

# LOWNEY ASSOCIATES

Environmental/Geotechnical/Engineering Services

## Transmittal

20437

**Date:** October 13, 2003

**Project No.:** 1731-2G

**To:** Mr. Amir Gholami  
**ALAMEDA COUNTY HEALTH DEPT.**  
1131 Harbor Bay Parkway  
Alameda, California 94502

**RE: 2901 GLASCOCK STREET**

Dear Amir,

As requested, exploratory boring logs for 2901 Glascock Street are attached. In addition, plots of TPH diesel versus distance also are attached.

Please call me if you have any questions.

Very truly yours,

**Lowney Associates**  
Peter Langtry, C.E.G.  
Principal Environmental Geologist  
plangtry@lowney.com

Copies: Addressee (1)  
Signature Properties (1)  
Attn: Mary Grace Houlihan

**MOUNTAIN VIEW**  
405 Clyde Avenue  
CA 94043  
T: 650.967.2365  
F: 650.967.2785

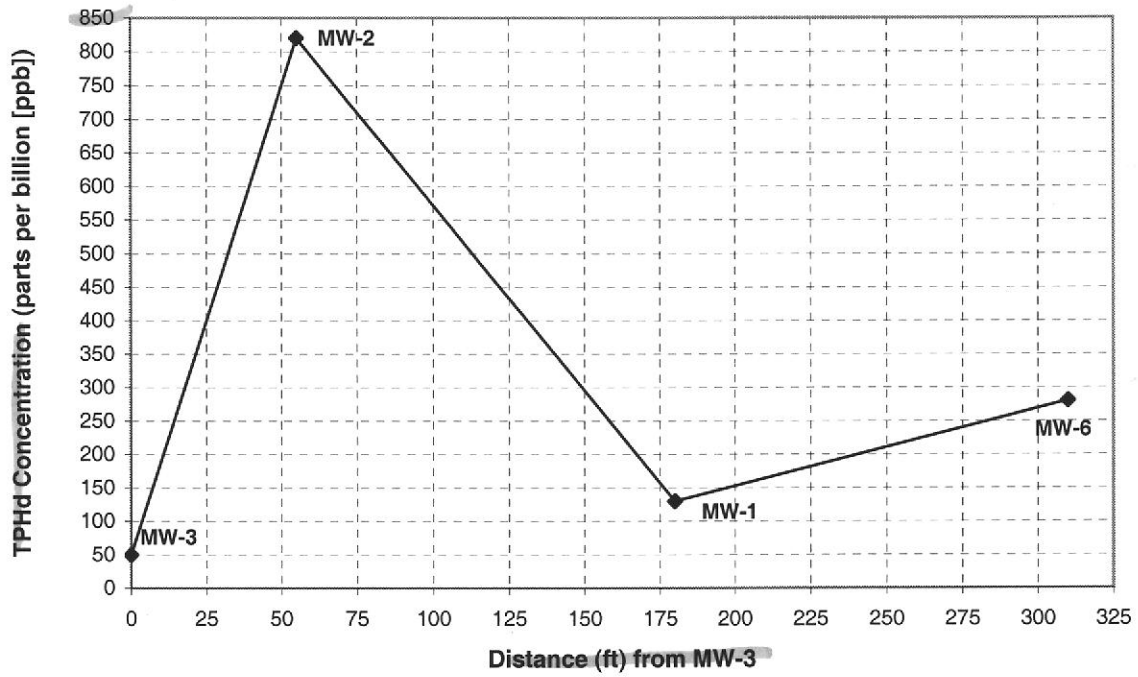
**FAIRFIELD**  
2850 Cordelia Road  
Suite 140  
CA 94534  
T: 707.423.2523  
F: 707.428.1725

**OAKLAND**  
167 Filbert Street  
CA 94607  
T: 510.267.1970  
F: 510.267.1972

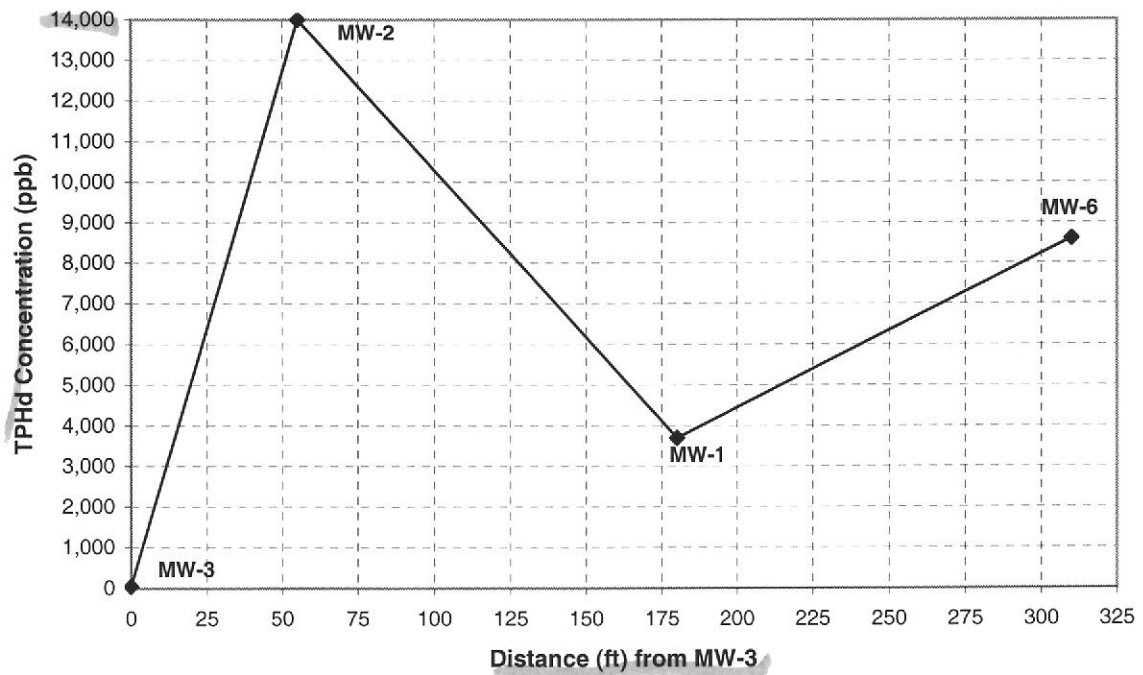
**SAN RAMON**  
2258 Camino Ramon  
CA 94583  
T: 925.275.2550  
F: 925.275.2555

**FULLERTON**  
251 E. Imperial Hwy  
Suite 470  
CA 92835  
T: 714.441.3090  
F: 714.441.3091

Distance (from MW-3) vs. TPHd Concentration  
(5/31/02)



Distance (from MW-3) vs. TPHd Concentration  
(8/29/02)



10-12 Oct ?  
Report

Clear information - comparison

3 SOURCES

---

Small ponds

USFWS calculations AND

~~AND~~

with which model is REMOVED

---

will be

High level standards

along shoreline

+ monitoring with  
network.

3 once shoreline

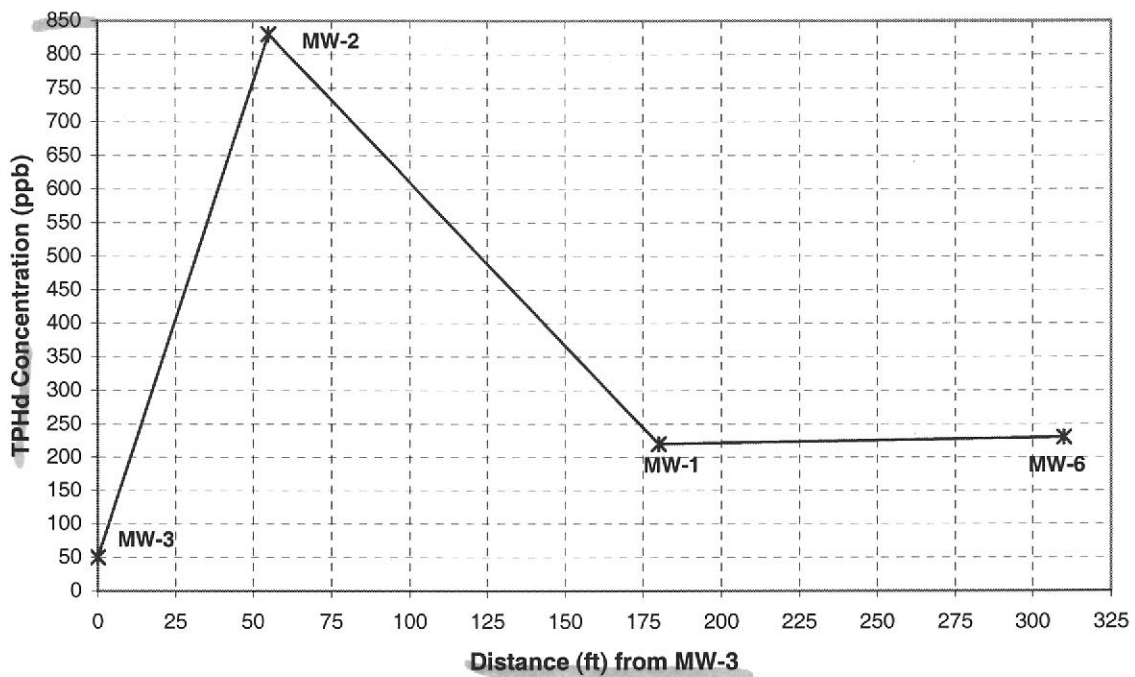
3 all

LINEAR extends to 2901 ?

