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

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

September 18, 1996

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Andrew Clark-Clough
City of Oakland
1333 Broadway # 330
Oakland, California 94612

RE: Martin Luther King Jr. School
5714 Martin Luther King Jr. Way, Oakland, California 94609
STID # 3653

Dear Mr. Clark-Clough:

This letter confirms the completion of site investigation and remedial action for the 5,000 gallon heating fuel underground storage tank removed on August 2, 1991 at the above described location. Enclosed is the Case Closure Summary for the referenced site for your records.

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

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721 (e). If a change in the present land use is proposed, the property owner must promptly notify this agency.

Please contact Susan L. Hugo at (510) 567-6780 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

Enclosure

c: Gordon Coleman, Acting Chief, Environmental Protection - files
Kevin Graves, RWQCB
Lori Casias, SWRCB (with enclosure)

01-1779

CASE CLOSURE SUMMARY

Leaking Underground Fuel Storage Tank Program

I. *AGENCY INFORMATION*

Date: December 6, 1995

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: **Martin Luther King Jr. School**
Site facility address: **5714 Martin Luther King Way Jr. Way, Oakland CA 94609**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3653**
URF filing date: **8/7/91** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
City of Oakland c/o	1333 Broadway, #330	(510) 238-6361
Mr. Andrew Clark-Clough	Oakland, CA 94612	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	5000 gal	Heating Oil	Removed	8/2/91

III. *RELEASE AND SITE CHARACTERIZATION INFORMATION*

Cause and type of release: **Holes found in the tank**

Site characterization complete? **YES**

Date approved by oversight agency: **2/7/94**

Monitoring Wells installed? **YES** Number: **Four (4)**

Proper screened interval? **YES**

Highest GW depth below ground surface: **7.26 feet** Lowest depth: **11.80 feet**

Flow direction: **Southwest**

Most sensitive current use: **Unknown (former school facility)**

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

Leaking Underground Fuel Storage Tank Program

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	5000 gal	Disposed at Erickson, Inc. Richmond, CA	8/2/91
Soil	280 cu yd	Disposed at BFI Livermore, CA	3/28/94
Groundwater/ Product	2500 gal	Disposed at Refineries Services Patterson, CA	8/2/91

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)	430	2.2	1,200	ND<50
TPH (Diesel)	750	5.9	1,800	ND<50
Benzene	0.51	ND<0.005	26	ND<0.5
Toluene	0.35	ND<0.005	75	ND<0.5
Xylene	1.8	0.019	84	ND<0.5
Ethylbenzene	0.33	ND<0.005	20	ND<0.5
Motor Oil	950	14	ND	ND<1000

*** Composite of 4 discreet sample collected from the stockpiled soil.**
**** Grab groundwater sample collected from the excavation.**

Comments (Depth of Remediation, etc.):

One 5,000 gallon heating fuel underground storage tank was removed on August 2, 1991. Shoring was installed prior to the tank's removal to protect the structural integrity of the building. At the time of the UST removal, groundwater was present in the excavation and beads of petroleum product were observed on the groundwater surface. The former tank was inspected for corrosion and six 1/2-inch holes were discovered on the sides and ends.

Two sidewall soil samples were collected, one from each end of the UST and 1 foot above standing water. The analytical results showed no detectable level of benzene, toluene, ethyl benzene and xylenes. TPH gasoline (2.2 ppm) was detected in the north sidewall sample. TPH diesel (5.9 ppm) and TPH motor oil (14 ppm) were detected in the south sidewall sample at very low concentrations.

Approximately 2500 gallons of groundwater / product was pumped out from the UST. TPH gasoline, TPH diesel, and BTEX were detected (concentrations listed above) in the grab groundwater sample collected from the excavation.

A four inch diameter monitoring well was installed in the excavation during backfilling to provide groundwater monitoring capabilities and potential access to remediation, if required.

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: **NA**

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

Monitoring wells Decommissioned: **NO (will be decommissioned upon approval of case closure)**

Number Decommissioned: **NONE** Number Retained: **Four (4)**

List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. *LOCAL AGENCY REPRESENTATIVE DATA*

Name: **Susan L. Hugo** Title: **Sr. Hazardous Materials Specialist**
Signature: Susan L Hugo Date: 12/6/95

Reviewed by

Name: **Dale Klettke** Title: **Hazardous Materials Specialist**
Signature: Dale Klettke Date: 12/21/95

Name: **Thomas Peacock** Title: **Sup. Hazardous Materials Specialist**
Signature: Thomas Peacock Date: 12-14-95

Leaking Underground Fuel Storage Tank Program

VI. *RWQCB NOTIFICATION*

Date Submitted to RB: 12/21/95
RWQCB Staff Name: Kevin Graves

RB Response: Approved
Title: Water Resources Control Engineer
Date: 1/2/95

VII. *ADDITIONAL COMMENTS, DATA, ETC.*

Three shallow groundwater monitoring wells were installed on February 10, 1994. Soil samples collected during the installation of the wells showed very low levels of contamination up to 11 ppm TPH diesel, 0.5 ppm TPH gasoline, and 0.019 ppm xylenes. The groundwater samples collected subsequent to the well installation found up to 480 ppb TPH diesel, 1.8 ppb toluene, 0.4 ppb ethyl benzene and 2.4 ppb xylene.

The four monitoring wells on site had been sampled consistently since 2/25/94 up to 3/6/95. TPH gasoline, TPH kerosene, TPH motor oil and benzene have not been detected during the entire monitoring period. TPH diesel, toluene, ethyl benzene, and xylene were detected at very low concentrations but the last two sampling events showed no detectable concentration of petroleum hydrocarbon.

The site is a former school facility built in 1923 and was used as a high school and later as a community college. The facility was last used in 1983 and is currently vacant. City of Oakland is considering this site for redevelopment.

Source removal has occurred at the site. The groundwater does not appear to be threatened to a significant extent from the release associated with the former heating fuel tank. Therefore, this agency is recommending no further work regarding the former UST removed at the referenced site.

