
MW-1	10.5-11.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	
MW-1	15.5-16.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	
MW-2	05.5-06.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	
MW-2	10.5-11.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	
MW-2	15.5-16.0	61.0	0.0960	0.4600	0.3610	0.8230	NA	
SS1	10.0	<1.0	0.0290	0.0099	0.0110	0.0140	NA	Verification Sample after overexcavation
SS2	04.0	2.0	0.0250	0.0210	0.0210	0.0430	NA	
SW1	08.0	<1.0	0.0290	0.0069	0.0061	0.0090	NA	
SW2	04.0	<1.0	<0.0050	<0.0050	0.0060	0.0180	NA	
SN1	08.0	3.3	0.2700	0.4700	0.1600	0.3300	NA	
SN2	03.0	<1.0	0.0300	0.0073	0.0097	0.0320	NA	
SE1	08.0	<1.0	0.4100	0.0300	0.0740	0.0250	NA	
SE2	04.0	<1.0	<0.0050	<0.0050	0.0089	0.0210	NA	

NA = NOT ANALYZED



TANK PROTECT ENGINEERING
Of Northern California

SITE PLAN AT TIME OF OVEREXCAVATION
STATE SHINGLE COMPANY
880 FRUITVALE AVENUE
OAKLAND, CALIFORNIA

FIGURE
11

3.2. MONITORING WELLS AND GROUNDWATER INVESTIGATIONS:

3.2.1. GROUNDWATER ELEVATIONS

Groundwater elevations in three groundwater monitoring wells were measured on June 16, 1995. Groundwater surface elevation maps were prepared to show the inferred groundwater flow direction.

Depths to groundwater were measured with an electronic water level sounder at all three wells. The hydrologic data from the sounding event, along with those from previous events, is summarized below.

SUMMARY OF GROUNDWATER ELEVATIONS

WELL NO.	TOP OF CASING	DATE	DEPTH TO GW	GW ELEV. (ABOVE MSL)
1	28.54'	6/18/93	11.68'	16.86'
		11/9/94	17.13'	11.41'
		6/16/95	13.48'	15.06'
		1/2/96	15.00'	13.54'
2	28.32'	6/18/93	11.78'	16.54'
		11/9/94	17.08'	11.24'
		6/16/95	13.38'	14.94'
		1/2/96	14.88'	13.44'
3	28.11'	6/18/93	11.88'	16.23'
		11/9/94	17.21'	10.90'
		6/16/95	13 56'	14.55'
		1/2/96	14.99'	13.12'

The elevation of the top of the PVC casing for each well was shot with respect to USGS Mean Sea Level Datum. This survey was performed by a Globe field engineer.

The groundwater gradient at the site was evaluated by triangulation. The elevations of the tops of the well casings were measured with respect to the chosen datum. The stabilized depth of water in the wells was then measured to provide the groundwater elevations. From this information, the groundwater gradient and direction were evaluated.

The groundwater elevation at the site has been variable. The fluctuation in groundwater elevations appears to be related to seasonal precipitation patterns for downtown Oakland.

Groundwater surface elevations based on the January 2, 1996 groundwater level measurements are presented on Figure 6. The groundwater surface elevation contours indicate that groundwater flow is towards Fruitvale Avenue in a primarily westerly direction.

3.2.2. GROUNDWATER QUALITY

The monitoring wells were developed and sampled in accordance with applicable Globe QA/QC protocols (see Appendices C through F). Each monitoring well was developed by surging, bailing, and/or pumping to remove loose materials from within the well casing (see Appendix C). A centrifugal pump was used to purge groundwater prior to sampling with a disposable bailer. Groundwater was purged until:

a) a minimum of three casing volumes of groundwater were removed,
b) turbidity readings were below 200 NTU's, and
c) temperature, conductivity, and ph readings were stabilized.

