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

StID 5804 - 5900 ~~Chabot~~ College Ave, Oakland, CA

January 9, 1997

Mr. Kim Hewitt
Major Chabot Partners
980 41st Street, Suite 200
Oakland, CA 94608

Mr. William Sheaff
c/o Margaret Hansen
61 Dumbarton Court
San Ramon, CA 94583

Dear Messrs. Hewitt and Sheaff:

This letter confirms the completion of site investigation and remedial action for the former underground storage tanks removed from the above site. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks 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 Title 23, Section 2721(e) of the California Code of Regulations.

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

Very truly yours,

Mee Ling Tung

Mee Ling Tung, Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Lori Casias, SWRCB (with attachment)
Cheryl Gordon, UST Cleanup Fund
files (majchbot.2)

#01-2203

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: November 6, 1996**

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **M. Logan** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Major Chabot Partners**
Site facility address: **5900 College Ave, Oakland, CA 94618**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **5804**
URF filing date: **8/7/96** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. Kim Hewitt Major Chabot Partners	980 41st Street #200 Oakland, CA 94608	
2. William Sheaff c/o Margaret Hansen	61 Dumbarton Ct San Ramon, CA 94583	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	1,000	Gasoline	Unknown	
2	1,000	Gasoline	Unknown	
3	Unknown	Waste Oil	Unknown	

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **10/17/96**
Monitoring Wells installed? **No** Number: **0**
Proper screened interval? **NA**
Highest GW depth below ground surface: **GW encountered at ~12' to 15' bgs.**
Flow direction: **Inferred regional groundwater flow direction is to SW.**
Most sensitive current use: **Commercial**
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

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	**Unknown**		
Piping			

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before[1]	Soil (ppm) After	Water (ppb) Before[2]	Water (ppb) After[3]
TPH (Gas)	1,200		6,300	1,800
TPH (Diesel)				
Benzene	<1.0		<10	1.9
Toluene	<1.0		<10	5.4
Ethylbenzene	1.4		<10	12
Xylenes	3.0		<10	32
Oil & Grease	100			
Heavy metals	<10x STLC			
Other **HVOCs**	ND			
SVOCs	ND			

NOTE: 1 soil samples collected from borings advanced in Mar 1993
2 grab water sample from boring B-4 in Mar 1993
3 grab water sample from boring B-4A in July 1996

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: **Attempts to verify the presence of USTs should be made if the patio area is ever excavated or demolished.**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **NA**
Number Decommissioned: **NA** Number Retained: **NA**
List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: [signature] Date: 12/3/96

Reviewed by

Name: **Madhulla Logan** Title: **Haz Mat Specialist**

Signature: [signature] Date: 11/6/96

Name: **Thomas Peacock** Title: **Supervisor**

Signature: [signature] Date: 12-2-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 12/4/96 RB Response: Approved

RWQCB Staff Name: **Kevin Graves** Title: **AWRCE**

Signature: [signature] Date: 12/12/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

A gasoline service station operated on the property from 1928 through 1966. Three USTs (2 gasoline and 1 waste oil) are believed to have been removed since they were not located when the dispenser islands were removed from the site in 1979. A commercial/retail building, ~3,000 sq ft in size, was constructed on the property in 1985. A concrete patio area exists at the southwest corner of the property where fuel USTs and dispensing islands were once located. And the waste oil UST was located below the asphalt driveway, east of the building. (See Fig 1)

In March 1993 six soil borings (B-1 through B-6) were advanced 15' to 20' bgs in the area (SW corner of property) where the former fuel USTs were located. A seventh boring (B-7) was advanced in the location of the former waste oil UST. Soil samples were collected from 15' bgs from all borings and analyzed for TPHg, BTEX, and lead. A grab water sample was collected from boring B-4. (See Fig 1)