154-201 Fig 1 box QK 3/23/95 DY

URIBE & ASSOCIATES

Figure 1: Site Location Map
5714 Martin Luther King Jr. Way, Oakland California

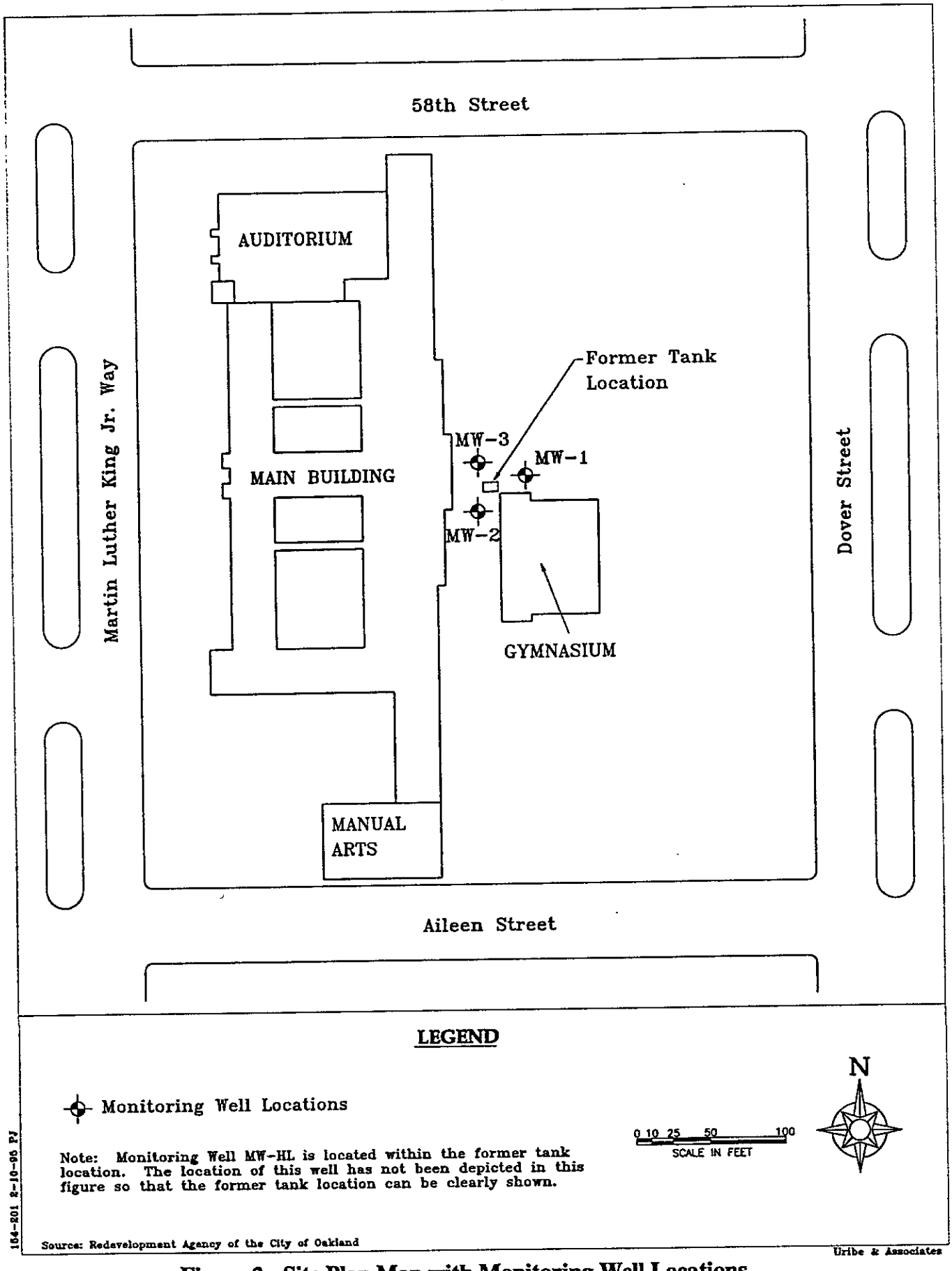


Figure 2: Site Plan Map with Monitoring Well Locations
5714 Martin Luther King Jr. Way, Oakland, CA

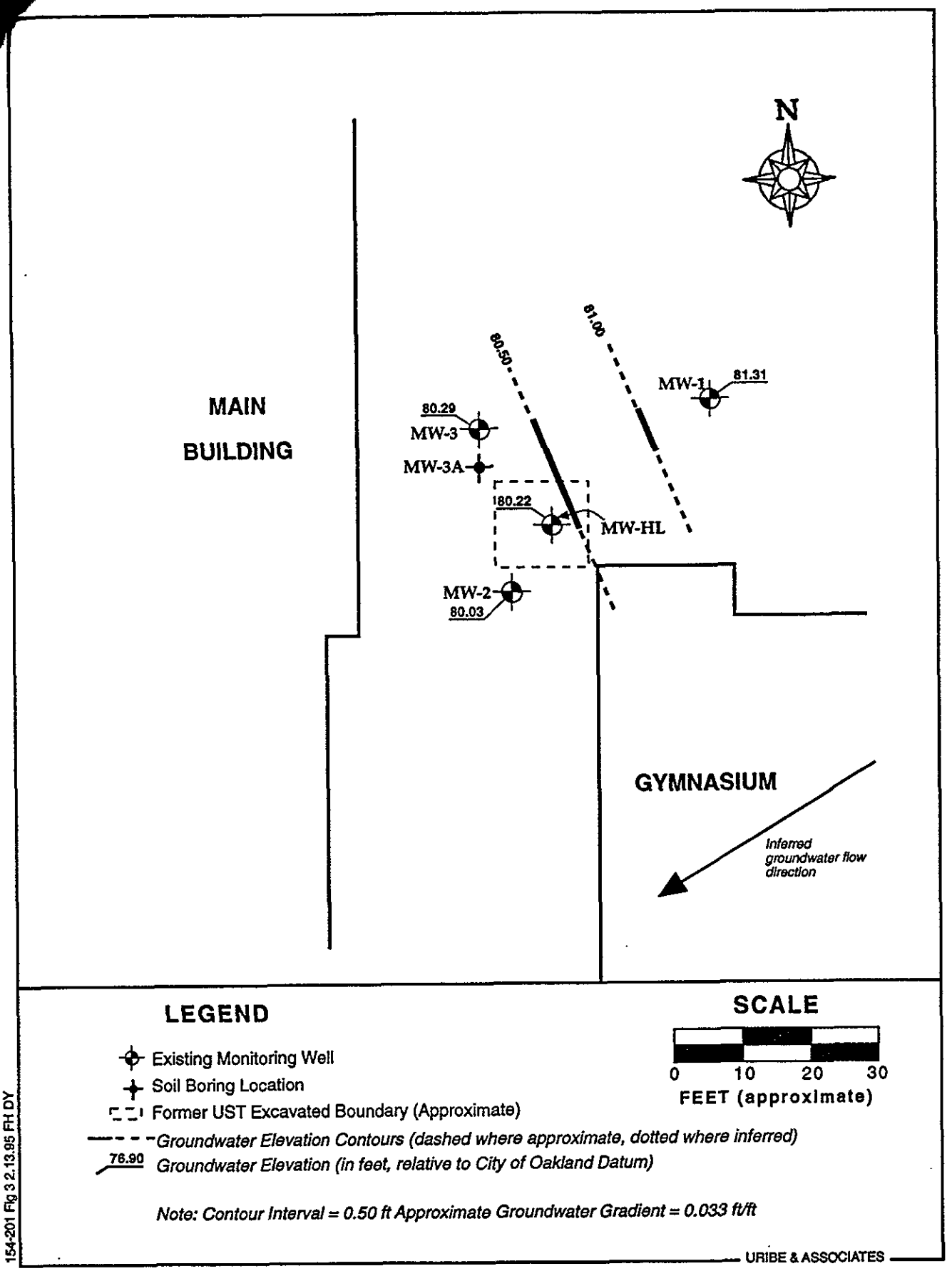


Figure 3: Potentiometric Surface Map, December 16, 1994
5714 Martin Luther King Jr. Way, Oakland, CA

