

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

**REMEDIAL ACTION COMPLETION CERTIFICATION**

June 16, 1997

Broadway Webster Medical Plaza  
c/o Mr. John Barnard  
7677 Oakport Street, Suite 500  
Oakland, California 94621

**RE: STID # 3610 Broadway Webster Medical Plaza  
3300 Webster Street, Oakland, California 94609**

Dear Mr. Barnard:

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

c: Gordon Coleman, Chief, Environmental Protection Division  
Kevin Graves, San Francisco Bay RWQCB  
Lori Casias, SWRCB (with enclosure)  
Dave Deaner, SWRCB, UST Cleanup Fund Program  
Kimberly Brandt / Larry Lapuyade, LFR, 1900 Powell St., 12th Floor, Emeryville, CA 94608  
Leroy Griffin, Oakland Fire Department  
Susan Hugo (3 copies of letter only)

ALAMEDA COUNTY  
**HEALTH CARE SERVICES**



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DAVID J. KEARS, Agency Director

June 16, 1997

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c/o Mr. John Barnard  
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**RE: Fuel Leak Site Case Closure - Broadway Webster Medical Plaza ( STID # 3610 )  
3300 Webster Street, Oakland, California 94609**

Dear Mr. Barnard:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 ( Article 4, Section 25299.37 [h] ). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health Services, Local Oversight Program is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

**Site Investigation and Cleanup Summary:**

Please be advised that the following conditions exists at the site:

- \* Seven hundred parts per billion (ppb) Total Petroleum Hydrocarbon as Gasoline, 18 ppb benzene, 1 ppb toluene, 26 ppb ethylbenzene, 7 ppb xylene and 6 ppb MTBE remain in the groundwater beneath the former USTs under the sidewalk along Hawthorne Avenue.

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

Sincerely,

Susan L. Hugo  
Senior Hazardous Materials Specialist

Enclosures:

1. Case Closure Letter
2. Case Closure Summary

cc: Gordon Coleman, Chief, Environmental Protection Division  
Leroy Griffin, Oakland Fire Department  
SH ( 3 copies of letter only)

ALAMEDA COUNTY  
HEALTH CARE SERVICES

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DAVID J. KEARS, Agency Director



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January 8, 1997

Broadway Webster Medical Plaza  
c/o Mr. John Barnard  
7677 Oakport Street, Suite 500  
Oakland, California 94621

**RE: Case Closure - Broadway Webster Medical Plaza (STID# 3610)**  
**3300 Webster Street, Oakland, California 94609**

Dear Mr. Barnard:

This letter serves to clarify that the case closure for the subject site recommended by this agency to the Regional Water Quality Control Board (RWQCB) and approved by the RWQCB on 12/11/96 relates to the 100-gallon diesel underground storage tank (UST) removed on 9/1/87 and the two 500-gallon USTs reportedly removed in January 1974 from the site.

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  
Kimberly Brandt, LFR, 1900 Powell Street, 12th Floor, Emeryville, CA 94608  
SH / files

January 8, 1997

Broadway Webster Medical Plaza  
c/o Mr. John Barnard  
7677 Oakport Street, Suite 500  
Oakland, California 94621

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3300 Webster Street, Oakland, California 94609**

Dear Mr. Barnard:

This letter serves to clarify that the case closure for the subject site recommended by this agency to the Regional Water Quality Control Board (RWQCB) and approved by the RWQCB on 12/11/96 relates to the 100-gallon diesel underground storage tank (UST) removed on 9/1/87 and the two 500-gallon USTs reportedly removed in January 1974 from the site.

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Kevin Graves, San Francisco Bay RWQCB  
Gordon Coleman, Acting Chief, Environmental Protection Division  
Kimberly Brandt, LFR, 1900 Powell Street, 12th Floor, Emeryville, CA 94608  
SH / files

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



January 7, 1997

Broadway Webster Medical Plaza  
c/o Mr. John Barnard  
7677 Oakport Street, Suite 500  
Oakland, California 94621

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION (LOP)  
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(510) 567-6700  
FAX (510) 337-9335

**RE: Case Closure - Broadway Webster Medical Plaza (STID# 3610)  
3300 Webster Street, Oakland, California 94609**

Dear Mr. Barnard:

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 a 100 gallon diesel underground storage tank at the above referenced site.

Please be advised that the four groundwater monitoring wells (LF-1, LF-2, LF-3 and LF-4) 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  
Kimberly Brandt, LFR, 1900 Powell Street, 12th Floor, Emeryville, CA 94608  
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January 7, 1997

Broadway Webster Medical Plaza  
c/o Mr. John Barnard  
7677 Oakport Street, Suite 500  
Oakland, California 94621

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3300 Webster Street, Oakland, California 94609**

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Gordon Coleman, Acting Chief, Environmental Protection Division  
Kimberly Brandt, LFR, 1900 Powell Street, 12th Floor, Emeryville, CA 94608  
SH / files

**CASE CLOSURE SUMMARY**  
**Leaking Underground Fuel Storage Tank Program**

**I. AGENCY INFORMATION** **Date:** November 19, 1996  
Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**  
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: **Broadway Medical Plaza**  
Site facility address: **3300 Webster Street, Oakland, CA 94609**  
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3610**  
URF filing date: **7/27/89** SWEEPS No: **N/A**

Responsible Parties: Addresses: Phone Numbers:  
**Broadway Webster Medical Plaza** **7677 Oakport Street, Suite 500**  
**c/o John Barnard** **Oakland, CA 94621**

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	100	Diesel	Removed	9/1/87

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**  
Cause and type of release: **Unknown**  
Site characterization complete? **YES**  
Date approved by oversight agency: **3/30/89**  
Monitoring Wells installed? **Yes** Number: **4**  
Proper screened interval? **Yes, 25' to 34.5' bgs**  
Highest GW depth below ground surface: **19.78'** Lowest depth: **21.93'** in LF-2  
Flow direction: **South, southwest**  
Most sensitive current use: **Medical center**  
Are drinking water wells affected? **No** Aquifer name: **Unknown**  
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) filed? **Alameda County**  
**1131 Harbor Bay Pkwy**  
**Alameda, CA 94502**

ENVIRONMENTAL  
PROTECTION  
97 JAN -2 PH 2:14

**Treatment and Disposal of Affected Material:**

<u>Material</u>	<u>Amount</u> (include units)	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Tank	1 UST	Disposed as scrap at Levin Metals	9/2/87
Piping			
Rinsate	100 gallon	H & H, in San Francisco	9/1/87

**Maximum Documented Contaminant Concentrations - - Before and After Cleanup**

Contaminant	Soil (ppm)		Water (ppb)	
	<u>Before</u> <sup>1</sup>	<u>After</u>	<u>Before</u>	<u>After</u>
TPH (Gas)	2,100		8,300	700
TPH (Diesel)	20		NA	ND
Benzene	1.5		870	18
Toluene	1.3		ND	1
Ethylbenzene	1.7		32	26
Xylenes	3.6		27	7
MTBE	NA		NA	6
Oil & Grease	2,200		NA	ND
Heavy metals				
Other Chlorobenzene	NA		15	11

NOTE: 1 soil sample collected from soil boring B-3, B-4, SB-11, or SB-15

**Comments (Depth of Remediation, etc.):**

See Section VII, Additional Comments, etc...

**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: **None**

Should corrective action be reviewed if land use changes? **YES**  
 Monitoring wells Decommissioned: **None, pending site closure**  
 Number Decommissioned: **0** Number Retained: **4**  
 List enforcement actions taken: **None**  
 List enforcement actions rescinded: **NA**



V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: *Eva Chu* Date: 11/26/96

Reviewed by

Name: Susan Hugo Title: Sr. Haz Mat Specialist

Signature: *Susan J Hugo* Date: 11/19/96

Name: Thomas Peacock Title: Supervisor

Signature: *Thomas Peacock* Date: 11-25-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 11/27/96

RB Response: *Approved*

RWQCB Staff Name: Kevin Graves

Title: AWRCE

Signature: *Kevin Graves*

Date: 12/11/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site was previously developed for a mixed residential and commercial use. An auto dealership with maintenance areas occupied part of the site from the 1940's until the construction of the present office building in 1974. A multi-level parking garage is located between the office spaces. (See Fig 1 and 2)

It is believed that two 500-gallon USTs were removed from the site in January 1974. These tanks may have been under the sidewalk of Hawthorne Avenue, immediately northwest of the present parking garage entrance. Its use/storage has not been documented, however, it was probably used for waste oil and gasoline. A third UST (100 gallon) for the storage of diesel fuel was removed in September 1987. This tank may have been located behind the parking garage, in an alley way. (See Fig 3). A soil sample was collected from below the 100-gallon UST after its removal. Up to 20 ppm TEH was identified.

