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

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510)

June 11, 1996

Ms. Susan McCormack
Union Bank - Watson Trust
17800 Castleton, Suite 586
City of Industry, California 91748

RE: Case Closure for Western Brake Company STID #385
1461 Park Avenue , Emeryville, California 94608

Dear Ms. McCormack:

This office is currently reviewing the case file and the request for case closure submitted by Applied Geosciences, Inc., (AGI) in a letter report dated March 28, 1996 for the above referenced site.

Residual petroleum hydrocarbon contamination remains in soil and groundwater at the subject site. Groundwater monitoring program has been conducted since October 1990 up to January 1996. The level of benzene in the groundwater was evaluated using the ASTM E 1739 -95 Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Site. Vapor intrusion from groundwater to buildings and groundwater volatilization to outdoor air were the two scenarios considered for exposure pathways. Both scenarios meet the Tier 1 RSBL. One pertinent exposure pathway, soil vapor intrusion from soil to buildings was evaluated by this office using the ASTM Tier 1 Risk Based Screening Level (RBSL) Look-Up Table. The residual levels of benzene (13 ppm and 10 ppm) detected in soil samples collected at 6 feet bgs from boring # 208 and boring # 209 which were drilled inside the building exceeded the RBSL of 0.49 ppm (for cancer risk of one in a ten thousand) and 5 ppb (for cancer risk of one in a million).

In order to facilitate case closure, Tier 2 evaluation using site specific conditions is necessary. The exposure scenario for the soil vapor intrusion from soil to building should be considered.

Please call me at (510) 567-6780 if you have any questions concerning this letter.

Sincerely,

Susan L. Hugo

Susan L. Hugo, Senior Hazardous Materials Specialist

c: Mee Ling Tung, Director, Environmental Health
Gordon Coleman, Acting Chief, Environmental Protection / files
Kevin Graves, San Francisco RWQCB
Alex Gallego, AGI, 1641 N. First St., #235, San Jose, CA 95112

January 8, 1997

Ms. Susan McCormack
Union Bank - Watson Trust
17800 Castleton, Suite 586
City of Industry, California 91748

RE: Case Closure - Western Brake Company (STID# 385)
1461 Park Avenue, Emeryville, California 94608

Dear Ms. McCormack:

The Alameda County Department of Environmental Health, Environmental Protection Division has recently received concurrence from the Regional Water Quality Control Board regarding this office determination that no further action is required concerning the removal of two underground storage tanks (3,000 gallon gasoline and 500 gallon diesel / gasoline) on March 14, 1990 at the above referenced site.

Please be advised that the three groundwater monitoring wells (MW-1, MW-2 and MW-3) at the site must be properly decommissioned before our agency will issue the "Remedial Action Completion Certification" (closure letter) for the subject site. A report must be submitted documenting the abandonment of the monitoring wells. Additionally, you will need to notify this office 72 hours in advance of the well abandonment field activities.

If you have any questions concerning this letter, please contact me at (510) 567-6780.

Sincerely,

Susan L. Hugo
Senior Hazardous Materials Specialist

c: Mee Ling Tung, Director, Environmental Health
Kevin Graves, San Francisco Bay RWQCB
Gordon Coleman, Acting Chief, Environmental Protection Division / SH / files
Alex Gallego, ATC, 2380 Qume Drive, Suite C, San Jose, California 95131

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 8, 1997

Ms. Susan McCormack
Union Bank - Watson Trust
17800 Castleton, Suite 586
City of Industry, California 91748

RE: Case Closure - Western Brake Company (STID# 385)
1461 Park Avenue, Emeryville, California 94608

Dear Ms. McCormack:

The Alameda County Department of Environmental Health, Environmental Protection Division has recently received concurrence from the Regional Water Quality Control Board regarding this office determination that no further action is required concerning the removal of two underground storage tanks (3,000 gallon gasoline and 500 gallon diesel / gasoline) on March 14, 1990 at the above referenced site.

Please be advised that the three groundwater monitoring wells (MW-1, MW-2 and MW-3) at the site must be properly decommissioned before our agency will issue the "Remedial Action Completion Certification" (closure letter) for the subject site. A report must be submitted documenting the abandonment of the monitoring wells. Additionally, you will need to notify this office 72 hours in advance of the well abandonment field activities.

If you have any questions concerning this letter, please contact me at (510) 567-6780.

Sincerely,

Susan L. Hugo
Senior Hazardous Materials Specialist

c: Mee Ling Tung, Director, Environmental Health
Kevin Graves, San Francisco Bay RWQCB
Gordon Coleman, Acting Chief, Environmental Protection Division / SH / files
Alex Gallego, ATC, 2380 Qume Drive, Suite C, San Jose, California 95131

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

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

REMEDIAL ACTION COMPLETION CERTIFICATION

February 14, 1997

Ms. Susan McCormack
Union Bank - Watson Trust
17800 Castleton, Suite 586
City of Industry, California 91748

RE: STID # 385 - Former Western Brake Co., 1461 Park Avenue, Emeryville, CA 94608

Dear Ms. McCormack:

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 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, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721 (e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

Enclosure

c: Gordon Coleman, Acting Chief, Environmental Protection / SH / files
Kevin Graves, RWQCB
Lori Casias, SWRCB (with enclosure)
Cheryl Gordon , SWRCB Cleanup Fund
Alex Gallego, ATC, 2380 Qume Drive, Ste.#C, San Jose, CA 95131

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: May 30, 1996
Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible staff person: Susan Hugo Title: Sr. Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: Western Brake Company
Site facility address: 1461 Park Avenue, Emeryville, CA 94608
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 385
URF filing date: 4/2/90 SWEEPS No: N/A

Responsible Parties:	Addresses:	Phone Numbers:
Ms. Susan McCormack	17800 Castleton, Suite 586	(818) 810-6594
Union Bank - Watson Trust	City of Industry, CA 91748	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	3,000 gallon	Gasoline	Removed	3/14/90
2	500 gallon	Diesel/Gasoline	Removed	3/14/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Tank leaked (presence of holes)
Site characterization complete? YES
Date approved by oversight agency: 5/2/91
Monitoring Wells installed? YES Number: Three (3)
Proper screened interval? YES
Highest GW depth below ground surface: 3.83 ft Lowest depth: 4.88 ft
Flow direction: Northwesterly towards the San Francisco Bay
Most sensitive current use: Commercial / light 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): NA
Report(s) on file? YES Where is report(s) filed? Alameda County
1131 Harbor Bay Parkway, Alameda, CA 94502-6577

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	1 - 3,000 gallon	Erickson, Richmond, CA	3/14/90
	1 - 500 gallon	Erickson, Richmond, CA	3/14/90

Leaking Underground Fuel Storage Tank Program

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	* Before	*** After	** Before	After
TPH (Gas)	1580	3400	110,000	900
TPH (Diesel)	ND	-	ND	-
Benzene	1.6	13.0	5,240	330
Toluene	9.14	80	7,040	82
Xylene	100.4	260	15,000	68
Ethylbenzene	5.08	53	2,420	13
Lead (Organic)	ND	-	-	-
CAM metals	See comments below			

* Soil samples collected during the removal of the tanks on 3/14/90.