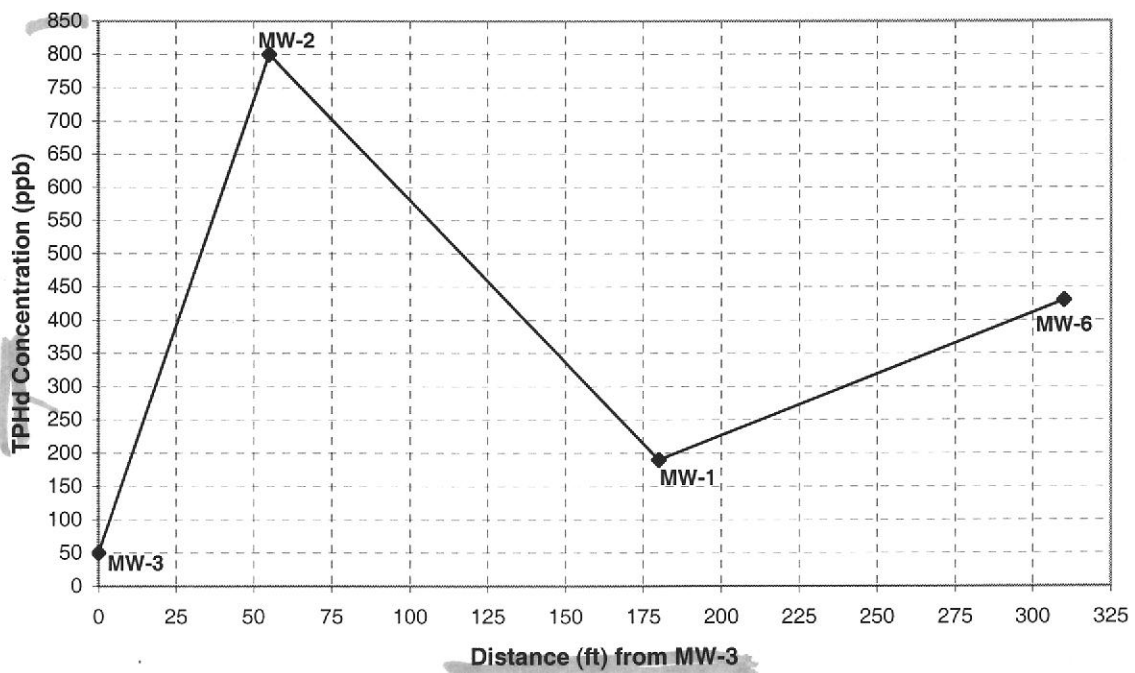
THEY ARE DOING SAMPLING

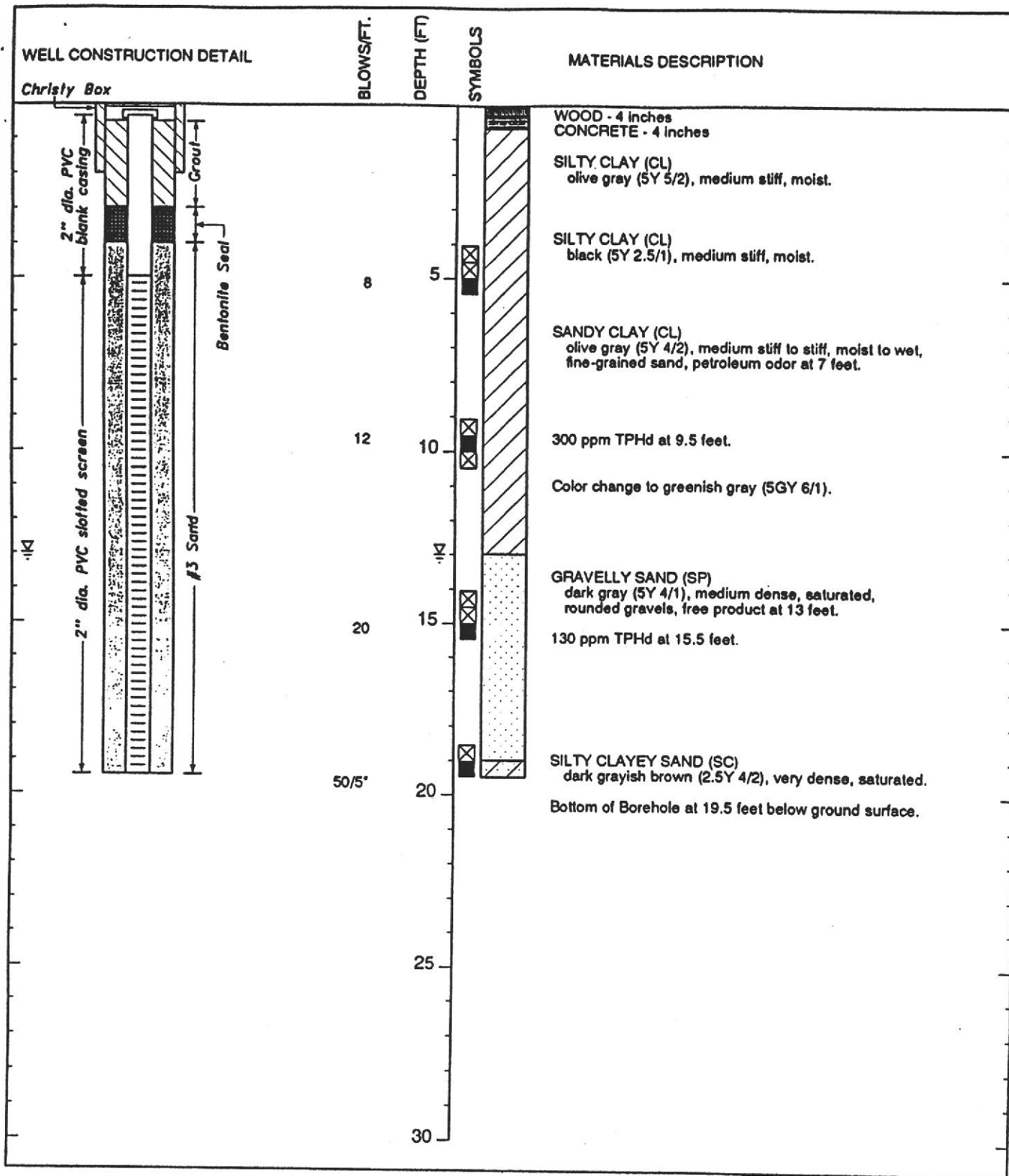
VERTICALLY along the shoreline.

Distance (from MW-3) vs. TPHd Concentration  
(11/25/02)



Distance (from MW-3) vs. TPHd Concentration  
(2/27/03)





DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	9/23/94	TOTAL DEPTH OF HOLE	19.5 feet
DATE COMPLETED	9/23/94	TOP OF CASING ELEVATION	10.76 feet MSL

**W. A. CRAIG, INC.**

INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Log of Boring MW-1 and  
Well Completion Detail  
2901 Glascock Street  
Oakland, California

PLATE

**3A**

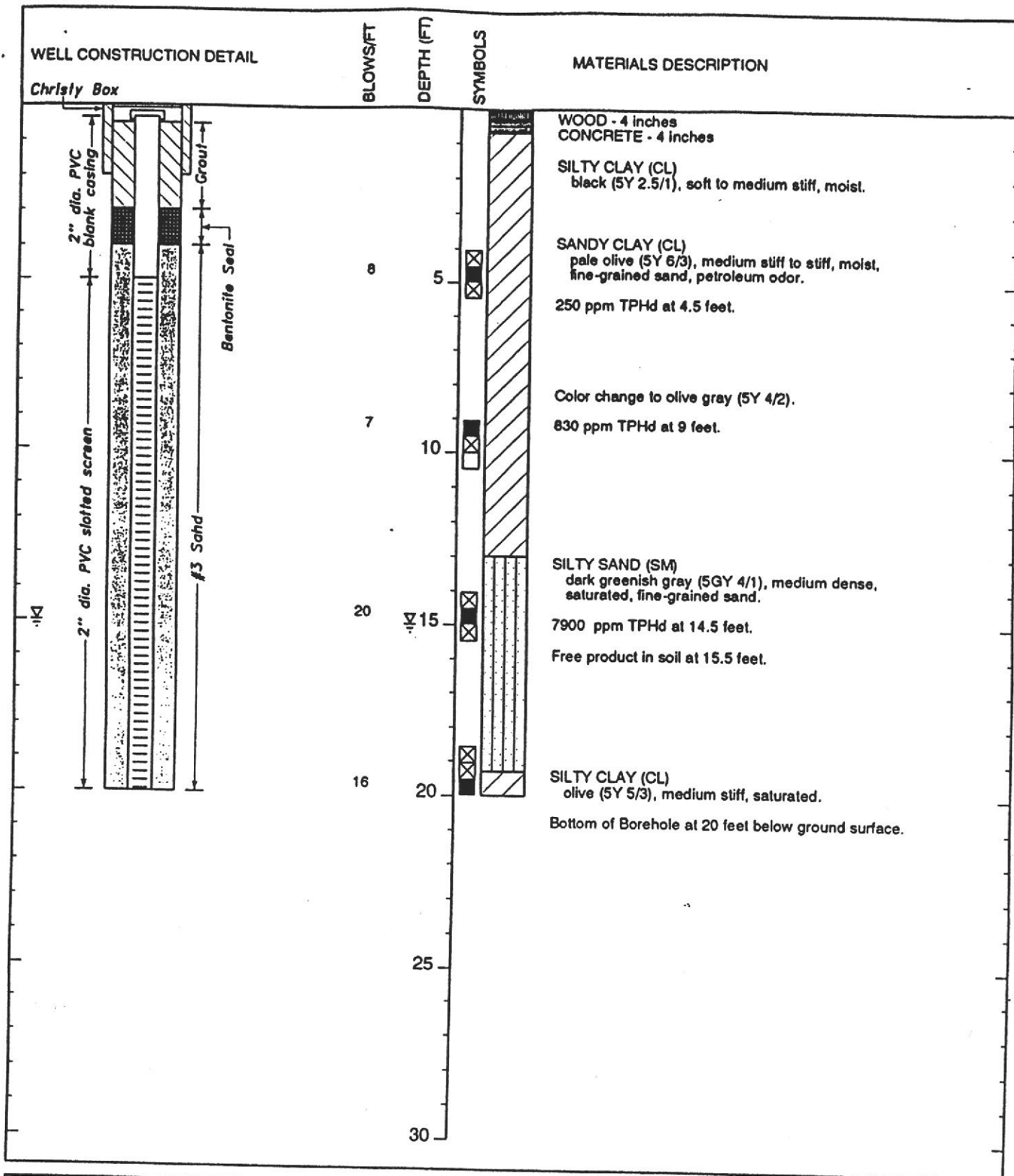
JOB NUMBER  
3406

REVIEWED BY  
*JRS*

DATE  
11/94

REVISED DATE

B001606



DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	9/23/94	TOTAL DEPTH OF HOLE	20 feet
DATE COMPLETED	9/23/94	TOP OF CASING ELEVATION	10.62 feet MSL

**W. A. CRAIG, INC.**  
INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Log of Boring MW-2 and  
Well Completion Detail  
2901 Glascock Street  
Oakland, California

