BP Amoco

Scott T. Hooton
Portfolio Manager

BP Exploration & Oil Inc.
295 SW 41st Street
Bldg. 13, Ste. "N"
Renton, Washington 98055

Phone: (425) 251-0689
Fax: 425-251-0736
Internet: hootonst@bp.com

A BP Amoco Group Company

October 27, 2000

Alameda County Health Care Services Department
Attention Mr. Scott Seery
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

RE: BP Oil Site No. 11117
7210 Bancroft Avenue (at 73rd)
Oakland, CA

Dear Mr. Seery:

This letter transmits the *Potential Receptor Survey, Expanded Site Plan and Well Search* prepared by Alisto Engineering Group on behalf of BP.

Please give me a call at (425) 251-0689 if you have any comments or questions.

Sincerely,

Scott Hooton

attachments

cc: site file
D. Camille - Tosco (w/attachments)
Bancroft Oakland Investment Company, c/o SB Management Corporation, Attention Ms. K. R. Stimson, 422 North Camden Drive, STE#1070, Beverly Hills, CA 90210 (w/attachments)
Khaled Rahman - Cambria (w/attachment)

ALISTO ENGINEERING GROUP

OCT 23
BP OIL CO.
ENVIRONMENTAL DEPT.
WEST COAST REGION OFFICE

October 19, 2000

Mr. Scott Hooton
Environmental Resources Management
BP Oil Company
295 S.W. 41st Street
Building 13, Suite N
Renton, Washington 98055

10-018-08-05

Subject: Potential Receptor Survey, Expanded Site Plan and Well Search
BP Oil Company Service Station No. 11117
7210 Bancroft Avenue
Oakland, California

Dear Mr. Hooton:

Alisto Engineering Group is pleased to submit the completed BP Oil Potential Receptor Survey, the expanded site plan and utility map, and the results of the well search to identify wells in the vicinity of BP Oil Company Service Station No. 11117, 7210 Bancroft Avenue, Oakland, California.

A review of the files of the State of California Department of Water Resources (DWR) was performed to identify all wells within a one-half-mile radius of the site. The results of the well search reveal that there are 17 wells other than onsite monitoring wells. Of these, 11 are offsite monitoring wells, four are cathodic protection wells, one is an industrial well, and one is an irrigation well. No water supply wells were identified from review of the DWR files.

Attached for your use are the following:

- The completed Potential Receptor Survey
- Expanded Site Plan and Utility Map showing the locations of nearby offsite properties and structures, including the locations of underground utilities
- Table presenting available property addresses and owners by assessor's parcel number
- Well Location Map
- Well Survey Summary Table
- Water Well Drillers Reports

F:\00\10-018-08-05 letter

3732 MT. DIABLO BLVD., SUITE 270 • LAFAYETTE, CA 94549 • (925) 962-6970 • FAX (925) 962-6971
CONTRACTORS LICENSE NO. A-652544

Please call if you have questions or comments.

Sincerely,

ALISTO ENGINEERING GROUP

Brady Nagle
Project Manager

Enclosures

F:\00\10-018-08-05 letter

Potential Receptor Survey

Site # 11117

Site # 11117
Address 7210 Bancroft Ave.
City/State Oakland, CA
County Alameda
Quadrangle Latitude 37° 45' 59"
Longitude 122° 10' 33"

Signature of ~~Preparer~~: William N. Bu
Company: Alisto Engineering Group
Date: 4/18/00

1. Potential Receptors

Provide Information for the following potential receptors	Yes/ No	Field Verify Y/N	Date Verify	Distance	Direction	Depth
				Complete as appropriate		
Is a basement or subsurface foundation within 100 feet of the source or source area?	N	Y	4/18/00	NA	NA	
Is a school within 1000 feet of the source or source area?	Y	Y	4/18/00	500 FT	SW	
Is a storm sewer within 50 feet of the source or source area?	Y	Y	4/18/00	30 FT	S	Unknown
Is a sanitary sewer within 50 feet of the source or source area?	Y	Y	4/18/00	40 FT	S	Unknown
Is a septic system leach field within 50 feet of the source or soruce area?	N	Y	4/18/00	NA	NA	
Is a water line main within 50 feet of source or source area?	Y	Y	4/18/00	50 FT	W	Unknown
Is a natural gas line main within 50 feet of the source or source area?	N	Y	4/18/00	NA	NA	NA
Is a buried telephone/television cable main within 50 feet of the source or source area?	Y	Y	4/18/00	40 FT	S	Unknown
Is a buried electrical cable main within 50 feet of source or source area?	Y	Y	4/18/00	40 FT	S	Unknown
Is a subway within 1000 feet of the source or source area?	N	Y	4/18/00	NA	NA	NA
Is the bedrock area prone to dissolution along joints or fractures within 100 feet of the source or source area?	N	Y	4/18/00			
Is there a fault or known fracture within 100 feet of the source or source area?	N	Y	4/18/00			

Potential Receptor Survey

Site # 11117

Source of information Site Visit, PG&E, Pacific Bell, EBMUD, Geologic Maps of Upper Cenozoic Deposits in Central California, 1993

Verified By William Bir Date 4/18/00

2. Sensitive Areas

Provide Information for the following potential receptors	Yes/ No	Field Verify	Date Verify	If yes, give a brief explanation of classification
		Y/N		Complete as appropriate
Is this property classified as a sensitive area?	N	Y	4/18/00	

Source of information California Department of Fish and Game Website *

Verified By William Bir Date 4/18/00

3. Drinking Water Supply

Provide Information for the following potential receptors	Yes/ No	Field Verify	Date Verify	Distance	Direction	Production Rate
		Y/N		Complete as appropriate		
Is a public water supply well within 3 miles of the source or source area?	N	Y	4/18/00			
Is a public water supply intake within 3 miles of the source or source area?	N	Y	4/18/00			
Is a private water supply well within 0.5 miles of the source or source area?	N	Y	4/18/00			

**

Source of information California Dept. of Water Resources

Verified By William Bir Date 4/18/00

* California Department of Fish and Game Website; Habitat Conservation Division; Wetlands Inventory and Conservation Unit; View Maps; Wetland and Riparian Classification for Bay Area Region of California (urban areas listed as "other")

**Review of DWR Well Data Sheets from the Sacramento office.

Potential Receptor Survey

Site # 11117

4. Surface Water Body

Provide information for the following potential receptors	Yes	No	If yes, provide the following information.	
	Check one		Complete as appropriate	
Are there surface waters located within 1000 feet of the property?		✓	Name	
			Type	
			Distance from property	
			Direction from property	
			Name	
			Type	
			Distance from property	
			Direction from property	

Source of information USGS Oakland East Quad

Verified By William Bir Date 4/18/00

5. Describe type of local water supply:

Public ✓ Private _____

Supplier's Name East Bay Municipal Utilities District

Supplier's water supply source Mokelumne River

Water supply source distance and direction from property Approximately 150 Miles East

Intake distance and direction from property NA

Source of information EBMUD

Verified By William Bir Date 4/18/00

6. Aquifer Classification (include a brief explanation for classification)

_____ Class I: Special Ground Waters, Irreplaceable Drinking Water Source or Ecologically Vital

✓ Class II: Current or Potential Drinking Water Source

_____ Class III: Not Potential Source of Drinking Water

Potential Receptor Survey Site # 11117

Is this a sole source aquifer? Yes ____ No ✓

Depth to top of aquifer: Unknown

Source of information California Dept. of Water Resources

Verified By William Bir Date 4/18/00

7. Describe monitoring wells, if any:

Number: 7

Free Product: Yes ✓ No ____ Well(s) MW-2, MW-4

Source of information Alisto Engineering Group

Verified By William Bir Date 4/18/00

8.0 Relevant Ecological Receptors and Habitats

8.1 Property Characteristics

Size of Property (acres)	→	0.48 Acres
% of property that is wooded	→	0%
Dominant tree type	→	NA
% of property that is scrub/shrub	→	2%
Dominant Vegetation	→	Ornamental Plants/Shrubs
% of property that is open land	→	0%
% of property that is grass area	→	0%
% of property that is agricultural crops	→	0%
% of property that is barren	→	0%
% of property that is commercial or industrial use including paved areas	→	98%

Source of information Site Visit

Verified By William Bir Date 4/18/00

Potential Receptor Survey

Site # 11117

8.2 Fauna

List any fauna (e.g., mammals, birds, fish, reptiles) that are either observed or evidenced to be on property.	→	None
	→	
	→	
	→	
	→	
	→	
	→	
	→	

Source of information Site Visit

Verified By William Bir Date 4/18/00

8.3 Water Bodies on the Property

Identify the type of water body (e.g., river, creek, lake, stream)	→	None
Is water body naturally developed or man made?	→	NA
List the uses of the water body	→	NA
What is the source of the water for the water body	→	NA
What is the nature of the bottom of the water body (e.g., rocky or concrete bottom, drainage ways or impoundments)	→	NA
Describe the observed biota	→	NA

Source of information Site Visit

Verified By William Bir Date 4/18/00

Potential Receptor Survey

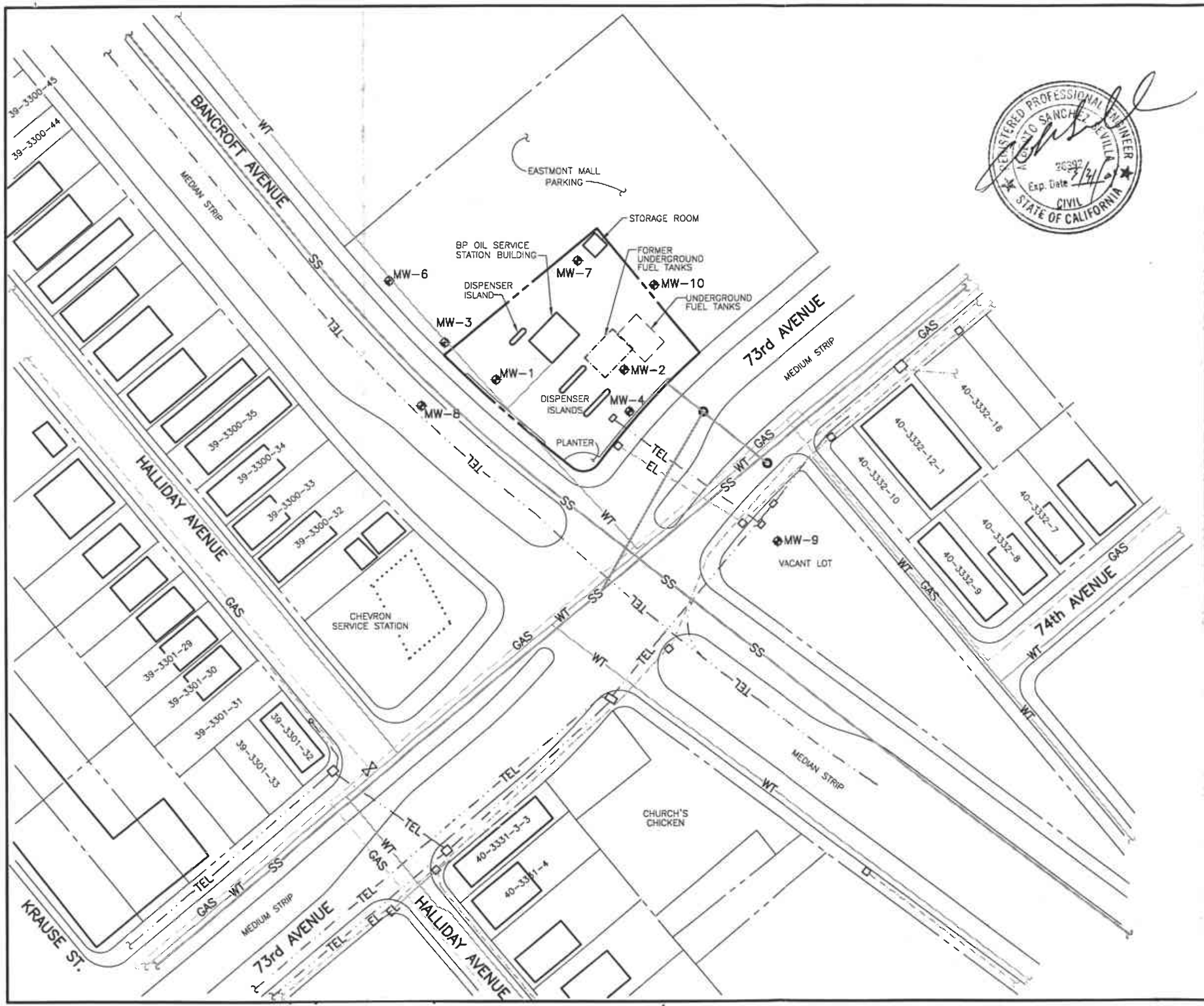
Site # 11117

8.4 *Wetlands*

Are there any wetlands present on the property?	→	No
Describe the type of vegetation present	→	NA
Identify the source of water	→	NA
Is the wetlands influenced by tidal changes?	→	NA
Describe the observed biota	→	NA

Source of information Site Visit

Verified By William Bir Date 4/18/00



REGISTERED PROFESSIONAL ENGINEER
ALBERTO SANCHEZ-DEVILLA
26392
Exp. Date 7/31
CIVIL
STATE OF CALIFORNIA

N

0 80 160

SCALE IN FEET

LEGEND

- GROUNDWATER MONITORING WELL
- ? ASSESSOR'S PARCEL NUMBER
- DROP INLET GRATE
- MANHOLE
- ABOVE/UNDERGROUND TRANSFORMER
- TELEVISION CABLE VAULT
- SSCO SANITARY SEWER CLEANOUT
- FIRE HYDRANT
- VALVE
- POWER POLE

UNDERGROUND UTILITY LINES

- SS — SANITARY SEWER PIPE
- SD — STORM DRAIN PIPE
- WT — WATER SERVICE PIPE
- GAS — GAS PIPE
- EL — ELECTRICAL LINE
- TEL — TELEPHONE LINE
- TCL — TELEVISION CABLE LINE
- UNKNOWN DESTINATION
- END OF PIPE
- (?) INVERT ELEVATION RELATIVE TO BENCH MARK

NOTE:
Location of utilities are approximate and based upon information provided at time of preparation. This map is not be used for any construction or related activities.

BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-018

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

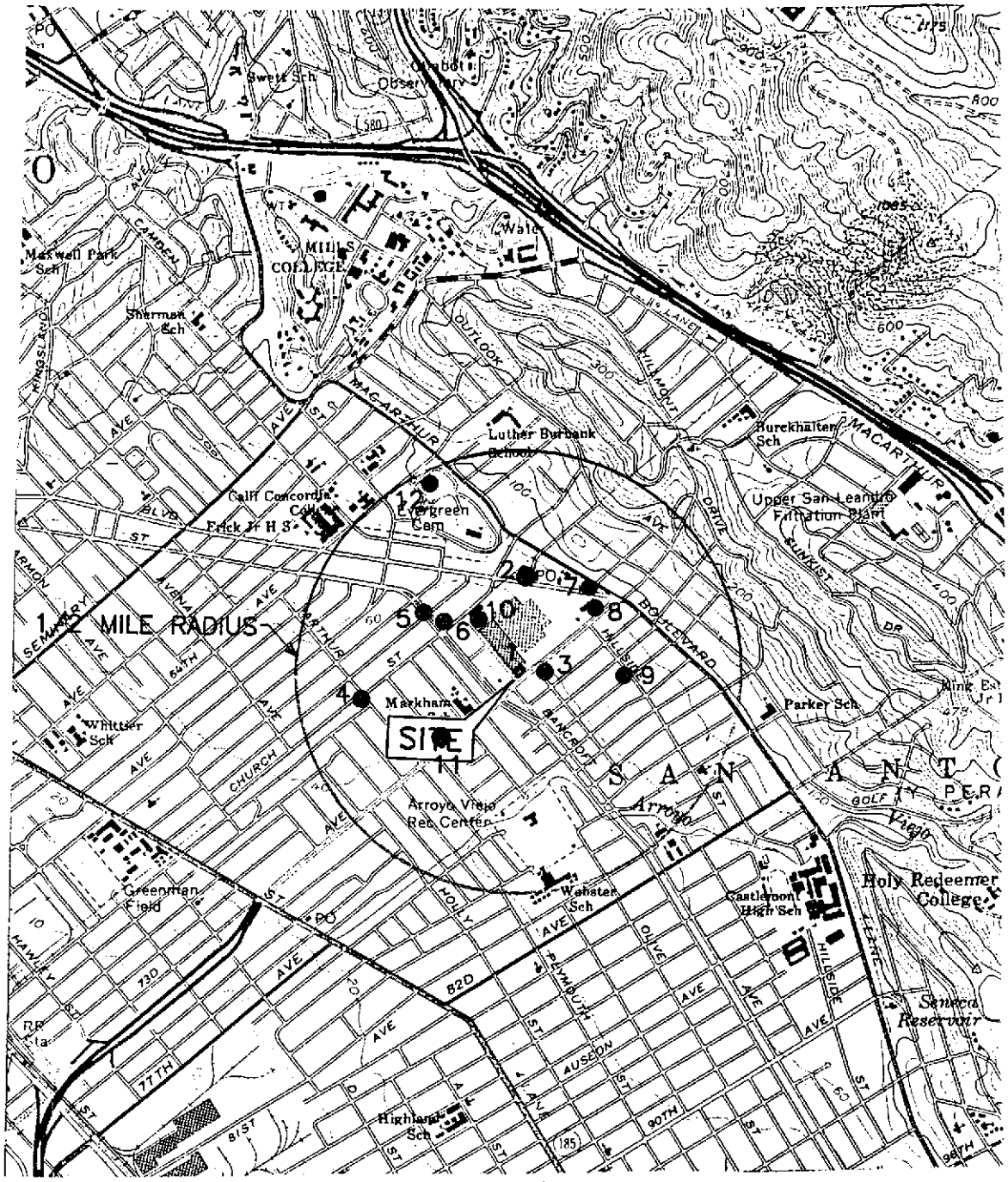
10018A—ZWG 12-18-98 RKV 1=80

SOURCE: Pacific Gas and Electric Company, Pacific Bell, East Bay Municipal Utility District, City of Oakland, Alameda County Assessor's Office