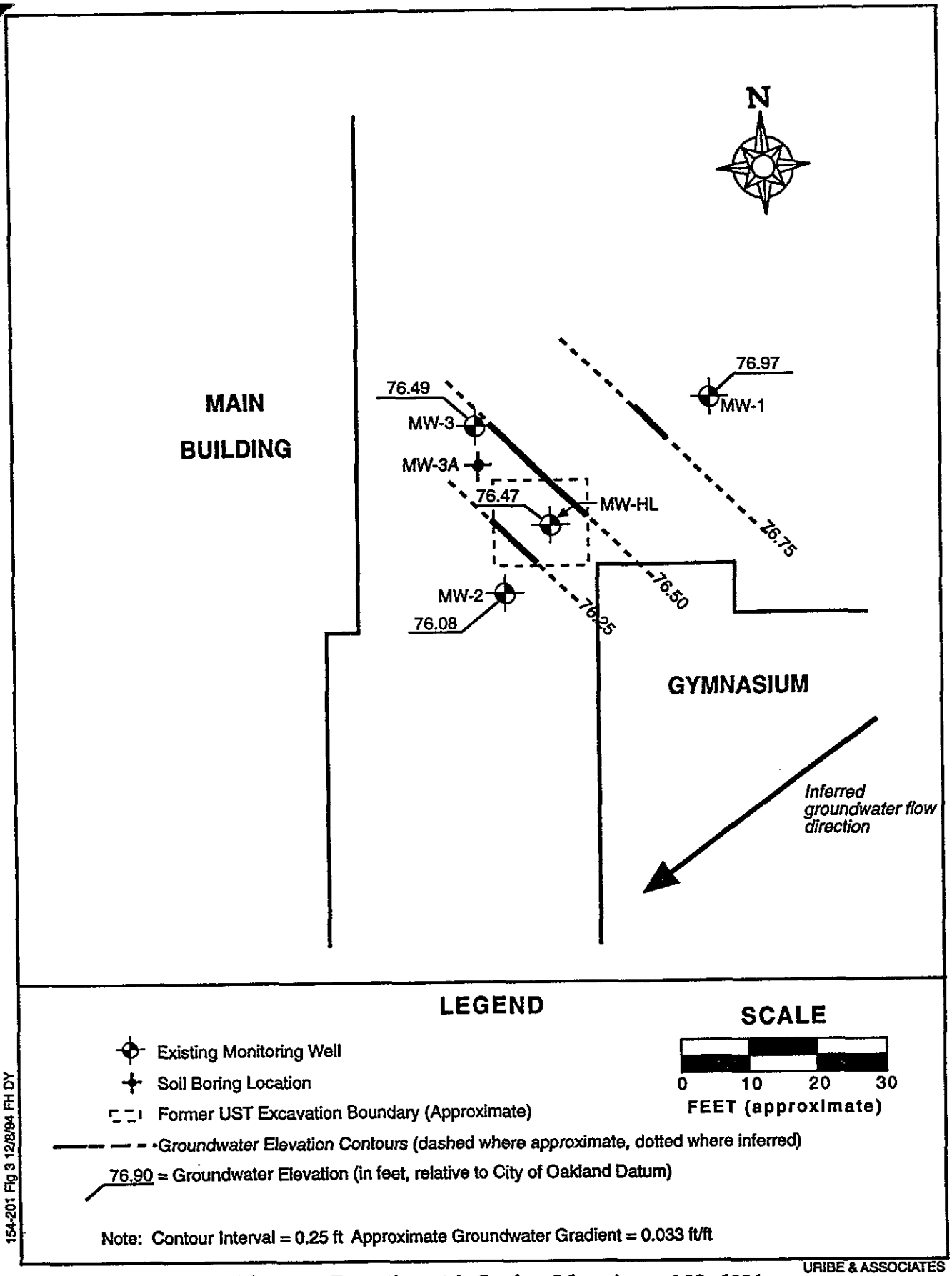


Figure 3: Potentiometric Surface Map, August 29, 1994
5714 Martin Luther King Jr. Way, Oakland, CA

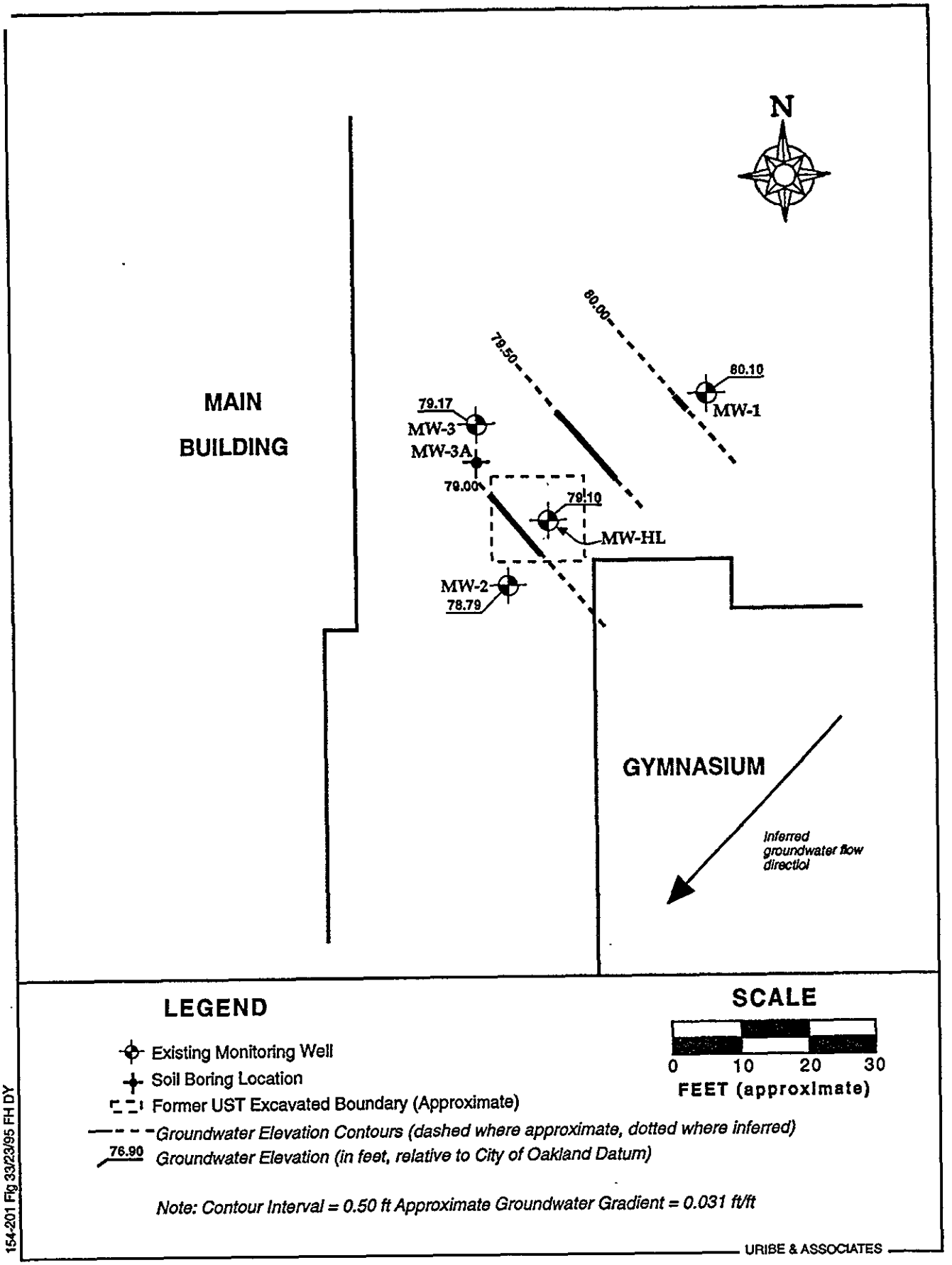


Figure 3: Potentiometric Surface Map, March 6, 1995
5714 Martin Luther King Jr. Way, Oakland, CA