In November 1988 seven borings (B-1 through B-7) were drilled to 15' to 20' bgs near the suspected locations of the former USTs. Petroleum hydrocarbons were identified in three of the borings (B-1, B-3, and B-4). Low levels of BTEX were identified in boring B-4. (See Fig 2 and Table 1)

A total of 11 borings (SB-7 through SB-16, and LF-4) were drilled between March and May 1989 to assess the lateral and vertical extent of soil and groundwater contamination. Four of the borings were converted into groundwater monitorings wells (LF-1 through LF-4). Elevated hydrocarbon

concentrations were identified in soil from borings SB-11/LF-2 and SB-15. Only well LF-2 contained detectable levels of TPH and benzene. (See Fig 4, 5, and 6, and Tables 1 and 2)

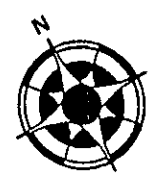
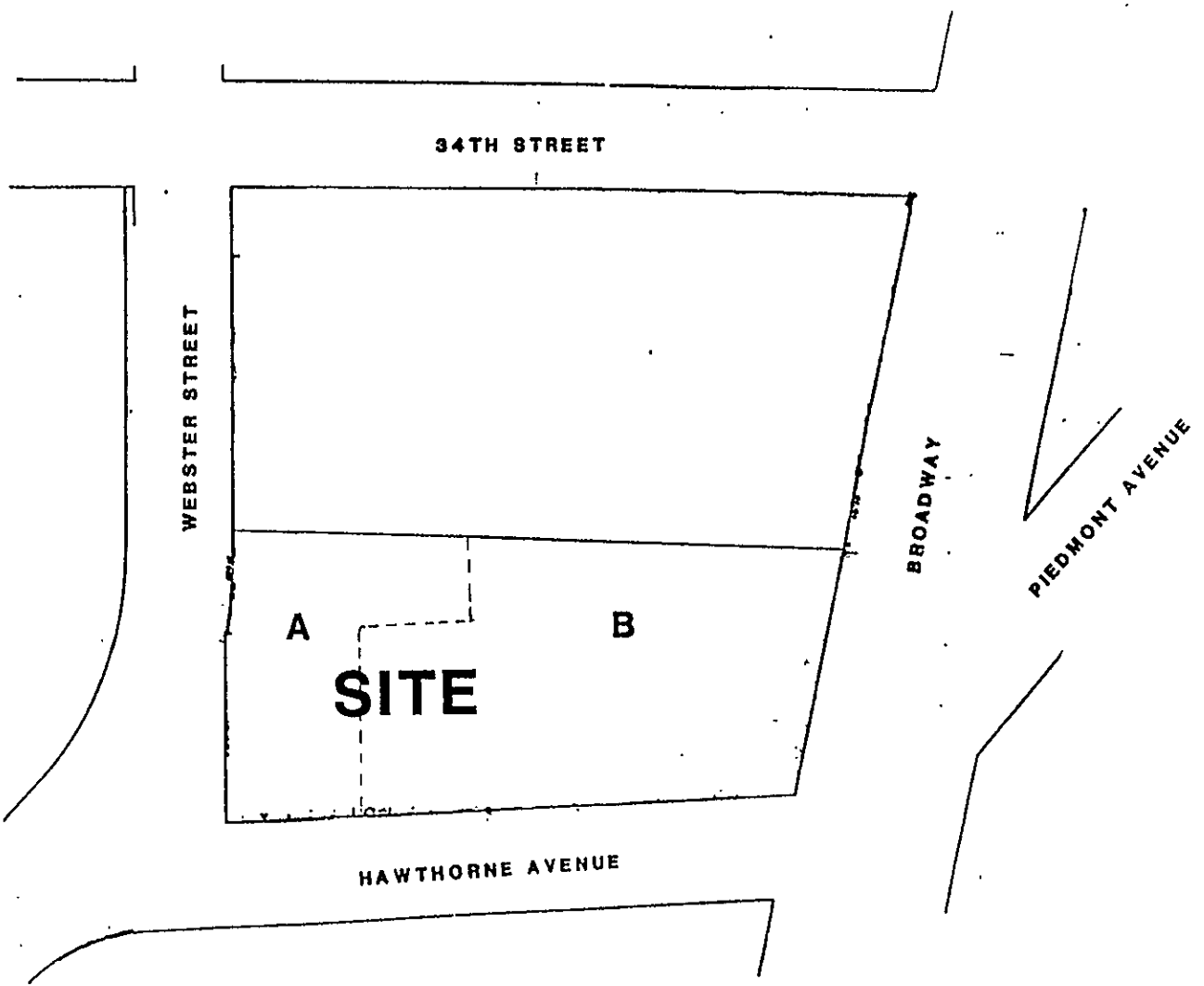
It appears soil contamination is limited to the vicinity of boring B-15. This is supported by soil samples collected from adjacent borings B-1, SB-14, SB-16, and LF-4, which did not contain detectable levels of petroleum hydrocarbons. In addition, utility lines in Hawthorne Avenue do not act as preferential pathways for the migration of contaminants based on the review of utility location maps.

Groundwater was sampled seven times, from March 1989 to November 1991, and one final time in October 1996. Well LF-2 continues to identify up to 700 ppb TPHg and 18 ppb benzene. Chlorobenzene has also been identified in well LF-2, but the levels (15 ppb) are below California MCLs for Drinking Water. The areal extent of groundwater contamination is also very limited because contaminants have not been detected in the cross-gradient well LF-3 and the downgradient well LF-4. (See Fig 7, Table 3 and 4).

Residual soil and groundwater contamination is located under the sidewalk of Hawthorne Avenue at ~7' to 15' bgs and ~21' bgs, respectively. There is no risk to human health or the environment. Continued monitoring is not warranted.

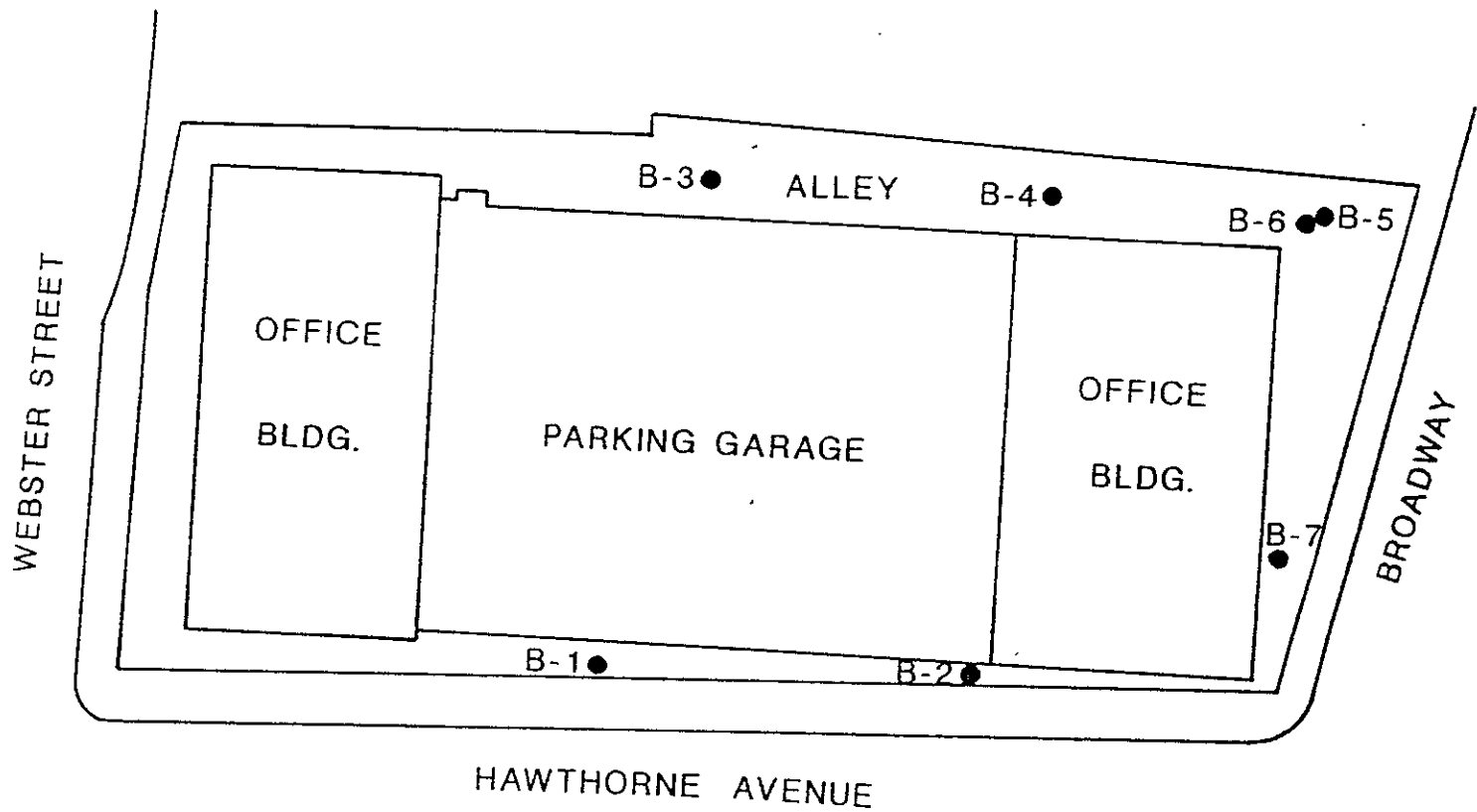
In summary, case closure is recommended because:

- o the leak and ongoing sources have been removed;
- o the site has been adequately characterized;
- o the dissolved plume is not migrating;
- o no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- o the site presents no significant risk to human health or the environment.



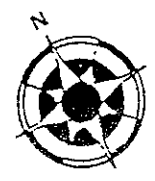
- A-** Portion of subject site which was used primarily for residential purposes.
- B-** Portion of subject site which was used primarily for auto dealership and auto service.

<b>United States Testing Company</b>		
<b>SITE MAP</b>		
Job No.	Date	
306-1	9-88	FIGURE 1



SCALE: 1.8" = 100'

● = BORING LOCATIONS



**United States Testing Company**

SITE MAP  
FIGURE 2

Job No. 0000 | Date 1 00 |

Broadway Webster Medical Plaza  
3300 Webster Street  
Oakland, California

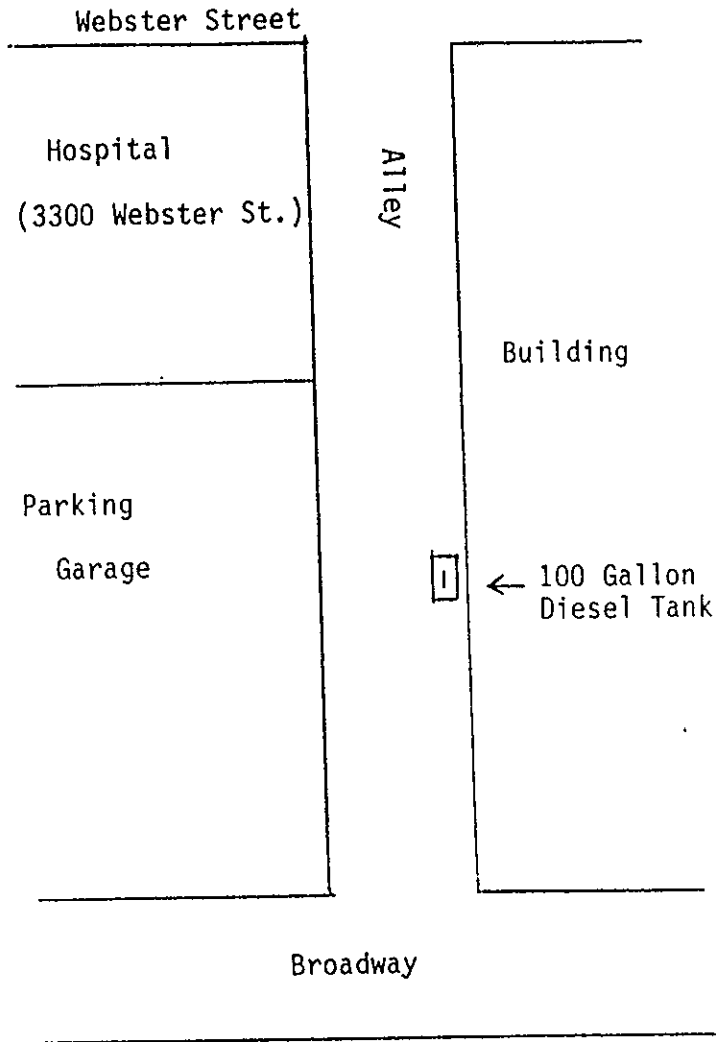


FIG. 3

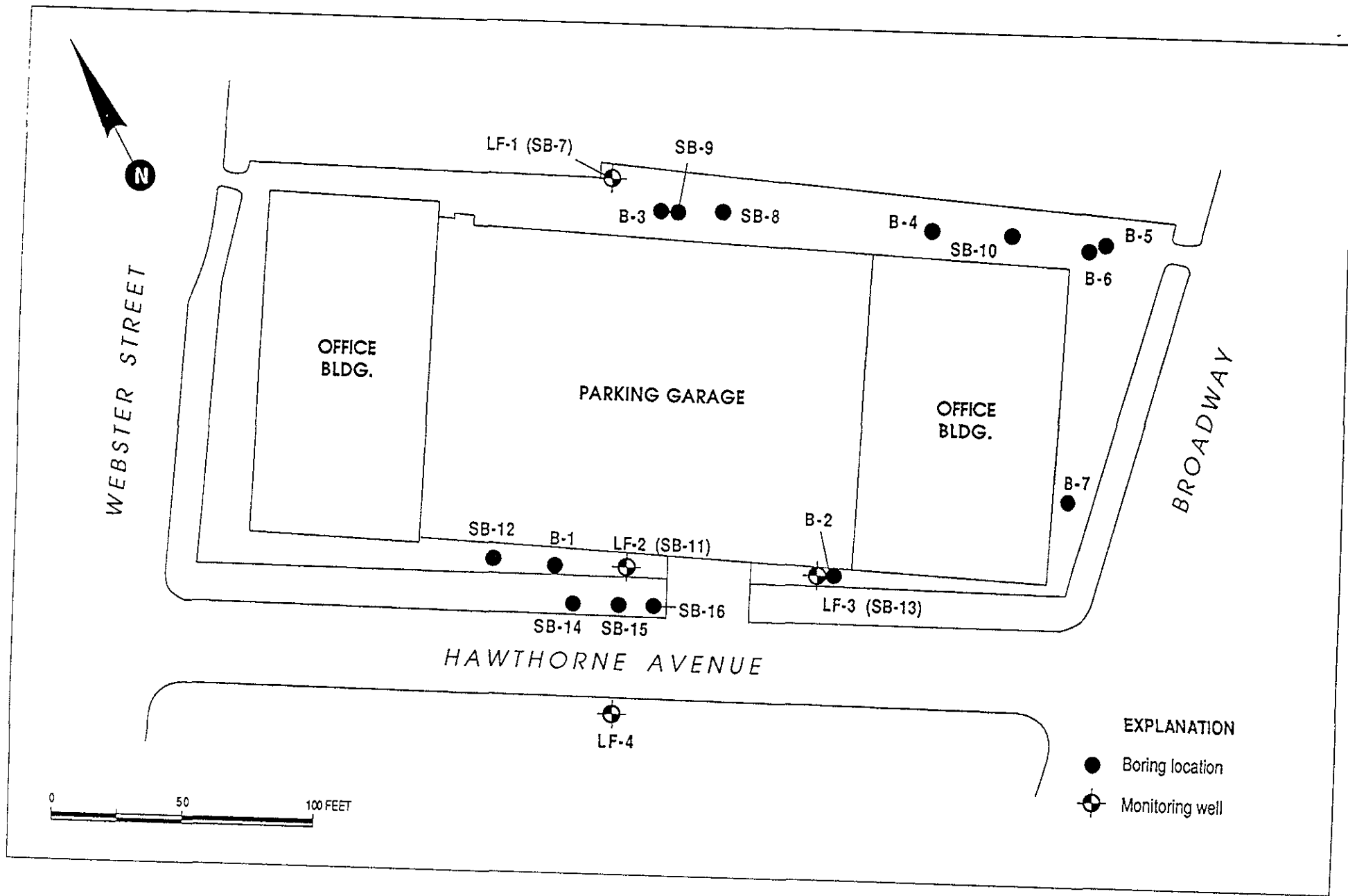


Figure 4 : BASE MAP AND BORING LOCATIONS

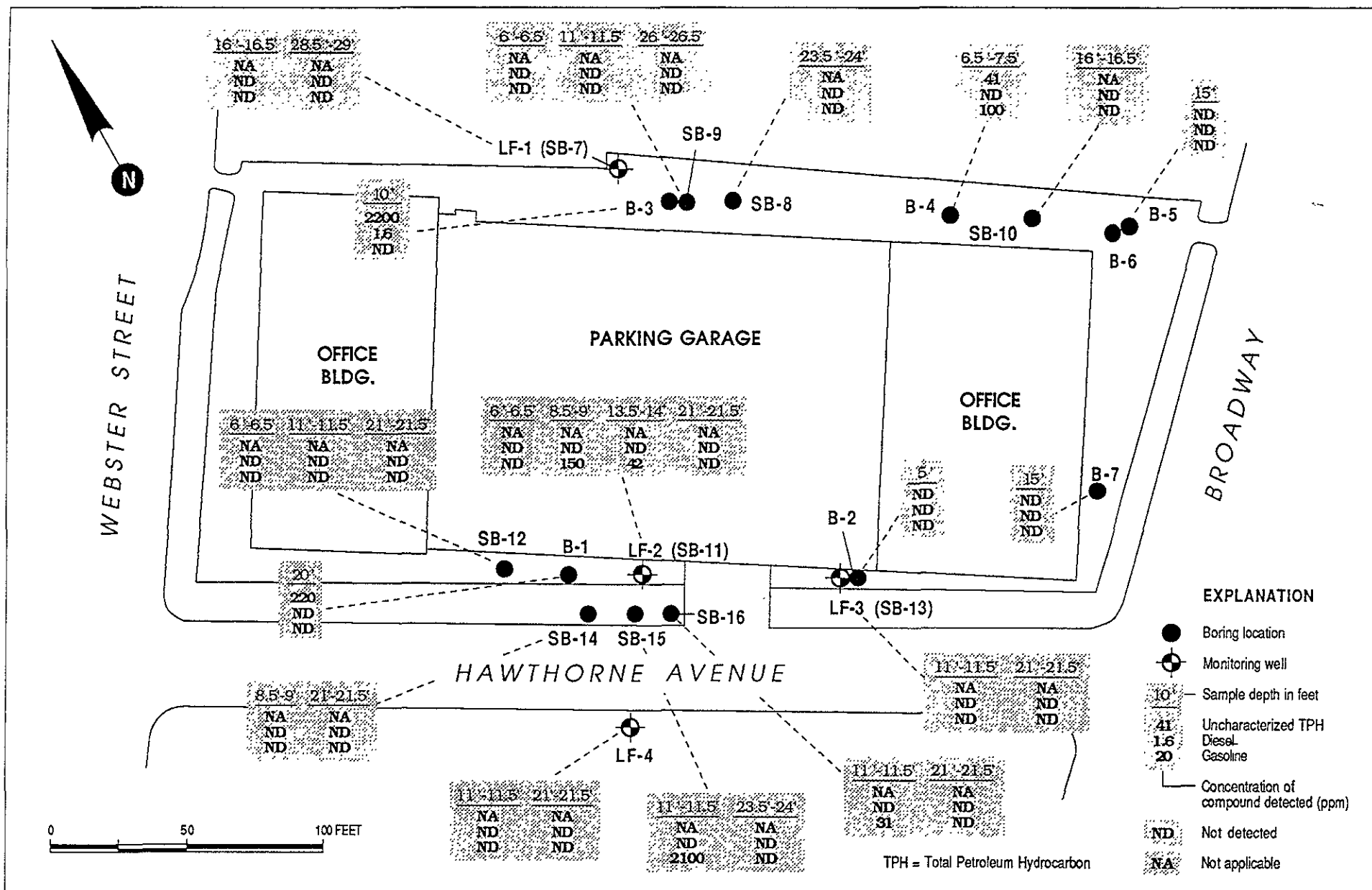


Figure 2 : TOTAL PETROLEUM HYDROCARBON (TPH) CONCENTRATIONS DETECTED IN SOILS

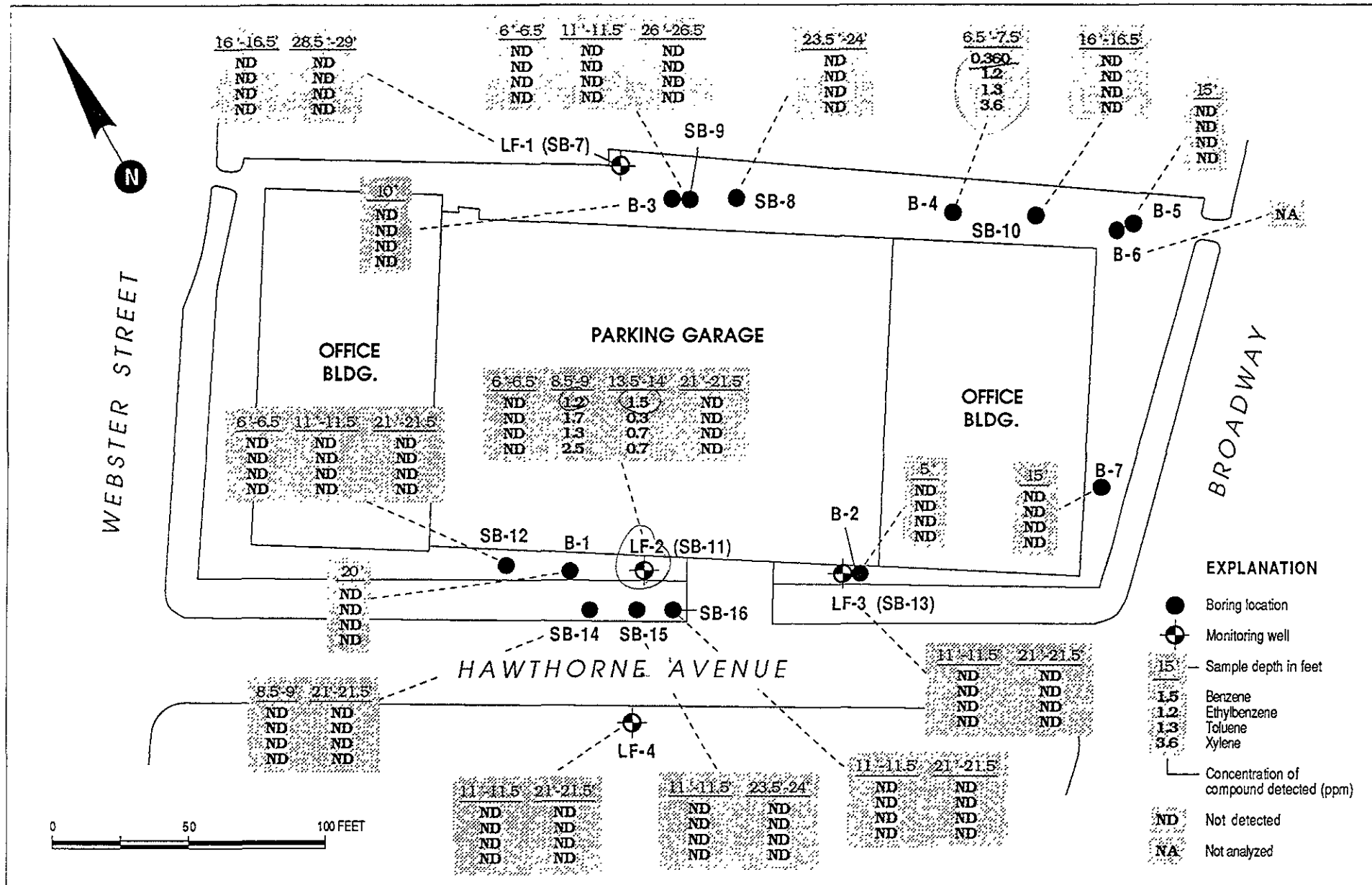


Figure 6 : BENZENE, ETHYLBENZENE, TOLUENE AND XYLENE CONCENTRATIONS DETECTED IN SOILS



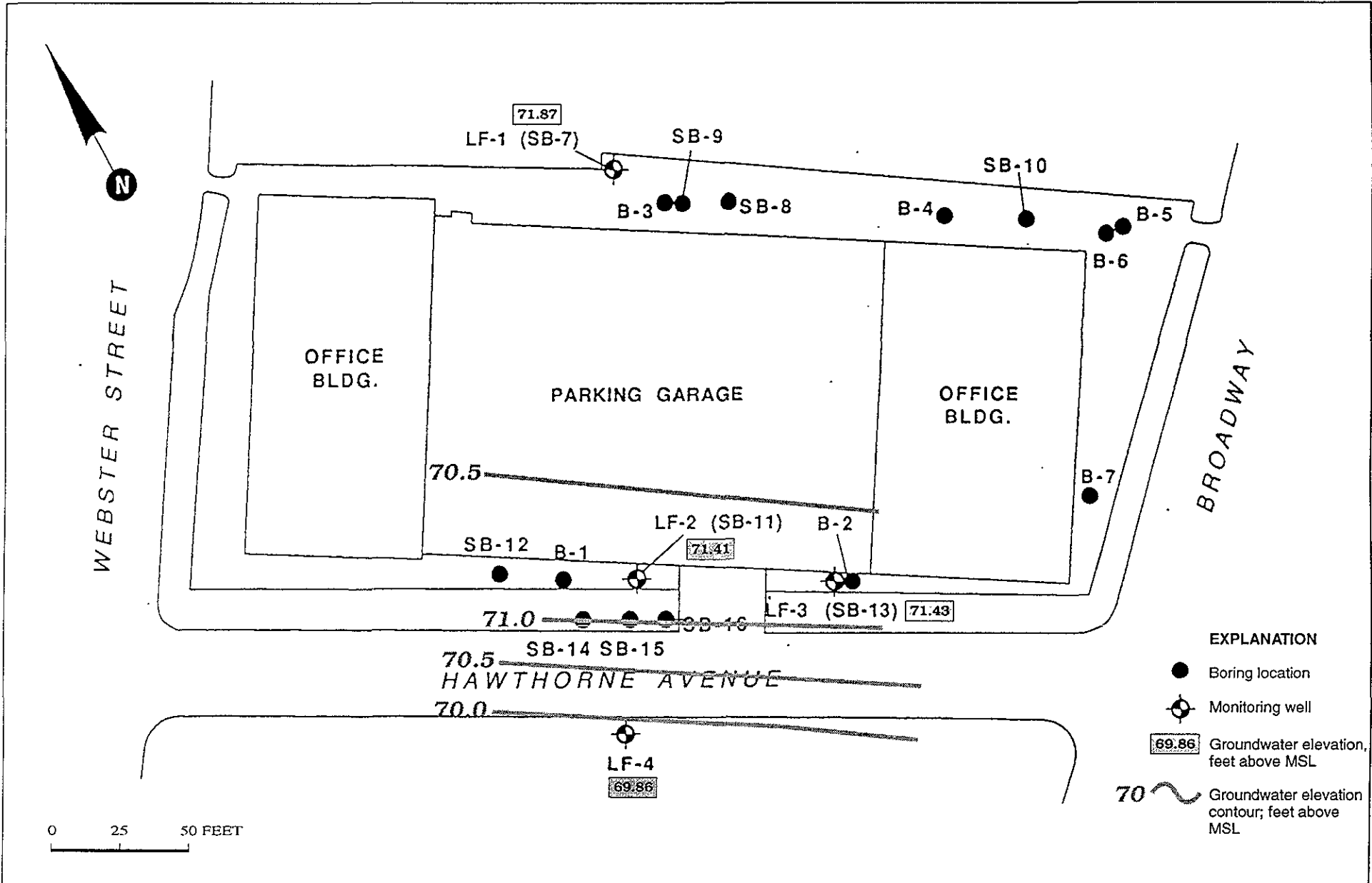


Figure 7: GROUNDWATER ELEVATIONS, SEPTEMBER 18, 1996

TABLE 1

SOIL ANALYSES SUMMARY  
(Concentrations expressed in ppm)