PLATE

**3B**

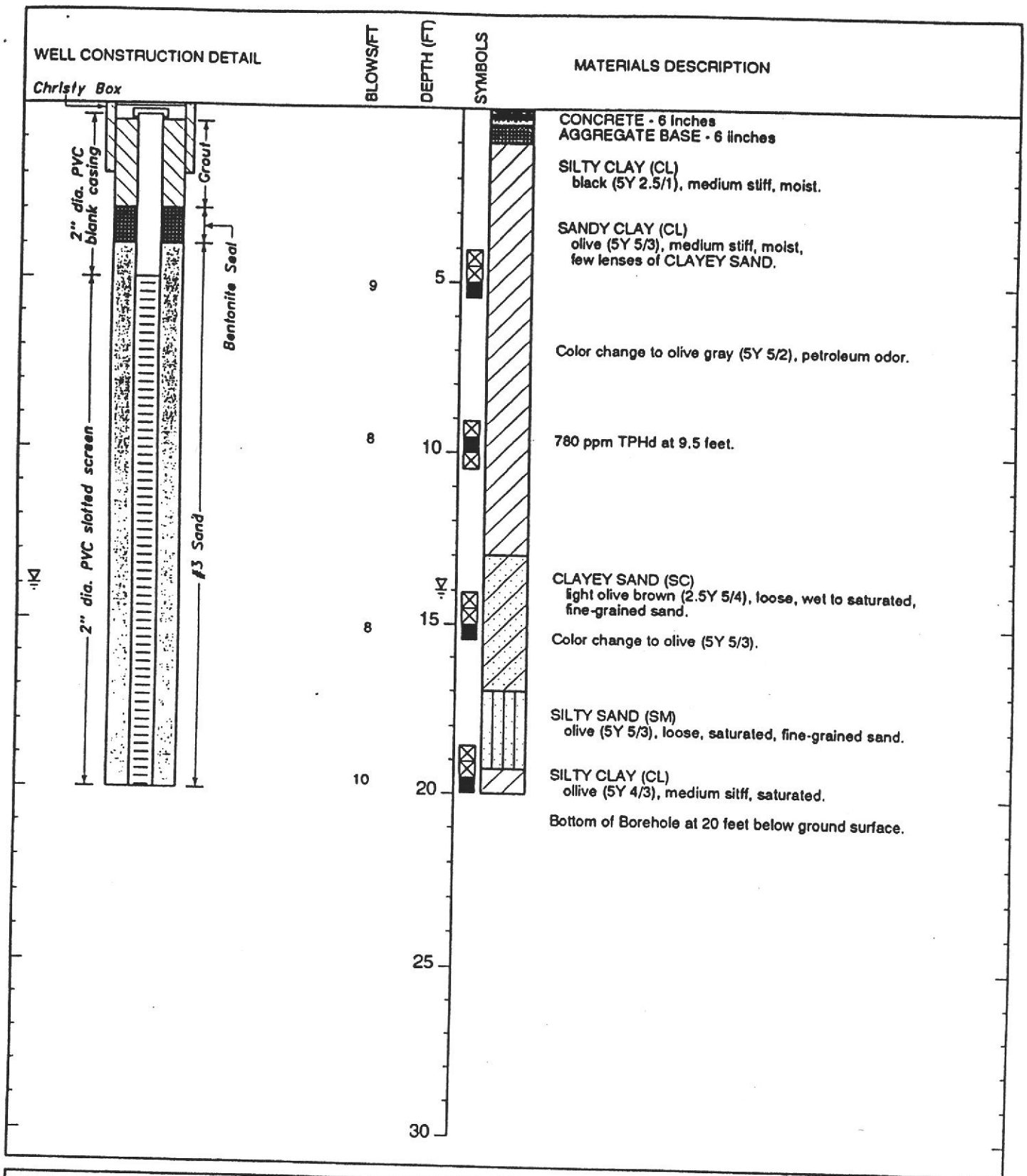
JOB NUMBER  
3406

REVIEWED BY  
*[Signature]*

DATE  
11/94

REVISED DATE

B001607



DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	9/23/94	TOTAL DEPTH OF HOLE	20 feet
DATE COMPLETED	9/23/94	TOP OF CASING ELEVATION	9.87 feet MSL

**W. A. CRAIG, INC.**  
 INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Log of Boring MW-3 and  
 Well Completion Detail  
 2901 Glascock Street  
 Oakland, California

PLATE

**3C**

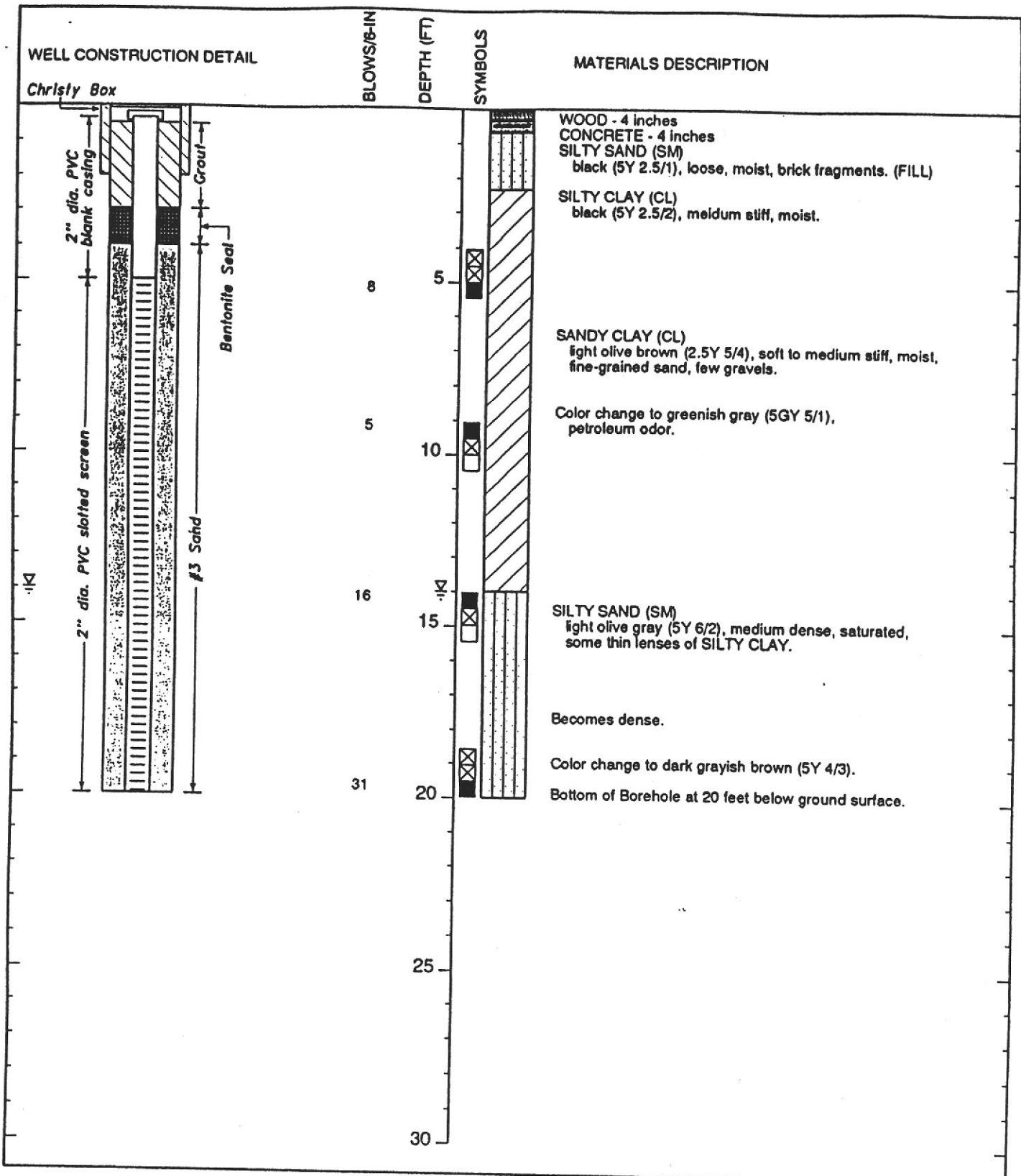
JOB NUMBER  
 3406

REVIEWED BY

DATE  
 11/94

REVISED

B001608



DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	9/23/94	TOTAL DEPTH OF HOLE	20 feet
DATE COMPLETED	9/23/94	TOP OF CASING ELEVATION	10.64 feet MSL

**W. A. CRAIG, INC.**  
INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Log of Boring MW-4 and  
Well Completion Detail  
2901 Glascock Street  
Oakland, California