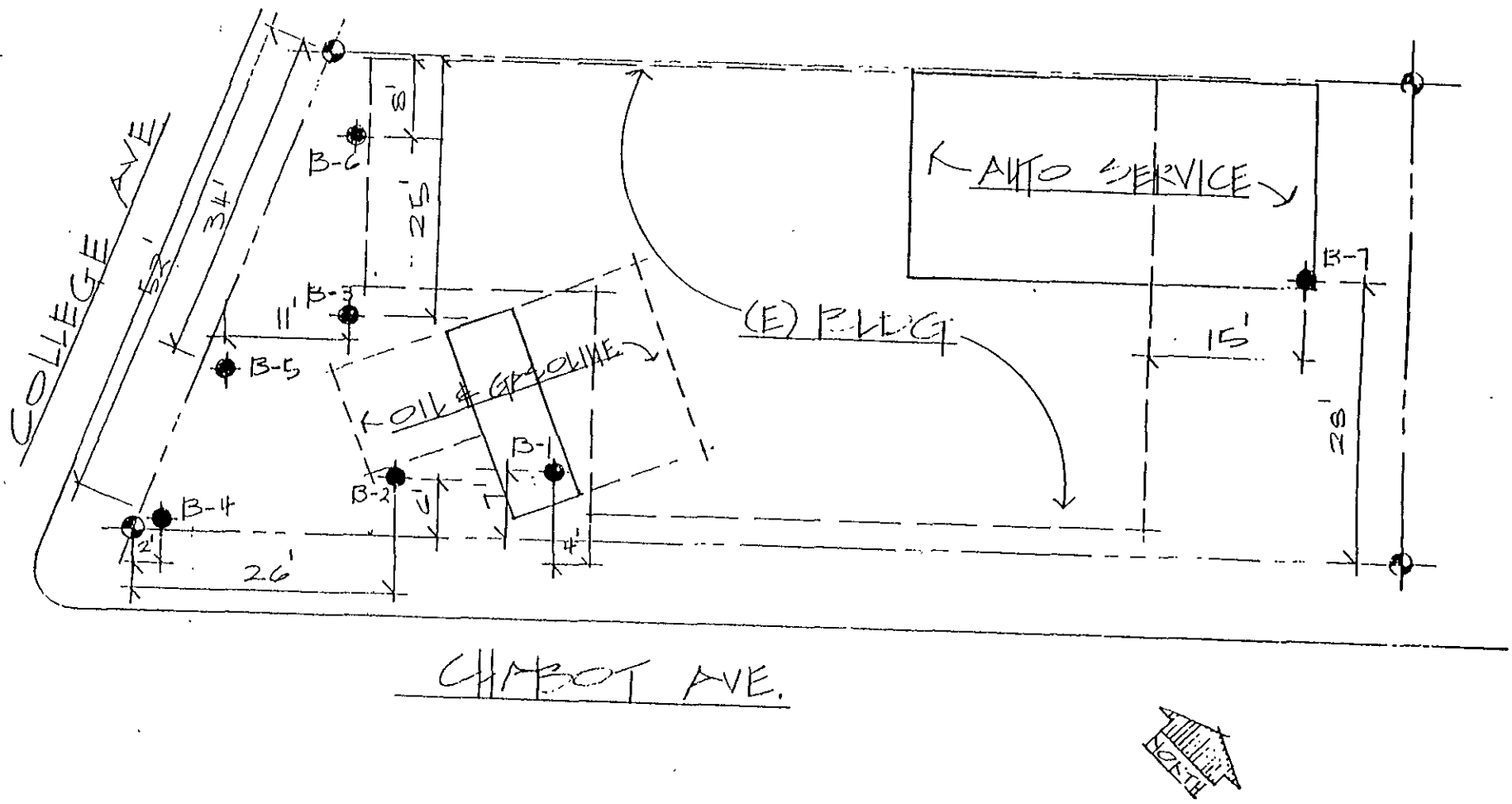
The soil samples from borings B-2 and B-4 identified levels of TPHg in excess of 100 ppm. The laboratory suspected these samples may also contain diesel and/or kerosene, so additional analysis for TPHd and TPHk were conducted. Low levels of TPHk (98 ppm) was identified in B-4. Sample B-7, by the former waste oil tank, was also analyzed for TRPH, HVOCs, SVOCs, and heavy metals. Concentrations detected were not significant. The grab water sample from boring B-4 contained 6,300 ppb TPHg and BTEX levels were not above the detection limit of 10ppb. (See Tables 1 thru 4)

Additional investigations were conducted in July 1996 to determine whether the USTs were present in the SW corner of the site and to define the extent and severity of soil and groundwater contamination. This study included an electromagnetic survey and the advancement of two geoprobe borings (B-2A and B-4A). (See Fig 2)

Due to the extensive re-bar and wire mesh under the concrete, the electromagnetic survey was unable to determine the existence or absence of USTs. However, four holes were punched through the concrete using a rock-drill in the southwest corner of the lot in an attempt to locate the USTs. At ~4' bgs the rock-drill encountered refusal in all four holes. It is still inconclusive as to whether USTs are present or absent at this site. Existence of USTs beneath the site should not pose a threat to human health. However, if the patio area is excavated in the future, attempts must be made to verify the existence or non-existence of USTs, and if found, must be properly closed.

Soil and water samples collected form boring B-4A verified the presence of TPHg and BTEX at 14' bgs. However, the hydrocarbon levels identified (see Table 5) were lower than levels identified in 1993. Natural bioattenuation may account for the lower levels of hydrocarbons identified. Also, the contaminant levels identified to date (eg. 1.9ppb benzene) should not pose a risk to human health or the environment, based on RBCA Tier 1 Look Up Table for soil and groundwater volatilization to outdoor and indoor air, the only potential exposure pathways.