ADJACENT PROPERTIES
BP OIL COMPANY SERVICE STATION NO. 11117
7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

APN	Property Address	Owner
39-3300-30-3	7225 Bancroft Avenue Oakland, CA 94605	Chevron USA Inc. c/o: Bill Bossard 2 Annabel Lane San Ramon, CA 94583
39-3299-2-2	7000 Bancroft Avenue Oakland, CA 94605	Eastmont Town Center Company LLC 7200 Bancroft Avenue Oakland, CA 94605
39-3299-1-2	7000 Bancroft Avenue Oakland, CA 94605	Eastmont Town Center Compnay LLC 7200 Bancroft Avenue Oakland, CA 94605
39-3300-44	7000 Halliday Avenue Oakland, CA 94605	DeMetrio & Theresa Perez 7000 Halliday Avenue Oakland, CA 94605
39-3300-45	6946 Halliday Avenue Oakland, CA 94605	James & Hattie Lee 6231 Hilton Street Oakland, CA 94605
39-3300-46	6940 Halliday Avenue Oakland,CA 94605	Rufus & Marteal Waller 6940 Halliday Avenue Oakland, CA 94605
39-3300-47	6932 Halliday Avenue Oakland, CA 94605	Jose L. Ayaquica & T. Socorro 6932 Halliday Avenue Oakland, CA 94605
39-3300-32	7212 Halliday Avenue Oakland, CA 94605	Louis Greer 1413 Harmon Street Berkeley, CA 94702
39-3300-30-3	7225 Bancroft Avenue Oakland, CA 94605	Chevron USA Incorporated c/o: Bill Bossard 2 Annabel Lane San Ramon, CA 94583
39-3300-33	7206 Halliday Avenue Oakland, CA 94605	Darnell McGowan 1530 Filbert Street Oakland, CA 94607
39-3300-34	7200 Halliday Avenue Oakland, CA 94605	Bankers Trust Company c/o: RSD Department 505 South Main Street Orange, CA 92868
39-3300-35	7122 Halliday Avenue Oakland, CA 94605	Merle E. Smith & Olga Edsman P.O. Box 43234 Oakland, CA 94624
40-3332-10	7306 Bancroft Avenue Oakland, CA 94605	Patrick Realty Corporation c/o: Eller Media Company 1601 Maritime Street Oakland, CA 94607
40-3332-12-1	2510 73rd Avenue Oakland, CA 94605	Paul K. & Whechin Law 2510 73rd Avenue Oakland, CA 94605

40-3332-16	2516 73rd Avenue Oakland, CA 94605	Pacific Gas & Electric Company c/o: B.E. Nelson/DIR-Taxes P.O. Box 770000 TX Dept. B8E San Francisco, CA 94177
40-3332-9	2501 74th Avenue Oakland, CA 94605	Jane L. Perkinson 6335 Cooper Avenue Fontana, CA 92336
40-3332-8	2507 74th Avenue Oakland, CA 94605	Willie A. Hampton 2507 74th Avenue Oakland, CA 94605
40-3332-7	2515 74th Avenue Oakland, CA 94605	John F. & Callie Hodges 10782 Hillman Street Oakland, CA 94605
40-3333-12-5	7301 Bancroft Avenue Oakland, CA 94605	Paulette R. Wood c/o: Ad Valorem Tax #182 P.O. Box BH001 San Antonio, TX 78201
40-3333-9-5	7301 Bancroft Avenue Oakland, CA 94605	Paulette R. Wood c/o: Ad Valorem Tax #182 P.O. Box BH001 San Antonio, TX 78201
39-3301-32	2387 73rd Avenue Oakland, CA 94605	Chhim & Kimberly B. 2570 61st Avenue Oakland, CA 94605
39-3301-33	2381 73rd Avenue Oakland, CA 94605	Sidney & Carrie Lawrence 2381 73rd Avenue Oakland, CA 94605
39-3301-31	7227 Halliday Avenue Oakland, CA 94605	Martin & Rafaela Ruiz 2238 62nd Avenue Oakland, CA 94605
39-3301-30	7221 Halliday Avenue Oakland, CA 94605	Lenora L. Johnson 7221 Halliday Avenue Oakland, CA 94605
39-3301-29	7215 Halliday Avenue Oakland, CA 94605	Cynthia Turner 7215 Halliday Avenue Oakland, CA 94605
39-3301-35	7220 Krause Avenue Oakland, CA 94605	Oakland Unified School District c\o: Property Manager 1025 2nd Avenue Oakland, CA 94606
40-3331-3-3	Halliday Avenue Oakland, CA 94621	City of Oakland 505 14th Street Oakland, CA 94612
40-3331-4	7314 Halliday Avenue Oakland, CA 94605	Danilo Mayorga 3857 Sheffield Court Danville, CA 94506
39-3291-19	6929 Foothill Boulevard Oakland, CA 94605	Eastmont Town Center Company LLC 7200 Bancroft Avenue Oakland, CA 94605



● WELL LOCATION

SOURCE:
USGS MAP, OAKLAND EAST QUADRANGLE, CALIFORNIA, 7.5 MINUTE SERIES, 1959, PHOTOREVISED 1980.

N

0 1000' 2000'

QUADRANGLE LOCATION

WELL LOCATION MAP

BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-018

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10018--DWG 11-12-93 RKW 1=1

WELL SURVEY
BP Oil Co. Service Station No. 11117
7210 Bancroft Avenue
Oakland, California

Alisto Project No. 10-018

COUNTY\STATE WELL NO.	ALISTO MAP REFERENCE NO.	OTHER WELL NO.	WELL OWNER	WELL DEPTH (feet)	SEAL DEPTH (feet)	WELL USE	STATUS
2S/13W10Q8	1	MW-1	BP Oil Company 2868 Prospect Park Drive Rancho Cordova, CA 95670	40	19	Monitoring	Active
2S/3W10Q9	1	MW-2	BP Oil Company 2868 Prospect Park Drive Rancho Cordova, CA 95670	40	18	Monitoring	Active
2S/3W10Q3	1	MW-3	Topa Savings Bank 1800 Avenue of the Stars Los Angeles, CA 90067	45	25	Test Well	Active
2S/3W10Q09	1	MW-4	BP Oil Company 16400 South Center Pkwy, Ste. 300 Tukwila, WA 98188	40	18	Monitoring	Active
2S/3W10Q10	1	MW-6	BP Oil Company 16400 South Center Pkwy, Ste. 300 Tukwila, WA 98188	40	18	Monitoring	Active
2S/3W10Q1	2		Chevrolet-Oakland Div. of GM Foothill Boulevard and 69th Avenue Oakland, CA	400	0	Industrial	Unknown
2S/3W10Q	3	3350B	East Bay M.U.D. 2139 Adeline Street Oakland, CA 94607	65	33	Cathodic Protection	Active
2S/3W10P1	4	1-1253	Pacific Gas & Electric 4801 Oakport Street Oakland, CA 94601	120	120	Cathodic Protection	Active
2S/3W10L1	5		Exxon Oil USA	50	20	Other/ Monitoring	Unknown
2S/3W10K1	6	MW-2	Topa Savings Bank 1800 Avenue of the Stars Los Angeles, CA 90067	35	15	Test Well	Active
2S/3W10J1	7	MW-4	Topa Savings Bank 1800 Avenue of the Stars Los Angeles, CA 90067	25	8	Test Well	Active

WELL SURVEY
BP Oil Co. Service Station No. 11117
7210 Bancroft Avenue
Oakland, California

Alisto Project No. 10-018

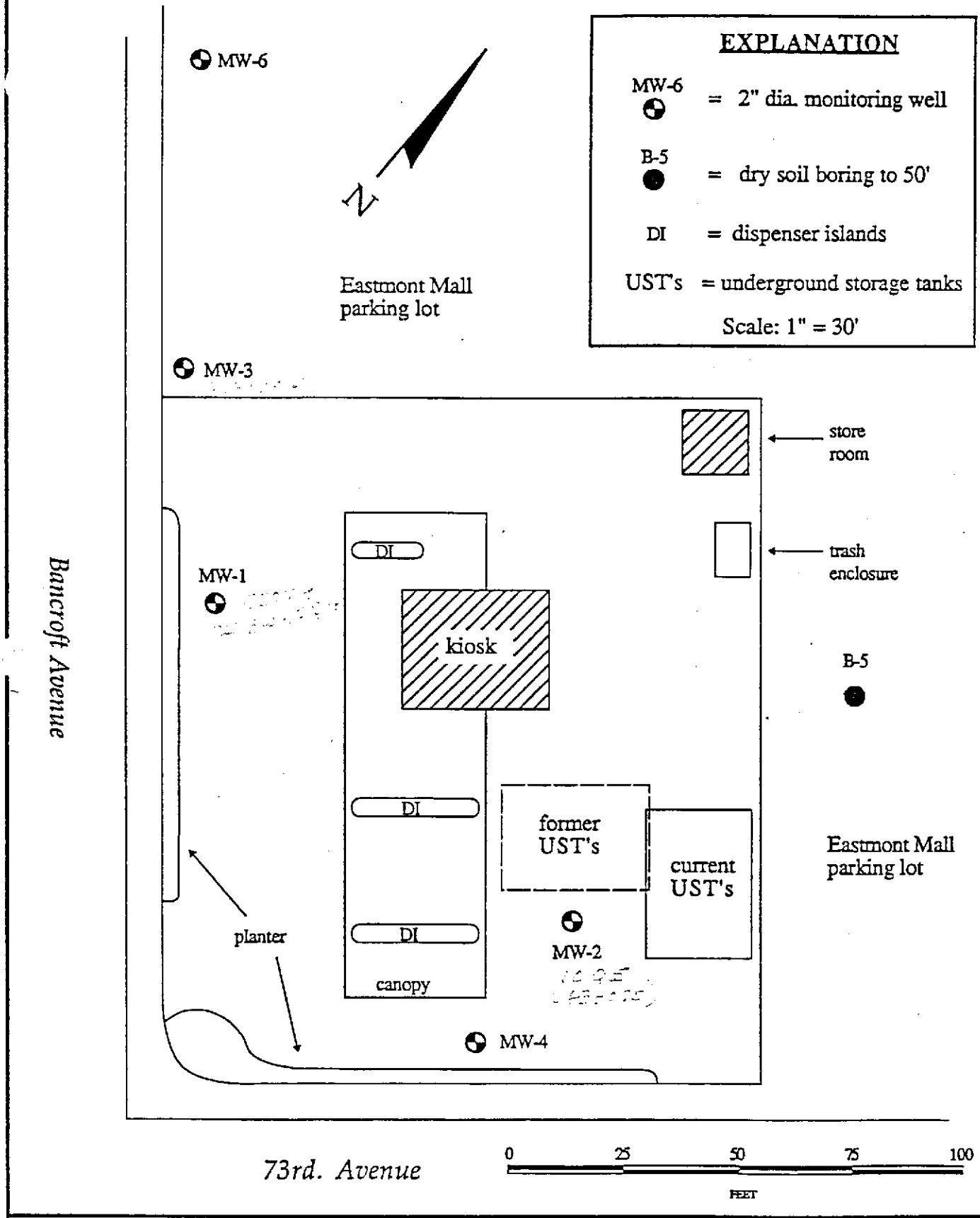
COUNTY\STATE WELL NO.	ALISTO MAP REFERENCE NO.	OTHER WELL NO.	WELL OWNER	WELL DEPTH (feet)	SEAL DEPTH (feet)	WELL USE	STATUS
2S/3W10J4	8		City of Oakland 7100 Foothill Boulevard Oakland, CA 94605	25	9	Monitoring	Active
2S/3W10R1	9		Pacific Gas & Electric 4801 Oakport Street Oakland, CA	120	Unknown	Cathodic Protection	Active
2S/3W10Q11-15	10	MW-5	Eastmont Mall One Eastmont Mall Oakland, CA 94605	50	28	Monitoring	Active
2S/3W10Q11-15	10	MW-6	Eastmont Mall One Eastmont Mall Oakland, CA 94605	50	28	Monitoring	Active
2S/3W10Q11-15	10	MW-7	Eastmont Mall One Eastmont Mall Oakland, CA 94605	50	23	Monitoring	Active
2S/3W10Q11-15	10	MW-8	Eastmont Mall One Eastmont Mall Oakland, CA 94605	49	25	Monitoring	Active
2S/3W10Q11-15	10	MW-9	Eastmont Mall One Eastmont Mall Oakland, CA 94605	50	33	Monitoring	Active
2S/3W-10J2	10	DM-1	J. C. Penny's	28	10	Monitoring	Active
2S/3W-10J3	10	DM-2	J. C. Penny's	28	8	Monitoring	Active
2S/3W15C1	11		East Bay Municipal Utilities P.O. Box 24055 Oakland, CA 94623	65	53	Cathodic Protection	Unknown
2S/3W10G1	12		Evergreen Cemetery 64th Ave. Oakland, CA	440	0	Irrigation	Unknown

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

25/3W 1DQ 8-13



HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.	**SITE PLAN** BP Service Station No. 11117 7210 Bancroft Avenue Oakland, California	Job No. 9-029 Figure 2

MAP REFERENCE NO. 1

25/3W 1088-1

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	12/27/91	8 Inches	90 Degrees	MW-1
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
Bayland Drilling	12/27/91	28 Feet		
RATOR	LOGGED BY	STATIC WATER DEPTH/DATE		
Jm Schmidt	T. Lane	29 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 75	California modified split spoon			40 Feet
WELL MATERIAL	SLOT SIZE / FILTER PACK	WELL SEAL		WELL NO.
2" SCH 40 PVC	0.020" / #2/16	Neat cement over bentonite		MW-1

FIELD HEADSPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
	1					ASPHALT
	2					BASEROCK
	3					Silty CLAY (CL) dark brown, low plasticity, 20-25% silt, trace fine to coarse sand, trace pebble gravel, dry.
	4					
0.0	5					Sandy CLAY (CL) yellow-brown, low plasticity, 30-35% fine sand, trace pebble gravel, trace rootlets, moist.
	6					
	7					Gravelly SAND (SW) med. brown, well graded, medium to coarse grained, 15% sub-rounded pebble gravel, moist.
	8					
	9					Silty CLAY (CL) medium brown, low plasticity, 15-20% silt, trace medium sand, damp.
0.0	10					
	11					
	12					
	13					
	14					Sandy CLAY (CL) medium brown, low plasticity, 35-40% fine sand, trace rounded pebble gravel, wet.
0.0	15					
	16					Silty CLAY (CL) medium yellow-brown, low plasticity, 15-20% silt, trace angular pebble gravel, trace charcoal fragments, wet.
	17					
	18					
	19					
0.0	20					
	21					
	22					
	23					
	24					
0.0	25					Gravelly CLAY (CL) medium brown, low plasticity, 10-15% pebble gravel, damp.
	26					
	27					
	28		▽			
*PID	29		▼			
(ppm)	30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-1
AND
WELL CONSTRUCTION MW-1

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-2

JOB NO.
9-029

MAP REFERENCE NO. 1

2S/3W 10Q8

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	12/27/91	8 Inches	90 Degrees	MW-1
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
Bayland Drilling	12/27/91	28 Feet		
ATOR	LOGGED BY	STATIC WATER DEPTH/DATE		
.m Schmidt	T. Lane	29 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 75	California modified split spoon			40 Feet
WELL MATERIAL	SLOT SIZE / FILTER PACK	WELL SEAL		WELL NO.
2" SCH 40 PVC	0.020" / #2/16	Neat cement over bentonite		MW-1

FIELD HEADSPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
	31–40					Gravelly CLAY (CL) medium brown, low plasticity, 20-30% sub-rounded coarse gravel, wet.
	41–60					

*PID (ppm)

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-1
AND
WELL CONSTRUCTION MW-1

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-3

JOB NO.
9-029

MAP REFERENCE NO. 1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

25/3W 10Q 9

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	12/27/91	8 Inches	90 Degrees	MW-2
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
Bayland Drilling	12/27/91	30 Feet		
TOR	LOGGED BY	STATIC WATER DEPTH/DATE		
Tom Schmidt	T. Lane	30 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 75	California modified split spoon			40 Feet
WELL MATERIAL	SLOT SIZE	FILTER PACK	WELL SEAL	WELL NO.
2" SCH 40 PVC	0.020"	#2/16	Neat cement over bentonite	MW-2

FIELD HEADSPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
	1					ASPHALT
	2					BASEROCK
	3					Silty CLAY (CL) dark brown, low plasticity, 20-25% silt, trace fine to coarse sand, trace pebble gravel, dry.
	4					
0.0	5					Sandy CLAY (CL) yellow-brown, low plasticity, 30-35% fine sand, trace pebble gravel, trace rootlets, moist.
	6					
	7					Gravelly SAND (SW) med. brown, well graded, medium to coarse grained, 15% sub-rounded pebble gravel, moist.
	8					
	9					Silty CLAY (CL) medium brown, low plasticity, 15-20% silt, trace medium sand, damp.
0.0	10					
	11					
	12					
	13					
	14					Sandy CLAY (CL) medium brown, low plasticity, 35-40% fine sand, trace rounded pebble gravel, wet.
0.0	15					
	16					Silty CLAY (CL) medium yellow-brown, low plasticity, 15-20% silt, trace angular pebble gravel, trace charcoal fragments, wet.
	17					
	18					
	19					
0.0	20					
	21					Gravelly SAND (SW) medium brown, well graded coarse sand, 10-15% well rounded pebble gravel, wet.
	22					
	23					
	24					Gravelly CLAY (CL) medium brown, low plasticity, 10-15% pebble gravel, damp.
0.0	25					
	26					
	27					
	28		▽			
*PID (ppm)	29		▼			
	30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-2
AND
WELL CONSTRUCTION MW-2

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-4

JOB NO.
9-029

MAP REFERENCE NO. 1

25|3W|0Q9

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	12/27/91	8 Inches	90 Degrees	MW-2
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
P--land Drilling	12/27/91	30 Feet		
ATOR	LOGGED BY	STATIC WATER DEPTH/DATE		
Tom Schmidt	T. Lane	30 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 75	California modified split spoon			40 Feet
WELL MATERIAL / SLOT SIZE / FILTER PACK	WELL SEAL			WELL NO.
2" SCH 40 PVC / 0.020" / #2/16	Neat cement over bentonite			MW-2

FIELD HEADSPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
	31–40					Gravelly CLAY (CL) medium brown, low plasticity, 20-30% sub-rounded coarse gravel, wet.
	41–60					

*PID (ppm)

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-2
AND
WELL CONSTRUCTION MW-2