PLATE  
**3D**

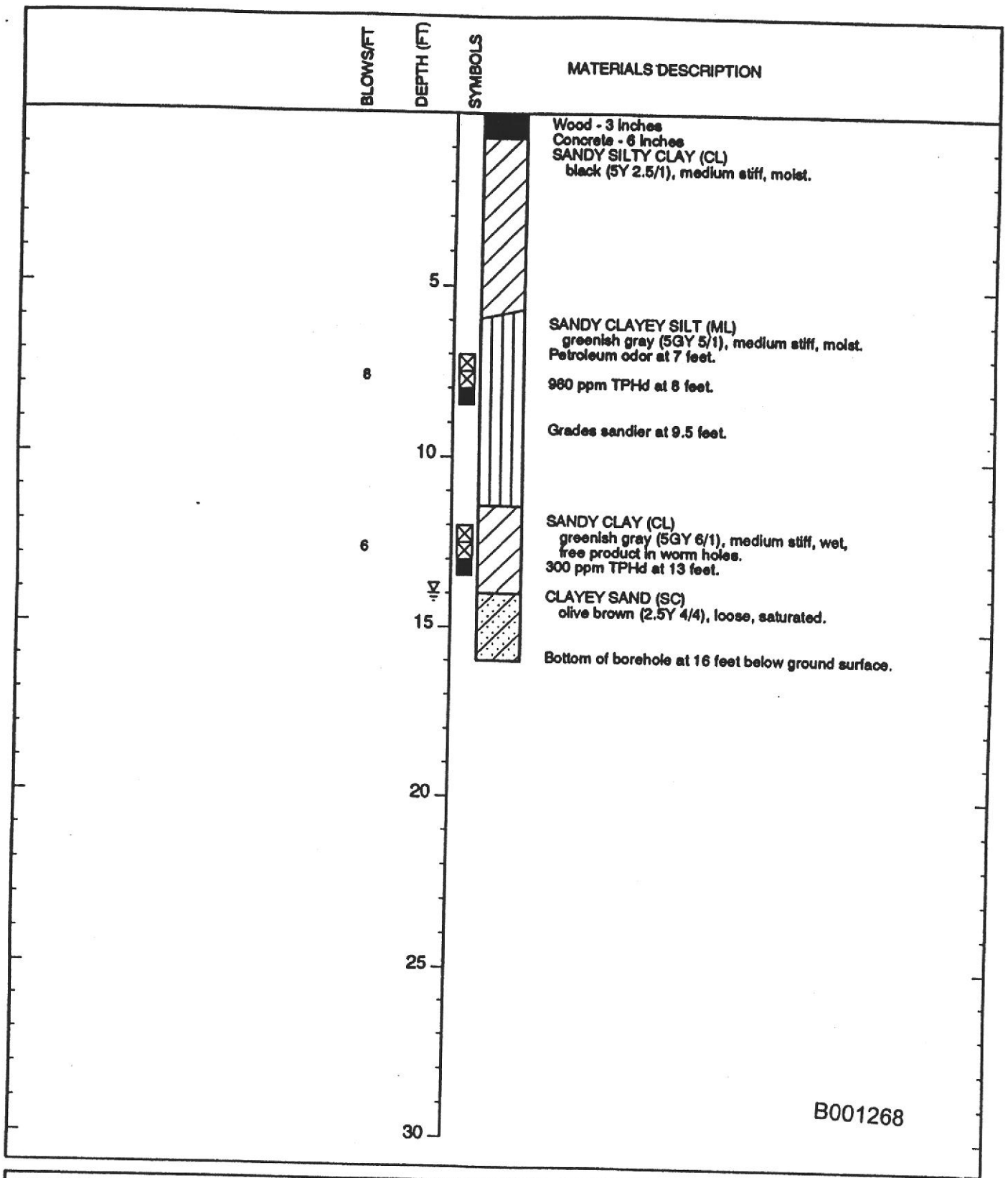
JOB NUMBER  
3406

REVISED BY  
*[Signature]*

DATE  
11/94

REVISED DATE





B001268

DRILL RIG	8' Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	3/29/95	TOTAL DEPTH OF HOLE	16 feet
DATE COMPLETED	3/29/95	TOP OF CASING ELEVATION	11 feet MSL

W.A. CRAIG, INC

INDUSTRIAL AND ENVIRONMENTAL CONTRACTORS

Log of Boring SB-2  
2901 Glascock Street  
Oakland, California

PLATE

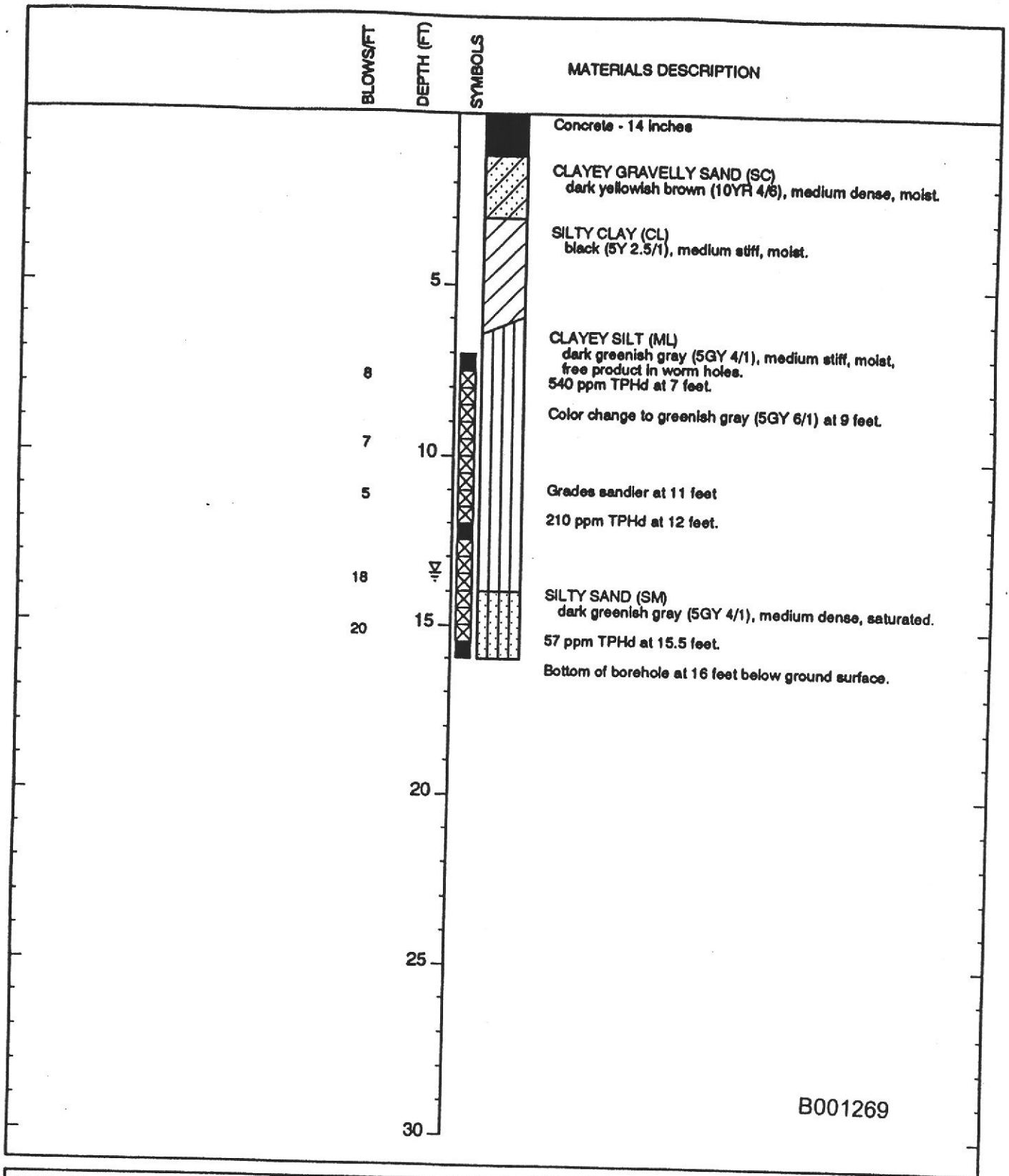
**2B**

JOB NUMBER  
3406

REVIEWED BY  
*[Signature]*

DATE  
6/95

REVISED DATE



B001269

DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	3/30/95	TOTAL DEPTH OF HOLE	16 feet
DATE COMPLETED	3/30/95	TOP OF CASING ELEVATION	11 feet MSL

**W.A. CRAIG, INC**

INDUSTRIAL AND ENVIRONMENTAL CONTRACTORS

Log of Boring SB-3  
2901 Glascock Street  
Oakland, California

PLATE

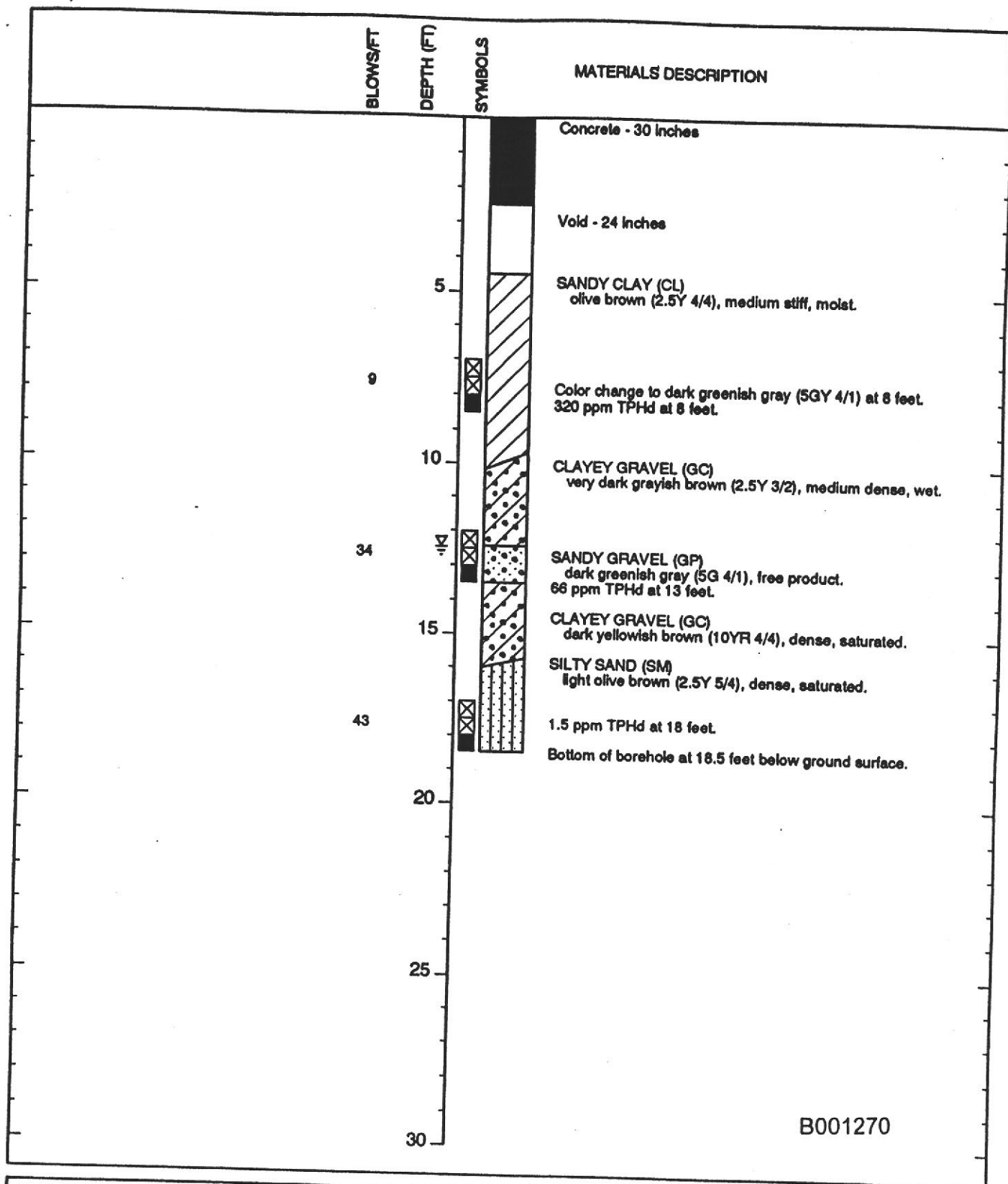
**2C**

JOB NUMBER  
3406

REVIEWED BY

DATE  
6/95

REVISED DATE



B001270

DRILL RIG	8' Hollow Stem Auger/2*Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	3/29/95	TOTAL DEPTH OF HOLE	18.5 feet
DATE COMPLETED	3/29/95	TOP OF CASING ELEVATION	11 feet MSL