TABLE 1

GROUNDWATER DEPTHS AND ELEVATIONS
STATE SHINGLE SITE, OAKLAND, CALIFORNIA

Well Number	Top of Casing (Feet above MSL[a])	Date	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL[a])
MW-1	28.54	10-8-90	17.33	11.21
		1-29-91	16.13	12.41
		3-12-91	11.58	16.96
MW-2	28.32	10-8-90	17.28	11.04
		1-29-91	16.00	12.32
		3-12-91	11.66	16.66
MW-3	28.11	10-8-90	17.38	10.73
		1-29-91	16.13	11.98
		3-12-91	11.77	16.34

[a]MSL=Mean Sea Level

0508AMD1

Groundwater samples were collected from all three wells. Samples from each well were analyzed for total petroleum hydrocarbons as gasoline (TPH/G), and for benzene, toluene, ethyl benzene, and xylenes (BTEX). The results of their analyses are given in Appendix A, and are summarized below:

WELL NO.	DATE	TPH/G	BENZENE	TOLUENE	E-BENZENE	XYLENE
1	10/12/90	<50	<0.50	<0.50	<0.50	<0.50
1	12/09/91	<50	<0.50	<0.50	<0.50	<0.50
2	10/12/90	1100	39	3	1	5
2	12/09/91	480	34	<5	24	16
3	10/12/90	14000	1600	21	450	1500
3	12/09/91	3200	270	<5	60	80

3. GLOBE'S SITE INVESTIGATIONS

This section presents Globe's approach to groundwater investigations at the previous gasoline tank area. The initial task included subsurface geophysics. This task was followed by the sampling of three groundwater monitoring wells.

The section describes the overall study, the analytical approach, and the field methods (geophysics, soil borings, monitoring wells, and hydrogeologic assessment) that was used. Waste handling and decontamination procedures are discussed in Appendix E.

Our site investigation consisted of:

1. Detailed surface site reconnaisances and observations performed by the undersigned during March 1993, November 1994, and June 1995,

2. A geophysical seismic refracrion survey in June 1993 (results given in our 1993 report, Report No. SR 930301),

3. Geotechnical subsurface explorations, performed during June-July 1993, and consisted of the drilling of 3 borings (results given in our 1993 report, Report No. SR 930301),

4. Sampling of 3 groundwater monitoring wells in June 1993, November 1994 and June 1995.

3.1. SURFACE FEATURES AND CONDITIONS

A surface reconnaissance of the site was performed to evaluate the surficial site conditions and to observe if any obvious indications of geotechnical or drainage problems were exposed. In addition, excavations on adjacent sites were also examined to provide supplemental information on the character of exposed soil materials.

Our visual inspections of the site did not reveal any signs of contamination such as unusual staining, discoloration, odors, stressed vegetation, wastes exposed at the surface, carelessly handled drums, tank stems, or any apparent significant threats to health and safety.

Groundwater samples were collected from all three wells on January 2, 1996. Samples from each well were analyzed for total petroleum hydrocarbons as gasoline (TPH/G), and for benzene, toluene, ethyl benzene, and xylenes (BTEX).

A table summarizing analytical results of the groundwarter samples taken from each well is given below. Samples 1, 2, and 3 were taken from Monitoring Wells 1, 2, and 3, respectively. The results indicate that the petroleum hydrocarbon concetration levels are below detection limits.

SUMMARY OF GROUNDWATER HYDROCARBON ANALYTICAL RESULTS

WELL NO.	DATE	TPH/G	BENZENE	TOLUENE	E-BENZENE	XYLENE
1	6/18/93	<50	<0.50	<0.50	<0.50	<1.50
1	11/9/94	<50	<0.50	<0.50	<0.50	<1.50
1	6/16/95	<50	<0.50	<0.50	<0.50	<1.50
1	1/2/96	<50	<0.50	<0.50	<0.50	<1.50
2	6/18/93	<50	<0.50	<0.50	<0.50	<1.50
2	11/9/94	<50	<0.50	<0.50	<0.50	<1.50
2	6/16/95	<50	<0.50	<0.50	<0.50	<1.50
2	1/2/96	<50	<0.50	<0.50	<0.50	<1.50
3	6/18/93	<50	<0.50	<0.50	<0.50	<1.50
3	11/9/94	<50	<0.50	<0.50	<0.50	<1.50
3	6/16/95	<50	<0.50	<0.50	<0.50	<1.50
3	1/2/96	<50	<0.50	<0.50	<0.50	<1.50