** Grab water samples collected from the diesel tank excavation on 3/14/90.

*** Soil sample collected at 6 ft. bgs from hand augered boring # 208 (September / October 1991).

Comments (Depth of Remediation, etc.):

On March 14, 1990, two (2) underground storage tanks (3,000 gallon diesel and 500 gallon gasoline / diesel) were removed from the subject site. Both USTs were located underneath the sidewalk along Horton Street. The 3000 gallon gasoline UST appeared to be in good condition but the 500 gallon gasoline / diesel UST showed evidence of leakage (holes). Soil samples collected from the sidewalls (aprox. 4 to 5 ft. bgs just above the ground water) following the removal of the USTs showed petroleum hydrocarbon contamination at concentrations listed in the above table. Grab groundwater samples collected from the two excavations showed petroleum hydrocarbon contamination as high as 110 ppm TPH gasoline, 5.24 ppm benzene, 7.04 ppm toluene, 15 ppm xylene, and 2.42 ppm ethylbenzene. The groundwater present in ~~the~~ both excavation pits was greenish yellow in color and appeared to be related to the chromium contamination in Electro Coatings (ECI) located at 1421 Park Avenue and upgradient of the subject site. After the removal of the USTs, the stockpiled soil was used to backfill the excavation. Subsequent sampling collected from boring B107 (backfilled soil) in May 1991 found metal concentration (listed in Table 4), 29 ppb ethylbenzene, 60 ppb xylene and non detect for TPH gasoline, benzene and toluene.

In September 1990, three borings (MW1, MW2 and MW3) were drilled to 20 feet bgs and converted to groundwater monitoring wells. Monitoring well MW 1 was installed immediately adjacent to the former USTs, MW 2 was installed approximately 30 feet in the interpreted upgradient groundwater flow direction from the former USTs and MW 3 was installed in the general cross to down gradient groundwater flow direction from the USTs. Groundwater was encountered at depths of between 6 and 8 ft. bgs and rose to 4 ft. bgs.

Soil samples were collected at 5 and 10 feet bgs during the well installations. The highest concentration of TPH gasoline (150 ppm) and BTEX (5 ppm, 2.2 ppm 3.1 ppm and 4.9 ppm respectively) were reported in the soil sample collected from 5 feet bgs in MW 1. The other soil samples collected from MW 2 and MW 3 showed no detectable concentration of TPH gasoline, toluene, ethyl benzene and xylene. However, benzene was found at very low concentration (nd to 0.035 ppm). Initial sampling of the wells found MW 2 with the highest concentration of petroleum hydrocarbon (1,200 ppm TPHg, 209 ppb benzene, 34 ppb toluene, 5.4 ppb ethylbenzene, and 128 ppb xylene).

Between May and October 1991, a total of 30 shallow soil borings were advanced within an area of approximately 50 feet of the former USTs to determine the extent of the soil contamination. Petroleum hydrocarbon contamination was found in the soil samples collected from 6 feet depth at the following concentrations: nd to 3400 ppm TPH gasoline, nd to 13 ppm benzene, nd to 80 ppm toluene, nd to 260 ppm xylene and 53 ppm ethylbenzene. Metals were also detected in soil (see Table 4) and in groundwater (see Table 5). TCE was detected in all the wells MW-1 , MW-2 and MW-3 at 1.29 ppb, 401 ppb and 262 ppb respectively. TCA was detected in one well MW-1 at 64.3 ppb. The chlorinated solvents (TCE and TCA) and chromium found in the groundwater appeared to be ~~related~~ from to the plume off-site (ECI). The concentrations of CHC + Cr found is consistent w/ the source being from ECI.
The three monitoring wells (MW-1, MW-2 and MW-3) have been sampled since October 1990 up to January 1996.

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**

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

Site management requirements: **A site health and safety plan must be submitted to this Agency (ACDEH) for review and approval prior to any excavation or trenching work at the site which could potentially expose future construction workers or the public to residual contamination left in place.**

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **No, will decommission upon case closure**

Number Decommissioned: **NA** Number Retained: **Three (3)**

List enforcement actions taken: **NA**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Susan L. Hugo** Title: **Sr. Hazardous Materials Specialist**

Signature: Date:

Reviewed by

Name: **Barney Chan** Title: **Hazardous Materials Specialist**

Signature: Date:

Name: **Thomas Peacock** Title: **Manager, LOP**

Signature: Thomas Peacock Date: 6-18-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response:

RWQCB Staff Name: **Kevin Graves** Title: **Water Resources Control Engineer**

Date:

VII. ADDITIONAL COMMENTS, DATA, ETC.

The rationale for recommending case closure for the subject site are as follows:

1) Aggressive source removal, has occurred at the site. The leaking tanks were removed in March 1990.

2) The site has been adequately characterized. The residual soil contamination appeared to be limited to the west and north of the former USTs at 6 feet BGS and underneath the concrete warehouse structure.

3) The dissolved petroleum hydrocarbon plume appeared to be localized in the area immediately around the former USTs. Concentrations of petroleum

hydrocarbon in the groundwater samples have been stable if not decreasing during the monitoring period (10/90 to 1/96).

4) Shallow groundwater at the site ~~does~~ is not ~~appear to be~~ a drinking water source. Deeper drinking water aquifers and surface water are not likely to be impacted.

5) The site presents no significant risk to human health and the environment. ASTM E-1739-95 Risk Based Corrective Action (RBCA) Tier 1 look up table was used to evaluate two exposure pathways, the vapor intrusion from groundwater to buildings and groundwater volatilization to outdoor air. The groundwater volatilization to outdoor air scenario ~~meets~~ is below the RSBL of 5.34 ppm (for cancer risk of one in a million) for Benzene. The vapor intrusion from groundwater to buildings ~~meets~~ is below the calculated RSBL of ~~0.5336~~ 0.21 ppm (for cancer risk of one in one hundred thousand) for Benzene. One exposure pathway, soil vapor intrusion from soil to buildings was not evaluated because the entire site is capped. How about soil vol. to outdoor air?

~~01-1532~~

01-1532

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Agency name: **Alameda County-HazMat** Date: **December 11, 1996**
City/State/Zip: **Alameda, CA 94502** Address: **1131 Harbor Bay Parkway**
Responsible staff person: **Susan Hugo** Phone: **(510) 567-6700**
Title: **Sr. Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Western Brake Company**
Site facility address: **1461 Park Avenue, Emeryville, CA 94608**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **385**
URF filing date: **4/2/90** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Ms. Susan McCormack **Union Bank - Watson Trust**	**17800 Castleton, Suite 586** **City of Industry, CA 91748**	**(818) 810-6594**

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	3,000 gallon	Gasoline	Removed	3/14/90
2	500 gallon	Diesel/Gasoline	Removed	3/14/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Tank leaked (presence of holes)**
Site characterization complete? **YES**
Date approved by oversight agency: **5/2/91**
Monitoring Wells installed? **YES** Number: **Three (3)**
Proper screened interval? **YES**
Highest GW depth below ground surface: **3.83 ft** Lowest depth: **4.88 ft**
Flow direction: **Northwesterly towards the San Francisco Bay**
Most sensitive current use: **Commercial / light 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): **NA**
Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Parkway, Alameda, CA 94502-6577

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	1 - 3,000 gallon	Erickson, Richmond, CA	3/14/90
	1 - 500 gallon	Erickson, Richmond, CA	3/14/90

Leaking Underground Fuel Storage Tank Program

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)
Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	* Before	*** After	** Before	After
TPH (Gas)	1580	3400	110,000	900
TPH (Diesel)	ND	-	ND	-
Benzene	1.6	13.0	5,240	330
Toluene	9.14	80	7,040	82
Xylene	100.4	260	15,000	68
Ethylbenzene	5.08	53	2,420	13
Lead (Organic)	ND	-	-	-
CAM metals	See comments below			

* Soil samples collected during the removal of the tanks on 3/14/90.