Boring Depth Interval (feet)	Laboratory Analysis	Lab	Benzene	Toluene	Ethylbenzene	Xylene	Total Petroleum Hydrocarbons	
							Concentration	Characterization
B-1 20	8020 GCFID	TL	ND	ND	ND	ND	220	NO ID (Method 418.1)
B-2 5	8020 GCFID	TL	ND	ND	ND	ND	ND	
B-3 10	8020 GCFID	TL	ND	ND	ND	ND	1.6 2,200	diesel NO ID (Method 418.1)
B-4 6.5 - 7.5	8020 GCFID	TL	0.36	1.2	1.3	3.6	100 41	gas diesel
B-5 15	8020 GCFID	TL	ND	ND	ND	ND	ND	
B-6	NO SAMPLE ANALYZED							
B-7 15	8020 GCFID	TL	ND	ND	ND	ND	ND	
LF-1 (SB-7)								
16 - 16 1/2	8015/8020	B&C	ND	ND	ND	ND	ND	
28 1/2 - 29	8015/8020	B&C	ND	ND	ND	ND	ND	
SB-8								
23 1/2 - 24	8015/8020	B&C	ND	ND	ND	ND	ND	
SB-9								
6 - 6 1/2	8015/8020	B&C	ND	ND	ND	ND	ND	
11 - 11 1/2	8015/8020	B&C	ND	ND	ND	ND	ND	---
26 - 26 1/2	8015/8020	B&C	ND	ND	ND	ND	ND	
SB-10								

cont. TABLE 1

SOIL ANALYSES SUMMARY  
(Concentrations expressed in ppm)

Boring Depth Interval (feet)	Laboratory Analysis	Lab	Benzene	Toluene	Ethylbenzene	Xylene	Total Petroleum Hydrocarbons		
							Concentration	Characterization	
16 - 16 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
SB-11 (LF-2)									
6 - 6 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
8 1/2 - 9	8015/8020	B&C	1.2	1.7	1.3	2.5	150	gas	
13 1/2 - 14	8015/8020	B&C	1.5	0.3	0.7	0.7	42	gas	
21 - 21 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
SB-12									
6 - 6 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