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-5

JOB NO.
9-029

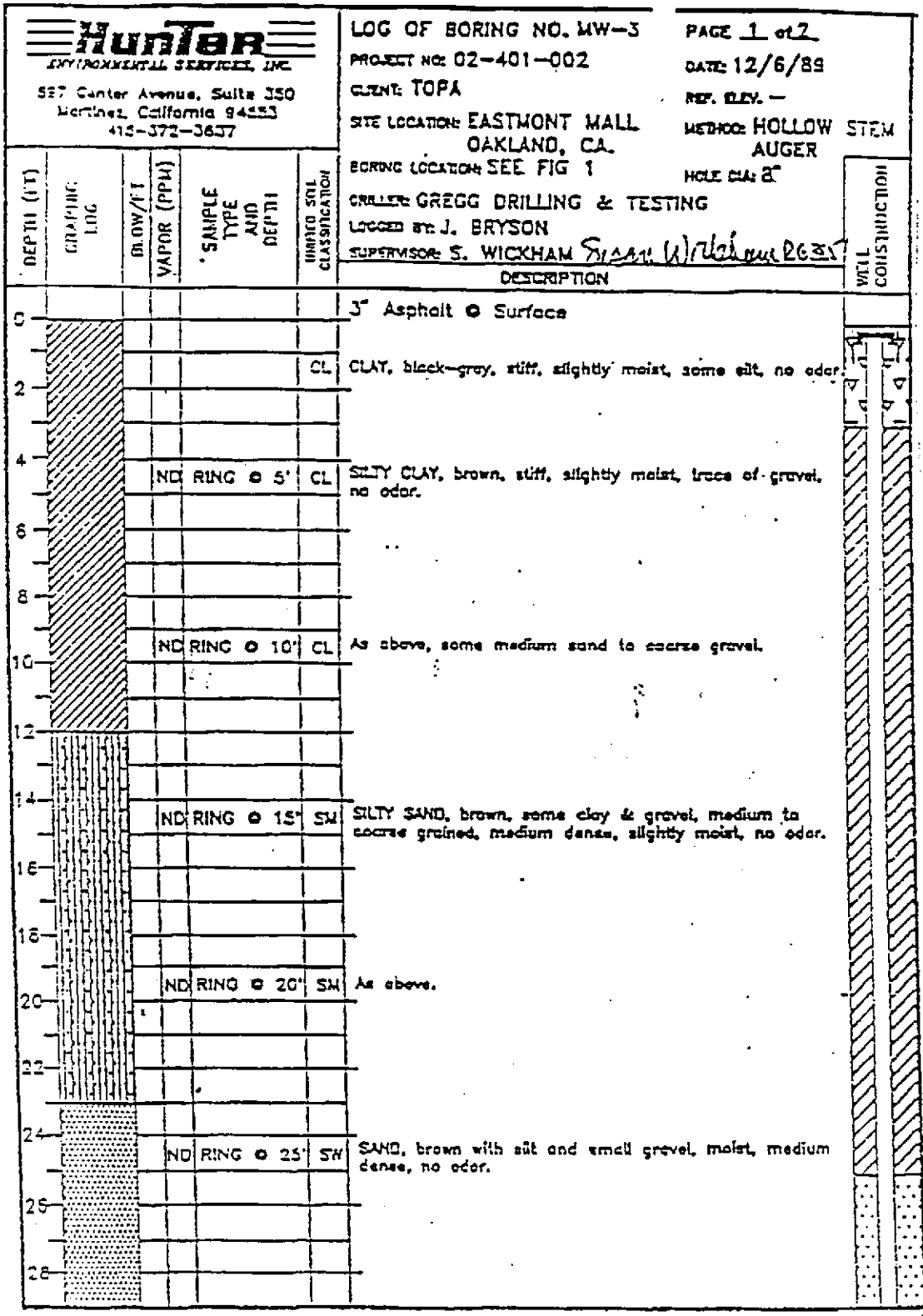
MAP REFERENCE NO. 1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

25/3W 10Q 08



Completed By: HUNTER ENVIRONMENTAL SERVICES, INC. December 6, 1989	SOIL BORING LOG MW-3 AND WELL CONSTRUCTION MW-3 BP Oil Station No. 11117 7210 Bancroft Avenue Oakland, CA	PLATE A-6 JOB NO. 9-029

MAP REFERENCE NO. 1

2S/3W 10Q 08

HUNTER
ENVIRONMENTAL SERVICES, INC.
597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-3 PAGE 2 of 2
PROJECT NO: 02-401-002 DATE: 12/5/89
CLIENT: TOPA REF. ELEV. —
SITE LOCATION: EASTMONT MALL METHOD: HOLLOW STEM AUGER
OAKLAND, CA.
BORING LOCATION: SEE FIG 1 HOLE DIA: 8"
DRILLER: GREGG DRILLING & TESTING
LOGGED BY: J. BRYSON
SUPERVISOR: S. WICKHAM Steven Wickham RG 3351

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	USCS SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
29			ND	RING @ 30'	SW	As above.	
31							
33							
35			ND	RING @ 35'	SW	As above, moist.	
37						▽	
39						As above, saturated.	
41							
43						CLAY, silty, light brown, firm, slightly moist, no odor.	
45						TOTAL DEPTH — 45'	
47						Well Construction: 2"(0.02") slotted PVC 45'-30'; blank 2" PVC 30'-0'; #3 lonestar sand 45'-25'; bentonite 25'-3'; cement 3'-0.	
49							
51							
53							
55							
57							

Completed By:

HUNTER
ENVIRONMENTAL SERVICES, INC.

December 6, 1989

SOIL BORING LOG MW-3
AND
WELL CONSTRUCTION MW-3

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-7

JOB NO.
9-029

MAP REFERENCE NO. 1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

09

28/3W 10Q

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	7/22/92	8 Inches	90 Degrees	MW-4
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
Bayland Drilling	7/22/92	31 Feet		
RATOR	LOGGED BY	STATIC WATER DEPTH/DATE		
ank Bartolovich	T. Ramirez	32.5 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 55	California modified split spoon			40 Feet
WELL MATERIAL	SLOT SIZE / FILTER PACK	WELL SEAL		WELL NO.
2" SCH 40 PVC	0.020" / #2/12	Neat cement with 5% bentonite over hydrated pellets		MW-4

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					ASPHALT
		2					BASEROCK
		3					CLAY (CL) medium brown, moderate plasticity, 5-10% medium to coarse sand, dry.
7		4					
24	462	5					Sandy CLAY (CL) light brown, low plasticity, 40% fine to medium angular sand, dry.
24		6					
		7					
		8					Sandy CLAY (CL) greenish-brown, moderate plasticity, 30% fine sub-angular to sub-rounded sand, 5-10% silt content, dry.
		9					
4		10					
12	106	11					
23		12					Sandy CLAY (CL) medium brown, low plasticity, 25-30% fine to coarse angular to sub-rounded sand, occasional gravel clast up to 5cm, dry.
		13					
13		14					
14	464	15					
22		16					
		17					
		18					
		19					
6		20					Sandy CLAY (CL) interbedded light brown and dark brown layers. Dark brown sandy clay is 30% fine to medium sand, with moderate plasticity. Light brown sandy clay is 20% fine sand, 10% silt content, with low plasticity. Both are damp, with increasing moisture, clay content and plasticity with depth.
10	442	21					
13		22					
		23					
		24					
3		25					
13	673	26					
21		27					
		28					
		29					Clayey SAND (SC) medium brown, fine to medium sub-rounded to rounded sand, 5% gravel with clasts up to 3cm, 15% clay content, moist.
	*PID (ppm)	30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-4
AND
WELL CONSTRUCTION MW-4

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-8

JOB NO.
9-029

MAP REFERENCE NO. 1

2S/3W 10Q 09

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	7/22/92	8 Inches	90 Degrees	MW-4
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
Bayland Drilling	7/22/92	31 Feet		
ERATOR	LOGGED BY	STATIC WATER DEPTH/DATE		
Frank Bartolovich	T. Ramirez	32.5 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 55	California modified split spoon			40 Feet
WELL MATERIAL	SLOT SIZE	FILTER PACK	WELL SEAL	WELL NO.
2" SCH 40 PVC	0.020"	#2/12	Neat cement with 5% bentonite over hydrated pellets	MW-4

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
13 50/6	691	31	■	▽			Sandy CLAY (CL) medium brown, low plasticity, 30% fine to coarse, sub-angular to rounded sand, occasional gravel clast up to 2cm, moist to wet.
		32					
		33		▼			
6		34					CLAY (CL) dark brown, high plasticity, wet.
8		35					
9		36					Silty SAND (SM) grey to light brown, fine to medium sand, 10% gravel up to 5cm, sub-rounded to rounded clasts, 20% silt content, saturated.
		37					
		38					
3		39					CLAY (CL) med. brown, moderate plasticity, approx. 5% rounded medium sand, wet.
6		40					
8		41					
		42					
		43					
		44					
		45					
		46					
		47					
		48					
		49					
		50					
		51					
		52					
		53					
		54					
		55					
		56					
		57					
		58					
	*PID (ppm)	59					
		60					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-4
AND
WELL CONSTRUCTION MW-4

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-9

JOB NO.
9-029

MAP REFERENCE NO. 1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

2-3 43 3 25/3W 10Q 10

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	7/23/92	8 Inches	90 Degrees	MW-6
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
Bayland Drilling	7/23/92	31.5 Feet		
.TOR	LOGGED BY	STATIC WATER DEPTH/DATE		
Kurt Voss	T. Ramirez	31.5 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 75	California modified split spoon			40 Feet
WELL MATERIAL	SLOT SIZE	FILTER PACK	WELL SEAL	WELL NO.
2" SCH 40 PVC	0.020"	#2/12	Neat cement with 5% bentonite over hydrated pellets	MW-6

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
	*PID (ppm)	1					ASPHALT
		2					CLAY (CL) dark brown, high plasticity, 10% sub-angular to sub-rounded fine to medium sand, moist.
4		3					
6		4					Sandy CLAY (CL) dark brown, high plasticity, 25% fine to coarse sand with occasional gravel clasts up to 3cm, dry.
9	0.0	5					
		6					CLAY (CL) light brown, moderate plasticity, 5-10% fine sand, dry.
		7					
		8					
6		9					
9							
15	0.0	10					Sandy CLAY (SC) dark brown, high plasticity, 20% fine to coarse angular to sub-rounded sand, occasional gravel clasts up to 4cm, dry.
		11					
		12					
		13					
5		14					
	0.0	15					Sandy CLAY (CL) yellow brown, moderate plasticity, 20% fine to medium sand, 10% silt content, occasional gravel clasts up to 8cm, dry.
		16					
		17					
		18					
8		19					Sandy CLAY (CL) light brown, moderate plasticity, 40% fine to coarse sand, occasional angular to sub-rounded gravel clasts up to 10 cm, moist.
12							
15	0.0	20					
		21					
		22					
		23					Sandy CLAY (CL) same as above except only 25% sand content.
10		24					
13							
16	0.0	25					
		26					
		27					
		28					Gravelly CLAY (CL) medium brown, 25% angular to sub-rounded gravel clasts up to 5cm, 20% fine to coarse sand, decrease gravel and sand content with depth, moist.
9							
16		29					
20	0.0	30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-6
AND
WELL CONSTRUCTION MW-6

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-12

JOB NO.
9-029

MAP REFERENCE NO. 1

433084 25/3W 10Q 10

SITE/LOCATION	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
7210 Bancroft Avenue, Oakland, CA	7/23/92	8 Inches	90 Degrees	MW-6
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		
Bayland Drilling	7/23/92	31.5 Feet		
ATOR	LOGGED BY	STATIC WATER DEPTH/DATE		
Kurt Voss	T. Ramirez	31.5 Feet		
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF BORING
CME 75	California modified split spoon			40 Feet
WELL MATERIAL	SLOT SIZE	FILTER PACK	WELL SEAL	WELL NO.
2" SCH 40 PVC	0.020"	#2/12	Neat cement with 5% bentonite over hydrated pellets	MW-6

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		31					
		32		▼			Silty CLAY (CL) yellow-brown, 30% silt content, 10% sub-angular to sub-rounded gravel clasts up to 10cm, approx. 5% medium to coarse sand, increase sand content with depth, wet.
4		33					
12		34					
20		35					
		36					
		37					Sandy GRAVEL (GP) light brown, gravel clasts up to 7cm, 30% fine to coarse sand, 10% silt content, saturated.
		38					
5		39					Silty SAND (SM) light grey, fine to medium sand with <5% coarse sand, 35% silt content, saturated.
9		40					
15		41					
		42					
		43					
		44					
		45					
		46					
		47					
		48					
		49					
		50					
		51					
		52					
		53					
		54					
		55					
		56					
		57					
		58					
	*PID (ppm)	59					
		60					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Frederick G. Moss, PE No. 35162

SOIL BORING LOG MW-6
AND
WELL CONSTRUCTION MW-6

BP Oil Station No. 11117
7210 Bancroft Avenue
Oakland, CA

PLATE
A-13

JOB NO.
9-029

MAP REFERENCE NO. 1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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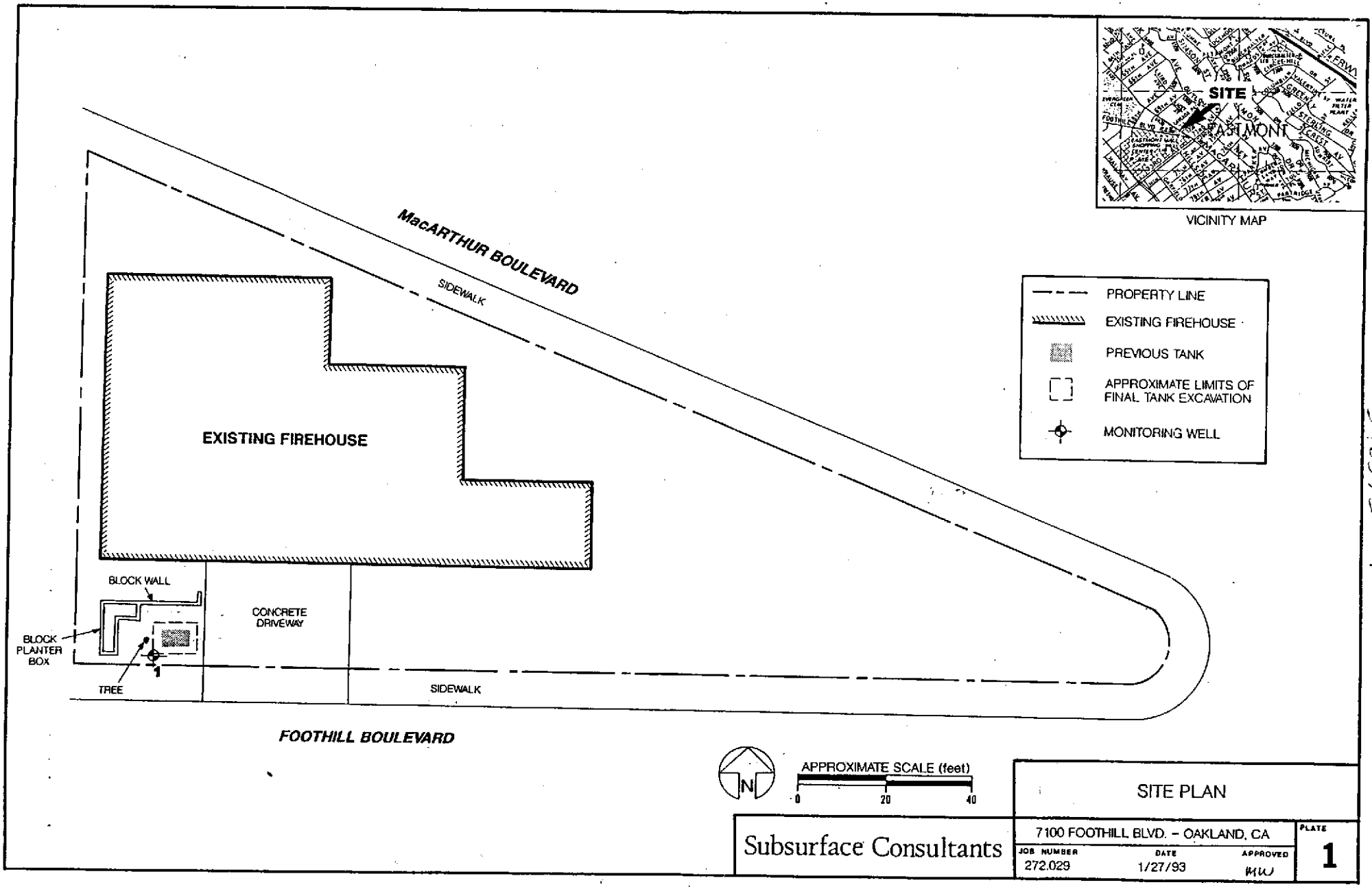
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