**W.A. CRAIG, INC**

INDUSTRIAL AND ENVIRONMENTAL CONTRACTORS

Log of Boring SB-4  
2901 Glascock Street  
Oakland, California

PLATE

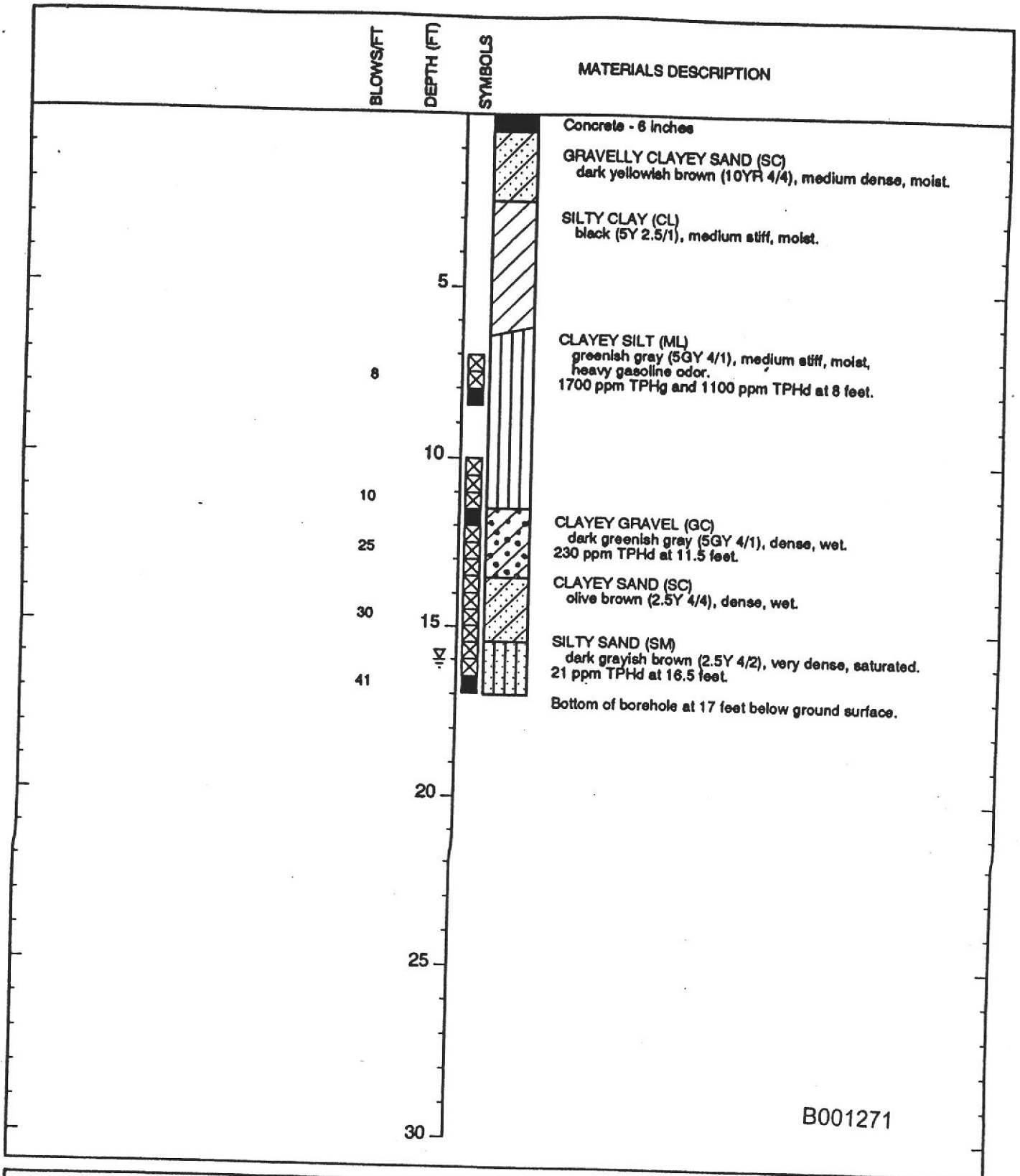
**2D**

JOB NUMBER  
3406

REVIEWED BY  
*[Signature]*

DATE  
6/95

REVISED DATE



B001271

DRILL RIG	8' Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	3/30/95	TOTAL DEPTH OF HOLE	17 feet
DATE COMPLETED	3/30/95	TOP OF CASING ELEVATION	11 feet MSL

**W.A. CRAIG, INC**

INDUSTRIAL AND ENVIRONMENTAL CONTRACTORS

Log of Boring SB-7  
2901 Glascock Street  
Oakland, California

PLATE

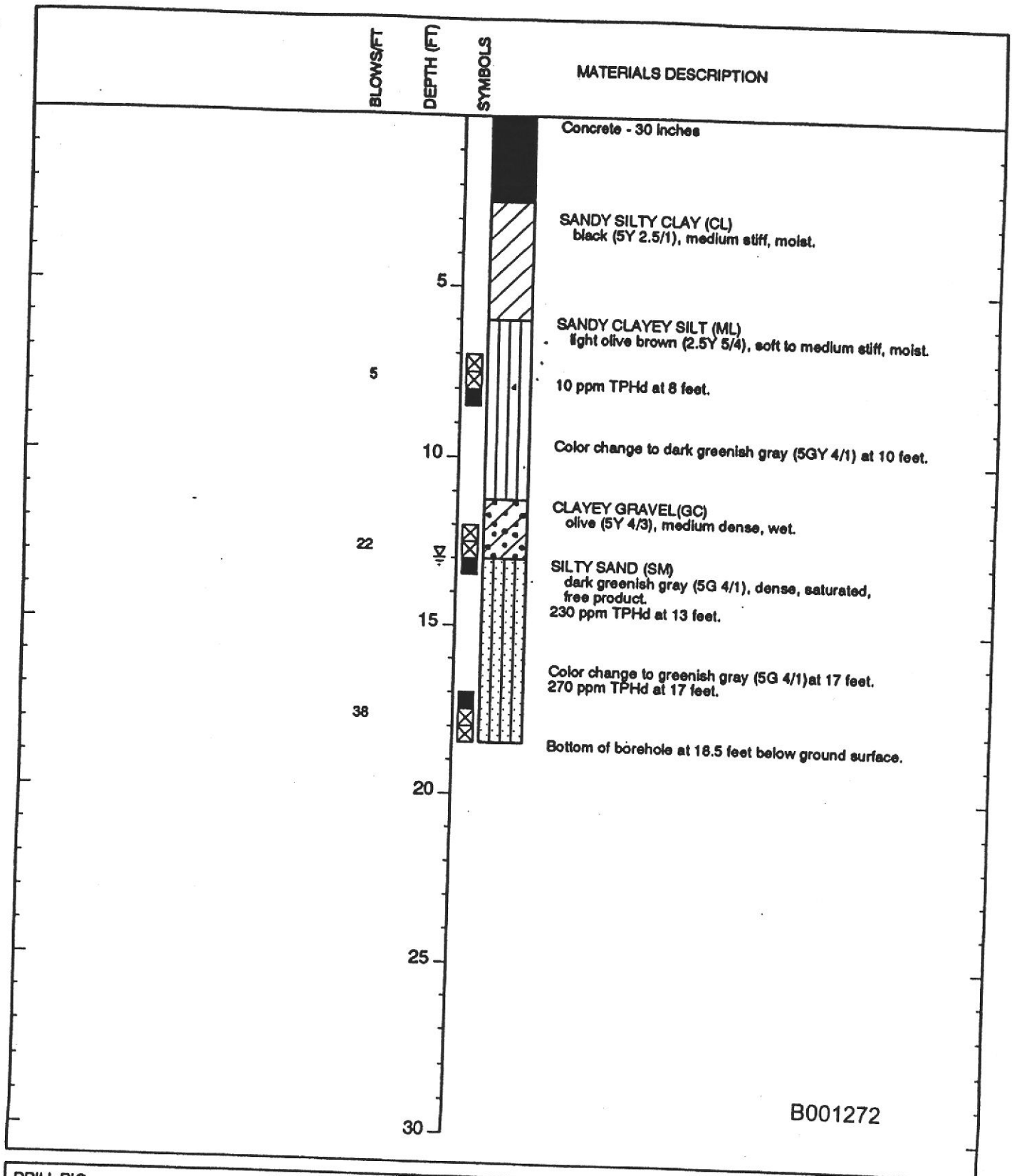
**2E**

JOB NUMBER  
3406

REVIEWED BY  
*[Signature]*

DATE  
6/95

REVISED DATE



B001272

DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	3/29/95	TOTAL DEPTH OF HOLE	18.5 feet
DATE COMPLETED	3/29/95	TOP OF CASING ELEVATION	11 feet MSL