11 - 11 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
21 - 21 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
SB-13 (LF-3)									
	8015/8020	B&C	ND	ND	ND	ND	ND		
SB-14									
8 1/2 - 9	8015/8020	B&C	ND	ND	ND	ND	ND		
21 - 21 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
SB-15									
11 - 11 1/2	8015/8020	B&C	ND	ND	ND	ND	2100	gas	
23 1/2 - 24	8015/8020	B&C	ND	ND	ND	ND	ND		
SB-16									
11 - 11 1/2	8015/8020	B&C	ND	ND	ND	ND	31	gas	
21 - 21 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
LF-4									
11 - 11 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		
21 - 21 1/2	8015/8020	B&C	ND	ND	ND	ND	ND		

Notes: ND - Not Detected  
BC - Brown and Caldwell Laboratories  
TL - The Twining Laboratories, Inc.

TABLE 2

GROUND-WATER SUMMARY  
(Concentrations expressed in ppm)

Well	Laboratory Analysis	Sample Date	Lab	Benzene	Toluene	Ethylbenzene	Xylene	Total Petroleum Hydrocarbons	
								Concentration	Characterization
LF-1	8020	Mar 89	BC	ND	ND	ND	ND	NA	
	8015	Mar 89	BC	NA	NA	NA	NA	ND	
LF-2	8020	Mar 89	BC	0.87	ND	ND	ND	NA	
	8015	Mar 89	BC	NA	NA	NA	NA	8.3	GAS
	8020	May 89	BC	0.017	ND	ND	0.027	NA	
	8015	May 89	BC	NA	NA	NA	NA	5.5	
LF-3	8020	Mar 89	BC	ND	ND	ND	ND	NA	
	8015	Mar 89	BC	NA	NA	NA	NA	ND	
LF-4	8020	May 89	BC	ND	ND	ND	ND	NA	
	8015	May 89	BC	NA	NA	NA	NA	ND	

Notes: NA - Not Analyzed.