SITE PLAN

Subsurface Consultants

7100 FOOTHILL BLVD. – OAKLAND, CA

JOB NUMBER	DATE	APPROVED
272.029	1/27/93	MW

PLATE 1

MAP REFERENCE NO. 8

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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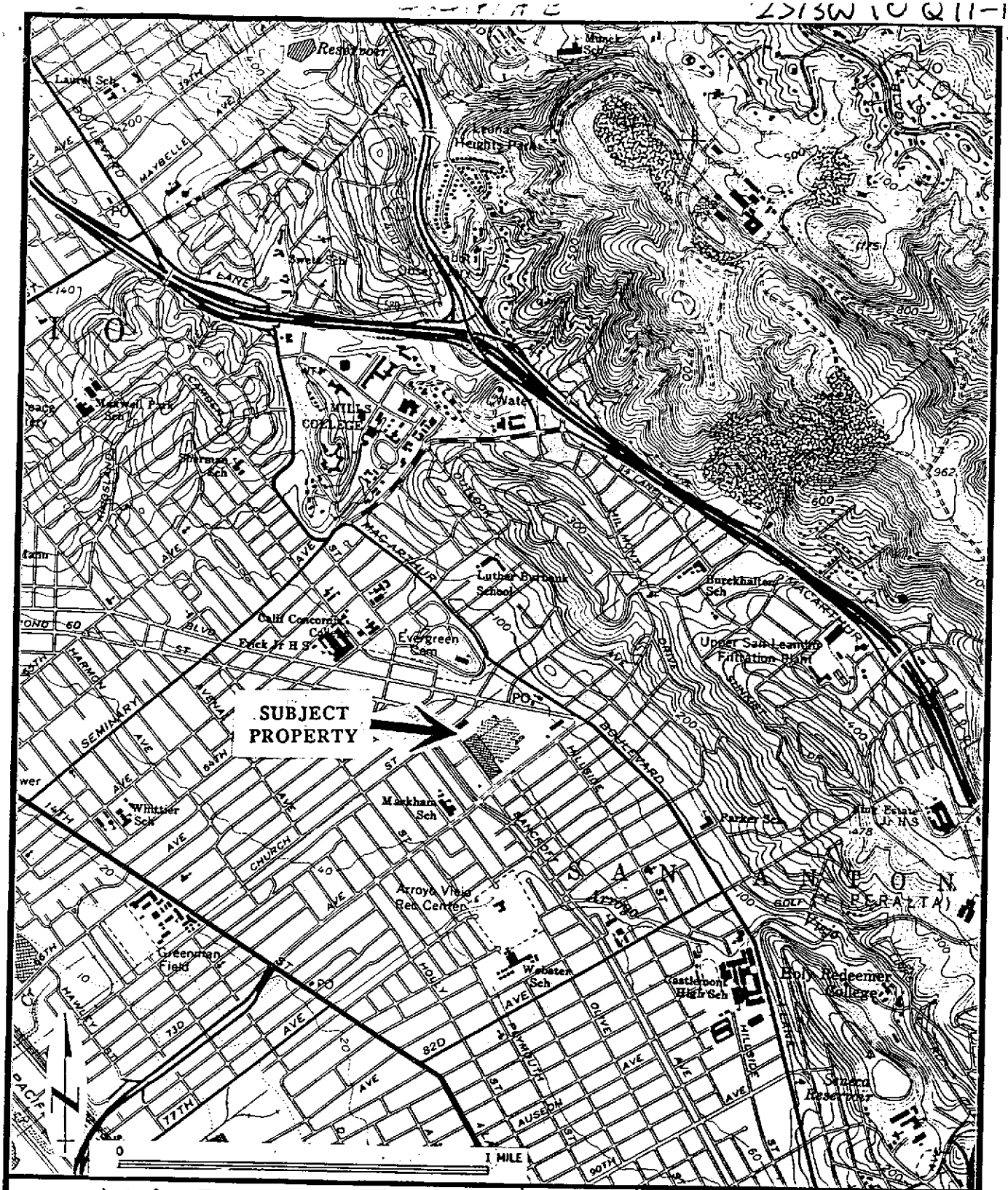
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

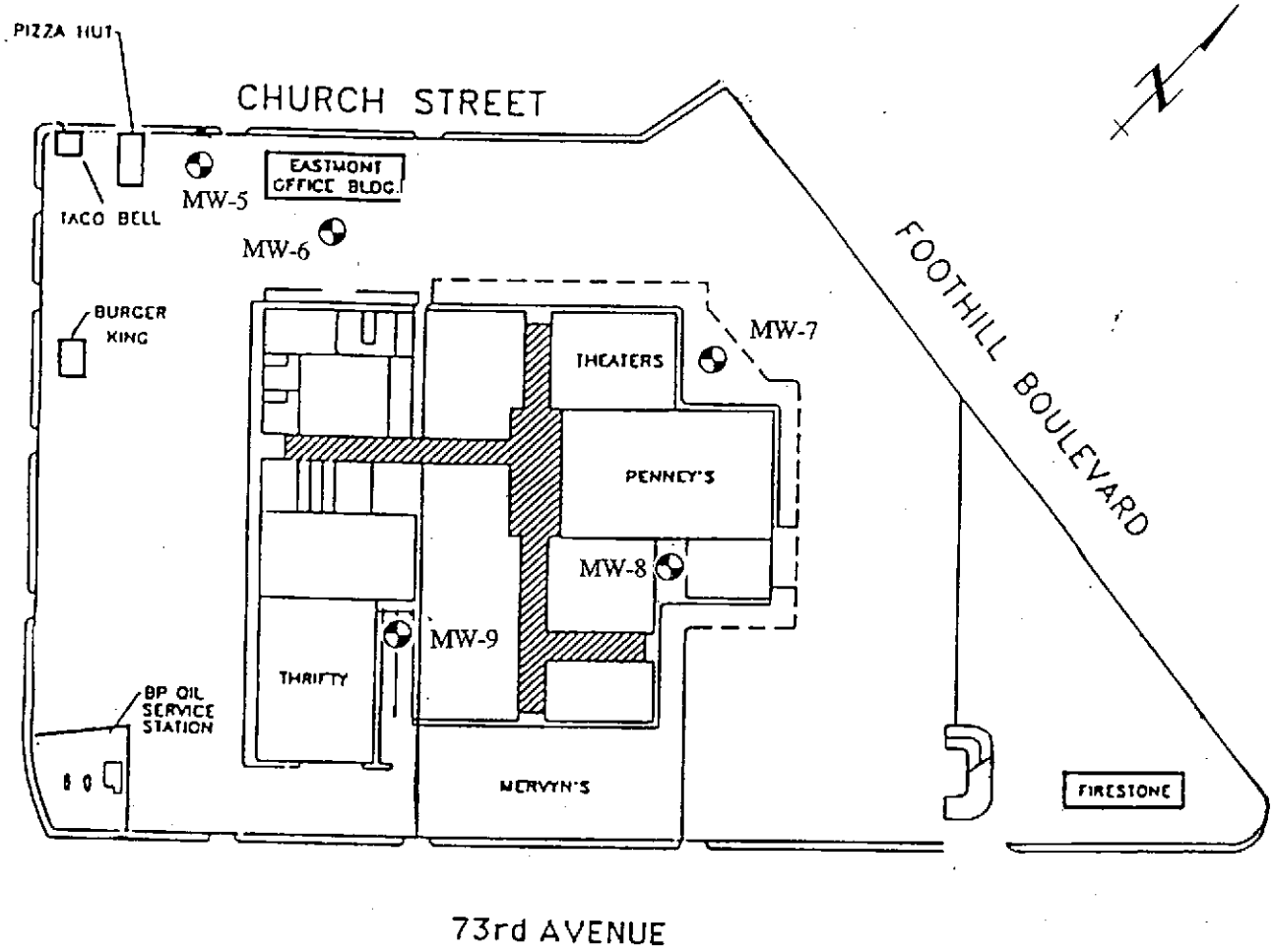


Artesian Environmental Consultants 3175 Kerner Blvd., Suite E San Rafael, California 94901 415-257-4801 Fax 257-4805	**REGIONAL MAP** One Eastmont Mall Oakland, California 94605

Project No: 93-001-01	Date: 8/27/93	Drawn by: BIM	Figure 1

MAP REFERENCE NO. 10

3 of 4 +30.17A-5 2S/3W 10Q11-15



Installed Monitor Wells
Artesian Environmental

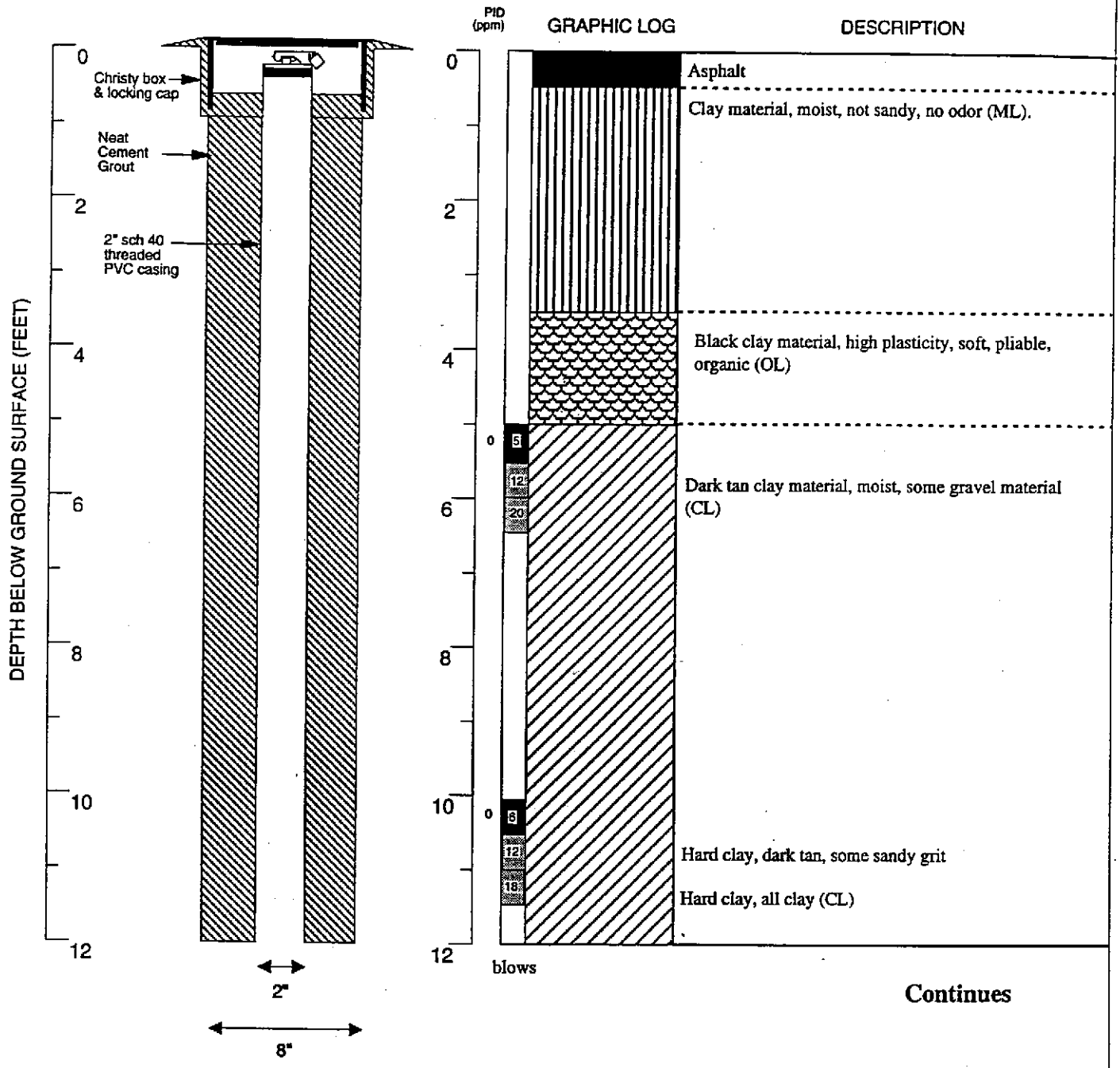
0 400
Feet

After Dames & Moore, 1991

Artesian Environmental Consultants 3175 Kerner Blvd., Suite E San Rafael, California 94901 415-257-4801 Fax 257-4805		**GROUNDWATER GRADIENT MAP** One Eastmont Mall Oakland, California 94605	
Project No: 93-001-01	Date: 8/27/93	Drawn by: BIM	Figure 3

MAP REFERENCE NO. 10

434117A. 2S/3W 10Q11



Logged by:	Benjamin L Mira	Drilling Company:	West HazMat	Well Head Completion:	Christy box & locking cap
Inspector:		Drilling Method:	Hollow Stem Auger	Type of Sampler:	California Split Spoon
Dates Drilled:	9/13/93	Driller:	Bill Smith	TD (Total Depth):	50.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log and Well Completion Details
MW-5

One Eastmont Mall
Oakland, California

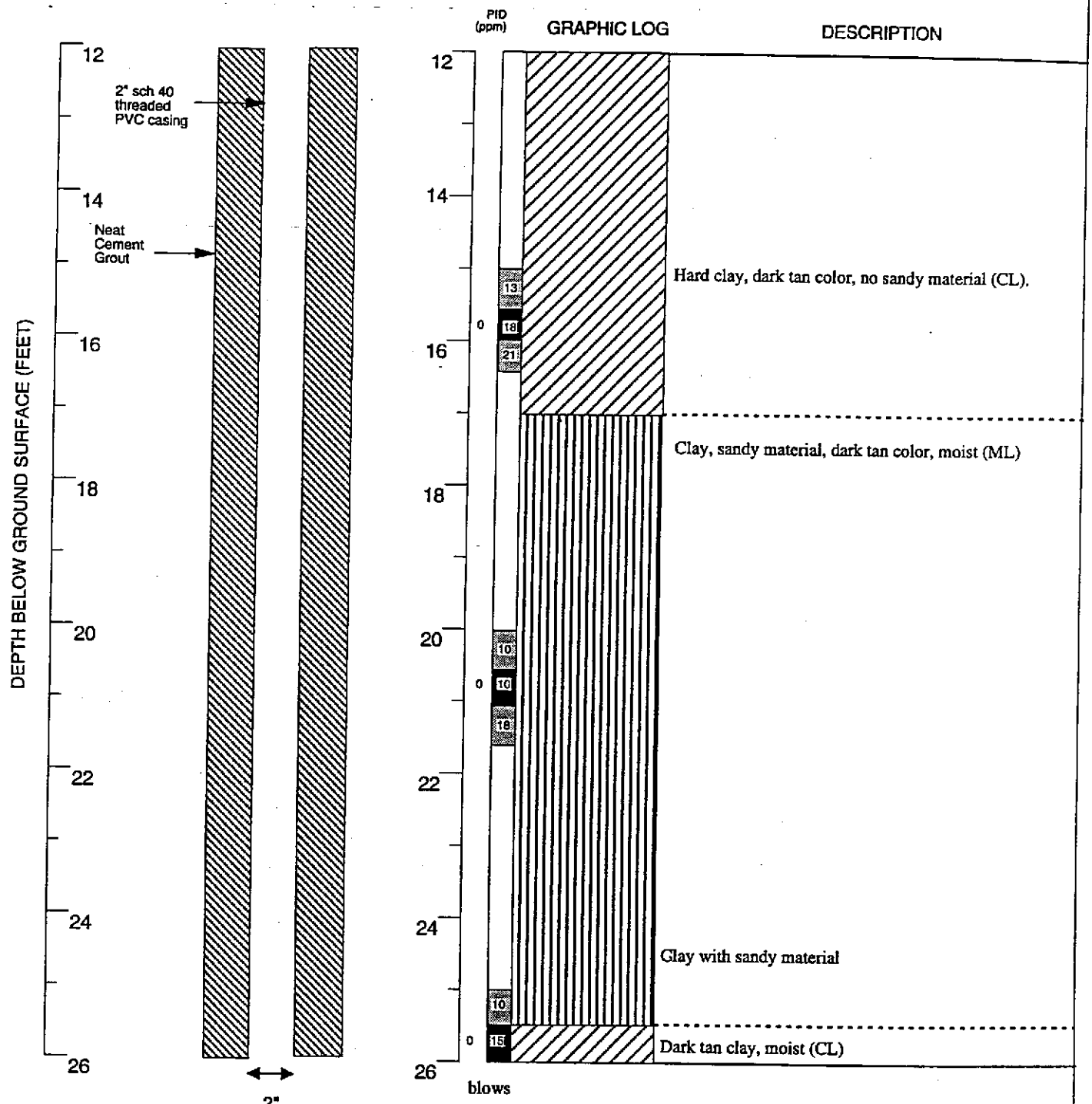
MONITOR WELL
5

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BOULEVARD,SUITE E, SAN RAFAEL, CALIFORNIA 94901 (415) 257-4801

110-01-01

MAP REFERENCE NO. 10

5 17 43-4117A 2S/3W 10Q11



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log and Well Completion Details
MW-5

One Eastmont Mall
Oakland, California

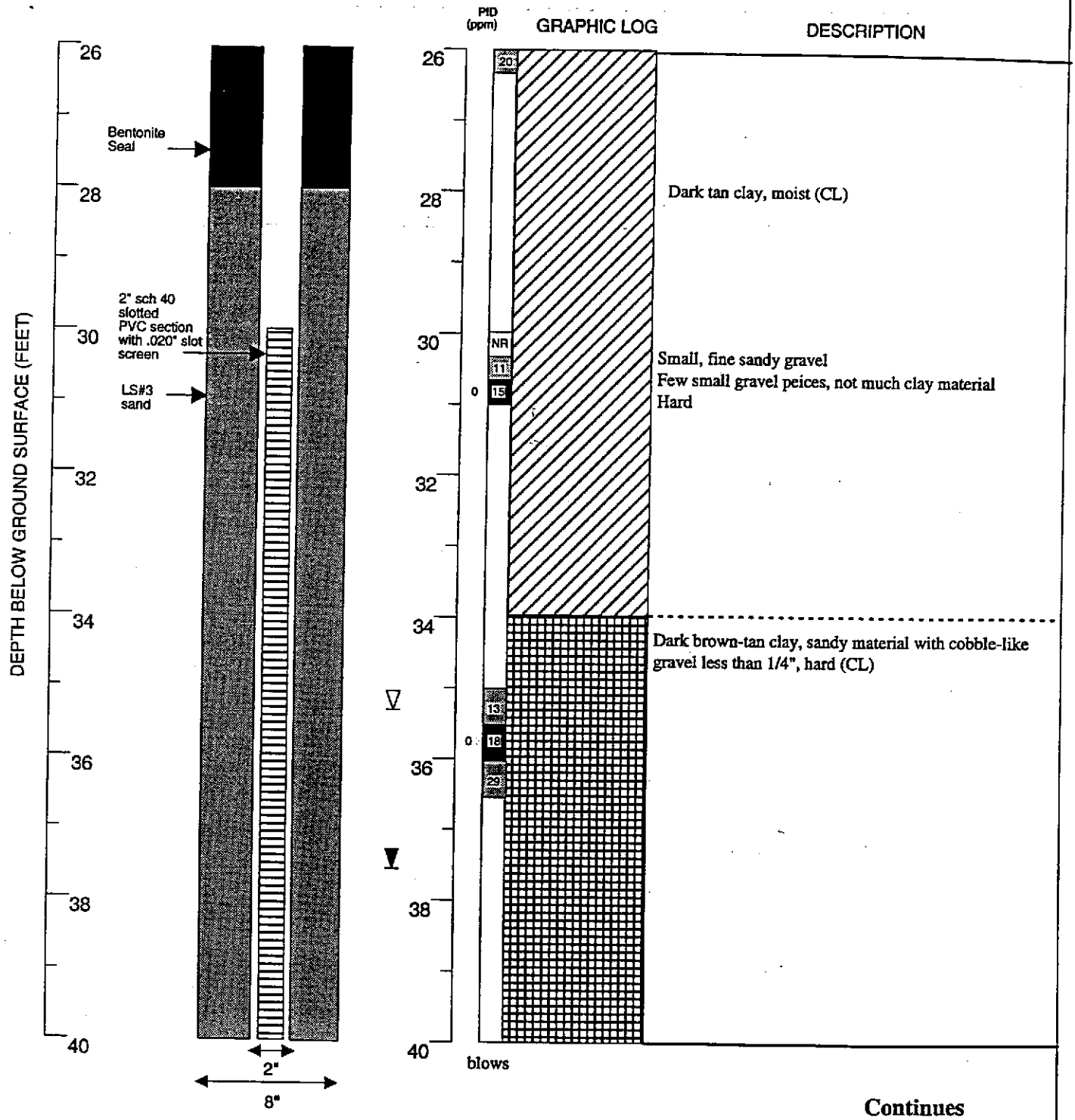
MONITOR WELL
5

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BOULEVARD, SUITE E, SAN RAFAEL, CALIFORNIA 94901 (415) 257-4801