** Grab water samples collected from the diesel tank excavation on 3/14/90.

*** Soil sample collected at 6 ft. bgs from hand augered boring # 208 (September / October 1991).

Comments (Depth of Remediation, etc.):

On March 14, 1990, two (2) underground storage tanks (3,000 gallon diesel and 500 gallon gasoline / diesel) were removed from the subject site. Both USTs were located underneath the sidewalk along Horton Street. The 3000 gallon gasoline UST appeared to be in good condition but the 500 gallon gasoline / diesel UST showed evidence of leakage (holes). Soil samples collected from the sidewalls (approx. 4 to 5 ft. bgs just above the groundwater) following the removal of the USTs showed petroleum hydrocarbon contamination at concentrations listed in the above table. Grab groundwater samples collected from the two excavations showed petroleum hydrocarbon contamination as high as 110 ppm TPH gasoline, 5.24 ppm benzene, 7.04 ppm toluene, 15 ppm xylene, and 2.42 ppm ethylbenzene. The groundwater present in both excavation pits was greenish yellow in color and appeared to be related to the chromium contamination in Electro Coatings (ECI) located at 1421 Park Avenue and upgradient of the subject site. After the removal of the USTs, the stockpiled soil was used to backfill the excavation. Subsequent sampling collected from boring B107 (backfilled soil) in May 1991 found metal concentration (listed in Table 4), 29 ppb ethylbenzene, 60 ppb xylene and non detect for TPH gasoline, benzene and toluene.

In September 1990, three borings (MW1, MW2 and MW3) were drilled to 20 feet bgs and converted to groundwater monitoring wells. Monitoring well MW 1 was installed immediately adjacent to the former USTs, MW 2 was installed approximately 30 feet in the interpreted upgradient groundwater flow direction from the former USTs and MW 3 was installed in the general cross to down gradient groundwater flow direction from the USTs. Groundwater was encountered at depths of between 6 and 8 ft. bgs and rose to 4 ft. bgs.

Soil samples were collected at 5 and 10 feet bgs during the well installations. The highest concentration of TPH gasoline (150 ppm) and BTEX (5 ppm, 2.2 ppm 3.1 ppm and 4.9 ppm respectively) were reported in the soil sample collected from 5 feet bgs in MW 1. The other soil samples collected from MW 2 and MW 3 showed no detectable concentration of TPH gasoline, toluene, ethyl benzene and xylene. However, benzene was found at very low concentration (nd to 0.035 ppm). Initial sampling of the wells found MW 2 with the highest concentration of petroleum hydrocarbon (1,200 ppm TPHg, 209 ppb benzene, 34 ppb toluene, 5.4 ppb ethylbenzene, and 128 ppb xylene).

Between May and October 1991, a total of 30 shallow soil borings were advanced within an area of approximately 50 feet of the former USTs to determine the extent of the soil contamination. Petroleum hydrocarbon contamination was found in the soil samples collected from 6 feet depth at the following concentrations: nd to 3400 ppm TPH gasoline, nd to 13 ppm benzene, nd to 80 ppm toluene, nd to 260 ppm xylene and 53 ppm ethylbenzene. Metals were also detected in soil (see Table 4) and in groundwater (see Table 5). TCE was detected in all the wells MW-1 , MW-2 and MW-3 at 1.29 ppb, 401 ppb and 262 ppb respectively. TCA was detected in one well MW-1 at 64.3 ppb. The chlorinated solvents (TCE and TCA) and chromium found in the groundwater appears to be from to the plume off-site (ECI). The concentrations of chlorinated hydrocarbon and chromium found is consistent with the source being from the ECI.

The three monitoring wells (MW-1, MW-2 and MW-3) have been sampled since October 1990 up to January 1996.

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**

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

Site management requirements: **A site health and safety plan must be submitted to this Agency (ACDEH) for review and approval prior to any excavation or trenching work at the site which could potentially expose future construction workers or the public to residual contamination left in place.**

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **No, will decommission upon case closure**

Number Decommissioned: **NA** Number Retained: **Three (3)**

Leaking Underground Fuel Storage Tank Program

List enforcement actions taken: **NA**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Susan L. Hugo** Title: **Sr. Hazardous Materials Specialist**

Signature: Susan L. Hugo Date: 12/11/96

Reviewed by

Name: **Barney Chan** Title: **Hazardous Materials Specialist**

Signature: Barney Chan Date: 12-11-96

Name: **Thomas Peacock** Title: **Manager, LOP**

Signature: Thomas Peacock Date: 12-11-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 12/11/96 RB Response: Approved

RWQCB Staff Name: **Kevin Graves** Title: **Water Resources Control Engineer**

Date: 1/6/97

VII. ADDITIONAL COMMENTS, DATA, ETC.

The rationale for recommending case closure for the subject site are as follows:

1) Aggressive source removal has occurred at the site. The leaking tanks were removed in March 1990.

2) The site has been adequately characterized. The residual soil contamination appears to be limited to the west and north of the former USTs at 6 feet BGS and underneath the concrete warehouse structure.

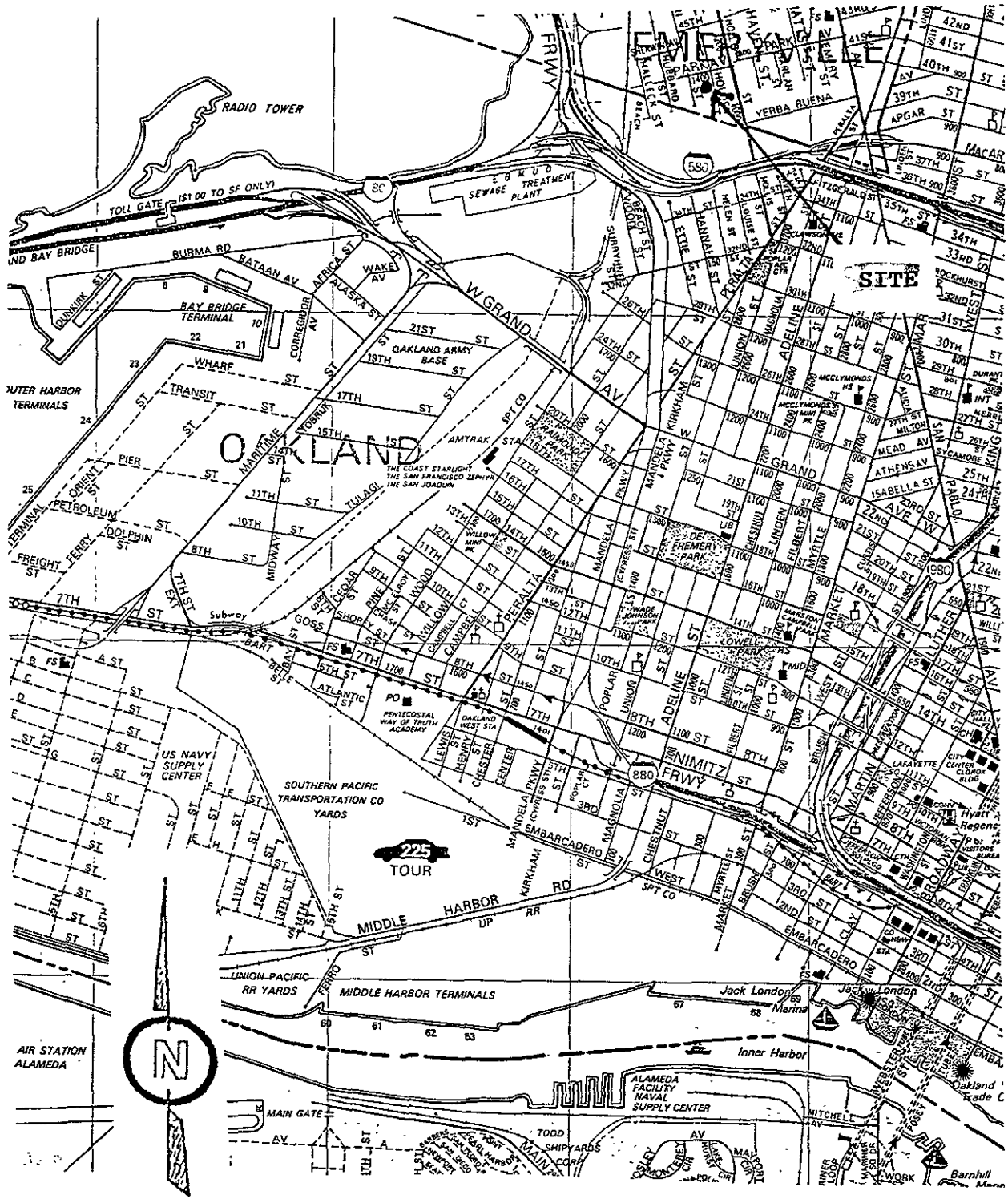
3) The dissolved petroleum hydrocarbon plume appeared to be localized in the area immediately around the former USTs. Concentrations of petroleum