majchbot.1

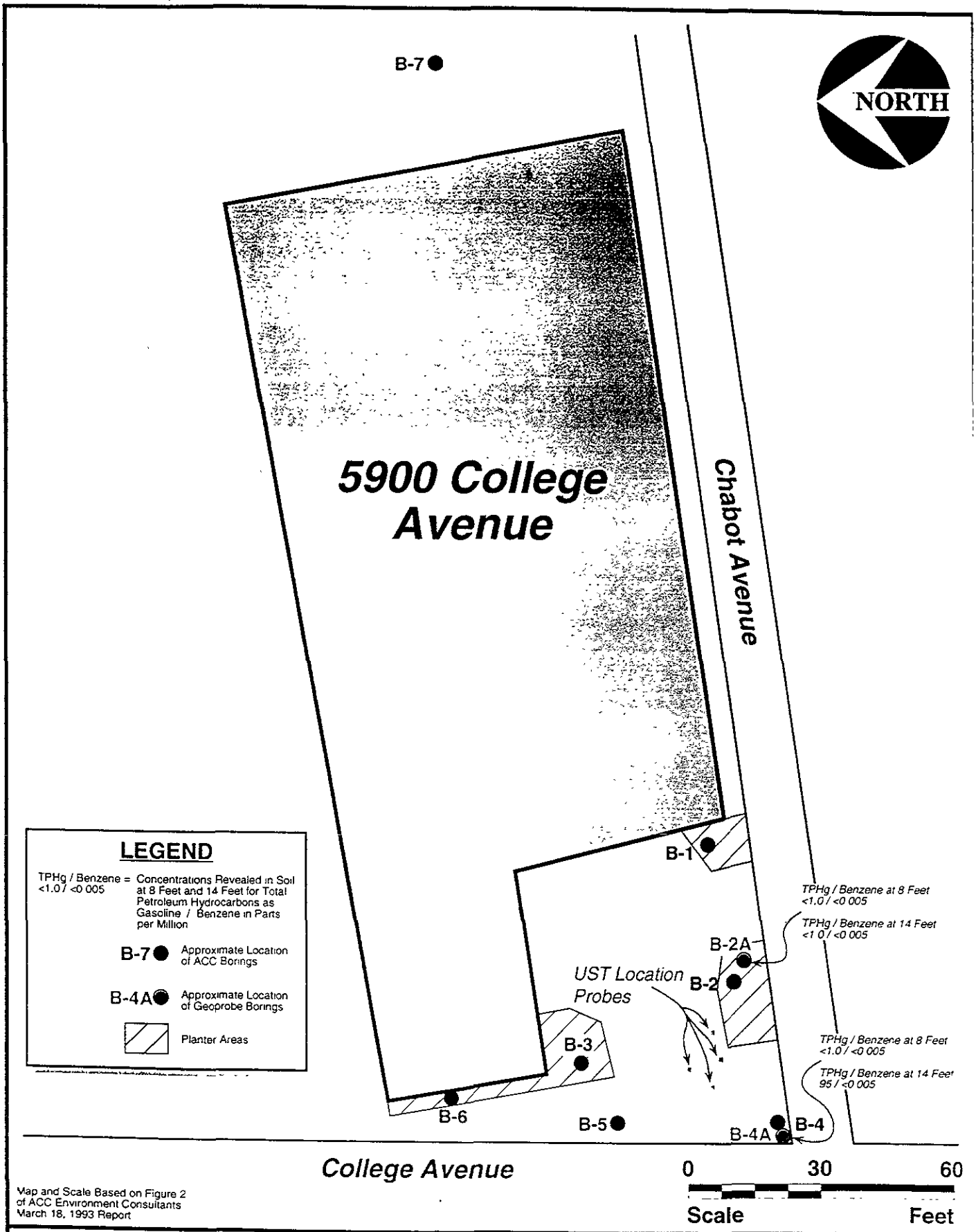


TEST BORE LOCATIONS & PROBABLE LOCATION OF GAS STATION & AUTO SERVICE BAY @ 5900 COLLEGE AVE, OAKLAND, CA.

DRAWN: K.S.
DATE: 5/19/94
SCALE: 1/16 = 1'-0"

FIG 1

FILE NO. NFE-3685-02



Map and Scale Based on Figure 2 of ACC Environment Consultants March 18, 1993 Report

Earth Systems Consultants **Northern California**	5900 College Avenue Oakland, California	Geoprobe Location & Concentration Map **Figure No. 2**

All soil samples were immediately covered with Teflon, capped, labeled and stored on ice to be transported under chain-of-custody protocol to Chromalab, Inc. of San Ramon, California, a Cal-EPA certified analytical laboratory for analysis. The water sample VOAs were also capped, labeled and stored on ice and transported under chain-of custody protocol to Chromalab, Inc.

Samples from the patio area were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline with Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA Test Method 5030 and 8020; and for lead using Method 3050/7420.

Laboratory analytical data and chain-of-custody forms are attached. The results are summarized in Table 1.

TABLE 1

LABORATORY RESULTS OF ANALYSIS OF SOIL SAMPLES
GASOLINE AND CONSTITUENTS

	TPH as gas (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-Benzene (ppm)	Xylene (ppm)	Lead (ppm)
B1-15	<1.0	<.005	<.005	<.005	<.005	14
B2-15	170	<.170	.4	<.170	.240	24
B3-15	<1.0	<.005	<.005	<.005	<.005	55
B4-15	1,200	<1.0	<1.0	1.4	3.0	16
B5-15	<1.0	<.005	<.005	<.005	<.005	16
B6-15	<1.0	<.005	<.005	<.005	<.005	17
B6-20	<1.0	<.005	<.005	<.005	<.005	18
B7-13.5, 15	<1.0	<.005	<.005	<.005	<.005	21

LEGEND:

TPH = Total Petroleum Hydrocarbons
ppm = parts per million
<5.0, <1.0, <170 or <1000 = Limit of Detection
"B1-15" = boring number followed by depth at which sample was taken
Detection limit variations for B2-15 and B4-15 are due to dilution requirements

Chromalab, Inc. reported that diesel and/or kerosene were suspected to be present in the soil samples submitted from Boring Nos. 2 and 4. These samples were re-analyzed for Total Extractable Petroleum Hydrocarbons. The results of these analysis are summarized in Table 2.

TABLE 2
LABORATORY RESULTS OF ANALYSIS OF SOIL SAMPLES
TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

	Kerosene (ppm)	Diesel (ppm)	Motor Oil (ppm)
B2-15	3.7	<1.0	<10.0
B4-15	98.0	<1.0	<10.0

LEGEND:

TPH = Total Petroleum Hydrocarbons
ppm = parts per million
<1.0 and <10.00 = Limit of Detection
"B2-15" = boring number followed by depth at which sample was taken

A sample collected in the reported general area of the waste oil tank was also analyzed for TPH as diesel by EPA Method 8015, Total Recoverable Petroleum Hydrocarbons by EPA Method 418.1, Purgeable Halocarbons by EPA Method 8010, Base/Neutral and Acid Extractables by EPA Method 8270, and LUFT Heavy Metals by EPA Method 6010 and 7000 Series. The results of this analysis are summarized in Table 3.