110-01-01

MAP REFERENCE NO. 10

434117A 25/3W 10Q11



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log and Well Completion Details
MW-5

One Eastmont Mall
Oakland, California

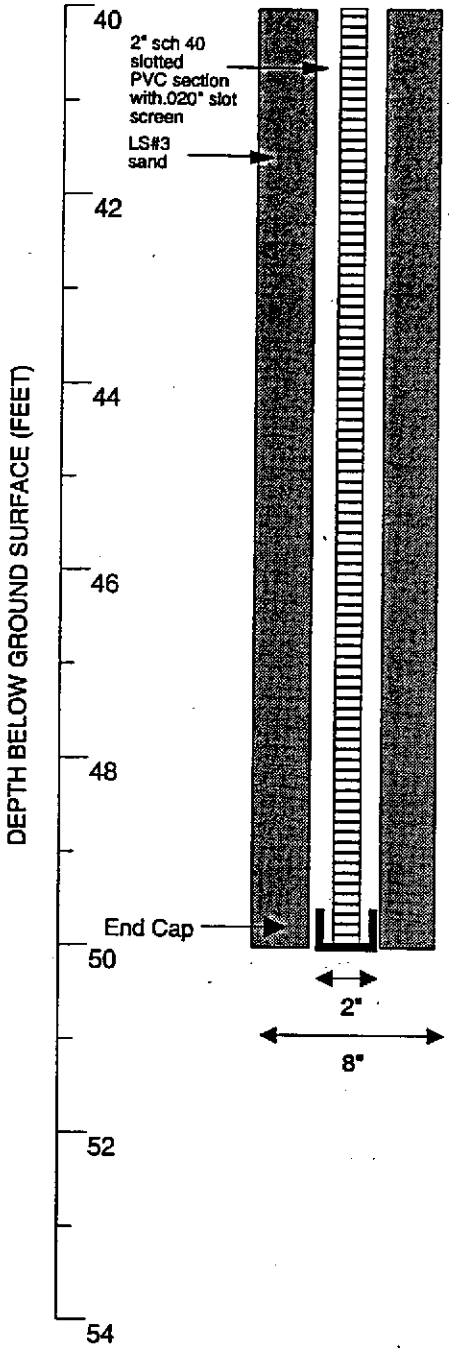
MONITOR WELL
5

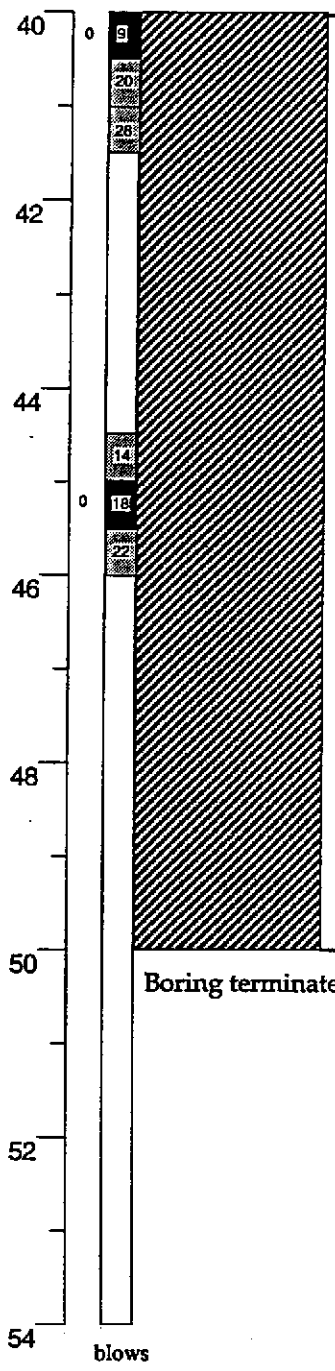
ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BOULEVARD,SUITE E, SAN RAFAEL, CALIFORNIA 94901 (415) 257-4801

110-01-01

MAP REFERENCE NO. 10

797 434117A 2S/3W 10Q11





DESCRIPTION

Water with small cobble gravel (GC)

Sandy gravel, some clay

Boring terminated 50'

Final Page

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log and Well Completion Details
MW-5

One Eastmont Mall
Oakland, California

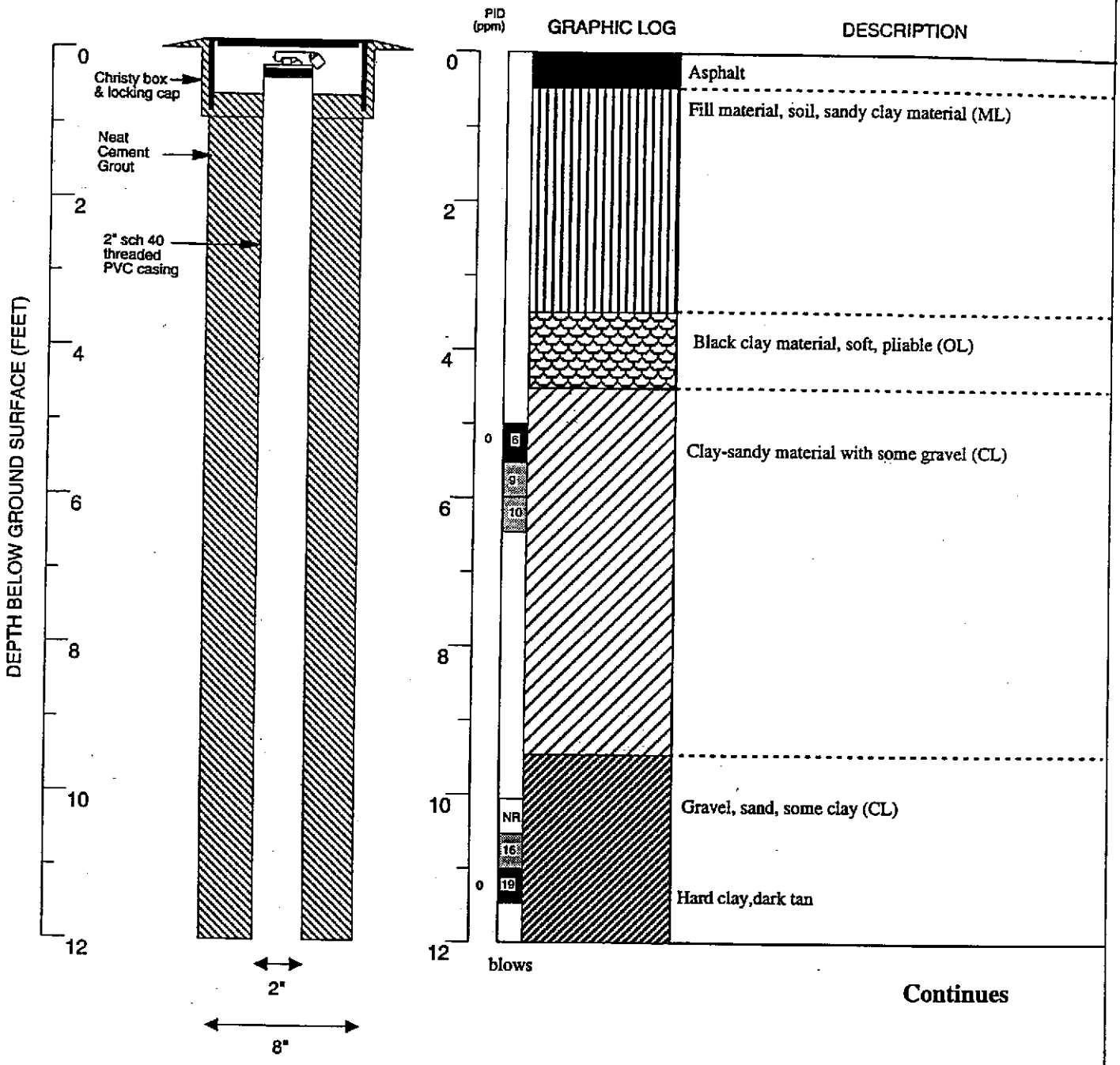
MONITOR WELL
5

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BOULEVARD, SUITE E, SAN RAFAEL, CALIFORNIA 94901 (415) 257-4801

110-01-01

MAP REFERENCE NO. 10

4m7 434117B 2S/3W 10Q12



Logged by:	Benjamin L Mira	Drilling Company:	West HazMat	Well Head Completion:	Christy box & locking cap
Inspector:		Drilling Method:	Hollow Stem Auger	Type of Sampler:	California Split Spoon
Dates Drilled:	9/13/93	Driller:	Bill Smith	TD (Total Depth):	50.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log and Well Completion Details
MW-6

One Eastmont Mall
Oakland, California

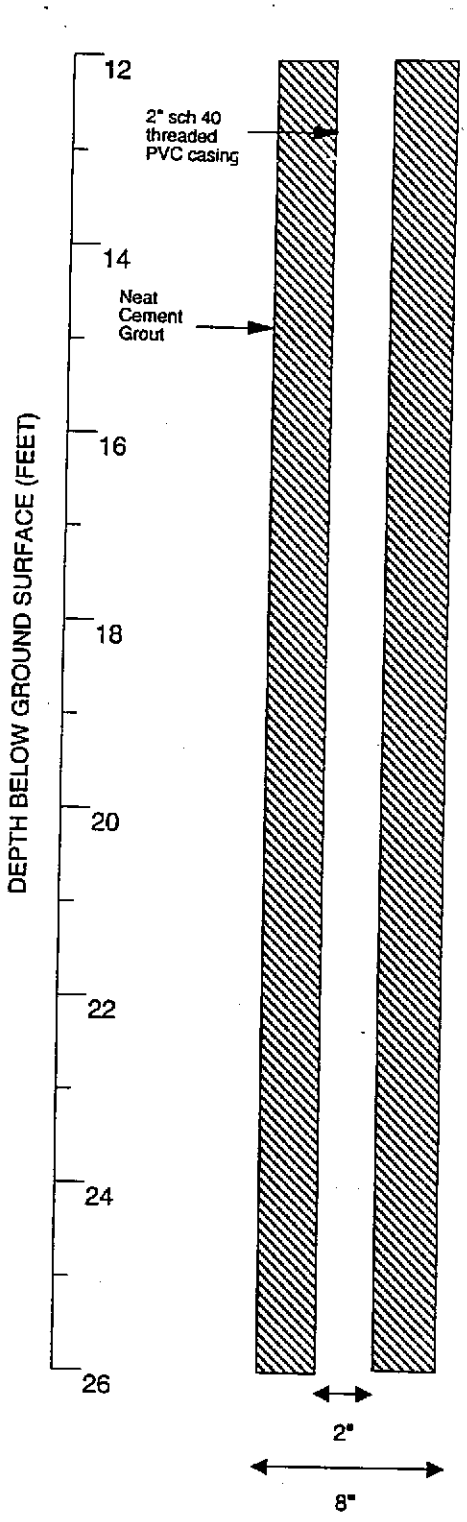
MONITOR WELL
6

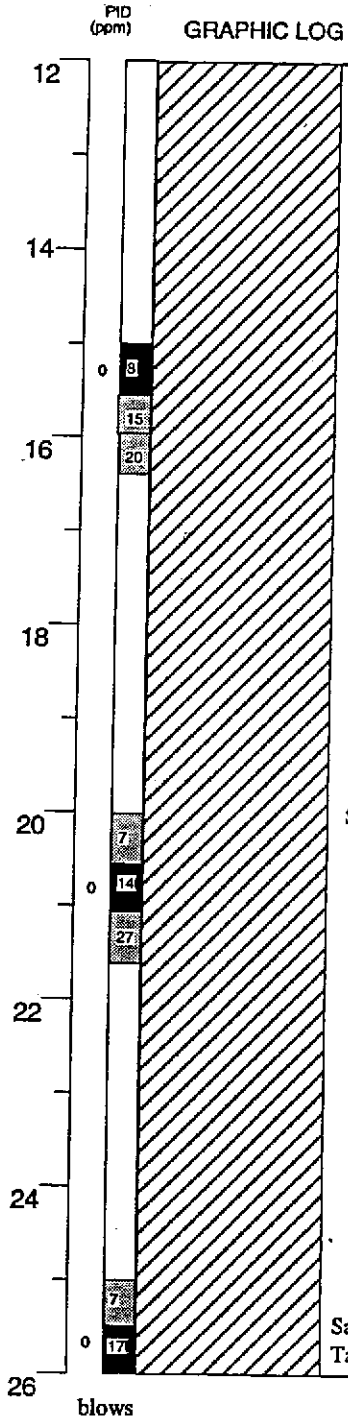
ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BOULEVARD,SUITE E, SAN RAFAEL, CALIFORNIA 94901 (415) 257-4801

110-01-01

MAP REFERENCE NO. 10

25/3W 10Q12





DESCRIPTION

Hard clay, dark tan color (CL).

Lighter tan color, sandy clay (CL)

Sandy clay tan-brown, some small gravel (CL)

Sandy-clay with some small gravel
Tan-brown, moist (CL)

Continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of drill sample
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- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log and Well Completion Details
MW-6

One Eastmont Mall
Oakland, California

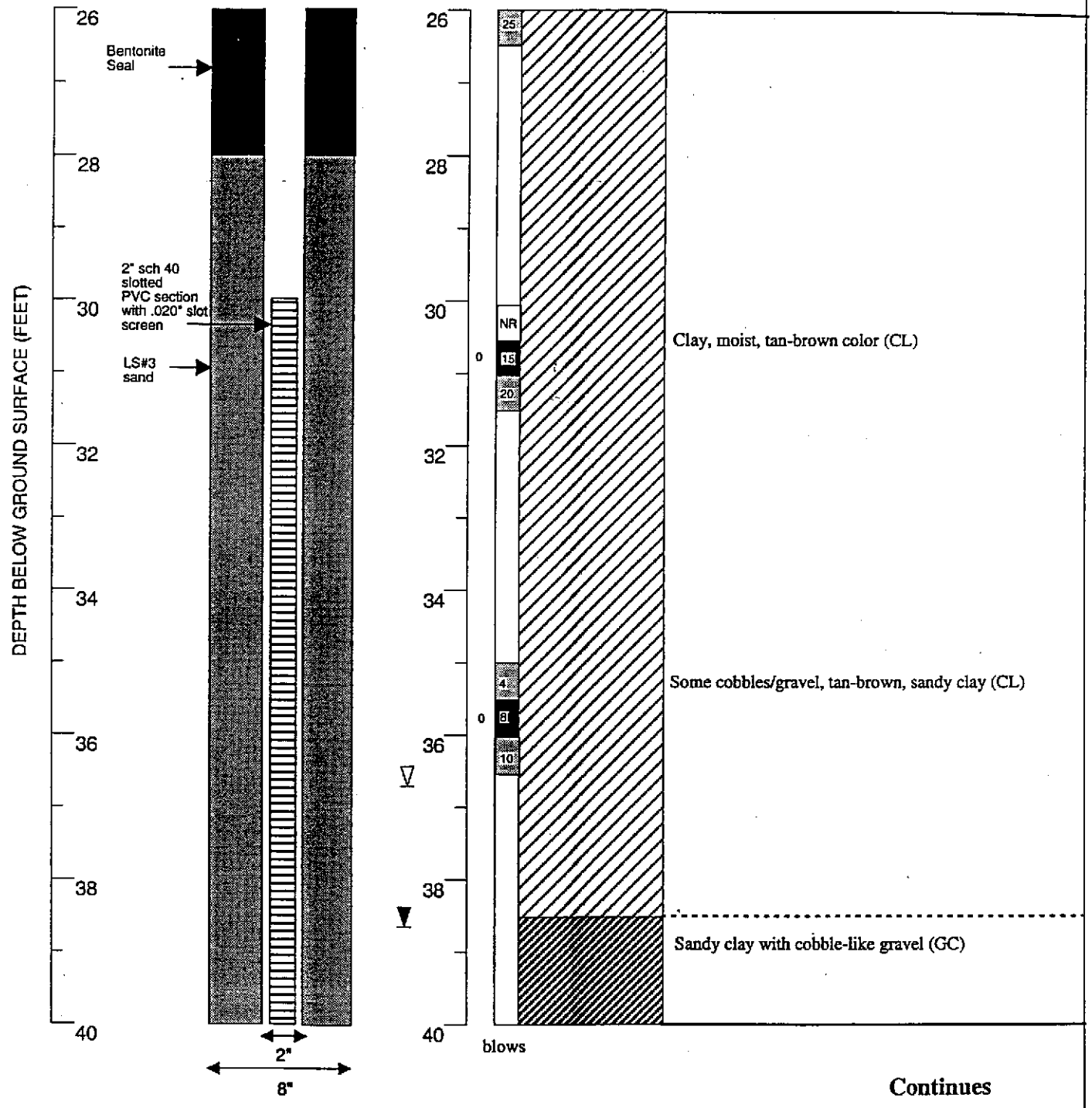
MONITOR WELL
6

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BOULEVARD,SUITE E, SAN RAFAEL, CALIFORNIA 94901 (415) 257-4801

110-01-01

MAP REFERENCE NO. 10

434117B 2S/3W 10Q12



EXPLANATION

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Boring Log and Well Completion Details
MW-6