**TABLE 4-3**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**BROADWAY MEDICAL PLAZA**  
**OAKLAND, CALIFORNIA**

*All results expressed in parts per million (ppm)*

Well No.	Laboratory Analysis	Date Sampled	Lab	Benzene	Toluene	Ethylbenzene	Total Xylenes	Chlorobenzene	TPH as gasoline
LF-1	8020	Mar 89	BC	<0.050	<0.050	<0.050	<0.050	<0.050	NA
	8015	Mar 89	BC	NA	NA	NA	NA	NA	<1
	8020	Oct 89	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
	8015	Oct 89	BC	NA	NA	NA	NA	NA	<1
	8020	Jan 90	BC	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	NA
	8015	Jan 90	BC	NA	NA	NA	NA	NA	0.068; 0.095 D
	8020	Apr 90	BC	<0.002	<0.002	<0.002	<0.002	<0.002	NA
	8015	Apr 90	BC	NA	NA	NA	NA	NA	<0.050
	8020	Oct 90	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
	8015	Oct 90	BC	NA	NA	NA	NA	NA	0.080
LF-2	8020	Mar 89	BC	0.87	<0.050	<0.050	<0.050	<0.050	NA
	8015	Mar 89	BC	NA	NA	NA	NA	NA	8.3
	8020	May 89	BC	0.017	<0.0003	<0.0003	0.027	<0.0003	NA
	8015	May 89	BC	NA	NA	NA	NA	NA	5.5
	8020	Oct 89	BC	0.020	<0.0005	0.023	<0.0005	0.0095	NA
	8015	Oct 89	BC	NA	NA	NA	NA	NA	<1
	8020	Oct 89	BC	0.016	<0.0005	0.023	<0.0005	0.010	NA
	8015	Oct 89	BC	NA	NA	NA	NA	NA	<1
	8020	Jan 90	BC	0.034	<0.0003	0.039	0.0092	NA	NA
	8015	Jan 90	BC	NA	NA	NA	NA	NA	2.0
	8020	Apr 90	BC	0.022	0.015	0.036	0.003	0.010	NA
	8015	Apr 90	BC	NA	NA	NA	NA	NA	3.2 0.63 D
	8020	Oct 90	BC	0.010	<0.0005	0.020	0.002	0.008	NA
	8015	Oct 90	BC	NA	NA	NA	NA	NA	0.690
	8020	Jun 91	BC	0.024	<0.005	0.031	0.013	0.015	NA
	8015	Jun 91	BC	NA	NA	NA	NA	NA	1.1 0.42 D
	8020	Nov 91	BC	0.014	<0.005	0.032	0.0045	0.011	NA
	8015	Nov 91	BC	NA	NA	NA	NA	NA	0.710 0.07 D

Cont. TABLE 3  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**BROADWAY MEDICAL PLAZA**  
**OAKLAND, CALIFORNIA**

All results expressed in parts per million (ppm)

Well No.	Laboratory Analysis	Date Sampled	Lab	Benzene	Toluene	Ethylbenzene	Total Xylenes	Chlorobenzene	TPH as gasoline
LF-3	8020	Mar 89	BC	<0.050	<0.050	<0.050	<0.050	<0.050	NA
	8015	Mar 89	BC	NA	NA	NA	NA	NA	<1
	8020	Oct 89	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
	8015	Oct 89	BC	NA	NA	NA	NA	NA	<1
	8020	Jan 90	BC	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	NA
	8015	Jan 90	BC	NA	NA	NA	NA	NA	<0.050
	8020	Apr 90	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
	8015	Apr 90	BC	NA	NA	NA	NA	NA	<0.050
	8020	Oct 90	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
	8015	Oct 90	BC	NA	NA	NA	NA	NA	<0.050
LF-4	8020	May 89	BC	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	NA
	8015	May 89	BC	NA	NA	NA	NA	NA	<1
	8020	Oct 89	BC	<0.002	<0.002	<0.002	0.0016	<0.002	NA
	8015	Oct 89	BC	NA	NA	NA	NA	NA	<1
	8020	Jan 90	BC	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	NA
	8015	Jan 90	BC	NA	NA	NA	NA	NA	0.058
	8020	Apr 90	BC	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	NA
	8015	Apr 90	BC	NA	NA	NA	NA	NA	<0.050
	8020	Oct 90	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
	8015	Oct 90	BC	NA	NA	NA	NA	NA	<0.050
LF-4FB	8020	Jan 90	BC	<0.0003	0.0035	<0.0003	0.0005	<0.0003	NA
	8020	Apr 90	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
	8020	Oct 90	BC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA

Data entered by KAB 8-Oct-96 QA/QC by SS.

**Notes:**

BC - BC Analytical Laboratory, Emeryville, California

NA - Not applicable for the referenced methodology

TPH - Total Petroleum Hydrocarbons

**TABLE 4**  
**CURRENT GROUNDWATER ANALYTICAL RESULTS**  
**BROADWAY MEDICAL PLAZA**  
**OAKLAND, CALIFORNIA**  
*All results expressed in parts per million (ppm)*

Well No.	Laboratory Analysis	Date Sampled	Lab	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Total Petroleum Hydrocarbons		
									Gasoline	Diesel	Motor Oil
LF-1	8020	Sep/Oct 96	AEN	<0.0005	<0.0005	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	NA
	8015	Sep/Oct 96	AEN	NA	NA	NA	NA	NA	0.18	<0.05	<0.2
LF-2	8020	Sep/Oct 96	AEN	0.0075	<0.0005	0.02	0.006	0.006	NA	NA	NA
	8015	Sep/Oct 96	AEN	NA	NA	NA	NA	NA	0.7	<0.05	<0.2
duplicate	8020	Sep/Oct 96	AEN	0.018	0.001	0.026	0.007	0.006	NA	NA	NA
duplicate	8015	Sep/Oct 96	AEN	NA	NA	NA	NA	NA	0.73	<0.05	<0.2
LF-3	8020	Sep/Oct 96	AEN	<0.0005	<0.0005	<0.0005	<0.002	<0.005	NA	NA	NA
	8015	Sep/Oct 96	AEN	NA	NA	NA	NA	NA	<0.05	<0.05	<0.2
LF-4	8020	Sep/Oct 96	AEN	<0.0005	<0.0005	<0.0005	<0.002	<0.0005	NA	NA	NA
	8015	Sep/Oct 96	AEN	NA	NA	NA	NA	NA	<0.05	<0.05	<0.2