TABLE 3
LABORATORY RESULTS OF ANALYSIS OF SOIL SAMPLES
WASTE OIL

Sample B9-10	Analytical Result		
		MCL	
TPH as Gasoline	<1.0 ppm	None Listed	
TPH as Diesel	<1.0 ppm	None Listed	
Benzene	<.005 ppm	1 ppm	
Toluene	<.005 ppm	1,000 ppm	
Ethylbenzene	<.005 ppm	680 ppm	
Xylene	<.005 ppm	1,750 ppm	
Total Oil and Grease	100 ppm	None Listed	
		STLC	TTLC
Lead	21 ppm	5 ppm	1,000 ppm
Cadmium	<.05 ppm	1 ppm	100 ppm
Chromium, Total	21 ppm	560 ppm	2,500 ppm
Nickel	26 ppm	20 ppm	2,000 ppm
Zinc	1,800 ppm	250 ppm	5,000 ppm
Purgeable Halocarbons	<.005 ppm		
Base/Neutral and Acid Extractables	Not Detected above Detection Limit		

LEGEND:

TPH = Total Petroleum Hydrocarbons
ppm = parts per million
<.05, <.5 or <1 = Limit of Detection
"B9-10" = number of boring followed by depth at which sample was taken
MCL - Maximum Contaminant Level
STLC - Soluble Threshold Limit Concentration
TTLC - Total Threshold Limit Concentration

One grab water sample was collected from Boring No. 4. The results from this analysis are summarized in Table 4.

TABLE 4
LABORATORY RESULTS OF ANALYSIS OF WATER SAMPLES
GASOLINE AND CONSTITUENTS

	TPH as gas (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-Benzene (ppb)	Xylene (ppb)
B4-Water	6,300	<10.0	<10.0	<10.0	<10.0

LEGEND:

TPH = Total Petroleum Hydrocarbons
ppb = parts per billion
<10.0 = Limit of Detection

DISCUSSION

Gasoline, kerosene, toluene, ethyl-benzene and xylene were detected in soil at the extreme southwest corner of the subject site. Gasoline was also detected in a grab subsurface water sample collected at the extreme southwest corner. Small concentrations of oil and grease were identified in a soil sample collected in the area where a waste oil tank was at one time.

Soil concentrations of cadmium and chromium were reported to be less than Soluble Threshold Limit Concentrations (STLC) in the sample collected near the previous location of the waste oil tank. Lead, nickel, and zinc were reported to be above the STLC value but below the Total Threshold Limit Concentration. Concentrations are considered to be within acceptable "background levels" if identified in concentrations less than ten times the STLC. Therefore, all of these metals are within background levels.

One grab sample of subsurface water was collected from Boring No. 4. The sample was reported to contain 6,300 ppb gasoline. No benzene, toluene, ethyl-benzene, or xylene were reported to be present in the water. It was reported by the laboratory that diesel and/or kerosene was suspected to be present in the sample but this could not be determined with the sample volume collected. Kerosene was present in small concentrations in soil samples collected in Boring Nos. 2 and 4.