4. CONCLUSIONS AND RECOMMENDATIONS

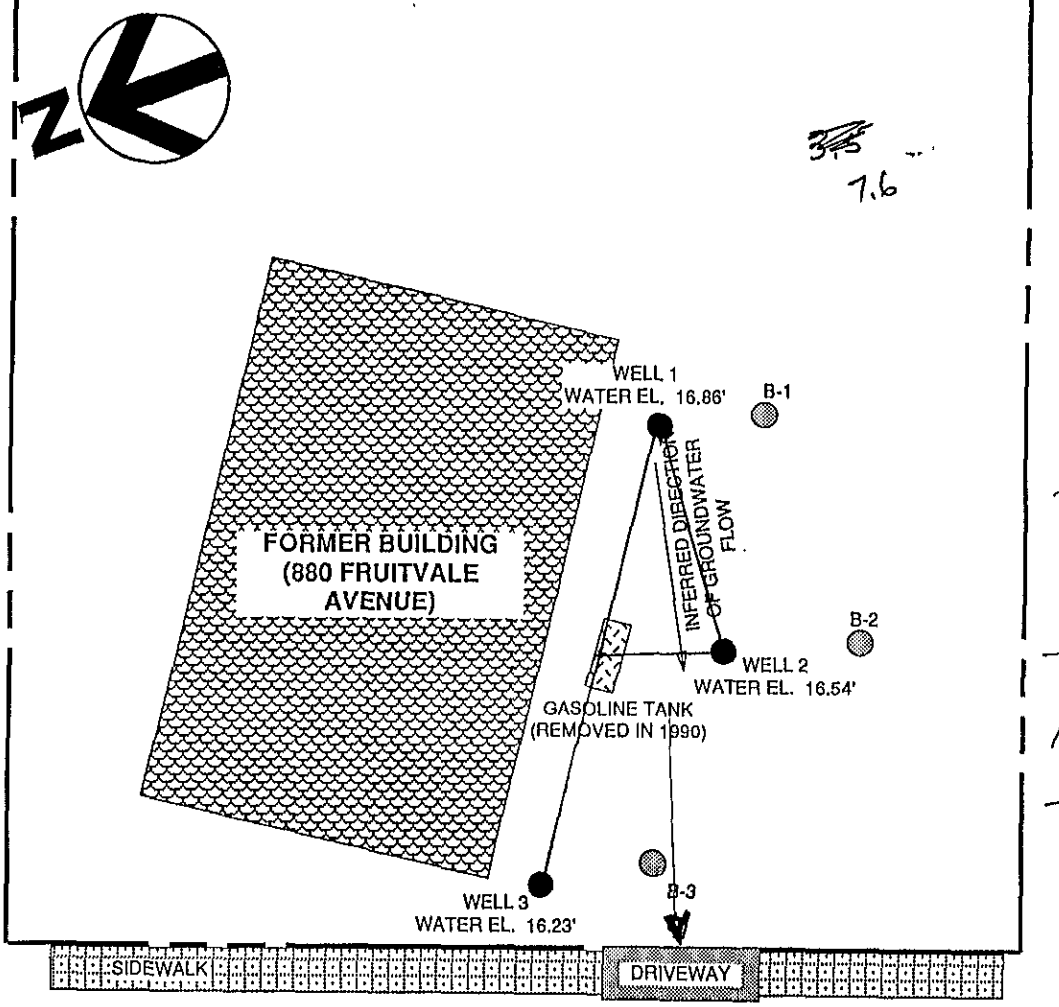
Based on our field, laboratory, and office studies, it is our opinion that the soil and groundwater at the site are not contaminated with petroleum hydrocarbons (TPH/G or BTEX).

Based on the letter from Mr. Barney Chan, Alameda County Dept. of Environmental Health, dated January 25, 1995, this completes our quarterly monitoring for the wells.

If you have any questions regarding this report, please call me at 1-510-549-2494 or 1-800-344-SOIL.

Very truly yours,
Z. Aldine, Ph.D.
Supervising Engineer
California Soil (Geotechnical) Engineering Licence # 644
California Civil Engineering Licence # 28551
Exp. 3/31/98

Additional Borings (6-7/93)



16.86
.23
.63

16.52
.2
.3

16.86
NY
.32

FRUITVALE AVENUE

GLOBE SOIL ENGINEERS	PROJECT NO: 930301
	LOCATION: 880 FRUITVALE AVENUE OAKALND, CALIF.
SITE MAP	DATE: 12/17/93
	FIGURE: 6