hydrocarbon in the groundwater samples have been stable if not decreasing during the monitoring period (10/90 to 1/96).

4) Shallow groundwater at the site is not a drinking water source. Deeper drinking water aquifers and surface water are not likely to be impacted.

5) The site presents no significant risk to human health and the environment. ASTM E-1739-95 Risk Based Corrective Action (RBCA) Tier 1 look up table was used to evaluate two exposure pathways, the vapor intrusion from groundwater to buildings and groundwater volatilization to outdoor air. The groundwater volatilization to outdoor air for benzene is below the RSBL of 5.34 ppm (for cancer risk of one in a million). The vapor intrusion from groundwater to buildings is below the calculated RSBL of 0.21 ppm (for cancer risk of one in one hundred thousand)for benzene.

   The residual levels of benzene in soil at 6 ft. bgs (13 ppm and 10 ppm) exceeded the RBSL of 0.49 ppm (cancer risk of one in ten thousand) for soil vapor intrusion from soil to buildings. However, this exposure scenario does not appear to be a complete pathway because the entire site is capped. Furthermore, a Tier 2 evaluation and an indoor air quality survey was conducted by a certified industrial hygienist. Results of the air monitoring (NIOSH method 1501) conducted for three days found no detectable amounts of BTEX components. Therefore, the site presents no significant risk to persons working in the offices at the subject property.



Blakely Environmental Inc. 320 S. Milliken Ave.Suite A Ontario, CA 91761	**Site Location Map** Watson Trust 1461 Park Ave. Emeryville, California	FIGURE: 1 February 1995

TABLE 1
SUMMARY OF LABORATORY ANALYSIS
SAMPLES COLLECTED FROM TANK EXCAVATIONS BY PCC - MARCH 1990

Sample I.D.	Sample Matrix	TPH-g mg/kg	TPH-d mg/kg	Benzene ug/kg	Toluene ug/kg	Xylene ug/kg	Ethylbenzene ug/kg
South Wall Diesel Tank Pit	Soil	1580	ND	17.3	2600	100,400	481
South Wall Gas Tank Pit	Soil	460	ND	1600	9140	32,300	5080
North Wall Gas Tank Pit	Soil	62.3	NA	9.8	207	947	32.9
Diesel Tank Pit	Water	110,000	ND	5240	7040	15,000	2420
Gas Tank Pit	Water	38,100	NA	2750	2840	5890	1160

ND: Not Detected
NA: Not Analyzed

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYSIS
SAMPLES COLLECTED FROM BORINGS MW-1 THROUGH MW-3 BY PCC-OCT. 1990

Sample ID	TPH-g mg/kg	Benzene ug/kg	Toluene ug/kg	Xylene ug/kg	Ethylbenzene ug/kg
MW-1 @ 5'	150	5000	2200	3100	4900
MW-1 @ 10'	ND	93	ND	ND	ND
MW-2 @ 5'	ND	14	ND	ND	ND
MW-2 @ 10'	ND	35	ND	ND	ND
MW-3 @ 5'	ND	5.1	ND	ND	ND
MW-3 @ 10'	ND	ND	ND	ND	ND

ND: **Not Detected**

TABLE 3
SUMMARY OF LABORATORY ANALYSIS
GROUNDWATER SAMPLES COLLECTED FROM MW-1 THROUGH MW-3 BY PCC - OCT. 1990

Sample I.D.	TPH-g mg/l	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene ug/l
MW-1	ND	1.9	1.1	ND	3.3
MW-2	1,200	209	33.7	5.4	128
MW-3	ND	5.1	ND	ND	ND

ND: **Not Detected**

TABLE 6
OF LABORATORY ANALYSES
VANCED BY RAC IN SEPTEMBER AND OCTOBER 1991

ıe (ug/kg)	Toluene (ug/kg)	Xylene (ug/kg)	Ethylbenzene (ug/kg)	OVA (ppM)
	NA	NA	NA	150
١	NA	NA	NA	150
١	NA	NA	NA	120
١	NA	NA	NA	50
١	NA	NA	NA	120
١	NA	NA	NA	300
١	NA	NA	NA	270
)	ND	ND	ND	0
0	210	650	300	100
١	NA	NA	NA	100
000*	80000	260000	53000	>1000*
	3.1	13	47	175
000*	50000	130000*	31000*	>1000*
A	NA	NA	NA	300
A	NA	NA	NA	650
A	NA	NA	NA	0
A	NA	NA	NA	0
A	NA	NA	NA	5
D	ND	ND	ND	0
A	NA	NA	NA	3
D	ND	ND	ND	NA
D	ND	ND	ND	0
D	ND	ND	ND	NA
A	NA	NA	NA	50
D	ND	ND	ND	47
D	ND	ND	ND	1
A	NA	NA	NA	15
A	NA	NA	NA	0
A	NA	NA	NA	20
D	ND	ND	ND	2
10	ND	56	ND	50
D	ND	ND	ND	>1000
9	ND	14	8.2	80
3	ND	37	16	6
A	NA	NA	NA	15
1	5.2	17	2.2	85
A	NA	NA	NA	50
D	ND	ND	ND	20