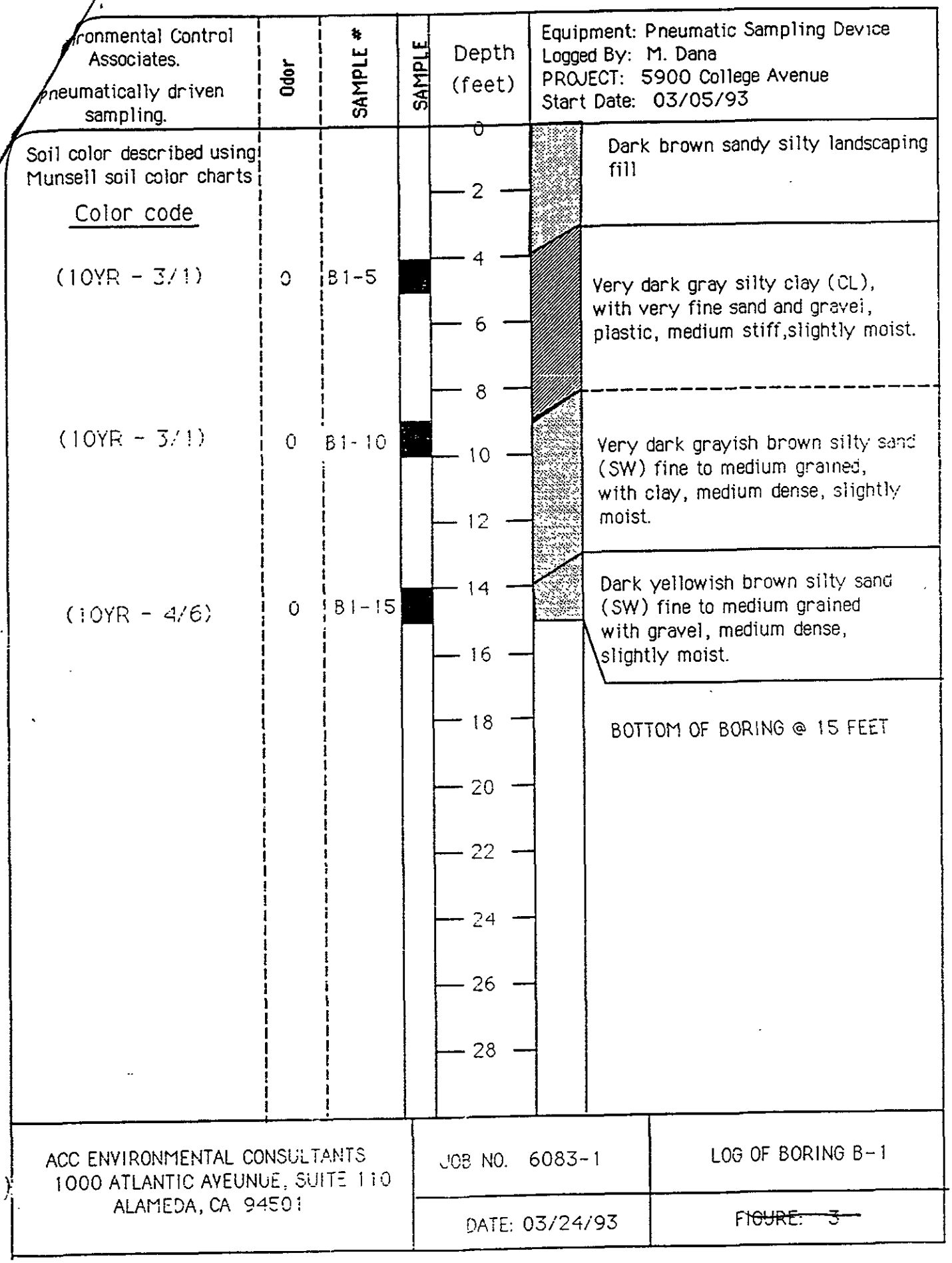
File No. NFE-3685-02
August 19, 1996

TABLE 1
SUMMARY OF SOIL AND GROUNDWATER ANALYTICAL DATA

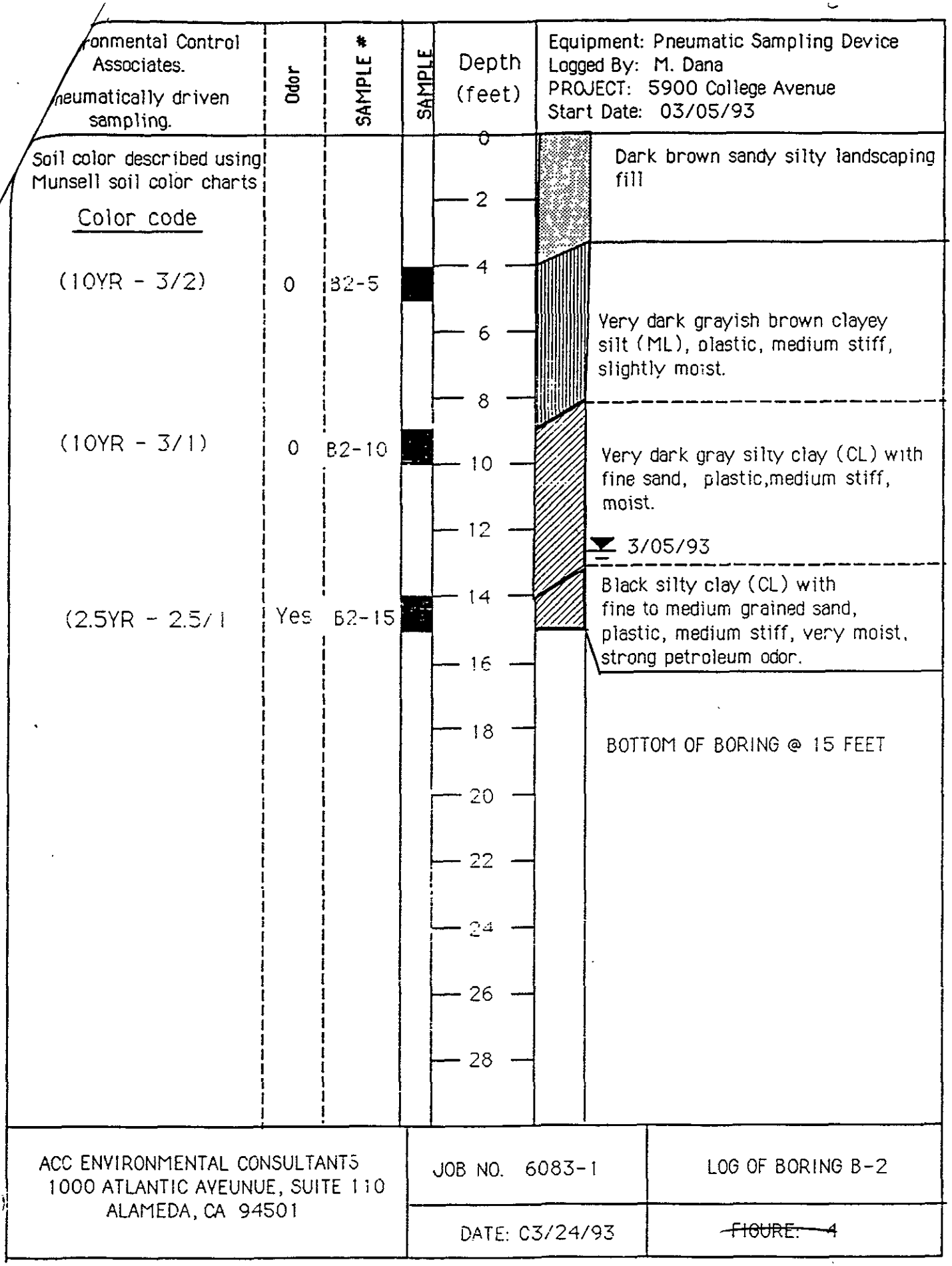
Sample Number	Sample Date	Sample Depth	TPHG (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)
SOIL							
B-2A	07/23/96	8ft.	<1.0	<0.005	<0.005	<0.005	<0.005
B-2A	07/23/96	14ft.	<1.0	<0.005	<0.005	<0.005	<0.005
B-4A	07/23/96	8ft.	<1.0	<0.005	<0.005	<0.005	<0.005
B-4A	07/23/96	14ft.	95	<0.005	<0.005	0.91	1.4
GROUNDWATER			(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
B-4A	07/23/96	14ft.	1,800	1.9	5.4	12	32