One Eastmont Mall
Oakland, California

MONITOR WELL
6

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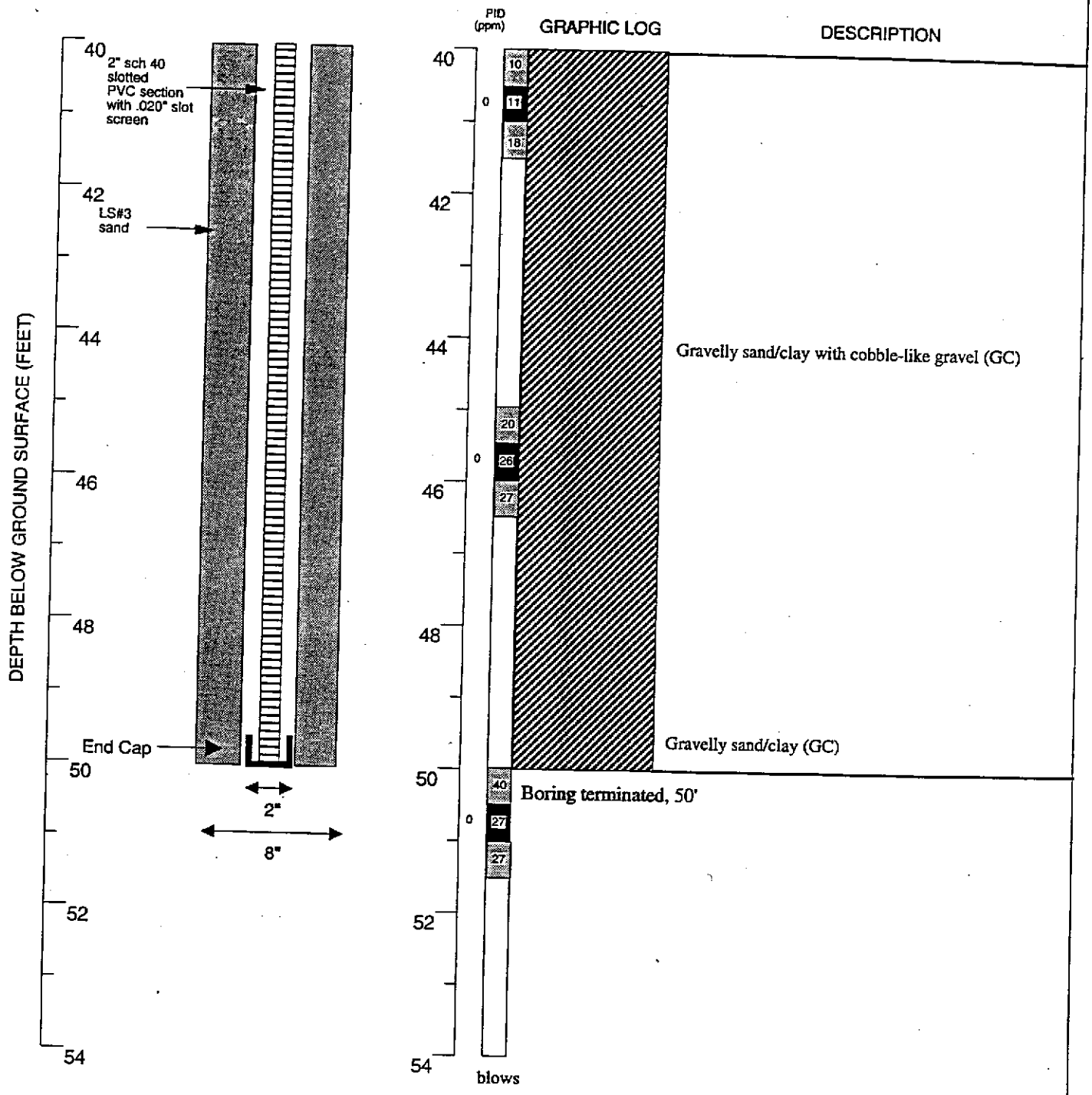
110-01-01

MAP REFERENCE NO. 10

25/3W 10Q12



Final Page

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Boring Log and Well Completion Details
MW-6

One Eastmont Mall
Oakland, California

MONITOR WELL
6

ARTESIAN ENVIRONMENTAL CONSULTANTS
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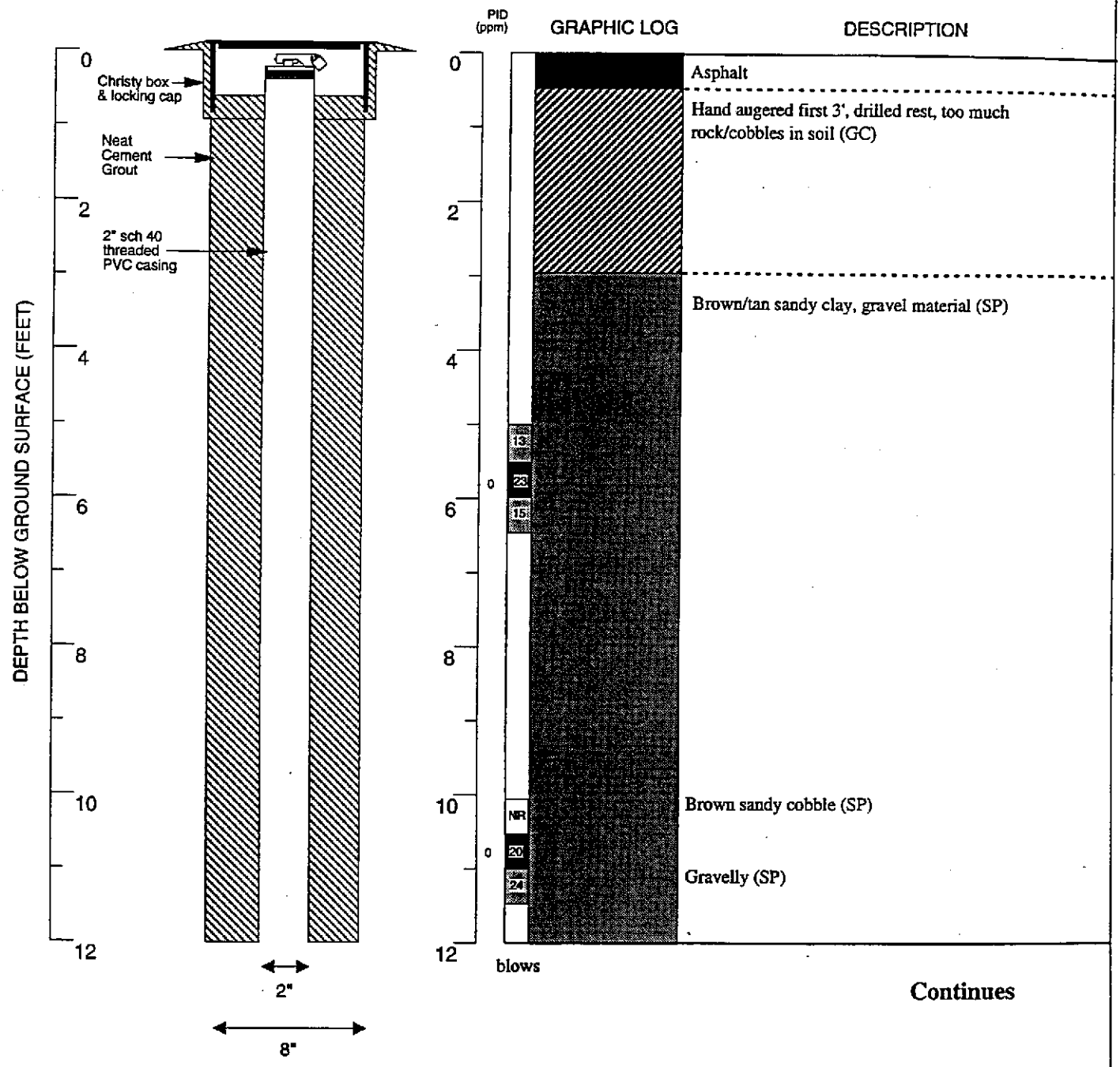
110-01-01

MAP REFERENCE NO. 10

4341178.C 2S/3W 10Q13



Logged by:	Benjamin I. Mira	Drilling Company:	West HazMat	Well Head Completion:	Christy box & locking cap
Inspector:		Drilling Method:	Hollow Stem Auger	Type of Sampler:	California Split Spoon
Dates Drilled:	9/13/93	Driller:	Bill Smith	TD (Total Depth):	50.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
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Boring Log and Well Completion Details
MW-7

One Eastmont Mall
Oakland, California

MONITOR WELL
7

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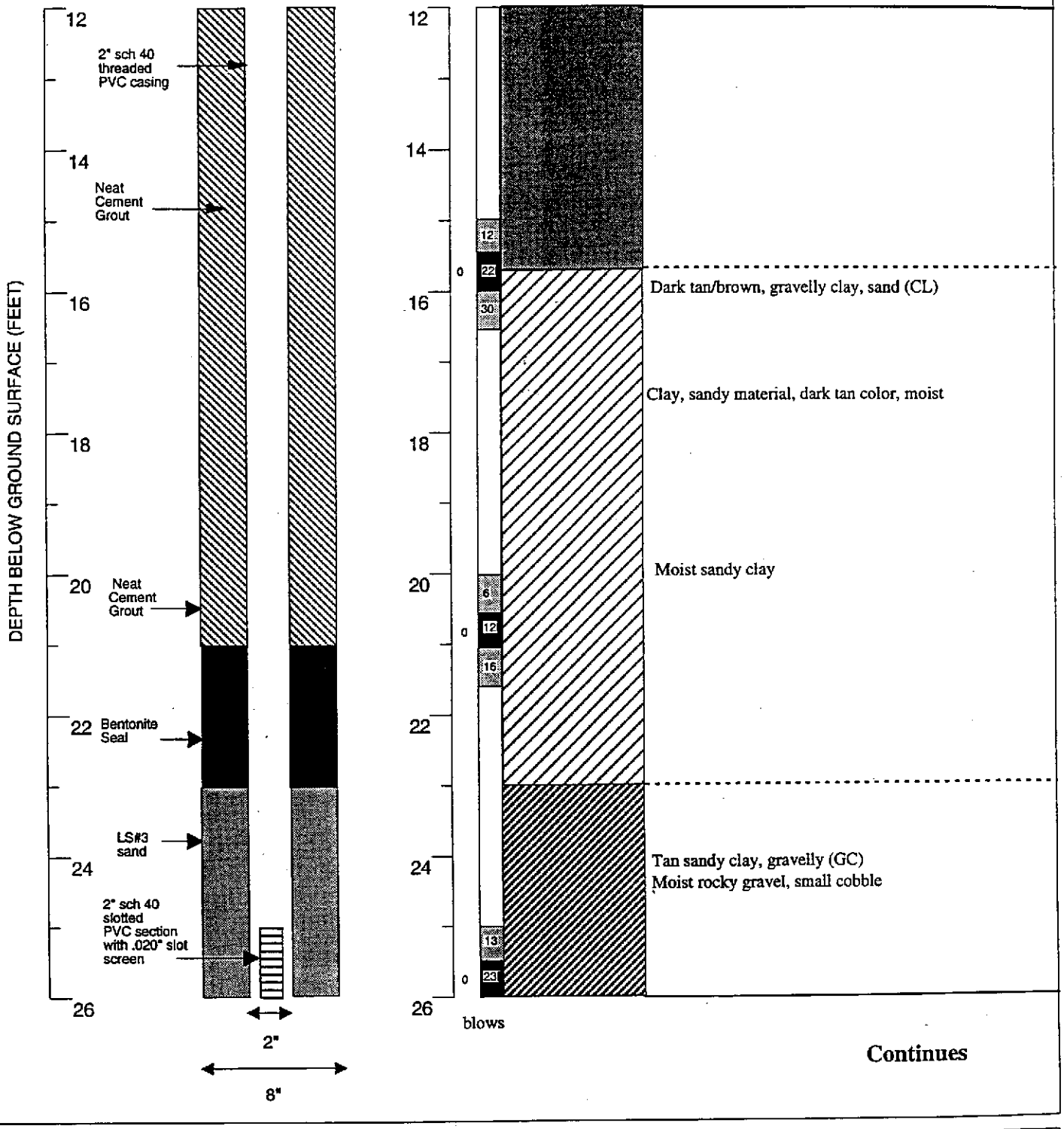
110-01-01

MAP REFERENCE NO. 10

2S/3W 10Q13



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Boring Log and Well Completion Details
MW-7

One Eastmont Mall
Oakland, California

MONITOR WELL
7

ARTESIAN ENVIRONMENTAL CONSULTANTS
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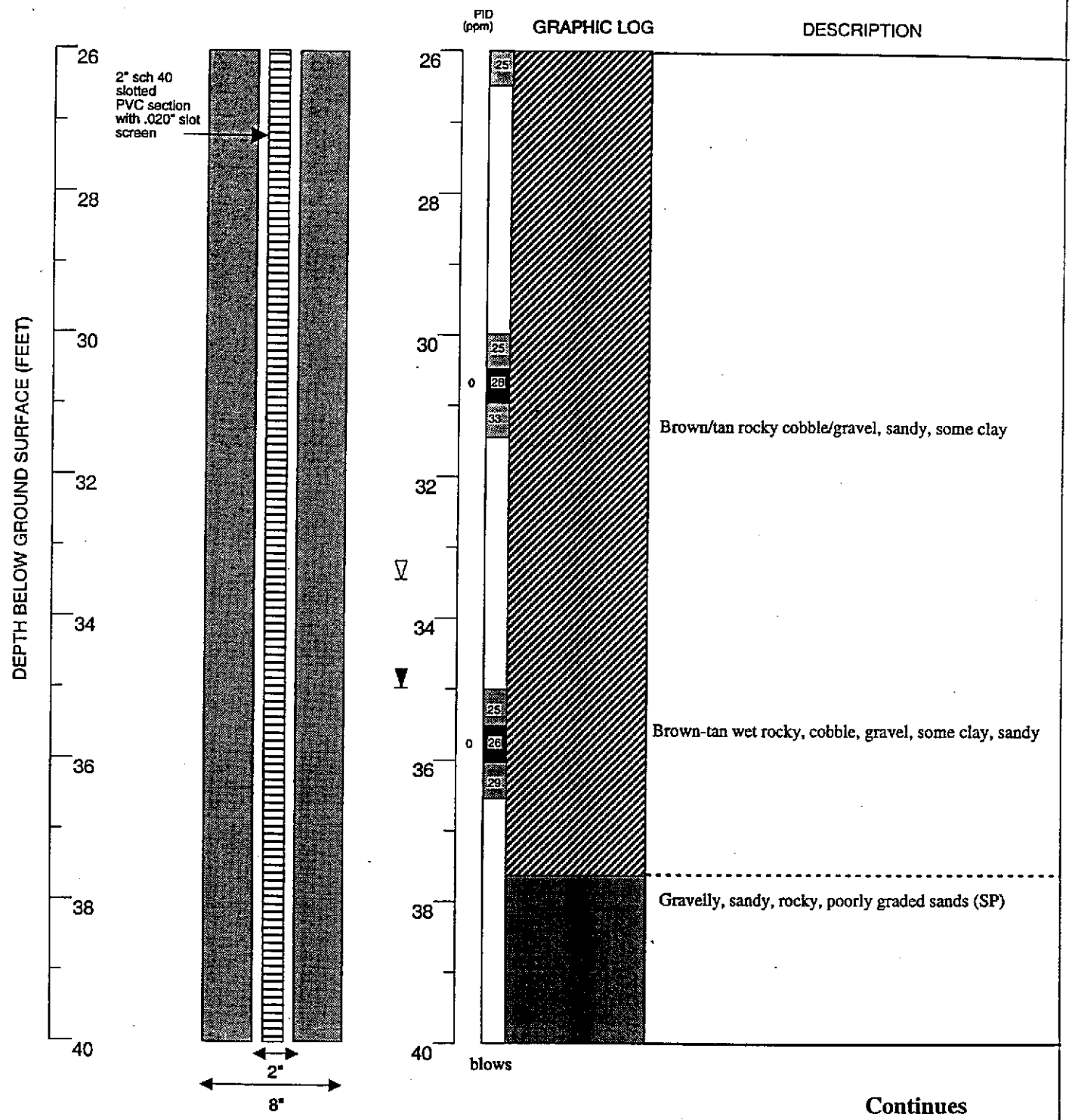
110-01-01

MAP REFERENCE NO. 10

+34117C

25/3W 10Q13



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Boring Log and Well Completion Details
MW-7

One Eastmont Mall
Oakland, California

MONITOR WELL
7

ARTESIAN ENVIRONMENTAL CONSULTANTS
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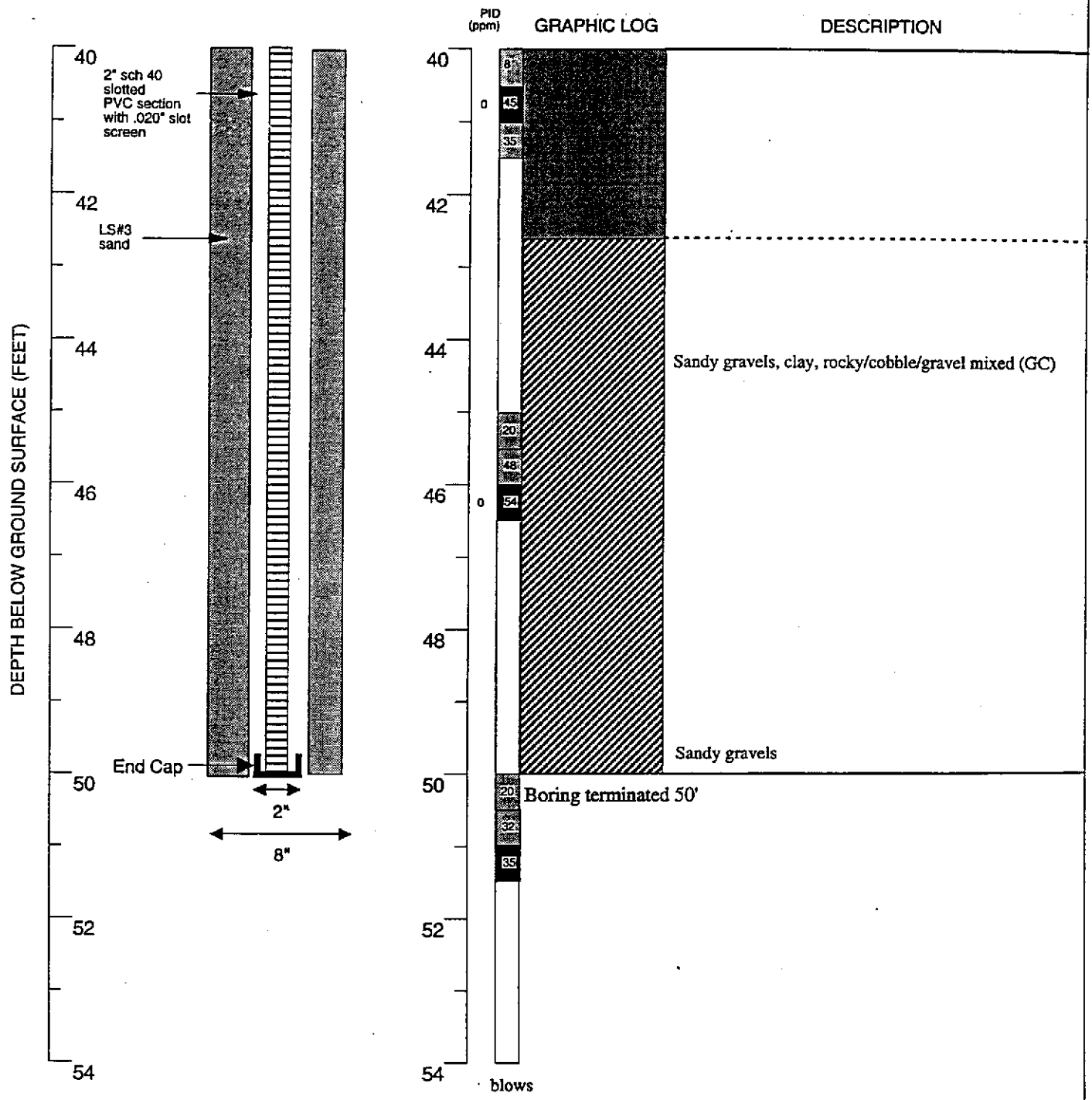
110-01-01