TABLE 4
RY OF LABORATORY ANALYSES
L BORINGS ADVANCED BY RAC IN MAY 1991

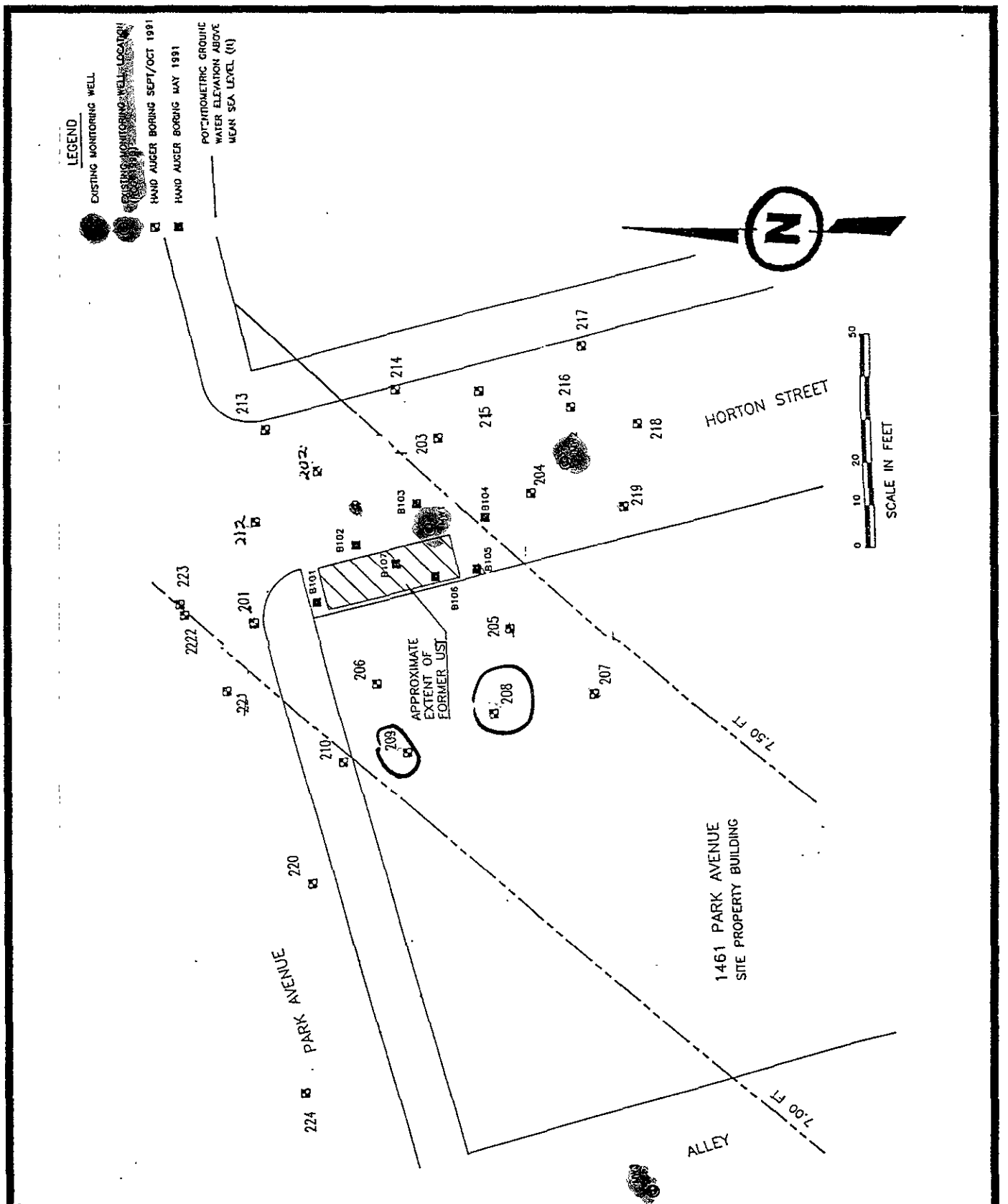
stockpiled soil

2	B103	B103	B104	B104	B105	B105	B106	B106	B107	B107
6.1	103.2.1	103.6.1	104.1.1	104.3.1	105.2.1	105.4.1	106.1.1	106.3.1	A	B
9	3.5	97	7.4	4.2	<1	9.1	6.9	46	<1.0	<1.0
58	0.68	0.35	1.01	0.52	<0.05	<0.05	1.43	1.54	NA	NA
99	0.18	<0.07	0.62	0.42	<0.07	0.27	0.34	2.12	NA	NA
25	0.72	<0.07	0.89	0.16	<0.07	0.08	2.44	6.32	NA	NA
3	1.20	<0.14	3.18	23.37	<0.14	2.19	2.26	12	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.5	<2.5
NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5	4.3
NA	NA	NA	NA	NA	NA	NA	NA	NA	97.1	76.3
NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	<0.5
06	NA	118	NA	NA	NA	NA	NA	NA	39.7	39.4
2.5	NA	17.3	NA	NA	NA	NA	NA	NA	<2.5	<2.5
NA	NA	NA	NA	NA	NA	NA	NA	NA	7.4	5.8
NA	NA	NA	NA	NA	NA	NA	NA	NA	14.0	10.7
NA	NA	NA	NA	NA	NA	NA	NA	NA	30.4	10.4
NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005
NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.5	<2.5
NA	NA	NA	NA	NA	NA	NA	NA	NA	53.8	34.1
NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	<0.5
NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	<2.0
NA	NA	NA	NA	NA	NA	NA	NA	NA	26.2	21.0
NA	NA	NA	NA	NA	NA	NA	NA	NA	39.8	31.4