Table 1

Groundwater Level Data
5714 Martin Luther King Jr. Way
Oakland, California
(All Measurements in Feet)

Well / Date	Reference Elevation	Depth to Groundwater	Groundwater Elevation
MW-1			
02/25/94	88.77	7.26	81.51
05/26/94		10.15	78.62
06/09/94		10.82	77.95
08/29/94		11.80	76.97
12/16/94		7.46	81.31
03/06/95		8.67	80.10
MW-2			
02/25/94	87.88	7.39	80.49
05/26/94		10.25	77.63
06/09/94		10.98	76.90
08/29/94		11.80	76.08
12/16/94		7.85	80.03
03/06/95		9.09	78.79
MW-3			
02/25/94	87.99	7.31	80.68
05/26/94		10.47	77.52
06/09/94		10.77	77.22
08/29/94		11.50	76.49
12/16/94		7.70	80.29
03/06/95		8.82	79.13
MW-HL			
02/25/94	88.17	7.88	80.09
05/26/94		nm	nm
06/09/94		10.70	77.47
08/29/94		11.70	76.47
12/16/94		7.95	80.22
03/06/95		9.07	79.10

Notes:

Reference Elevations and Groundwater Elevations are relative to mean lower low water (3.2 feet below mean sea level; "City of Oakland Datum").

Depth to Groundwater measured from top of well casing.

Survey of Reference Elevations by Greiner, Inc., of Pleasanton, California, on March 4, 1994.

nm = Not measured

Table 2

Analytical Results: TPH in Groundwater
5714 Martin Luther King Jr. Way
Oakland, California

Well / Date	Groundwater Elevation	TPH-G	TPH-D	TPH-K	TPH-MO
		(concentrations in micrograms/liter)			
MW-1					
02/25/94	81.51	ND(50)	ND(200)	NA	NA
05/26/94	78.62	ND(50)	ND(50)	ND(50)	ND(1000)
08/29/94	76.97	ND(50)	85*	ND(50)	NA
12/16/94	81.31	ND(50)	ND(50)	ND(50)	NA
03/06/95	80.10	ND(50)	ND(50)	ND(50)	NA
MW-2					
02/25/94	80.49	ND(50)	190	NA	NA
05/26/94	77.63	ND(50)	ND(50)	ND(50)	ND(1000)
08/29/94	76.08	ND(50)	ND(50)	ND(50)	NA
12/16/94	80.03	ND(50)	ND(50)	ND(50)	NA
03/06/95	78.79	ND(50)	ND(50)	ND(50)	NA
MW-3					
02/25/94	80.68	ND(50)	ND(200)	NA	NA
05/26/94	77.52	ND(50)	ND(50)	ND(50)	ND(1000)
08/29/94	76.49	ND(50)	170*	ND(50)	NA
12/16/94	80.29	ND(50)	ND(50)	ND(50)	NA
03/06/95	79.13	ND(50)	ND(50)	ND(50)	NA
MW-HL					
02/25/94	80.09	ND(50)	480	NA	NA
06/09/94	77.47	ND(50)	ND(50)	ND(50)	ND(1000)
08/29/94	76.47	ND(50)	ND(50)	ND(50)	NA
12/16/94	80.22	ND(50)	ND(50)	ND(50)	NA
03/06/95	79.10	ND(50)	ND(50)	ND(50)	NA

Notes:

TPH-G = Total petroleum hydrocarbons as gasoline
TPH-D = Total petroleum hydrocarbons as diesel
TPH-K = Total petroleum hydrocarbons as kerosene
TPH-MO = Total petroleum hydrocarbons as motor oil
ND() = Not detected at or above the indicated laboratory method detection/reporting limit
NA = Not analyzed
Groundwater Elevation in feet relative to City of Oakland Datum.
*The reported "TPH-D" consisted of several discrete peaks that were not characteristic of fresh or weathered diesel. The compounds generating these peaks could not be identified with the available data. The lack of these peaks in samples from the prior or subsequent quarter suggests that the appearance of these peaks was a one-time occurrence unrelated to actual groundwater quality at the site.

Table 3

Analytical Results: BTEX in Groundwater
5714 Martin Luther King Jr. Way
Oakland, California

(Concentrations in µg/l)

Well / Date	Groundwater Elevation	Benzene	Toluene	Ethyl-Benzene	Total Xylenes
MW-1					
02/25/94	81.51	ND(0.4)	ND(0.3)	ND(0.3)	ND(0.4)
05/26/94	78.62	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
08/29/94	76.97	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
12/16/94	81.31	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
03/06/95	80.10	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-2					
02/25/94	80.49	ND(0.4)	ND(0.3)	ND(0.3)	ND(0.4)
05/26/94	77.63	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
08/29/94	76.08	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
12/16/94	80.03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
03/06/95	78.79	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-3					
02/25/94	80.68	ND(0.4)	1.8	0.4	2.4
05/26/94	77.52	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
08/29/94	76.49	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
12/16/94	80.29	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
03/06/95	79.13	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-HL					
02/25/94	80.09	ND(0.4)	ND(0.3)	ND(0.3)	ND(0.4)
06/09/94	77.47	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
08/29/94	76.47	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
12/16/94	80.22	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
03/06/95	79.10	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

Notes:

ND() = Not detected; detection/reporting limit in parentheses.
Groundwater Elevation in feet relative to City of Oakland Datum.