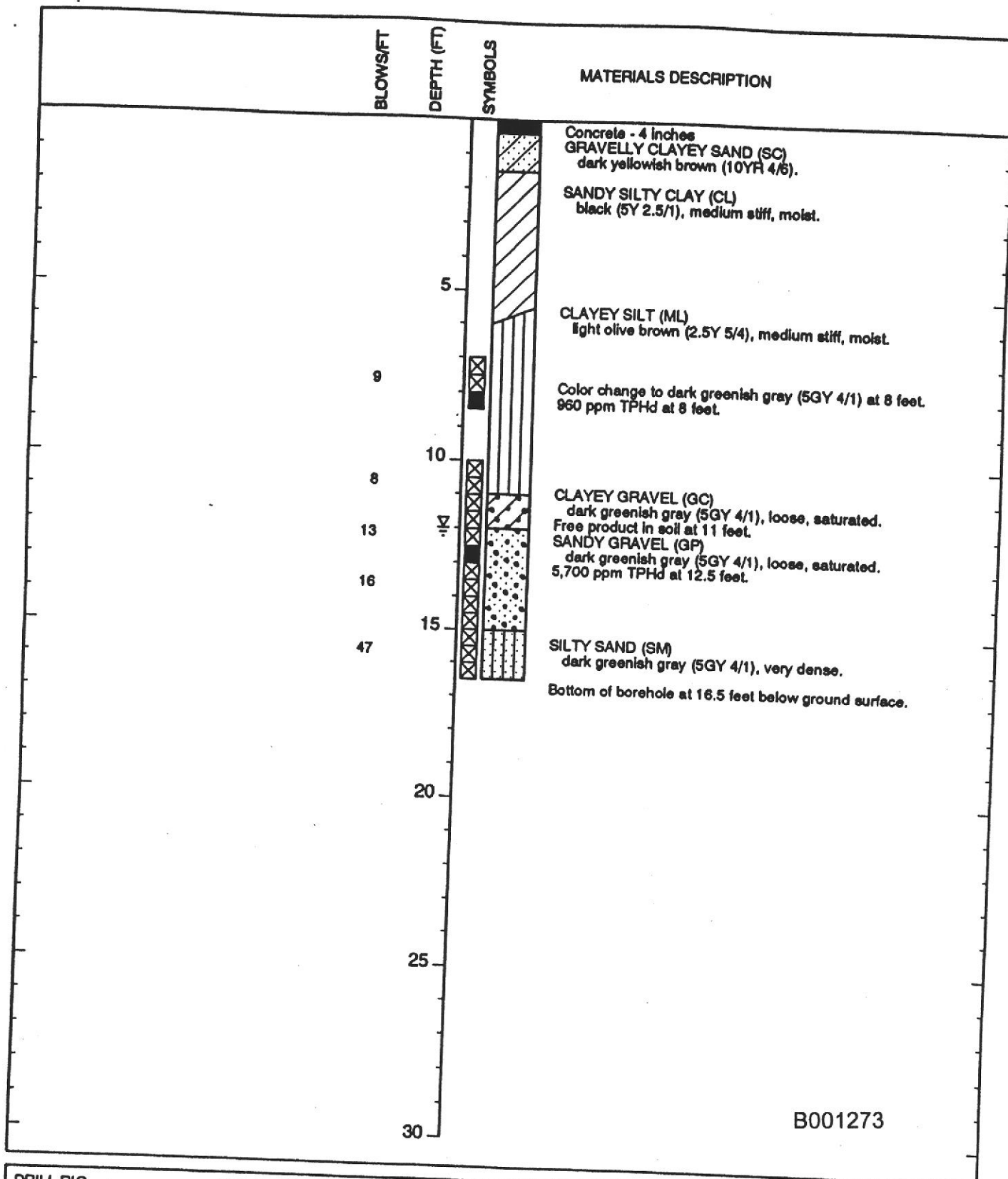
**W.A. CRAIG, INC**  
INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Log of Boring SB-8  
2901 Glascock Street  
Oakland, California

PLATE

**2F**

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
3406	<i>JAN</i>	6/95	



B001273

DRILL RIG	8' Hollow Stem Auger/2' Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	3/30/95	TOTAL DEPTH OF HOLE	16.5 feet
DATE COMPLETED	3/30/95	TOP OF CASING ELEVATION	11 feet MSL

W.A. CRAIG, INC

INDUSTRIAL AND ENVIRONMENTAL CONTRACTORS

Log of Boring SB-9  
2901 Glascock Street  
Oakland, California

PLATE

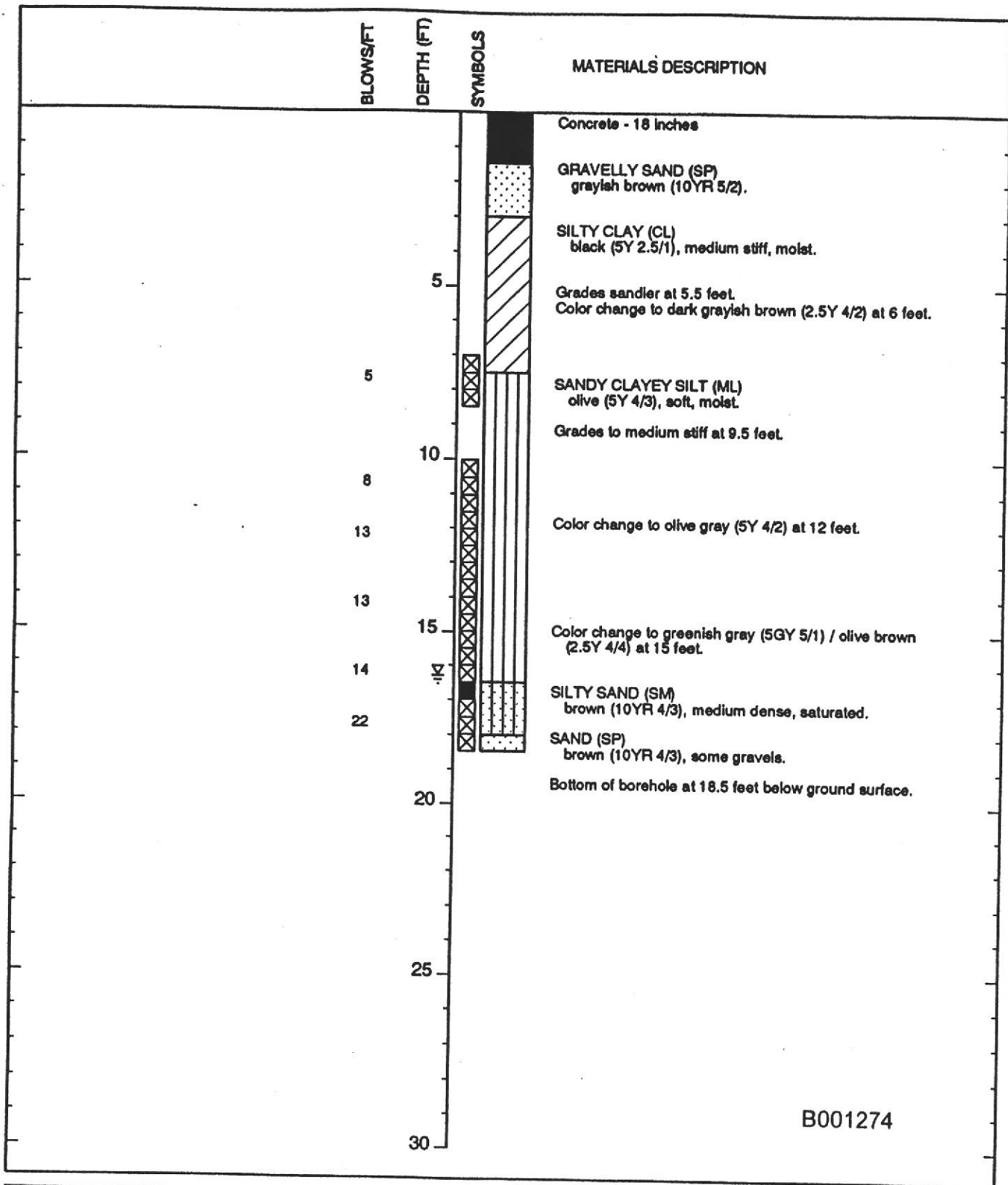
2G

JOB NUMBER  
3406

REVIEWED BY  
*[Signature]*

DATE  
6/95

REVISED DATE



DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 Inches
DATE STARTED	3/30/95	TOTAL DEPTH OF HOLE	18.5 feet
DATE COMPLETED	3/30/95	TOP OF CASING ELEVATION	11 feet MSL

**W.A. CRAIG, INC**  
INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Log of Boring SB-10  
2901 Glascock Street  
Oakland, California

PLATE

**2H**

JOB NUMBER  
3406

REVIEWED BY

*Handwritten signature*

DATE

6/95

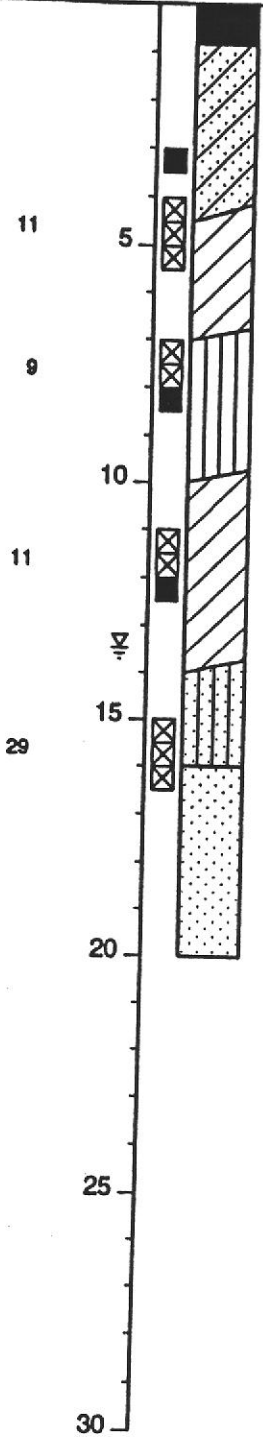
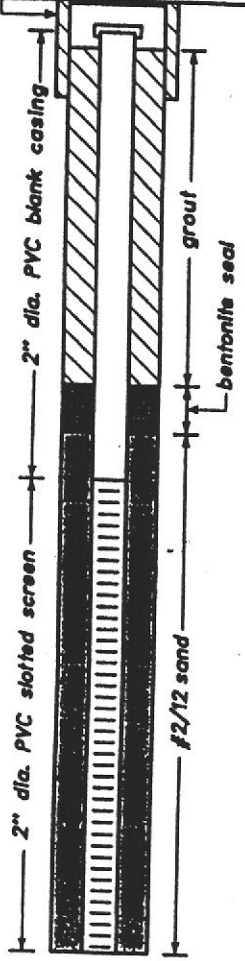
REVISED DATE

WELL CONSTRUCTION DETAIL

Christy Box

BLOWS/FT  
DEPTH (FT)  
SYMBOLS

MATERIALS DESCRIPTION



Concrete - 14 inches

CLAYEY SAND (SC)  
very dark grayish brown (2.5Y 3/2), medium dense, moist, metal shavings.  
1200 ppm TPHd at 3 feet.

SILTY CLAY (CL)  
black (5Y 2.5/1), medium stiff, moist.

SANDY CLAYEY SILT (ML)  
olive (5Y 5/3), medium stiff, moist.  
Color change to greenish gray (5G 5/1) at 8.5 feet.

SANDY CLAY (CL)  
olive gray (5Y 4/2), medium stiff, wet.  
Petroleum odor at 11 feet.  
Free product at 12 feet.

SILTY SAND (SM)  
dark brown (10YR 4/3), dense, saturated.