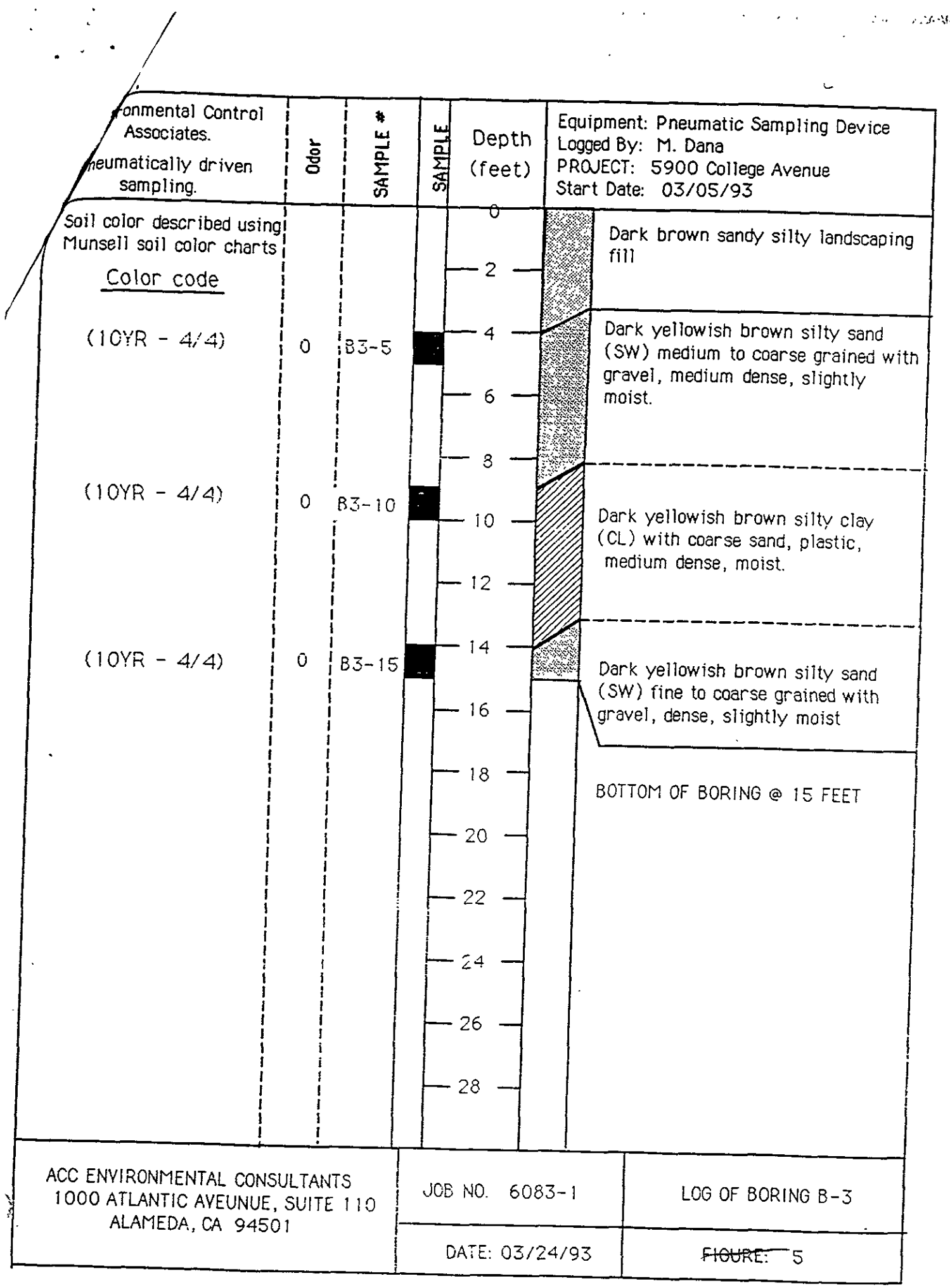
Notes for Tables 1:

ft.	Feet
ppb	parts per billion
ppm	parts per million
TPHG	Total petroleum hydrocarbons as gasoline
<0.005	Not detected at or below indicated laboratory detection limit



ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501	JOB NO. 6083-1	LOG OF BORING B-1
	DATE: 03/24/93	~~FIGURE: 3~~


onmental Control Associates.
neumatically driven sampling.
Odor
SAMPLE #
SAMPLE
Depth (feet)
Equipment: Pneumatic Sampling Device
Logged By: M. Dana
PROJECT: 5900 College Avenue
Start Date: 03/05/93
Soil color described using Munsell soil color charts
Color code
(10YR - 3/2)
0
B2-5
Dark brown sandy silty landscaping fill
Very dark grayish brown clayey silt (ML), plastic, medium stiff, slightly moist.
(10YR - 3/1)
0
B2-10
Very dark gray silty clay (CL) with fine sand, plastic,medium stiff, moist.
3/05/93
(2.5YR - 2.5/1
Yes
B2-15
Black silty clay (CL) with fine to medium grained sand, plastic, medium stiff, very moist, strong petroleum odor.
BOTTOM OF BORING @ 15 FEET
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
ACC ENVIRONMENTAL CONSULTANTS
1000 ATLANTIC AVEUNUE, SUITE 110
ALAMEDA, CA 94501
JOB NO. 6083-1
LOG OF BORING B-2
DATE: 03/24/93
~~FIGURE: 4~~