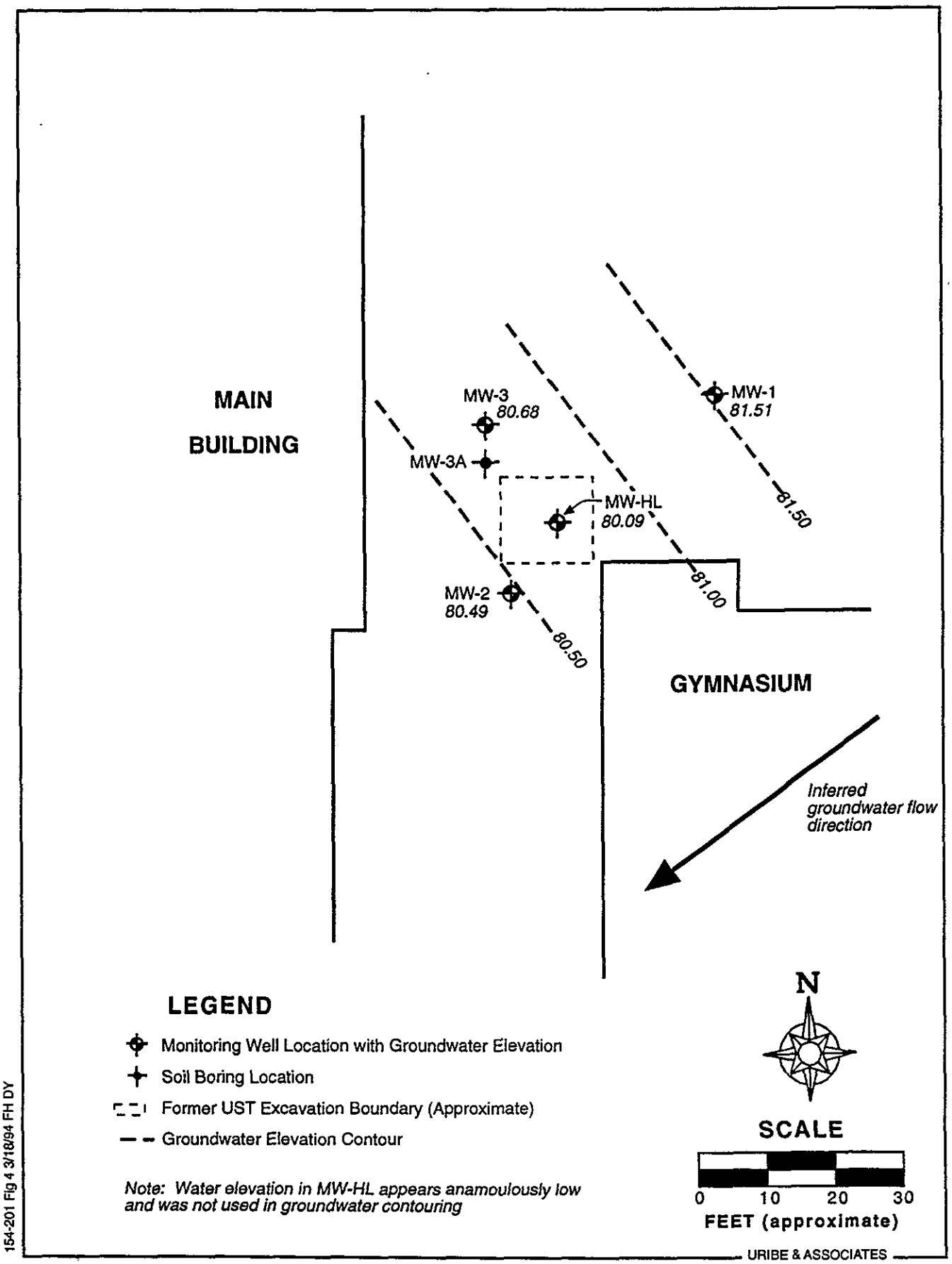


Figure 4: Groundwater Elevation Contour Map
5714 Martin Luther King Jr. Way, Oakland, CA

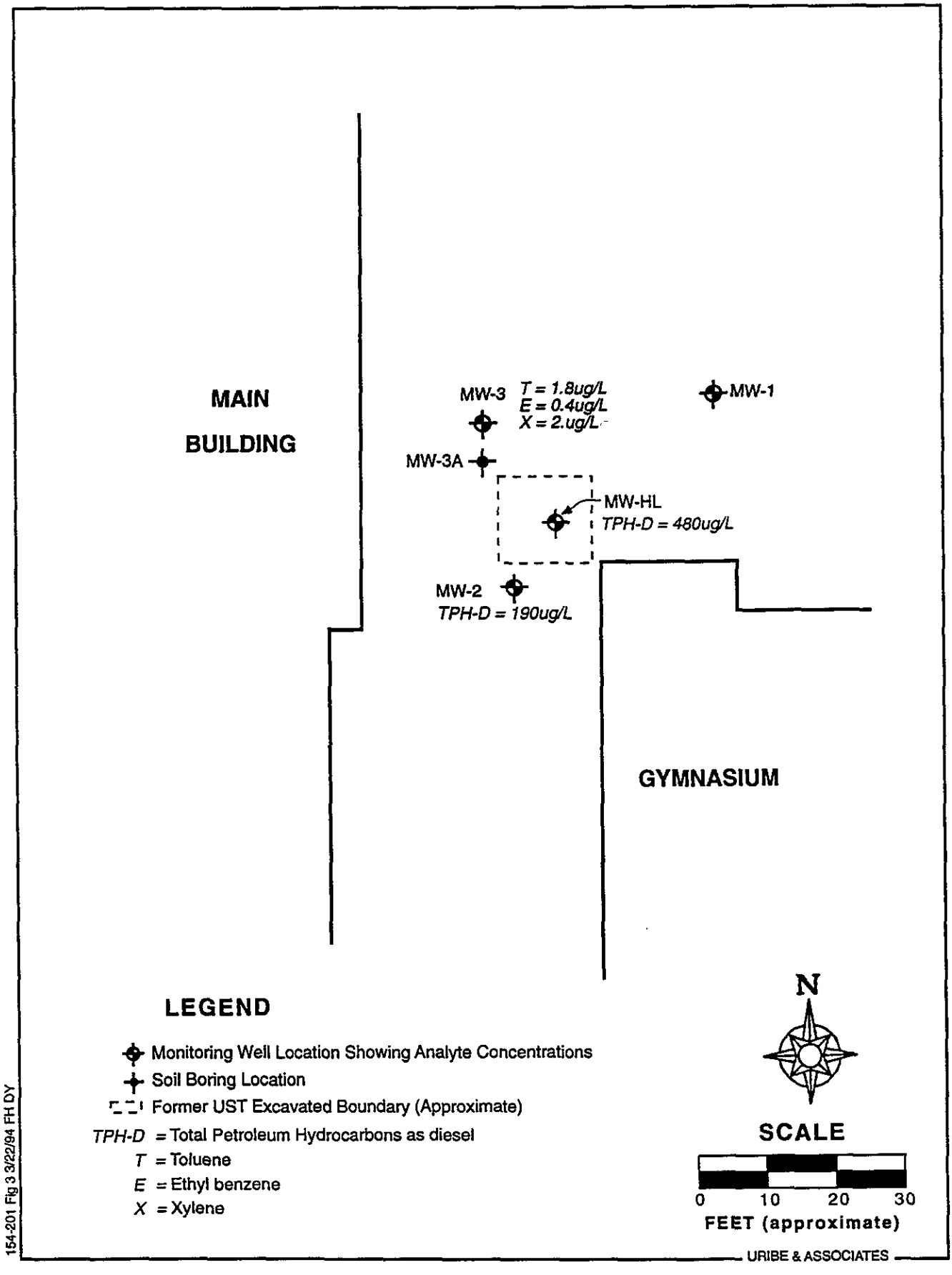


Figure 3: Results of Groundwater Sample Analyses
5714 Martin Luther King Jr. Way, Oakland, CA

Table 1: Summary of Soil and Groundwater Sample Results from Tank Removal Activities Performed by Harding Lawson Associates in 1991

GROUNDWATER

	Benzene ug/L	Toluene ug/L	Ethyl benzene ug/L	Total Xylenes ug/L	Gasoline mg/L	Diesel mg/L	Motor oil mg/L
Groundwater	26	75	20	84	1.2	18	ND

SOIL

	Benzene ug/kg	Toluene ug/kg	Ethyl benzene ug/kg	Xylenes ug/kg	Gasoline mg/kg	Diesel mg/kg	Motor oil mg/kg
Stockpile	510	350	330	1,800	430	750	950
North Sidewall	ND	ND	ND	ND	2.2	ND	ND
South Sidewall	ND	ND	ND	ND	ND	5.9	14

ND= not detected

Table 2: Groundwater Elevations on February 25, 1994

Well	TOC Elevation	Depth to Water	Water Elevation
MW-1	88.77	7.26	81.51
MW-2	87.88	7.39	80.49
MW-3	87.99	7.31	80.68
MW-HL[1]	88.17[2]	7.88	80.09

TOC = Top of (Well) Casing relative to City of Oakland Datum

[1] Well installed by Harding Lawson (HLA, 1992).