TABLE 5
RESULTS OF LABORATORY ANALYSES CONDUCTED ON
GROUNDWATER SAMPLES COLLECTED BY RAC IN MAY 1991

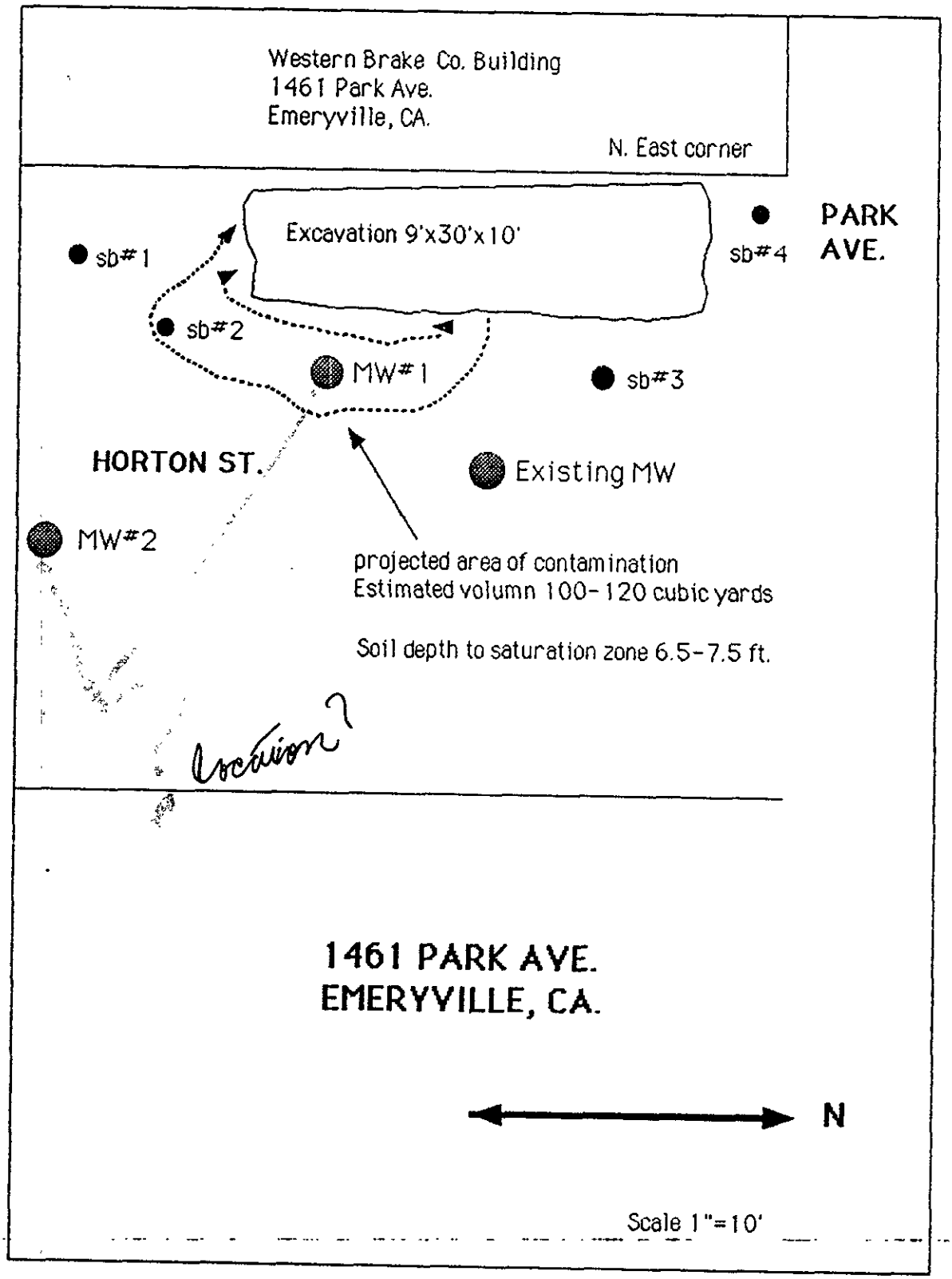
DESCRIPTION		GROUNDWATER MONITORING WELL NUMBER								
Location		**MW-1**	**MW-1**	**MW-1**	**MW-2**	**MW-2**	**MW-2**	**MW-3**	**MW-3**	**MW-3**
Sample Number		1.0.1	1.C.1	1.M.1	2.0.1	2.C.1	2.M.1	3.0.1	3.C.1	3.M.1
TPH EPA 8015 Modified ug/l		3418	NA	NA	110	NA	NA	<10	NA	NA
Benzene EPA 8020 ug/l		1454	NA	NA	11.2	NA	NA	<2.7	NA	NA
Ethylbenzene EPA 8020 ug/l		9.4	NA	NA	<0.5	NA	NA	<0.5	NA	NA
Toluene EPA 8020 ug/l		273	NA	NA	1.2	NA	NA	<0.5	NA	NA
Xylene EPA 8020 ug/l		599	NA	NA	1.0	NA	NA	<0.5	NA	NA
	Antimony	NA	NA	1.66	NA	NA	1.51	NA	NA	0.06
	Arsenic	NA	NA	<0.003	NA	NA	<0.003	NA	NA	<0.003
	Barium	NA	NA	0.12	NA	NA	0.03	NA	NA	0.03
	Beryllium	NA	NA	<0.02	NA	NA	<0.02	NA	NA	<0.02
	Cadium	NA	NA	<0.01	NA	NA	<0.01	NA	NA	<0.01
CAM	Chromium-Total	NA	NA	349	NA	NA	353	NA	NA	47.6
Metals	Chromium-Hexavalent	NA	0.11	NA	NA	0.26	NA	NA	0.17	NA
EPA	Cobalt	NA	NA	<0.5	NA	NA	<0.05	NA	NA	<0.05
3050 & 7196	Copper	NA	NA	<0.02	NA	NA	<0.02	NA	NA	<0.02
(mg/l)	Lead-Total	NA	NA	<0.05	NA	NA	<0.05	NA	NA	<0.05
	Mercury	NA	NA	<0.0005	NA	NA	<0.0005	NA	NA	<0.0005
	Molybdenum	NA	NA	<0.05	NA	NA	<0.05	NA	NA	<0.05
	Nickel	NA	NA	0.06	NA	NA	<0.03	NA	NA	<0.03
	Selenium	NA	NA	<0.01	NA	NA	<0.01	NA	NA	<0.01
	Silver	NA	NA	<0.02	NA	NA	<0.02	NA	NA	<0.02
	Thallium	NA	NA	<0.04	NA	NA	<0.04	NA	NA	<0.04
	Vanadium	NA	NA	<0.5	NA	NA	<0.5	NA	NA	<0.5
	Zinc	NA	NA	0.03	NA	NA	<0.02	NA	NA	<0.04

NOTE: **NA = NO ANALYSES**
FOR MONITORING WELL LOCATIONS SEE FIGURE 2



Blakely Environmental Inc. 320 S. Milliken Ave.Suite A Ontario, CA 91761	**Site Layout Map** Watson Trust 1461 Park Avenue Emeryville, California	FIGURE: 2 March 1995

Map from RAC report


Western Brake Co. Building
1461 Park Ave.
Emeryville, CA.
N. East corner
Excavation 9'x30'x10'
sb#1
sb#2
sb#3
sb#4
MW#1
MW#2
PARK AVE.
HORTON ST.
Existing MW
projected area of contamination
Estimated volumn 100-120 cubic yards
Soil depth to saturation zone 6.5-7.5 ft.
location?
1461 PARK AVE.
EMERYVILLE, CA.
N
Scale 1"=10'

C. All sampling equipment was thoroughly decontaminated. Each well was allowed to recover to at least 90 percent of its original static level.

D. Measurements of pH, temperature and conductivity were collected during the purging process prior to sample collection (Appendix A).

E. Each water sample was collected in a new disposable teflon bailer, then transferred to a 40-ml. glass VOA vial with teflon septa. Care was exercised to avoid disturbances that could cause aeration or pressure variations that may effect volatile compounds.

F. The VOA vials were labeled and stored on ice in an ice chest for transport to the laboratory. Chain-of-Custody protocol was followed to ensure sample integrity and traceability.

G. The samples were analyzed by a Department of Health Services Certified Laboratory. EPA 8015M was used to analyze for total petroleum hydrocarbons as gasoline and EPA 8020 was used to analyze for volatile aromatics (BTEX). The laboratory reports and Chain-of-Custody documentation are included in Appendix B.

TABLE B

1461 PARK AVENUE, EMERYVILLE, CALIFORNIA
HISTORICAL GROUNDWATER ELEVATION DATA

Well I.D.	T.O.C. Elevation	Date	DTW	Elevation
MW-1	99.56	05 MAY 95	4.47	95.09
		05 JULY 95	3.83	95.73
		03 NOV. 95	4.41	95.15
		04 JAN. 96	3.97	95.59
MW-2	99.83	05 MAY 95	4.52	95.31
		05 JULY 95	3.88	95.95
		03 NOV. 95	4.54	95.29
		04 JAN. 96	4.03	95.8
MW-3	98.67	05 MAY 95	4.43	94.24
		05 JULY 95	3.95	94.72
		03 NOV. 95	4.88	93.79
		04 JAN. 96	3.83	94.84

Notes:
T.O.C. = Top of Casing
Top of Casing elevations for three wells are reported in Blakely Environmental Inc., dated 21 July 1995.
DTW = Depth to groundwater measured from the top of the 2-inch casing.
All elevations reported are in feet above an arbitrary datum.
Data for 5 July 1995 obtained from Blakely Environmental Inc., dated 21 July 1995.