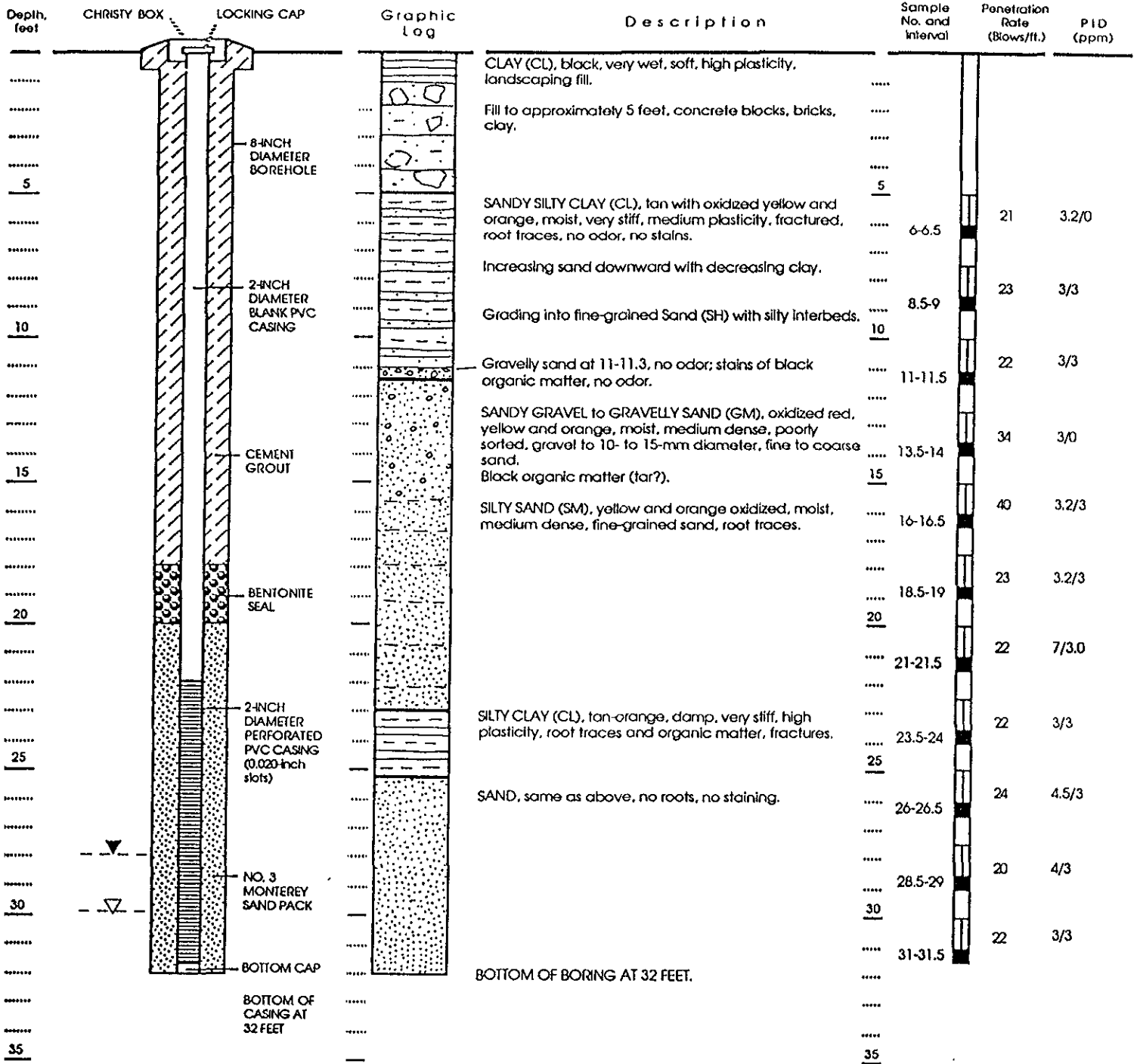
**Notes:**

AEN - American Environmental Network, Pleasant Hill, California

NA - Not Applicable for the referenced methodology

# WELL CONSTRUCTION

# LITHOLOGY



Well Permit No. 89155  
 Date well drilled: 28 March 1989  
 Date water level measured: 28 March 1989  
 Well elevation: 99.57 feet  
 Hammer weight: 140 lbs  
 LF Geologist: Don T. Bradshaw

**EXPLANATION**

	Clay		Split Spoon Sampler
	Silt		Sample retained for analysis
	Sand		Water level at time of drilling
	Gravel		Water level 1/2 hour after drilling
	PID		Photoionization detector

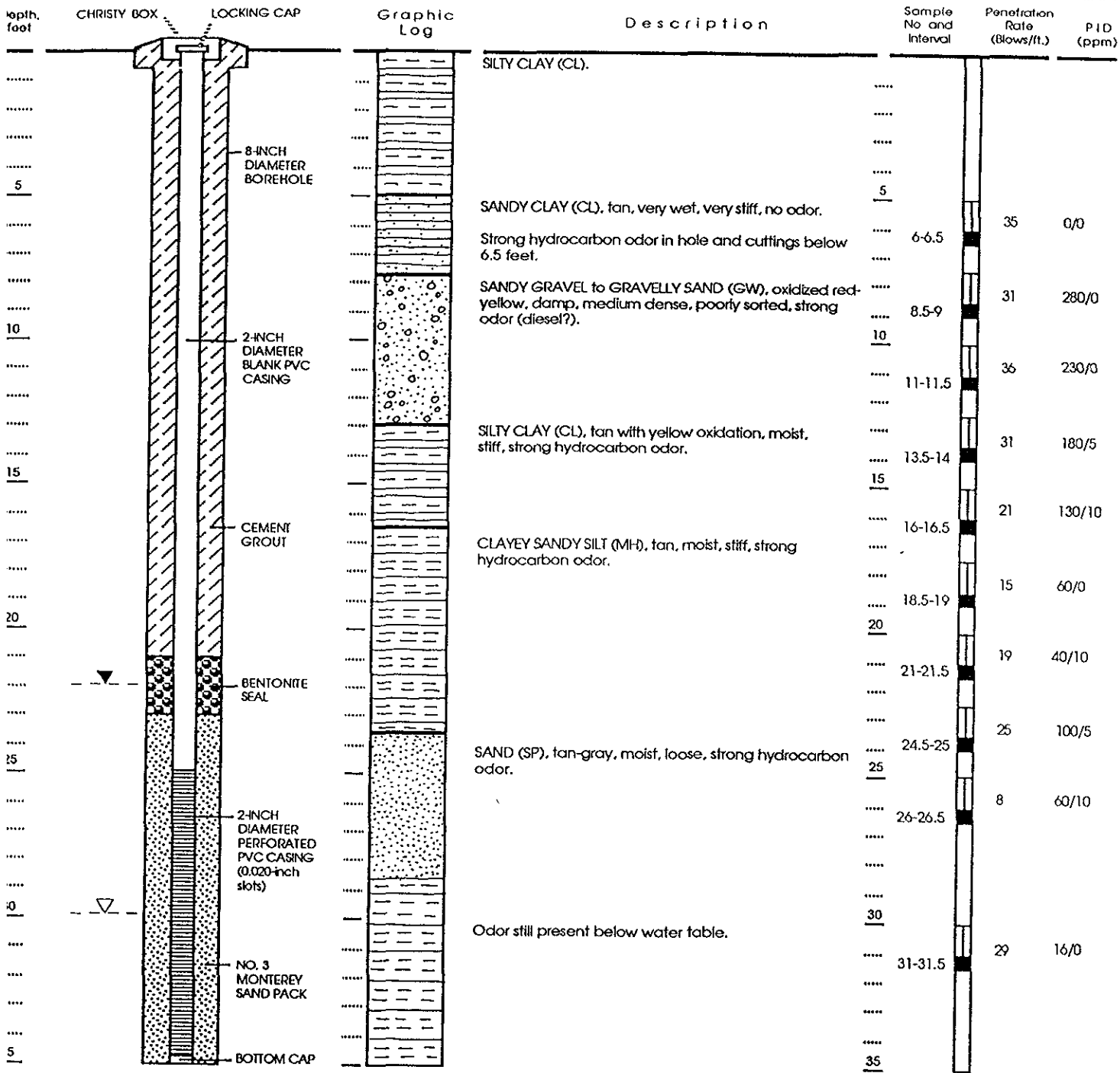
Approved by:

Figure : WELL CONSTRUCTION AND LITHOLOGY FOR WELL LF-1 (SB-7)



**WELL CONSTRUCTION**

**LITHOLOGY**



BOTTOM OF CASING AT 35 FEET

Well Permit No. 89155  
 Date well drilled: 29 March 1989  
 Date water level measured: 30 March 1989  
 Well elevation: 91.19 feet  
 Hammer weight: 140 lbs  
 LF Geologist: Don T. Bradshaw

- EXPLANATION**
- Clay
  - Silt
  - Sand
  - Gravel
  - Split Spoon Sampler
  - Sample retained for analysis
  - PID Photoionization detector in parts per million (ppm)