[2] TOC elevation calculated by subtracting distance between the TOC and well cover from the elevation of the well cover measured by the surveyor (see text).

Table 3: Summary of Soil Sample Results
(concentrations in mg/kg)

Sample	TPH-Diesel	TPH-Gasoline	Benzene	Toluene	Ethyl benzene	Total Xylenes
MW-1-5.0	2[1]	<0.3	<0.005	<0.005	<0.005	<0.005
MW-1-10.0	2[1]	<0.3	<0.005	<0.005	<0.005	<0.005
MW-2-5.0	<1	0.5	<0.005	<0.005	<0.005	0.019
MW-2-10.0	3[1]	<0.3	<0.005	<0.005	<0.005	<0.005
MW-3-5.0	3[1]	<0.3	<0.005	<0.005	<0.005	0.005
MW-3-10.0	11[1]	<0.3	<0.005	<0.005	<0.005	<0.005

[1] Laboratory Note: Sample result does not match the typical patterns for diesel or oil. A single unidentified component in the range of C-30 was present in the sample and was quantified and reported as diesel.

Table 4 Summary of Groundwater Sample Results

Sample	TPH Diesel ug/L	TPH Gasoline ug/L	Benzene ug/L	Toluene ug/L	Ethyl benzene ug/L	Total Xylenes ug/L
MW-1	<200	<50	<0.4	<0.3	<0.3	<0.4
MW-2[1]	190	<50	<0.4	<0.3	<0.3	<0.4
MW-3[1]	<200	<50	<0.4	1.8	0.4	2.4
MW-HL	480	<50	<0.4	<0.3	<0.3	<0.4

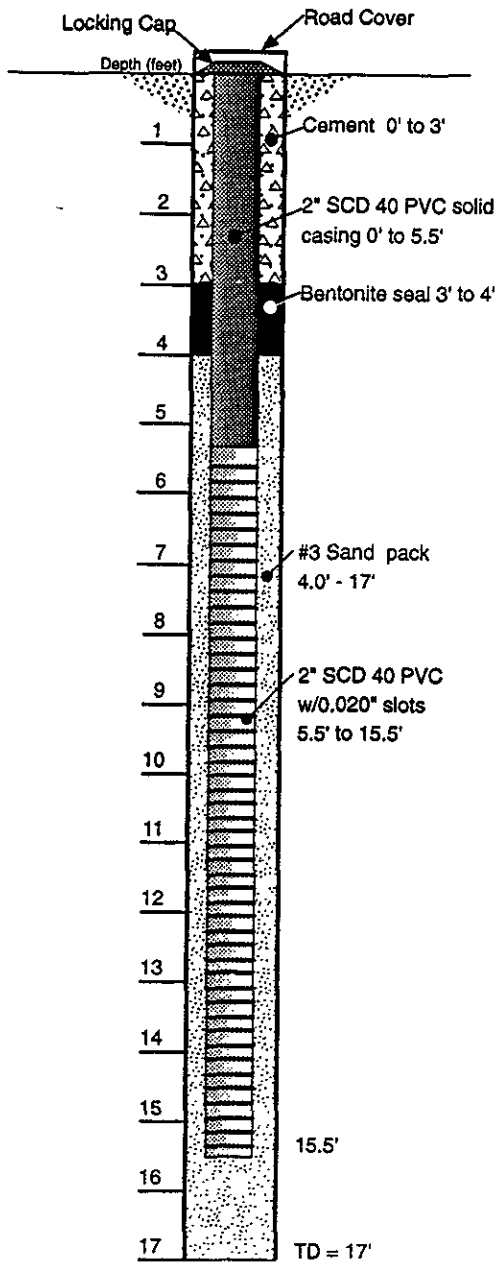
[1] The samples from MW-2 and MW-3 were inadvertently mislabeled in the field. As a result, the data reported for MW-2 in the laboratory report is actually associated with the sample from MW-3 and vice versa. The data in this table have been corrected so that the analytical results are consistent with the well identifications used in this report.

City of Oakland - 5714 MLK Jr. Way

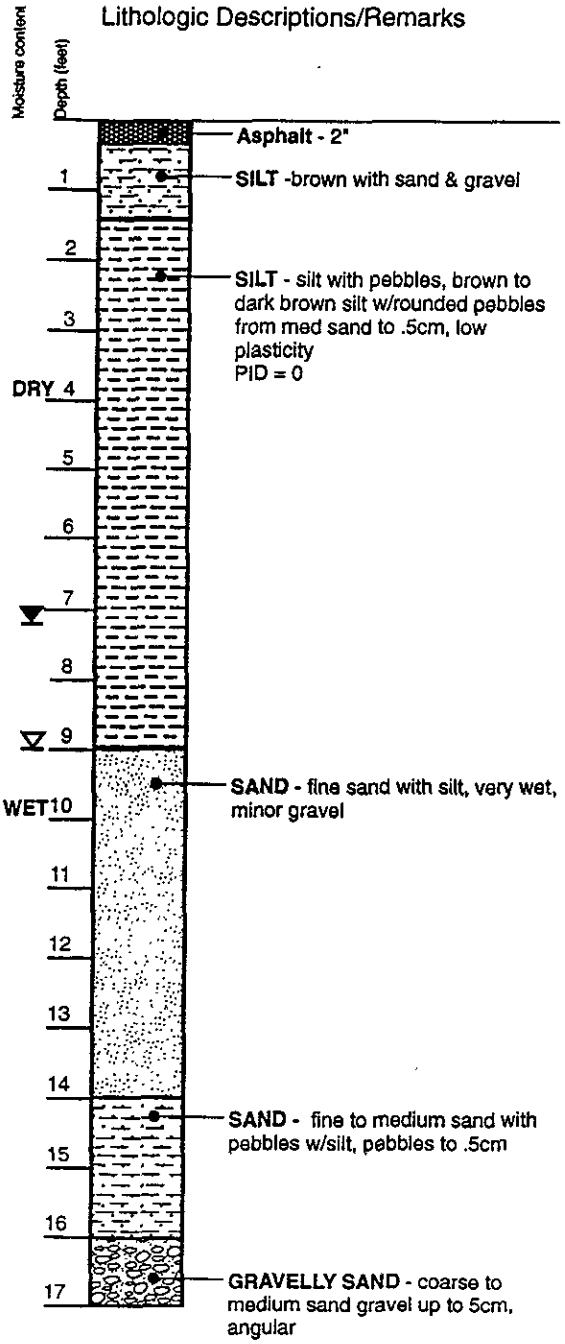
Bore Hole MW-1

Date 2/10/94
Drilling Method HS Auger
Sampling Method 18" Split spoon
Surface Elevation
Recorded By JC Borrego
Registered Geologist