MAP REFERENCE NO. 10



Final Page

EXPLANATION

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Boring Log and Well Completion Details
MW-7

One Eastmont Mall
Oakland, California

MONITOR WELL
7

ARTESIAN ENVIRONMENTAL CONSULTANTS
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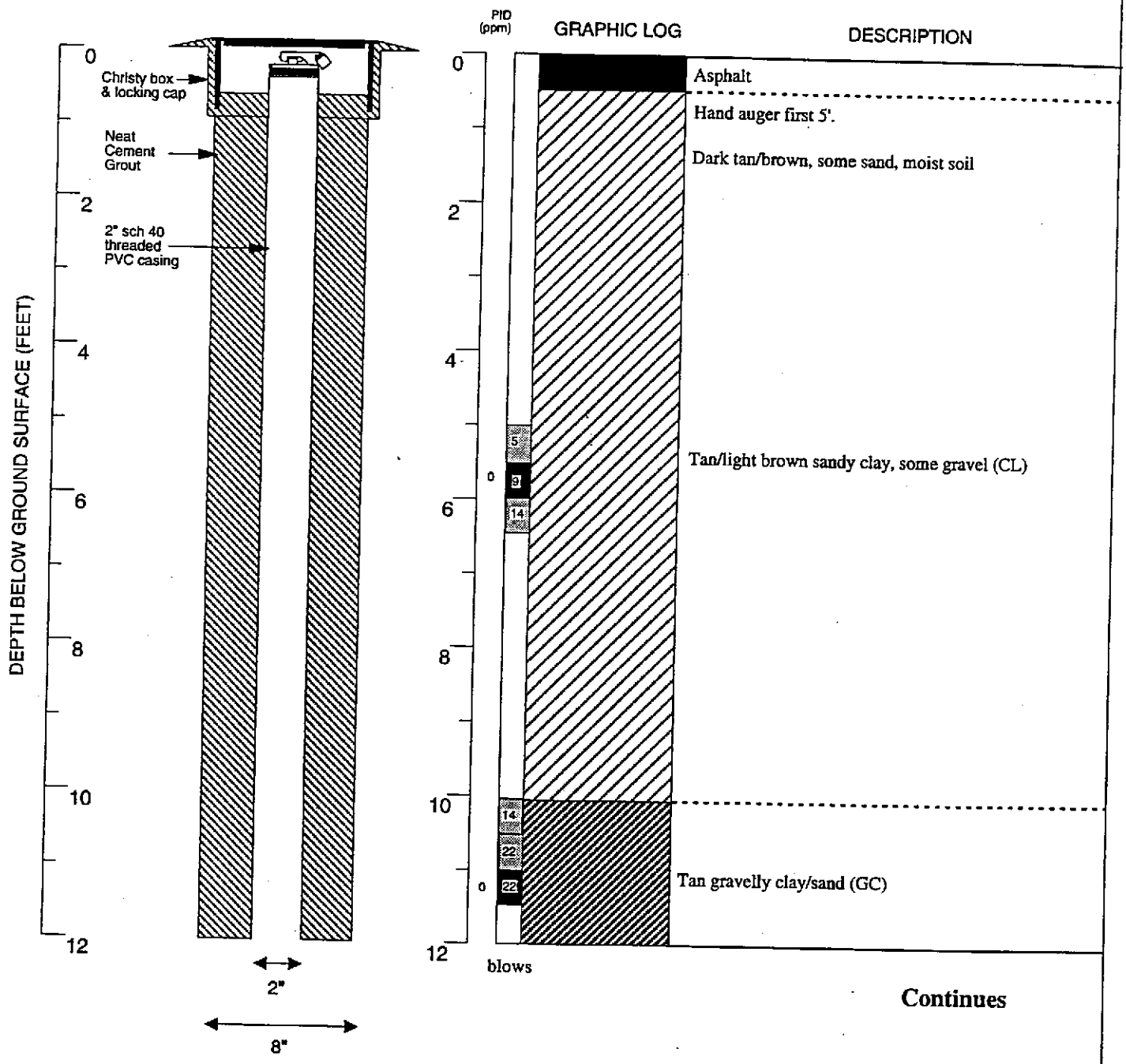
110-01-01

MAP REFERENCE NO. 10

2S/3W10Q14



Logged by:	Benjamin I. Mira	Drilling Company:	West HazMat	Well Head Completion:	Christy box & locking cap
Inspector:		Drilling Method:	Hollow Stem Auger	Type of Sampler:	California Split Spoon
Dates Drilled:	9/14/93	Driller:	Bill Smith	TD (Total Depth):	49.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of drill sample
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Boring Log and Well Completion Details
MW-8

One Eastmont Mall
Oakland, California

MONITOR WELL
8

ARTESIAN ENVIRONMENTAL CONSULTANTS
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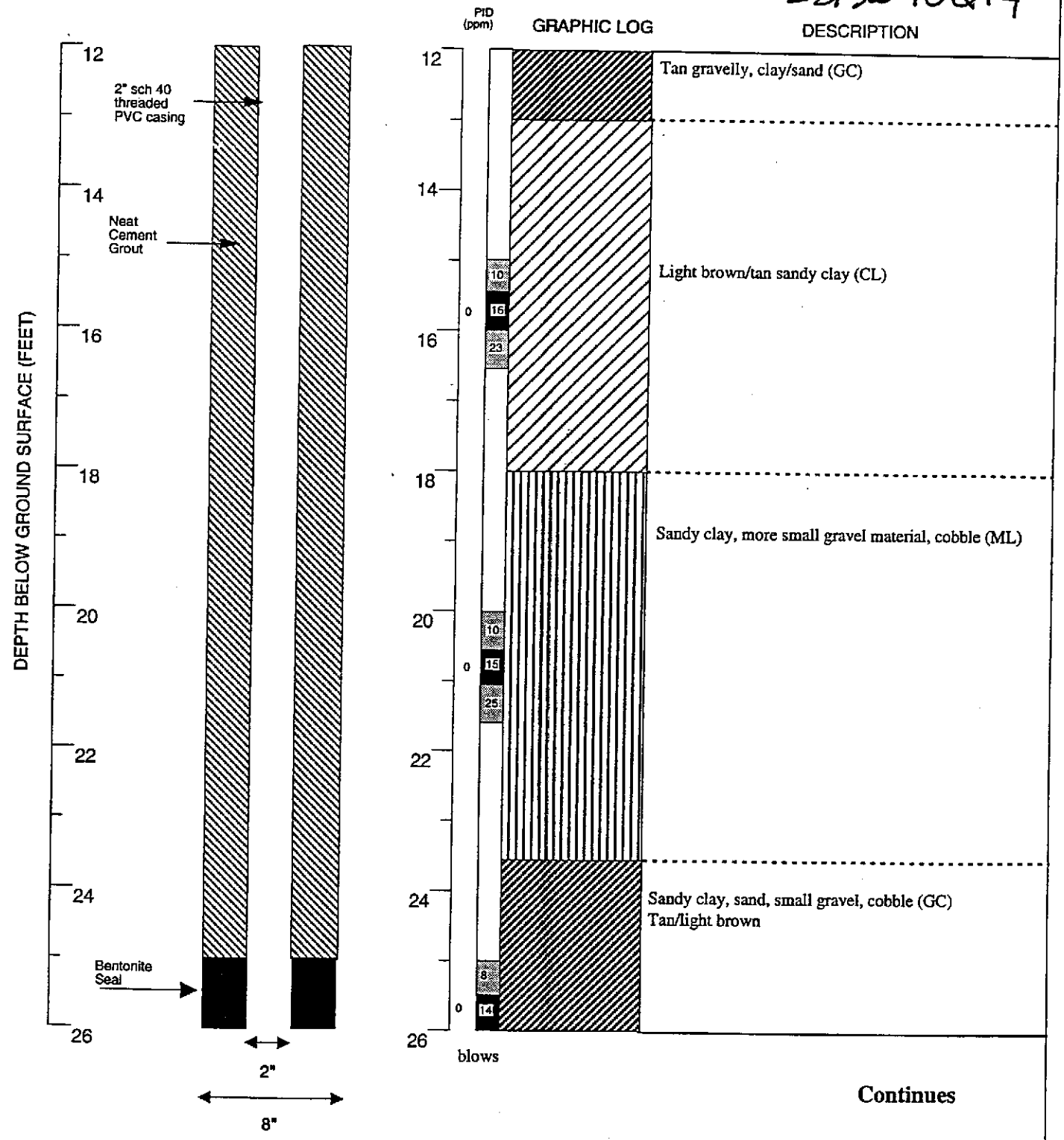
110-01-01

MAP REFERENCE NO. 10

2S/3W 10Q14



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Boring Log and Well Completion Details
MW-8

One Eastmont Mall
Oakland, California

MONITOR WELL
8

ARTESIAN ENVIRONMENTAL CONSULTANTS
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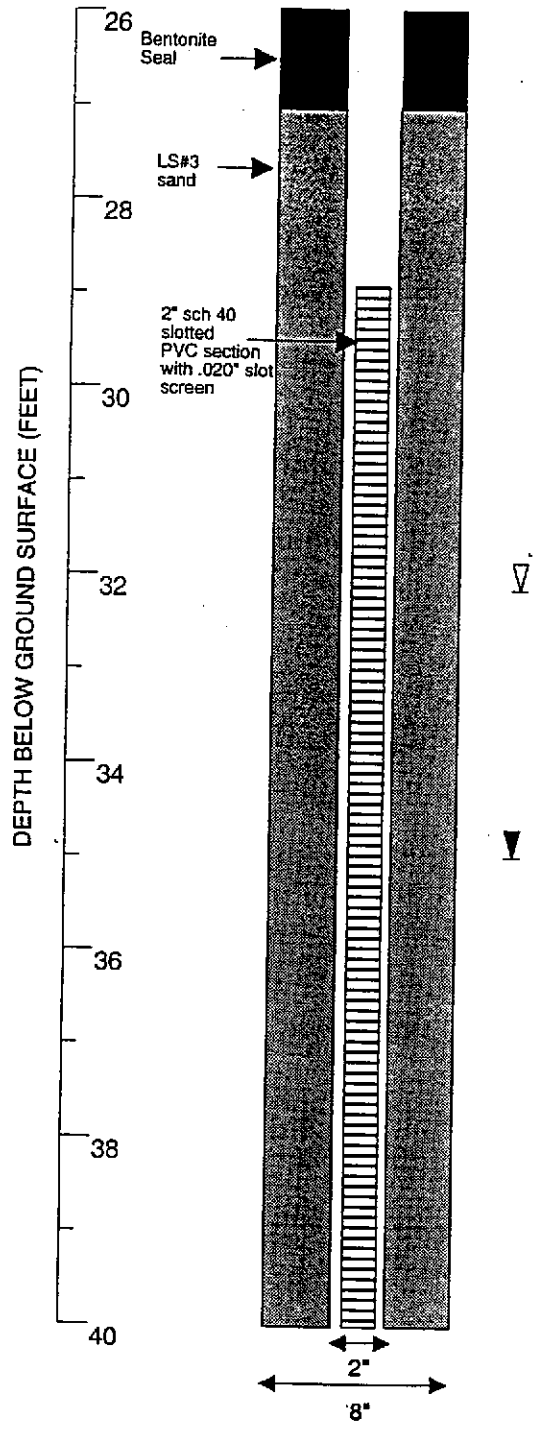
110-01-01

MAP REFERENCE NO. 10

434117D 2S/3W 10Q14



PID (ppm)	GRAPHIC LOG	DESCRIPTION
25		
18		Tan/light brown gravel with clay/sand, rocky cobble (GC)
30		
37		
16		Clay/sand, some gravel/cobble material
28		
49		

blows

Continues

EXPLANATION

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Boring Log and Well Completion Details
MW-8

One Eastmont Mall
Oakland, California

MONITOR WELL
8

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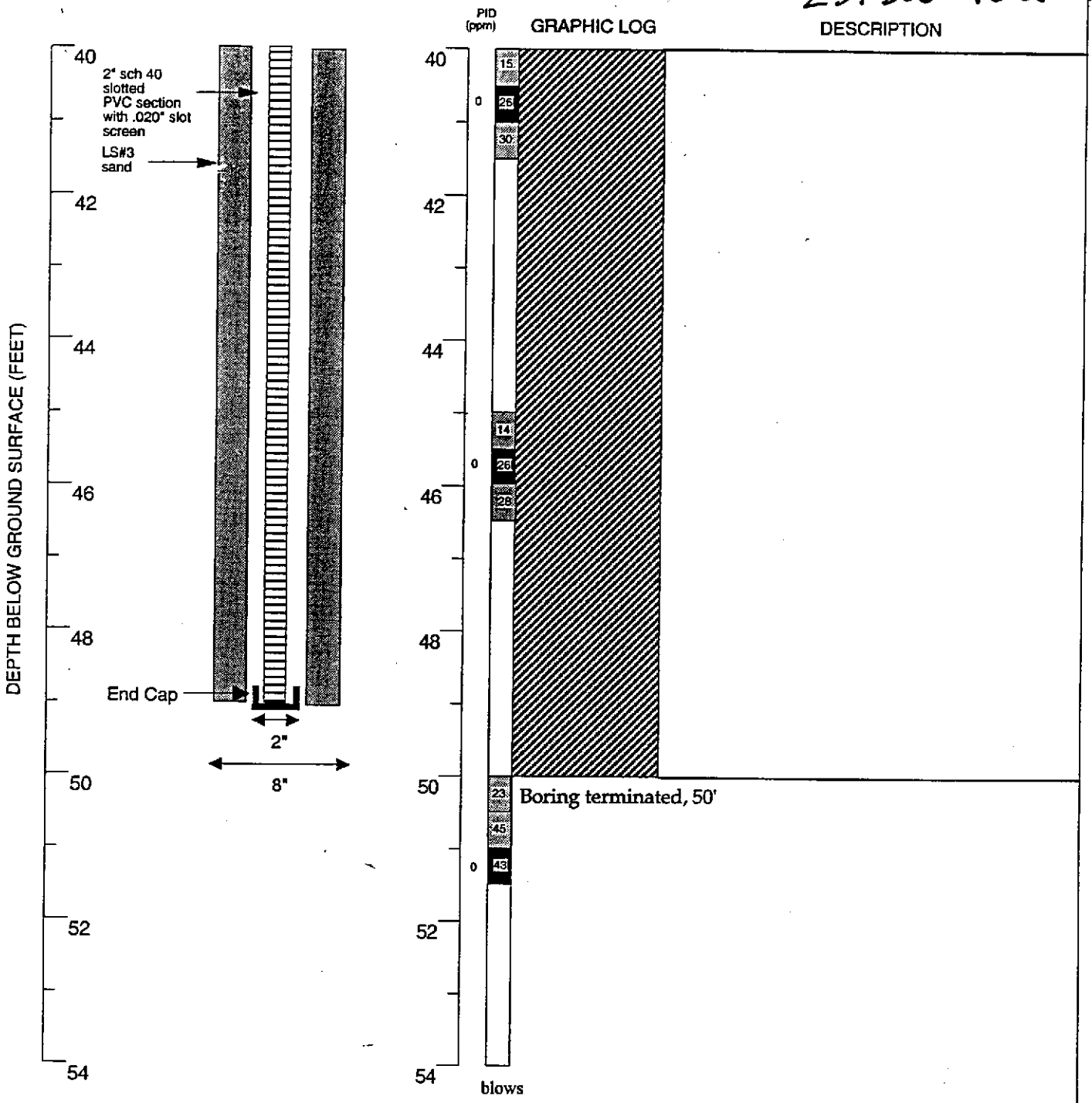
2S/3W 10Q14



Final Page

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Boring Log and Well Completion Details
MW-8