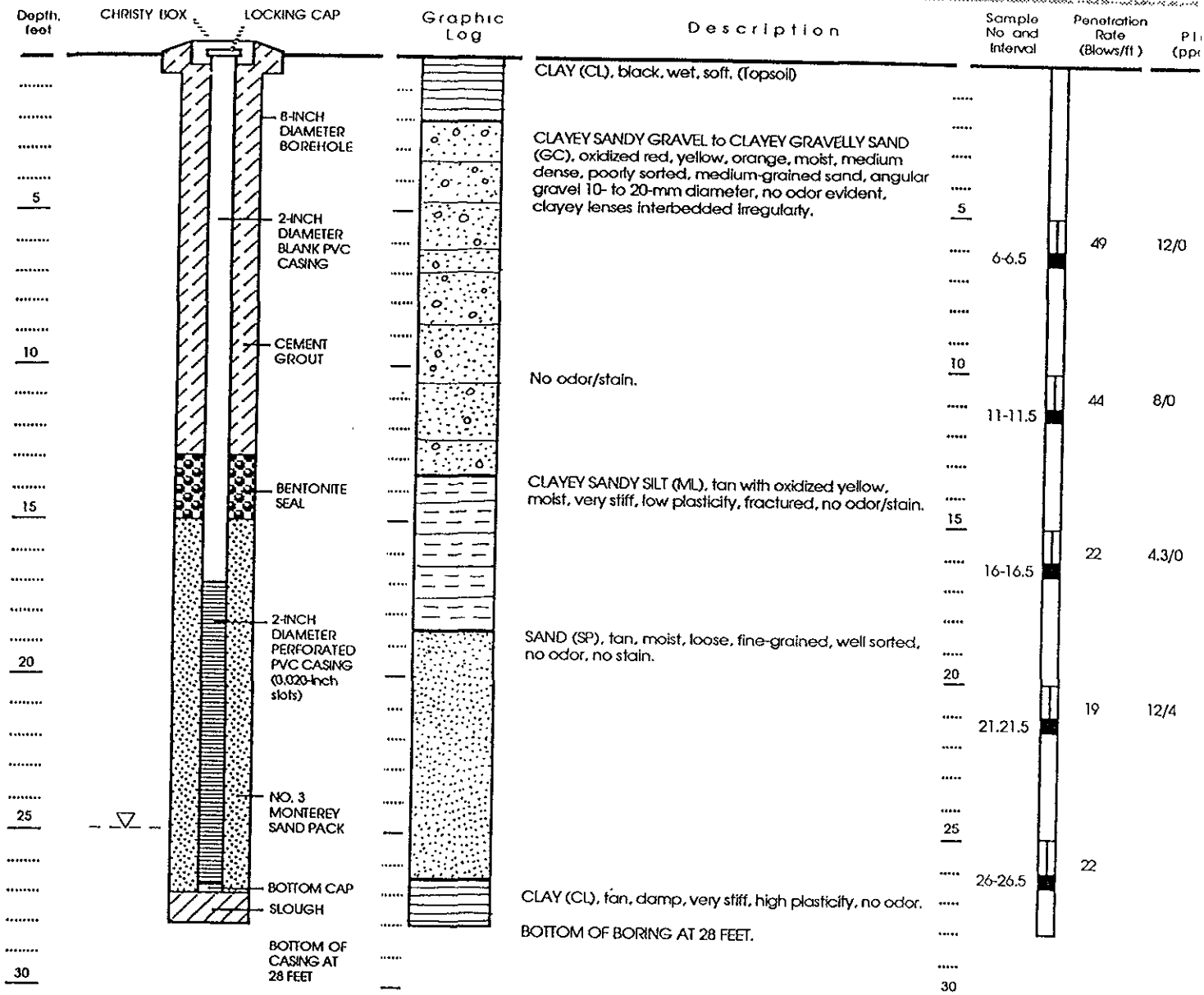
Water level at time of drilling  
 Water level hours after drilling

Approved by:

**Figure : WELL CONSTRUCTION AND LITHOLOGY FOR WELL LF-2 (SB-11)**

**WELL CONSTRUCTION**

**LITHOLOGY**



Well Permit No. 89155  
 Date well drilled: 30 March 1989  
 Date water level measured: 31 March 1989  
 Well elevation: 89.09 feet  
 Hammer weight: 140 lbs  
 LF Geologist: Don T. Bradshaw

**EXPLANATION**

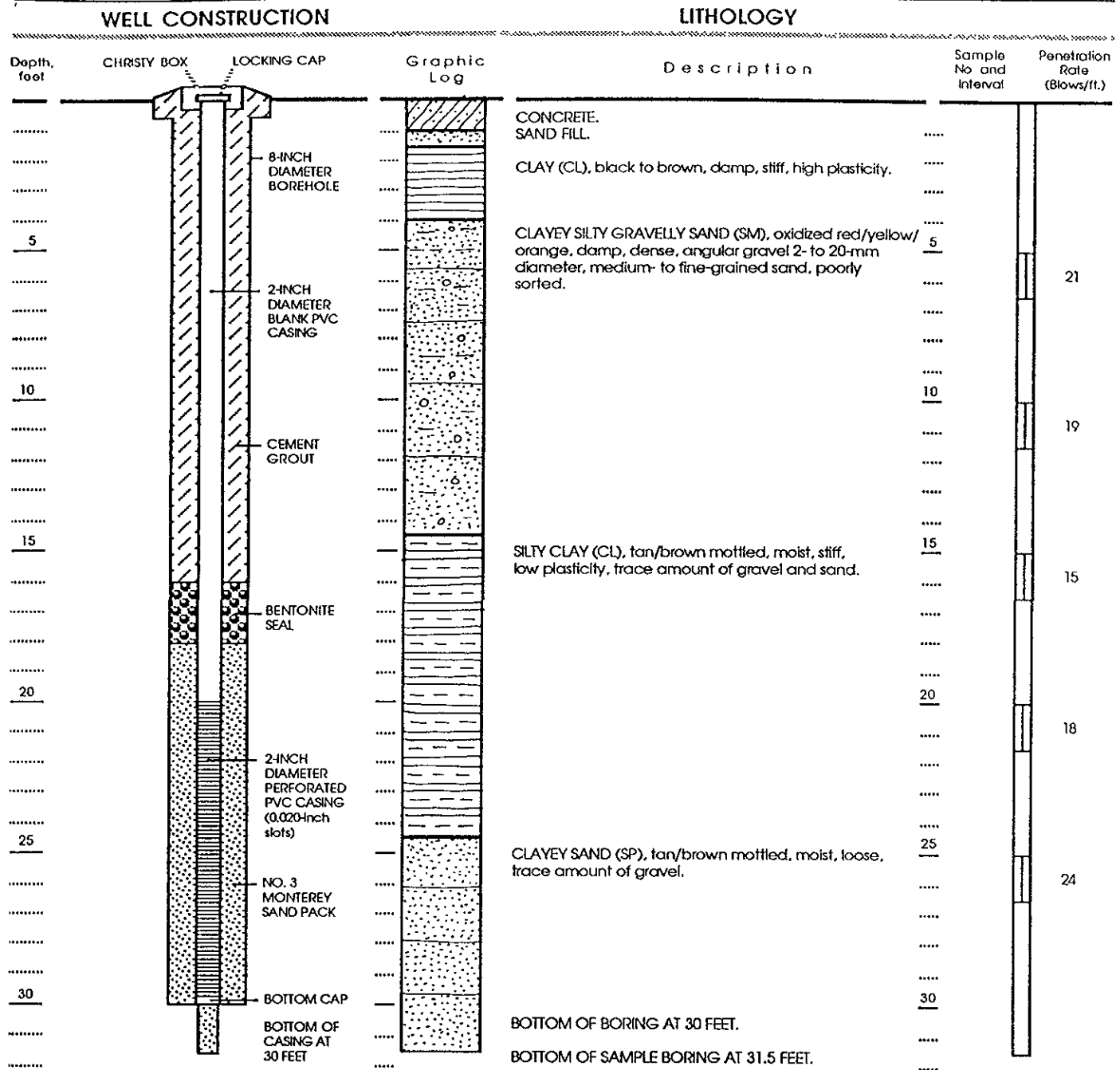
- Clay
- Silt
- Sand
- Gravel
- Split Spoon Sampler
- Sample retained for analysis

PID Photoionization detector in parts per million (ppm)

Water level at time of drilling






Approved by:

**Figure : WELL CONSTRUCTION AND LITHOLOGY FOR WELL LF-3 (SB-13)**



Well Permit No. 89254  
 Date well drilled: 25 May 1989  
 Date water level measured:  
 Drilling method: 8-inch Hollow-Stem Auger  
 Well elevation:  
 Hammer weight: 140 lbs/30-inch drop  
 LF Geologist: Don T. Bradshaw

EXPLANATION

-  Clay
-  Silt
-  Sand
-  Gravel
-  Split Spoon Sampler

Approved by:

Figure : WELL CONSTRUCTION AND LITHOLOGY FOR WELL LF-4