Well As-Built



Lithologic Descriptions/Remarks



▽ Depth at which first groundwater was noted during drilling

▼ Depth of stabilized groundwater on February 25, 1994

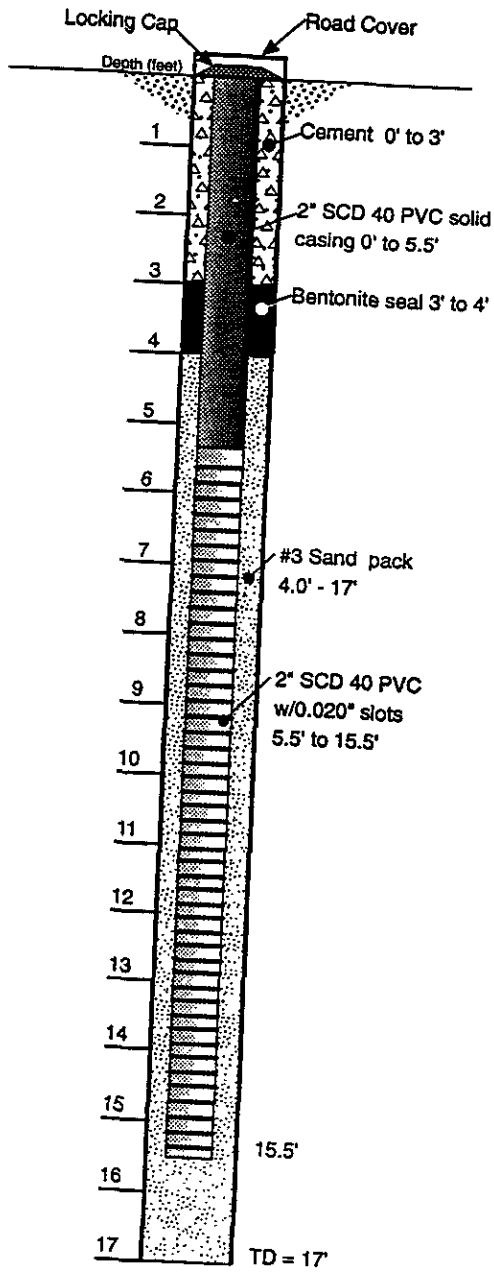
154-201 MW-1 3/18/94 DY

City of Oakland - 5714 MLK Jr. Way

Bore Hole MW-2

Date 2/10/94
Drilling Method HS Auger
Sampling Method 18" Split spoon
Surface Elevation
Recorded By JC Borrego
Registered Geologist

Well As-Built



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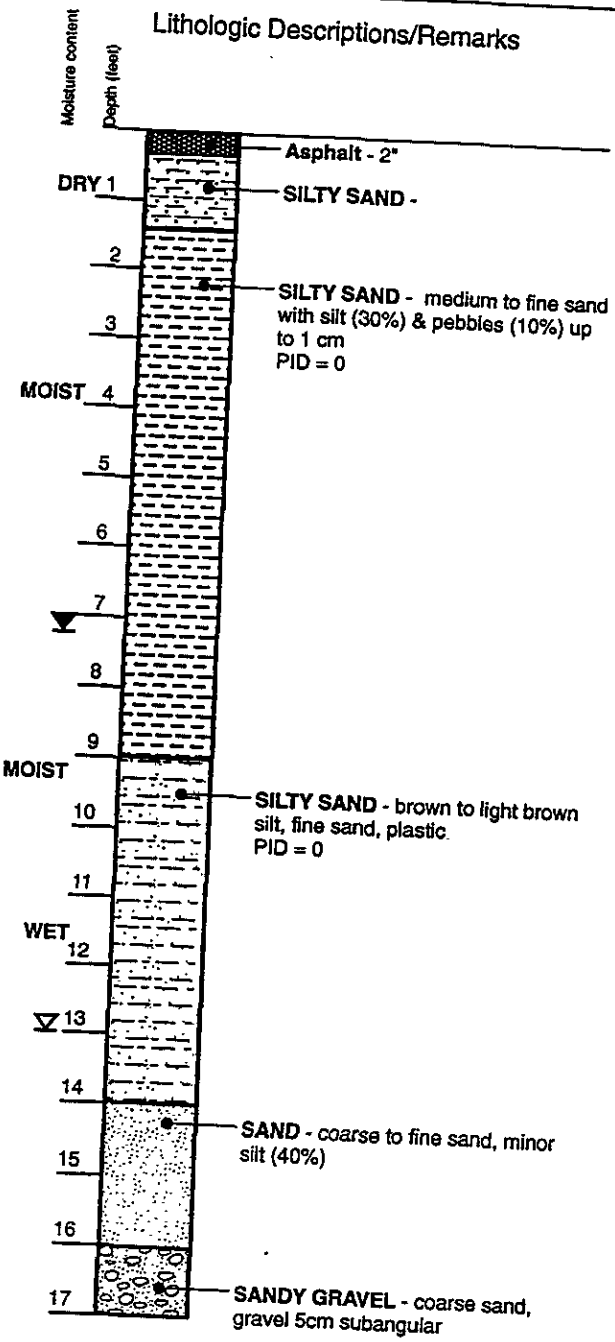