onmental Control Associates.
neumatically driven sampling.
Odor
SAMPLE #
SAMPLE
Depth (feet)
Equipment: Pneumatic Sampling Device
Logged By: M. Dana
PROJECT: 5900 College Avenue
Start Date: 03/05/93
Soil color described using Munsell soil color charts
Color code
(10YR - 4/4)
0
B3-5
(10YR - 4/4)
0
B3-10
(10YR - 4/4)
0
B3-15
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
Dark brown sandy silty landscaping fill
Dark yellowish brown silty sand (SW) medium to coarse grained with gravel, medium dense, slightly moist.
Dark yellowish brown silty clay (CL) with coarse sand, plastic, medium dense, moist.
Dark yellowish brown silty sand (SW) fine to coarse grained with gravel, dense, slightly moist
BOTTOM OF BORING @ 15 FEET
ACC ENVIRONMENTAL CONSULTANTS
1000 ATLANTIC AVEUNUE, SUITE 110
ALAMEDA, CA 94501
JOB NO. 6083-1
LOG OF BORING B-3
DATE: 03/24/93
FIGURE: 5

ronmental Control Associates.
neumatically driven sampling.

Equipment: Pneumatic Sampling Device
Logged By: M. Dana
PROJECT: 5900 College Avenue
Start Date: 03/05/93

Soil color described using Munsell soil color charts

Color code

	Odor	SAMPLE #	SAMPLE	Depth (feet)	
				0	6" Concrete
(10YR - 3/2)	0	B4-5		2	Very dark grayish brown silty sand (SW) medium to coarse grained with gravel, *medium dense*, slightly moist.
				4	
				6	
				8	
(10YR - 4/4)	0	B4-10		10	Dark Brown silty sand (SW), fine-medium grained with gravel (some quartz fragments), dense, moist.
				12	
				14	▼ (3/05/93)
(10YR - 4/4)	Yes	B4-15			Black sand (SP) fine grained, medium dense, very moist, strong petroleum odor.
		B4-Water		16	Grab Water Sample Collected
				18	BOTTOM OF BORING @ 18 FEET
				20	
				22	
				24	
				26	
				28	

ACC ENVIRONMENTAL CONSULTANTS
1000 ATLANTIC AVEUNUE, SUITE 110
ALAMEDA, CA 94501

JOB NO. 6083-1

LOG OF BORING B-4

DATE: 03/24/93

FIGURE: 6

onmental Control Associates.
neumatically driven sampling.

Equipment: Pneumatic Sampling Device
Logged By: M. Dana
PROJECT: 5900 College Avenue
Start Date: 03/05/93

Soil color described using Munsell soil color charts

Color code

	Odor	SAMPLE #	Depth (feet)	
			0	6" Concrete
			2	Dark brown sandy clay (CL) with gravel, plastic, medium stiff, moist.
(10YR - 3/3)	0	B5-5	4	
			6	
			8	
(2.5Y 3/1)	Yes	B5-10	10	Very dark gray silty clay (CL) finer than above with fine-medium grained sand and gravel, green pods, plastic, dense, moist, petroleum odor
			12	
			14	▼ (3/05/93)
(10YR - 4/4)	Yes	B5-15	16	Yellowish brown clayey silt (ML) trace sand, medium stiff, petroleum odor.
			18	
			20	BOTTOM OF BORING @ 19 FEET (Probe broke trying to obtain water sample)
			22	
			24	
			26	
			28	