SAND (SP)  
olive (5Y 5/3) / olive brown (2.5Y 4/4), dense, saturated, medium-grained.

Bottom of borehole at 20 feet below ground surface.

B001275

DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	4/27/95	TOTAL DEPTH OF HOLE	20 feet
DATE COMPLETED	4/27/95	TOP OF CASING ELEVATION	10.61 feet MSL

W.A. CRAIG, INC

INDUSTRIAL AND ENVIRONMENTAL CONTRACTORS

Log of Boring MW-5 and Well Completion Detail  
2901 Glascock Street  
Oakland, California

PLATE  
**3A**

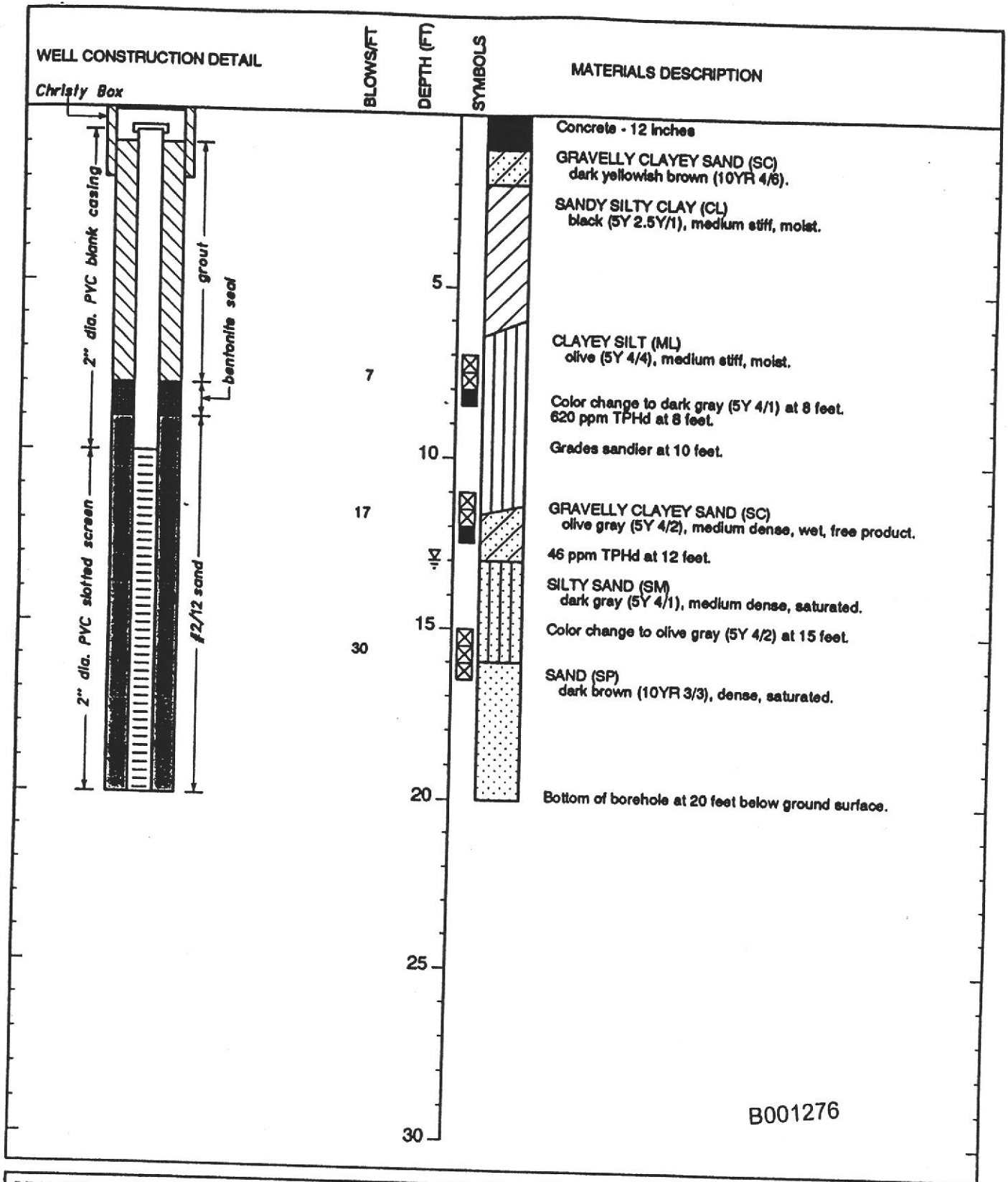
JOB NUMBER  
3406

REVIEWED BY  
*[Signature]*

DATE  
6/95

REVISED DATE





B001276

DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	4/27/95	TOTAL DEPTH OF HOLE	20 feet
DATE COMPLETED	4/27/95	TOP OF CASING ELEVATION	10.27 feet MSL

**W.A. CRAIG, INC**

INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Log of Boring MW-6 and  
Well Completion Detail  
2901 Glascock Street  
Oakland, California

PLATE

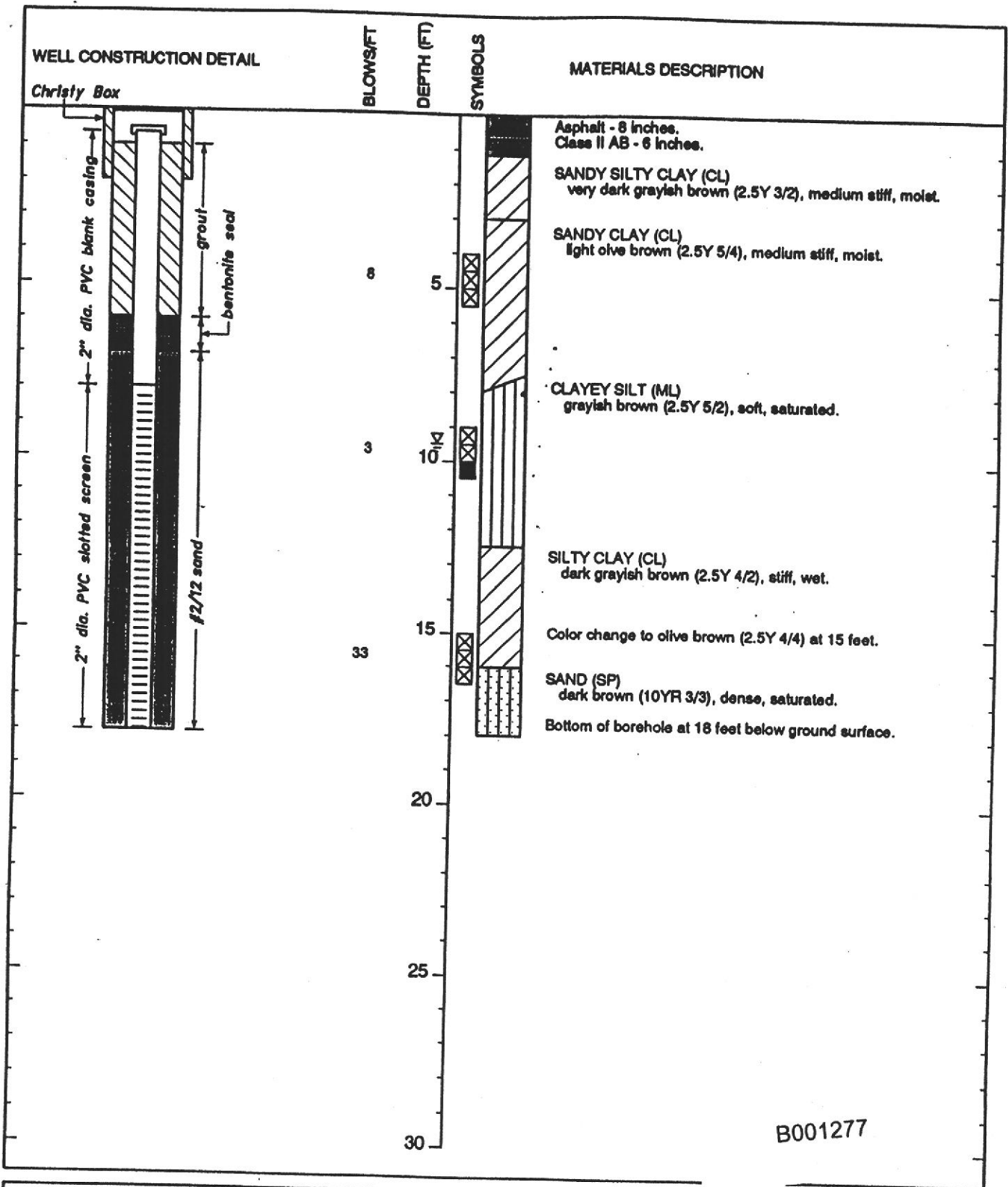
**3B**

JOB NUMBER  
3406

REVIEWED BY  
*[Signature]*

DATE  
6/95

REVISED DATE



B001277

DRILL RIG	8" Hollow Stem Auger/2" Mod. CA Sampler	DIAMETER OF HOLE	8 inches
DATE STARTED	4/27/95	TOTAL DEPTH OF HOLE	18 feet
DATE COMPLETED	4/27/95	TOP OF CASING ELEVATION	9.85 feet MSL

W.A. CRAIG, INC  
INDUSTRIAL AND ENVIRONMENTAL CONTRACTORS

Log of Boring MW-7 and  
Well Completion Detail  
2901 Glascock Street  
Oakland, California

PLATE

3C

JOB NUMBER  
3406

REVISED BY  
*AR*

DATE  
6/95

REVISED DATE

# EXPLORATORY BORING: EB-9

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 4.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0		SURFACE ELEVATION:							
	0	XXXX	4 inches wood floor							
	0	XXXX	8 inches concrete							
	0	XXXX	<b>SILTY CLAY (CL)</b> black, debris, rock-gravel, brick, minor sand	CL		□				
	0	XXXX	<b>SILTY CLAY (CL)</b> medium stiff, black, 15% silt	CL		□				
	5		Bottom of Boring at 4 feet							
	10									
	15									
	20									
	25									
	30									

- Undrained Shear Strength (ksf)
- Pocket Penetrometer
  - △ Torvane
  - Unconfined Compression
  - ▲ U-U Triaxial Compression
- 1.0    2.0    3.0    4.0

GROUND WATER OBSERVATIONS:

LA CORP.GDT 10/23/01 MV\* EB

# EXPLORATORY BORING: EB-10

Sheet 1 of 1

DRILL RIG: VIRONEX

PROJECT NO: 1731-2A

BORING TYPE: DIRECT PUSH

PROJECT: GLASCOCK STREET

LOGGED BY: CM

LOCATION: OAKLAND, CA

START DATE: 10-2-01

FINISH DATE: 10-2-01

COMPLETION DEPTH: 8.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0		SURFACE ELEVATION:							
	0		6 inches concrete slab							
	0		<b>GRAVEL (GP) [Baserock]</b> loose, orange brown, 30% coarse sand	GP						
	5		<b>SILTY CLAY (CL)</b> medium stiff, moist, black, no debris transitional contact	CL		□				
	5		<b>SILTY CLAY (CL)</b> white, minor rock fragments, minor sand, friable	CL		□				
	5		<b>SILTY CLAY (CL)</b> stiff, moist, grayish, 20-30% silt, 10-15% sand	CL						
	8		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

Undrained Shear Strength (ksf)

○ Pocket Penetrometer  
△ Torvane  
● Unconfined Compression  
▲ U-U Triaxial Compression

1.0   2.0   3.0   4.0

GROUND WATER OBSERVATIONS:  
NO FREE GROUND WATER ENCOUNTERED

LA CORP.GDT. 10/23/01 MV\* EB

# EXPLORATORY BORING: EB-11

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 8.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0		SURFACE ELEVATION:							
	0		3 foot concrete slab							
	5		<b>SILTY CLAY (CL)</b> medium stiff, moist, black, at bottom of interval 3-4 inch layer of black ash-like substance and red brick fragments, fill	CL		□				
	5		<b>SILTY CLAY (CL)</b> dense, moist, gray-green, silt 25-30%, 10-15% fine grained sand, native	CL		□				
	8		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

LA CORP GDT 10/23/01 MW\* EB

# EXPLORATORY BORING: EB-12

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 8.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0		SURFACE ELEVATION:							
	0		6 inch concrete slab							
	0		6 inches gravel, orange brown, rusty baserock							
	0		<b>SILTY CLAY (CL)</b> black, lots of brown-rust spots, minor gravel rock fragments, poor recovery	CL		□				
	5		<b>SILTY CLAY (CL)</b> medium stiff, moist, black, minor rusty spots, minor fine sand intervals, silt 15-20%	CL		□				
	5		<b>SILTY CLAY (CL)</b> white, light gray	CL		□				
	5		<b>SILTY CLAY (CL)</b> medium stiff, moist, gray-green	CL		□				
	8		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

Undrained Shear Strength (ksf)  
 ○ Pocket Penetrometer  
 △ Torvane  
 ● Unconfined Compression  
 ▲ U-U Triaxial Compression

1.0    2.0    3.0    4.0

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

LA. CORP. GDT. 10/23/01 MV\* EB

# EXPLORATORY BORING: EB-13

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 8.0 FT.

This log is a part of a report by Lowney Associates, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0	[Pattern]	2 1/2 feet concrete slab							
	1	[Pattern]	<b>SILTY CLAY (CL) [FILL]</b>	CL		[Symbol]				
	2	[Pattern]	<b>SILTY CLAY (CL)</b> medium stiff, moist, black, some sand, minor rust spots, 10-15%	CL		[Symbol]				
	5	[Pattern]	<b>SILTY CLAY (CL)</b> stiff, moist, light brown/gray-green, some rust, black mottles	CL		[Symbol]				
	8		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

Undrained Shear Strength (ksf)

○ Pocket Penetrometer  
 △ Torvane  
 ● Unconfined Compression  
 ▲ U-U Triaxial Compression

1.0    2.0    3.0    4.0

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

LA CORP-GDT 10/23/01 MV-EB

# EXPLORATORY BORING: EB-14

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 4.5 FT.

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Undrained Shear Strength (ksf)

- Pocket Penetrometer
- △ Torvane
- Unconfined Compression
- ▲ U-U Triaxial Compression

1.0    2.0    3.0    4.0

ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH (ksf)
	0		4 foot concrete slab, looks fairly homogenous, possible two to three pours							
	4.5		Rusty/hematitic material, very hard, could not penetrate (metal filings?) with drill Bottom of Boring at 4½ feet							
	5									
	10									
	15									
	20									
	25									
	30									

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

LA CORP.GDT 10/23/01 MM\* EB



# EXPLORATORY BORING: EB-15

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 7.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0		SURFACE ELEVATION:							
	0		2 1/2 feet concrete slab							
	3		<b>SILTY CLAY (CL)</b> medium stiff, moist, black, brick fragments and rock fragments, minor sand	CL						
	4		<b>SILTY CLAY (CL)</b> medium stiff, moist, black, 15% silt, native	CL						
	5		Transition zone, gray-black mottled silty clay	CL						
	6		<b>SILTY CLAY (CL)</b> stiff, moist, light gray-green, 25-30% silt, 15% sand	CL						
	7		Bottom of Boring at 7 1/2 feet							
	10									
	15									
	20									
	25									
	30									

Undrained Shear Strength (ksf)  
 ○ Pocket Penetrometer  
 △ Torvane  
 ● Unconfined Compression  
 ▲ U-U Triaxial Compression

1.0    2.0    3.0    4.0

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

L.A. CORP. GDT 10/23/01 MV\* EB

# EXPLORATORY BORING: EB-16

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 8.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
			SURFACE ELEVATION:							
	0	GRAVEL (GC)	loose, dry, rusty orange, 55% coarse sand, baserock	GC						
	5	SILTY CLAY (CL)	medium stiff, moist, black, sand, minor gravel, brick fragments, rusty spots	CL		□				
	5	SILTY CLAY (CL)	medium stiff, moist, black, minor brown rusty mottles, 10-15% silt	CL		□				
	5	Transition, light-gray mottled		CL		□				
	5	SILTY CLAY (CL)	gray, 20-25% silt, 10% fine grained sand, minor rock fragments	CL		□				
	8		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

LA CORP. GDT. 10/23/01 MV\* EB

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

# EXPLORATORY BORING: EB-17

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 8.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
			SURFACE ELEVATION:							○ Pocket Penetrometer △ Torvane ● Unconfined Compression ▲ U-U Triaxial Compression
	0		1 foot concrete slab							
	0.5		8 inches of rusty orange brown sandy gravel (baserock)	GP						
	1.5		<b>SILTY CLAY (CL)</b> medium stiff, moist, black, minor orange sand, red brick fragments	CL		■				
	4.5		Black silty clay to light gray silty clay mottled	CL		■				
	5.0		Light gray silty clay, bleached?	CL						
	5.5		<b>SILTY CLAY (CL)</b> brown gray, silt 25%	CL						
	8.0		Bottom of Boring at 8 feet							

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

LA CORP. GDT. 10/23/01 MV\* EB

# EXPLORATORY BORING: EB-18

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 8.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0		SURFACE ELEVATION:							
	0 - 1.5	GRAVELLY CLAY (GC) [Baserock]	silty, gravel soil	GC		□				
	1.5 - 4.5	SILTY CLAY (CL)	silt 10-15%, minor debris, red brick fragments, rusty spots	CL		□				
	4.5 - 8.0	SILTY CLAY (CL)	stiff, moist, gray-green, 25-35% silt, 15% sand, mottled, minor rock fragments	CL		□				
	8.0		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

Undrained Shear Strength (ksf)

○ Pocket Penetrometer  
 △ Torvane  
 ● Unconfined Compression  
 ▲ U-U Triaxial Compression

1.0    2.0    3.0    4.0

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

LA CORP.GDT. 10/23/01 MV\* EB

# EXPLORATORY BORING: EB-19

Sheet 1 of 1

DRILL RIG: VIRONEX  
 BORING TYPE: DIRECT PUSH  
 LOGGED BY: CM  
 START DATE: 10-2-01      FINISH DATE: 10-2-01

PROJECT NO: 1731-2A  
 PROJECT: GLASCOCK STREET  
 LOCATION: OAKLAND, CA  
 COMPLETION DEPTH: 8.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
	0		SURFACE ELEVATION:							
	0	[Pattern]	<b>GRAVELLY CLAY (GC)</b> silty, gravel soil	GC		[Symbol]				
	0	[Pattern]	4-5 inches asphalt like material, black asphaltic matrix and rock fragments, gravel			[Symbol]				
	0	[Pattern]	<b>SILTY CLAY (CL)</b> stiff, moist, black, with debris, fragments, rusty red brick	CL		[Symbol]				
	5	[Pattern]	<b>SILTY CLAY (CL)</b> stiff, moist, gray-greenish, transition zone missing, some rock fragments, minor sandy intervals, silt 25-30%, 15% sand	CL		[Symbol]				
	8		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

- Pocket Penetrometer
  - △ Torvane
  - Unconfined Compression
  - ▲ U-U Triaxial Compression
- 1.0   2.0   3.0   4.0

GROUND WATER OBSERVATIONS:  
 NO FREE GROUND WATER ENCOUNTERED

L.A. CORP. GDT. 10/23/01 MV\* EB

# EXPLORATORY BORING: EB-20

Sheet 1 of 1

DRILL RIG: VIRONEX

PROJECT NO: 1731-2A

BORING TYPE: DIRECT PUSH

PROJECT: GLASCOCK STREET

LOGGED BY: CM

LOCATION: OAKLAND, CA

START DATE: 10-2-01

FINISH DATE: 10-2-01

COMPLETION DEPTH: 8.0 FT.

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ELEVATION (FT)	DEPTH (FT)	SOIL LEGEND	MATERIAL DESCRIPTION AND REMARKS	SOIL TYPE	PENETRATION RESISTANCE (BLOWS/FT.)	SAMPLER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SIEVE	Undrained Shear Strength (ksf)
			SURFACE ELEVATION:							○ Pocket Penetrometer △ Torvane ● Unconfined Compression ▲ U-U Triaxial Compression
										1.0   2.0   3.0   4.0
	0		<b>GRAVEL (GP)</b> loose, dry, baserock, 30-40% orange sand	GP						
	2		<b>SILTY CLAY (CL)</b> black, with two 2 inches layers of asphalt, minor debris, rock fragments, coarse sand, red brick fragments	CL						
	5		<b>SILTY CLAY (CL)</b> stiff, moist, green-gray, silt 25-30%, minor sand, minor rock fragments	CL						
	8		Bottom of Boring at 8 feet							
	10									
	15									
	20									
	25									
	30									

GROUND WATER OBSERVATIONS:  
NO FREE GROUND WATER ENCOUNTERED

LA CORP.GDT. 10/23/01 MV\* EB