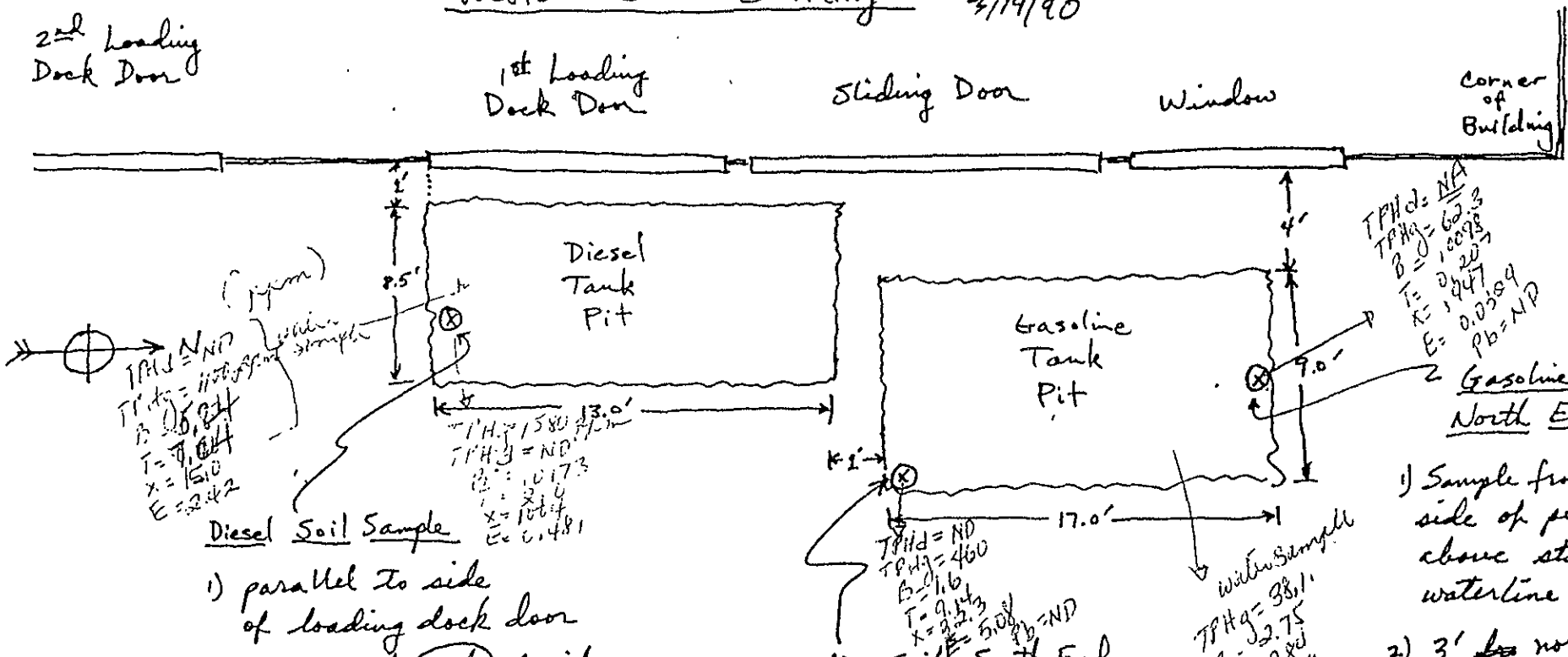
TABLE 9

1461 PARK AVENUE, EMERYVILLE, CALIFORNIA
GROUNDWATER ANALYTICAL RESULTS

WELL NUMBER	DATE	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	DISSOLVED OXYGEN
MW1	05 MAY 95	600	540	28	8	180	--
	05 JULY 95	4400	700	14	5	130	2.98
	03 NOV. 95	300	150	2	1	19	2.46*
	04 JAN. 96	900	330	82	13	68	2.76
MW2	05 MAY 95	-500	-0.6	-1	-1	-3	--
	05 JULY 95	1600	-0.6	26	-1	-3	3.2
	03 NOV. 95	-50	5	0.6	-0.5	-2	3.76*
	04 JAN. 96	-50	1	0.6	-0.5	-2	2.9
MW3	05 MAY 95	-500	7.4	-1	-1	-3	--
	05 JULY 95	-500	5.6	-1	-1	-3	6.1
	03 NOV. 95	-50	7.6	-0.5	-0.5	-2	2.9*
	04 JAN. 96	-50	9	-0.5	-0.5	-2	3.9

Notes:
Results are reported in micrograms per liter, except for dissolved oxygen which is reported in the average parts per million.
TPHg = Total Petroleum Hydrocarbons as gasoline analyzed by modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
Benzene, Toluene, Ethylbenzene, and Xylenes analyzed by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
Negative values (-) represent reporting limits above which concentrations were not reported.
(--) = Analysis not performed.
Results for 5 May 1995 and 5 July 1995 obtained from Blakely Environmental Inc., dated 21 July 1995.
* = Dissolved Oxygen readings taken on 21 November 1995 for the samples collected on 3 November 1995

Western Drake Building 3/14/90



Diesel Soil Sample

1) parallel to side of loading dock door
2) On south side of pit 5' from surface (not from bottom of pit)
3) 7' from side of building
4) Standing water in bottom of pit, sample taken above water mark

Gasoline Soil - South End

1) Sample taken from side of pit, above standing waterline
2) Sample taken in corner, 4' from surface.
3) Sample 11' from wall of building, 5½' ~~south~~ north of the north end of the loading dock door

Gasoline Soil North End

1) Sample from side of pit, above standing waterline.
2) 3' ~~from~~ north of south side of window — 7' from wall of building
3) 4' from surface

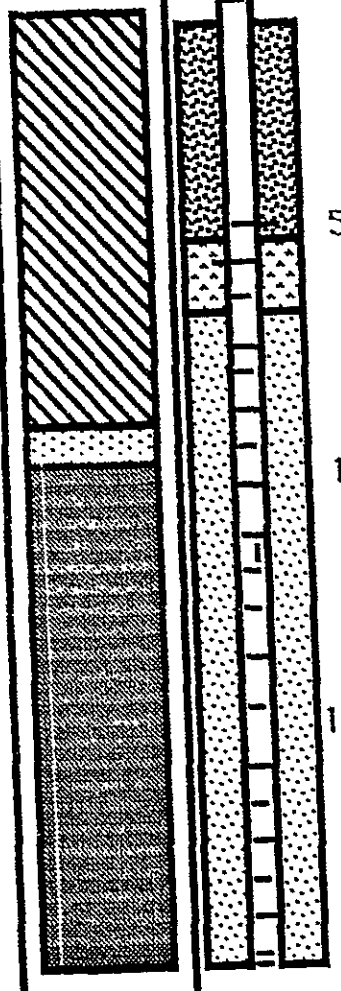
SITE MAP - Sample locations

Diesel Tank ~ 500 gals - 6" standing water covering 1/3 of pit floor.

Gasoline Tank ~ 3000 gals - 6" to 12" standing water covering most of floor.