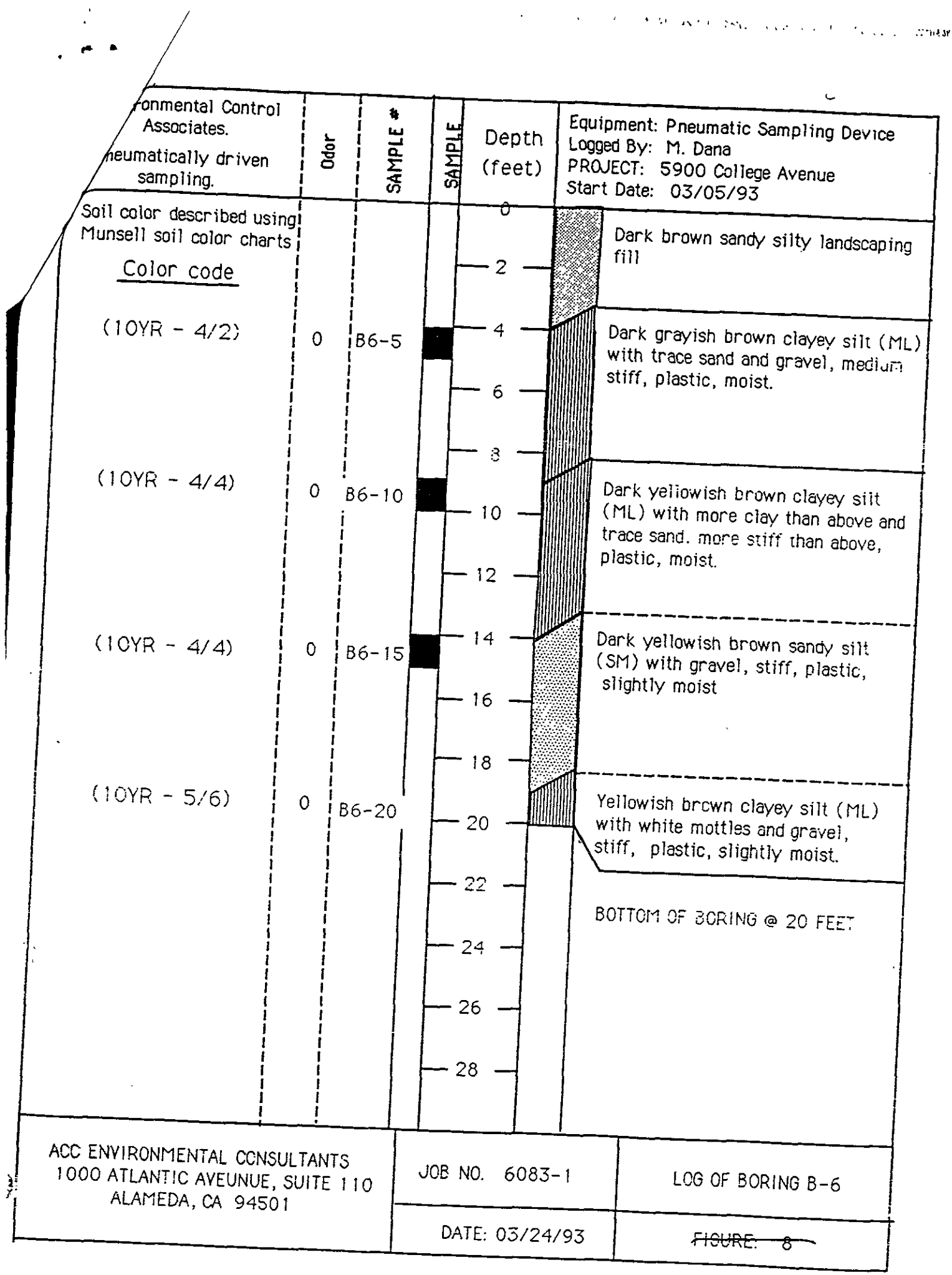
ACC ENVIRONMENTAL CONSULTANTS
1000 ATLANTIC AVEUNUE, SUITE 110
ALAMEDA, CA 94501

JOB NO. 6083-1

LOG OF BORING B-5

DATE: 03/24/93

~~FIGURE: 7~~


onmental Control Associates.
neumatically driven sampling.
Odor
SAMPLE #
SAMPLE
Depth (feet)
Equipment: Pneumatic Sampling Device
Logged By: M. Dana
PROJECT: 5900 College Avenue
Start Date: 03/05/93
Soil color described using Munsell soil color charts
Color code
(10YR - 4/2)
0
B6-5
Dark brown sandy silty landscaping fill
Dark grayish brown clayey silt (ML) with trace sand and gravel, medium stiff, plastic, moist.
(10YR - 4/4)
0
B6-10
Dark yellowish brown clayey silt (ML) with more clay than above and trace sand. more stiff than above, plastic, moist.
(10YR - 4/4)
0
B6-15
Dark yellowish brown sandy silt (SM) with gravel, stiff, plastic, slightly moist
(10YR - 5/6)
0
B6-20
Yellowish brown clayey silt (ML) with white mottles and gravel, stiff, plastic, slightly moist.
BOTTOM OF BORING @ 20 FEET
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
ACC ENVIRONMENTAL CONSULTANTS
1000 ATLANTIC AVEUNUE, SUITE 110
ALAMEDA, CA 94501
JOB NO. 6083-1
DATE: 03/24/93
LOG OF BORING B-6
FIGURE: 8

FILE NO. NFE-3685-02

DATE DRILLED: 7-23-96 | DRILLER: ECA

ELEVATION: | DRILLING METHOD: Geoprobe

BACKFILL METHOD: Grout | DIAMETER OF BORING: 1 inch

LOGGED BY: P. Mayberry | DEPTH TO GROUNDWATER: NA

Log of Exploratory Boring No. B-2A

Depth (ft)	Sample No.	Graphic Log	Blows Per Foot	Pocket Pen (t.s.f.)	Soil Description	U.S.C.S. Soil - Group	In-Place Moisture (% dry weight)	In-Place Dry Density (pcf)
0								
1								
2								
3								
4								
5								
6								
7								
8	B-2A-8				**SANDY CLAY**, brown, fine to medium sands, moist, medium plasticity.	CL		
9								
10								
11								
12								
13								
14								
15	B-2A-14				No change			
16								
17								
18								
19								
20					No change			
21								
22								
23								
24								
25					Geoprobe boring terminated at 25 feet. Groundwater not encountered.			

FILE NO. NFE-3685-02

DATE DRILLED: 7-23-96
ELEVATION:
BACKFILL METHOD: Grout
LOGGED BY: P. Mayberry

DRILLER: ECA
DRILLING METHOD: Geoprobe
DIAMETER OF BORING: 1 inch
DEPTH TO GROUNDWATER: 14 Feet

Log of Exploratory Boring No. B-4A

Depth (ft)	Sample No.	Graphic Log	Blows Per Foot	Pocket Pen (t.s.f.)	Soil Description	U.S.C.S. Soil - Group	In-Place Moisture (% dry weight)	In-Place Dry Density (pcf)
0								
1								
2								
3								
4								
5								
6								
7								
8	B-2A-8				**SANDY CLAY**, brown, fine to medium sands, moist, medium plasticity.	CL		
9								
10								
11								
12								
13								
14	B-2A-14				Strong hydrocarbon odor, greenish gray in color, wet ▽	CL		
15								
16								
17					Geoprobe boring terminated at 15 feet. Groundwater encountered at 14 feet.			
18								
19								
20								
21								
22								
23								
24								
25								