▽ Depth at which first groundwater was noted during drilling

▼ Depth of stabilized groundwater on February 25, 1994

154-201 MW-2 3/18/94 DY

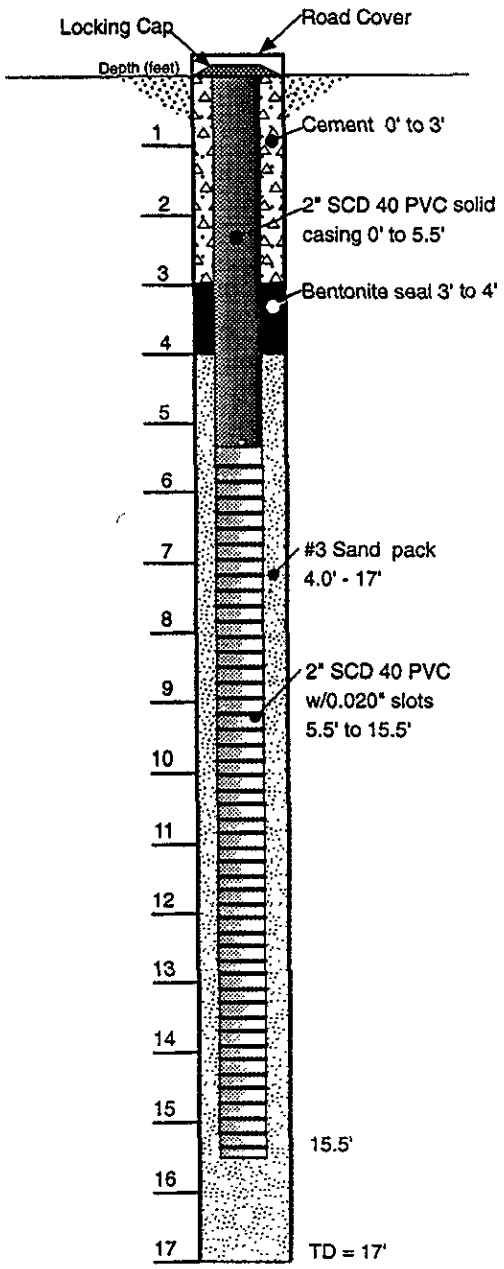
Uribe & Associates

City of Oakland - 5714 MLK Jr. Way

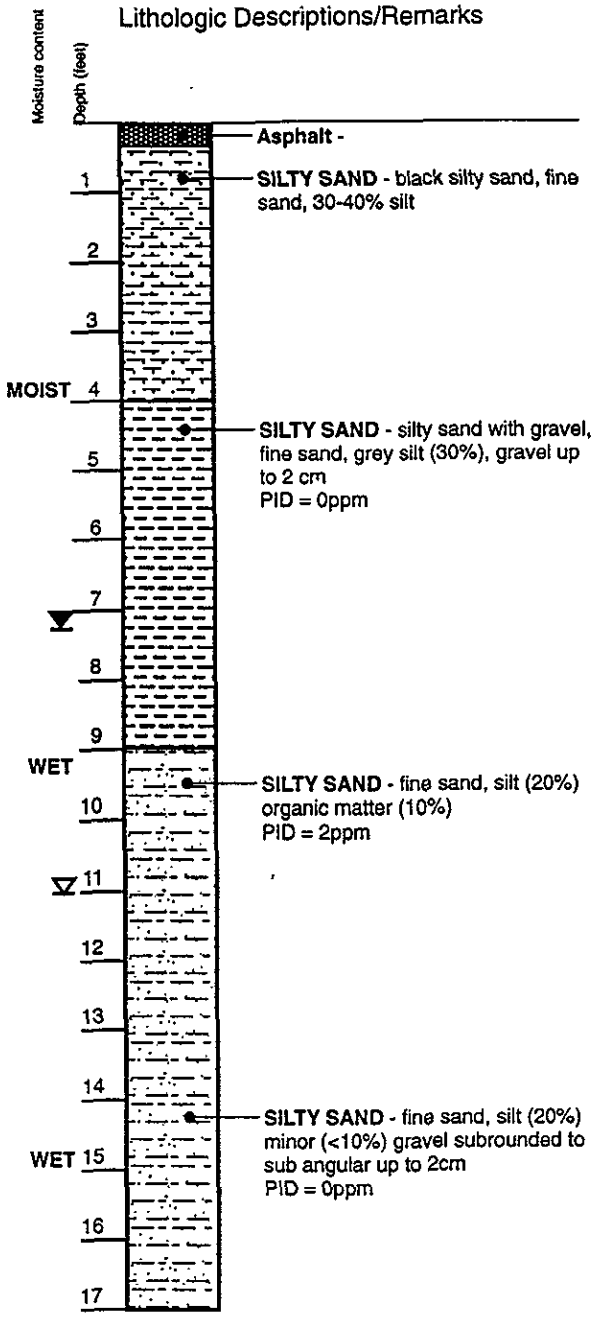
Bore Hole MW-3

Date 2/10/94
Drilling Method HS Auger
Sampling Method 18" Split spoon
Surface Elevation
Recorded By JC Borrego
Registered Geologist

Well As-Built



Lithologic Descriptions/Remarks



Asphalt -

SILTY SAND - black silty sand, fine sand, 30-40% silt

SILTY SAND - silty sand with gravel, fine sand, grey silt (30%), gravel up to 2 cm
PID = 0ppm

SILTY SAND - fine sand, silt (20%) organic matter (10%)
PID = 2ppm

SILTY SAND - fine sand, silt (20%) minor (<10%) gravel subrounded to sub angular up to 2cm
PID = 0ppm

▽ Depth at which first groundwater was noted during drilling

▼ Depth of stabilized groundwater on February 25, 1994

154-201 MW-3 3/18/94 DY

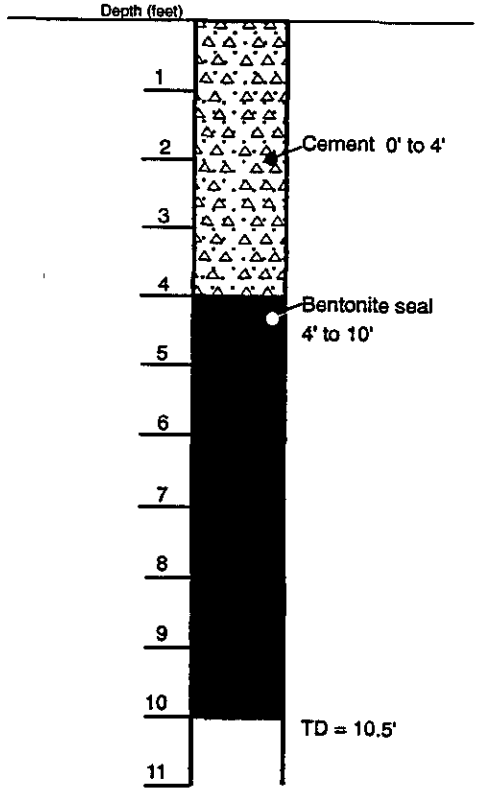
Uribe & Associates

City of Oakland - 5714 MLK Jr. Way

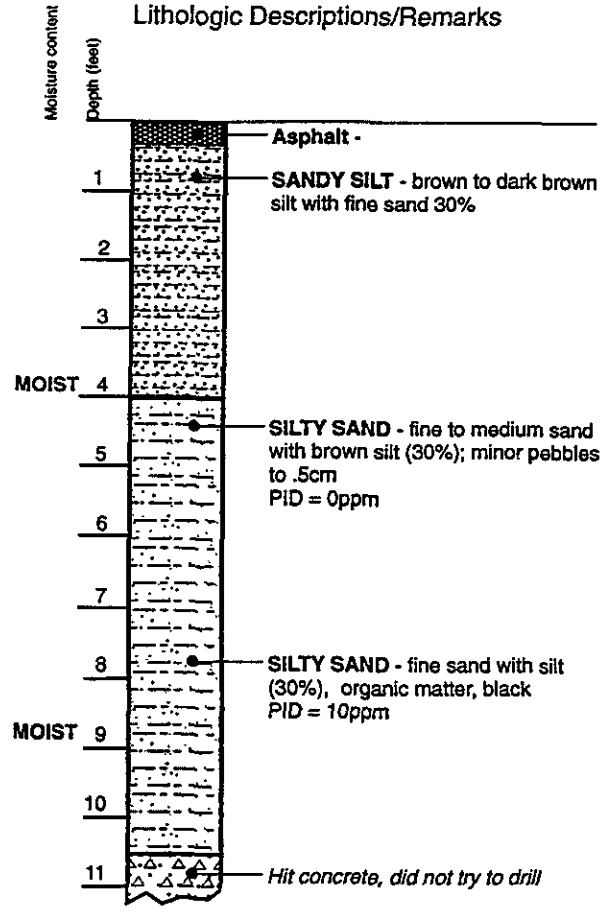
Bore Hole MW-3A

Date 2/10/94
Drilling Method HS Auger
Sampling Method 18" Split spoon
Surface Elevation
Recorded By JC Borrego
Registered Geologist

Well As-Built



Lithologic Descriptions/Remarks



154-201 MW-3 A3/18/94 DY