PROJECT; 1461 Park Ave. Emeryville, CA. MW # 1

SOILS DESCRIPTION	Graphic symbol	Well Completion	HB	REMARKS
Clay dark brown silty gravelly 20-30% gravels			ptld cement	locking well cover 2" schedule 40 pvc blank
Clay dark brown sandy gravelly moist to wet			benonite pellets	soil sample 5' gasoline oder saturation zone prox 6.5 'to 7.5'
Clay gray silty gravel mixed wet			#3 sand	soil sample 10' no odor
Clays gray to brown mixed wet to moist				2" schedule 40 pvc 0.01" slotted
Clays gray to brown mixed moist				



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

5 10 15 20 25 30

PROJECT; 1461 Park Ave. Emeryville, CA. MW # 2

SOILS DESCRIPTION	Graphic symbol	Well Completion	HB	REMARKS
Clay dark brown silty gravelly 20-30% gravels			ptld cement	locking well cover 2" schedule 40 pvc blank
Clay dark brown sandy gravelly moist to wet			benonite pellets	soil sample 5' no odor
Clay gray silty gravel mixed wet				saturation zone prox 6.5 to 7.5'
Clays gray to brown mixed wet to moist			#3 sand	soil sample 10' no odor 2" schedule 40 pvc 0.01" slotted
Clays gray to brown mixed moist				

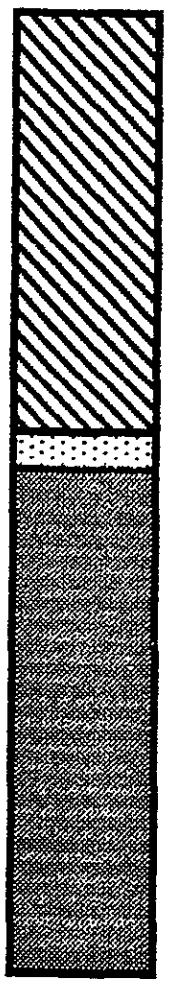
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

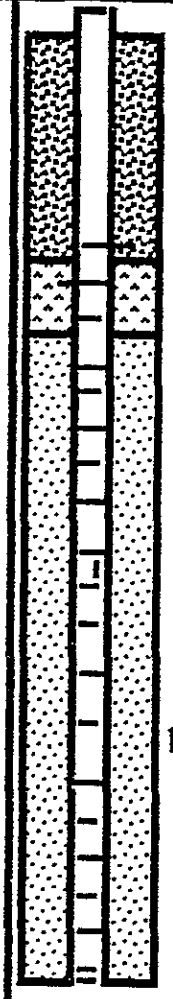
5 10 15 20 25 30

PROPERTY CONTAMINATION CONTROL, INC. logged by: date logged:

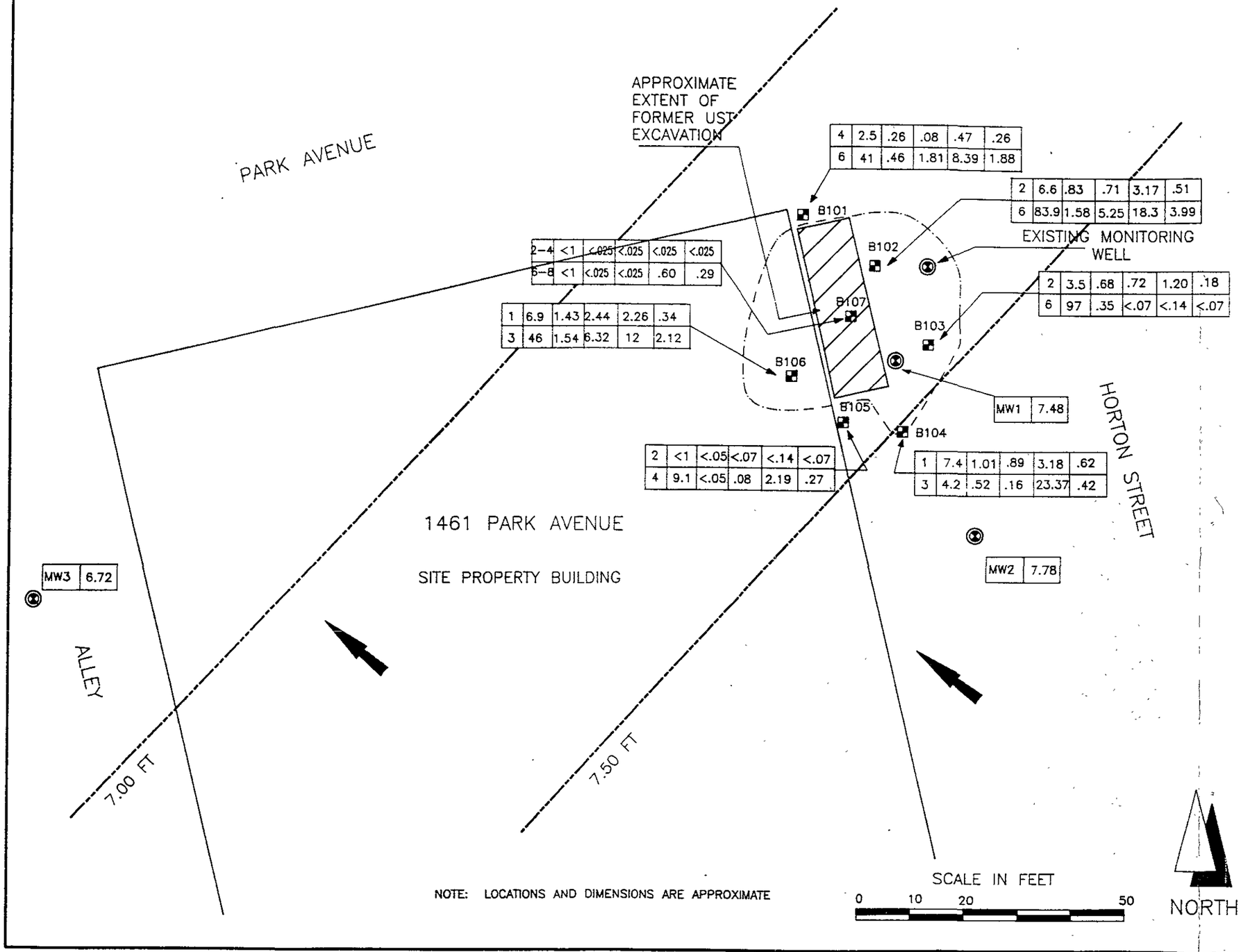
PROJECT; 1461 Park Ave. Emeryville, CA. MW # 3

SOILS DESCRIPTION	Graphic symbol	Well Completion	HB	REMARKS
Clay dark brown silty gravelly 20-30% gravels			ptld cement	locking well cover 2" schedule 40 pvc blank
Clay dark brown sandy gravelly moist to wet			benonite pellets	soil sample 5' no odor
Clay gray silty gravel mixed wet				saturation zone prox 6.5 'to 7.5'
			#3 sand	soil sample 10' no odor
Clays gray to brown mixed wet to moist				2" schedule 40 pvc 0.01" slotted
Clays gray to brown mixed moist				





PROPERTY CONTAMINATION CONTROL, INC. logged by: R. Reid date logged: 7/18/90



LEGEND

- MONITORING WELL LOCATION

MW1 | 7.48
GROUND WATER ELEVATION (ft)
MONITORING WELL NUMBER

2 | 3.5 | .68 | .72 | 1.20 | .18
6 | 97 | .35 | <.07 | <.14 | <.07
TPH (mg/kg)
BENZENE (mg/kg)
TOLUENE (mg/kg)
XYLENE (mg/kg)
ETHYLBENZENE (mg/kg)
DEPTH IN FEET

- POTENTIOMETRIC GROUND WATER ELEVATION ABOVE MEAN SEA LEVEL (ft)
- PROBABLE DIRECTION OF GROUND WATER MOVEMENT
- 0.5 APPROXIMATE BENZENE CONCENTRATION (mg/kg)

RAC
REMEDIAL ACTION CORPORATION

SITE SKETCH
UNION BANK,
EMERYVILLE, CALIFORNIA

CLIENT UNION BANK	PROJECT 050-03
DRAWN BY AEP DATE 7/1/91	DWG 050-03
CHECKED BY JF DATE 7/1/91	FIGURE 2
APPROVED BY EBS DATE 7/1/91	