One Eastmont Mall
Oakland, California

MONITOR WELL
8

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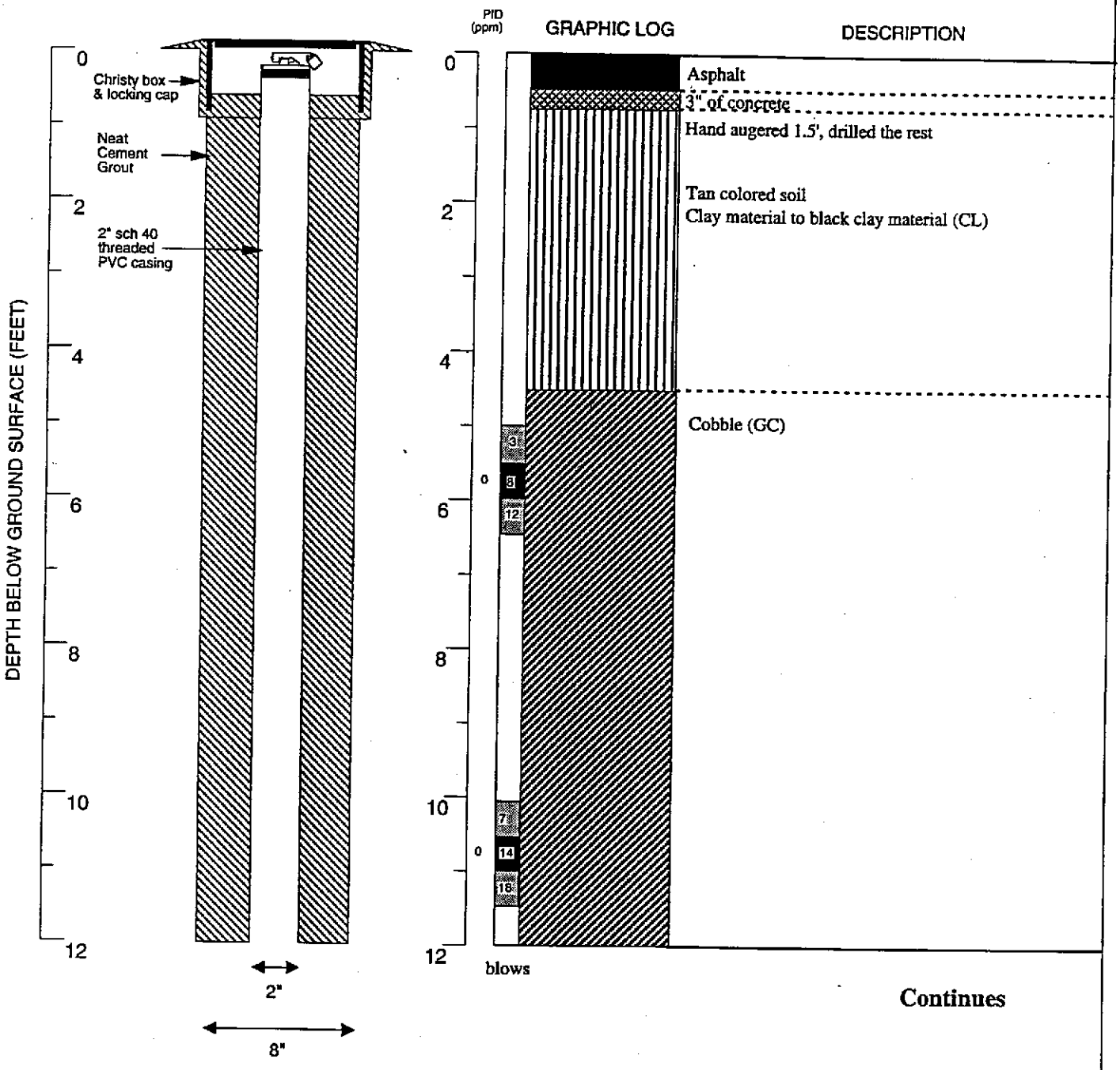
110-01-01

MAP REFERENCE NO. 10



Logged by:	Benjamin I. Mira	Drilling Company:	West HazMat	Well Head Completion:	Christy box & locking cap
Inspector:		Drilling Method:	Hollow Stem Auger	Type of Sampler:	California Split Spoon
Dates Drilled:	9/14/93	Driller:	Bill Smith	TD (Total Depth):	50.0 ft.

EXPLANATION

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- Grab sample
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Boring Log and Well Completion Details
MW-9

One Eastmont Mall
Oakland, California

MONITOR WELL
9

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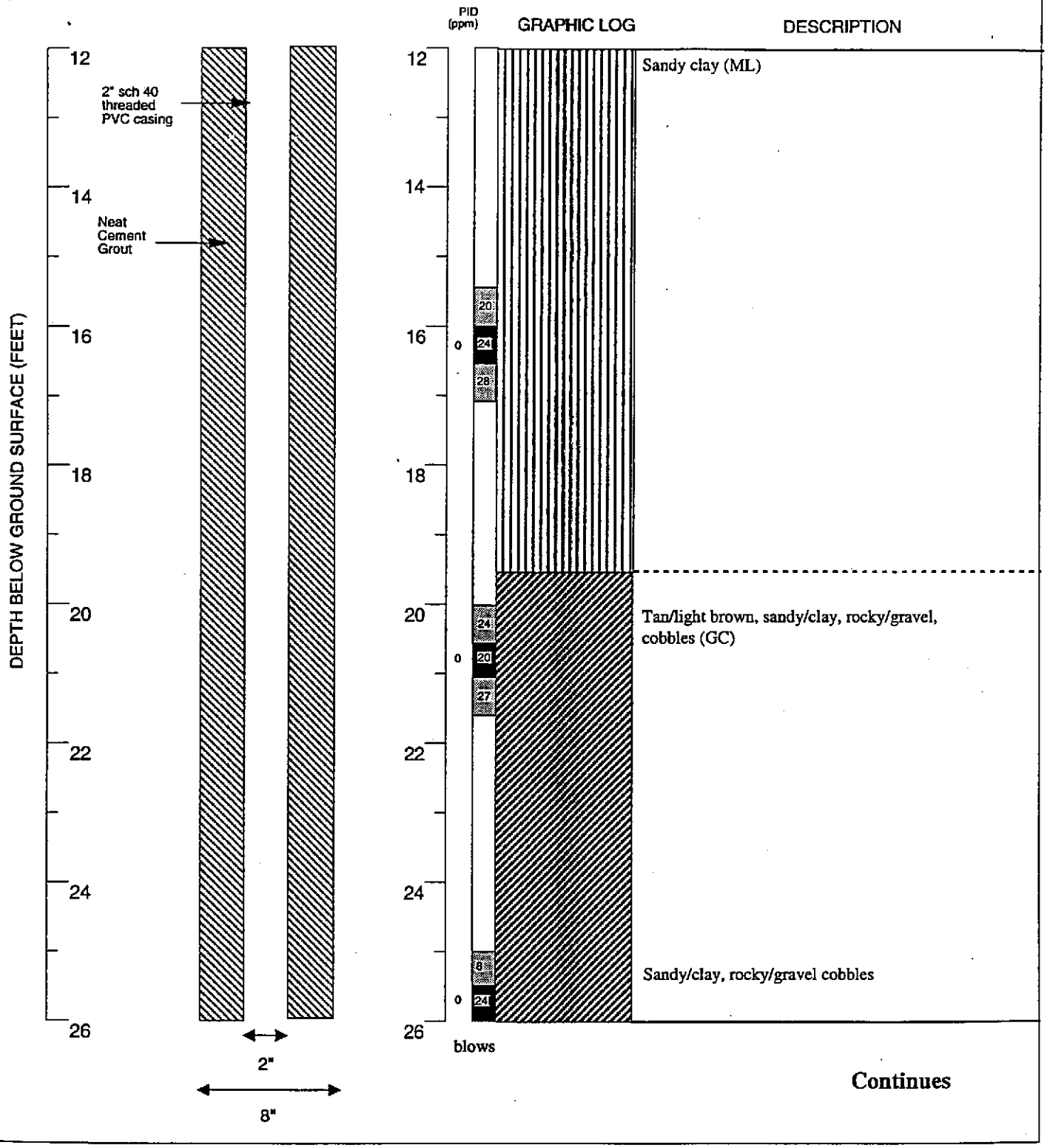
110-01-01

MAP REFERENCE NO. 10

2S/3W 10Q15



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of drill sample
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- Grab sample

Contacts:
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- Dashed where uncertain
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NR — No recovery

Boring Log and Well Completion Details
MW-9

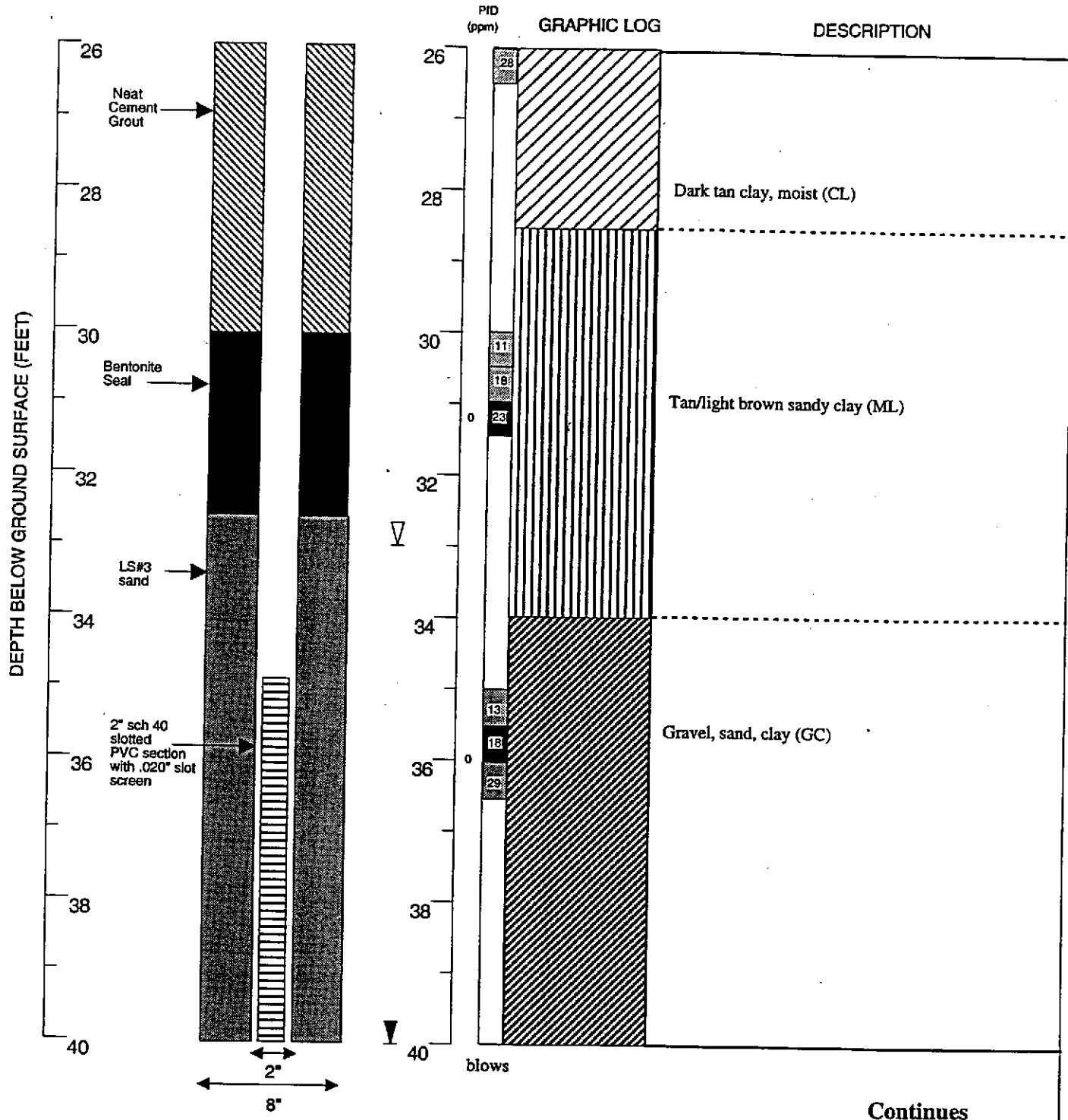
One Eastmont Mall
Oakland, California

MONITOR WELL
9

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BOULEVARD, SUITE E, SAN RAFAEL, CALIFORNIA 94901 (415) 257-4801

110-01-01

MAP REFERENCE NO. 10



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- Water level in completed well
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Boring Log and Well Completion Details
MW-9

One Eastmont Mall
Oakland, California

MONITOR WELL
9

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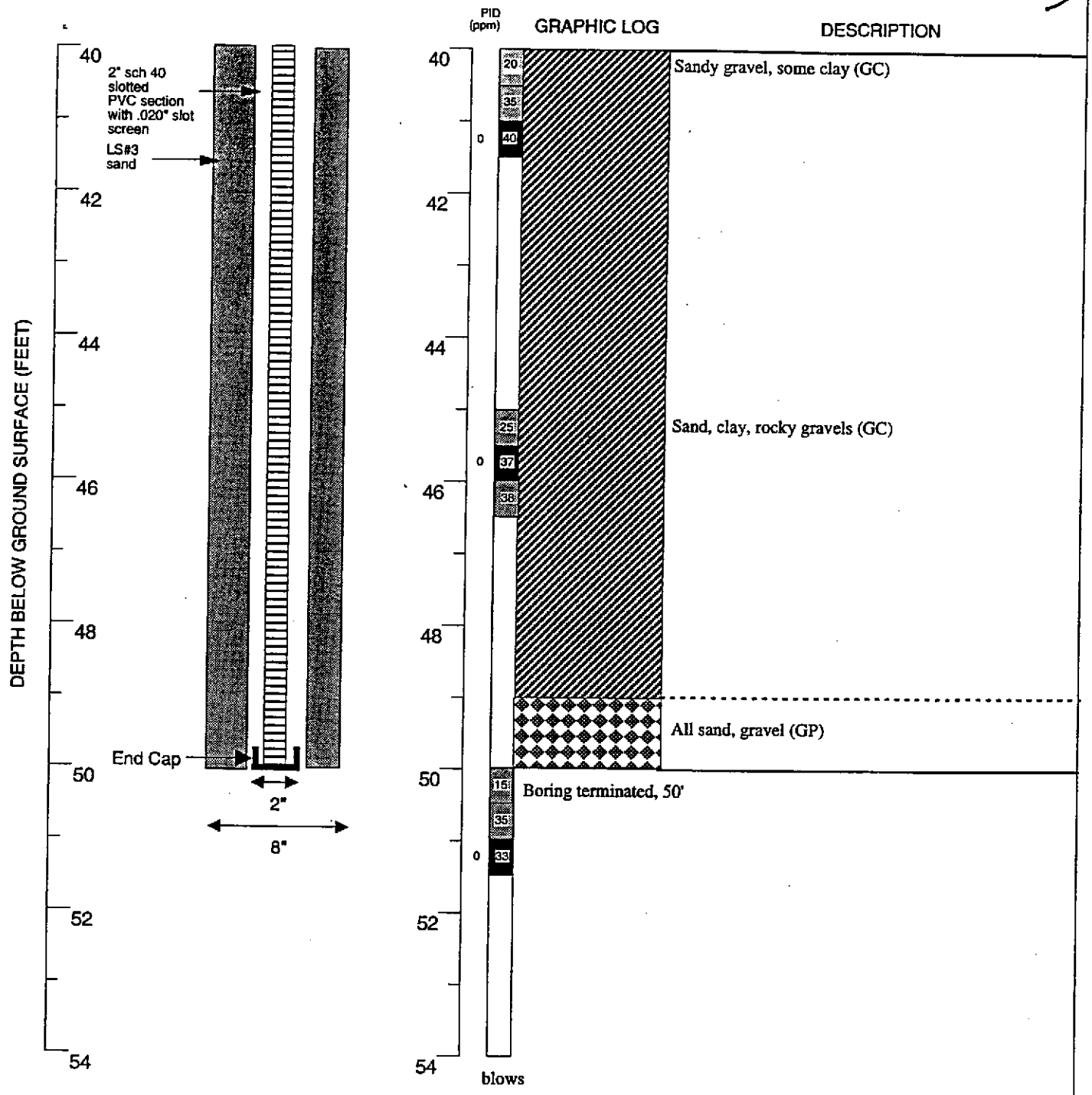
110-01-01

MAP REFERENCE NO. 10

2S/3W 10Q15



Final Page

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Boring Log and Well Completion Details
MW-9

One Eastmont Mall
Oakland, California

MONITOR WELL
9

ARTESIAN ENVIRONMENTAL CONSULTANTS
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110-01-01

MAP REFERENCE NO. 10

2S/3W 10J2 Dames & Moore 2S/3W-10J2

LOCATION OF BORING	JOB NO.	CLIENT	LOCATION
Foothill; DM-1; Firestone Building	00443-090-043	J.C. Penny-Co	Oakland

DRILLING METHOD: Mobil P-61; 12" hollow augers	BORING NO.	DM-1
SAMPLING METHOD: 2" Drill Sampler; S.S. Rings	SHEET	1 OF 2

WATER LEVEL					DRILLING START TIME	FINISH TIME
TIME						
DATE					DATE	DATE
CASING DEPTH						

DATUM ELEVATION

SURFACE CONDITIONS: Asphalt

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT SAMPLER	NUMBER OF RINGS	DEPTH IN FEET	SOIL GRAPH	DESCRIPTION
						0		Asphalt
						1		Reddish brown, silty clay w/ some gravels
						2	CL	stiff, moist
						3		
						4		Yellowish red, silty clay very stiff moist
DM							CL	with some coarse sands HNU-0 ppm
	12 / 12	4.5	A / 5.0	20 50	1202	5		
						6		
						7		
						8		
		9.5				9	ML	Yellowish red to brownish yellow, clayey silt w/ some
Drill	17 / 17	10.0	B / 10.0	12 45	1212	10		hard moist, poorly graded medium grained sand
				50/5		11		
						12		
						13		
						14	ML	
DM	16 / 16	15 40	C / 15.0	15 40		15		Brownish yellow clayey silt w/ sand
		50/4		50/4		16		hard, moist w/ some angular pebbles
						17		
						18	▽	Water encountered
						19		
						20		

DRILLING CONTR. Gregg Drilling

No.139075

BY Dave Myers DATE 4-1-91 CHK'D BY

25/3W-10J2

Dames & Moore

25/3W-10J2

LOCATION OF BORING

<- Pg 1

JOB NO.	CLIENT	LOCATION
CC4430900643	J.C. Penney	Corkland

DRILLING METHOD:

BORING NO. DM-1

SHEET 2 OF 2

SAMPLING METHOD:

DRILLING

					START	FINISH
WATER LEVEL					TIME	TIME
TIME						
DATE					DATE 4/1/91	DATE 4/1/91
CASING DEPTH						

DATUM ELEVATION

DRILLING CONTR.

No. 139076

BY DATE CHK'D BY

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO / SAMPLE DEPTH	BLOWS/FT SAMPLER	NUMBER OF RINGS	DEPTH IN FEET	SOIL GRAPH
						20	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						30	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						40	

SURFACE CONDITIONS:

Brownish yellow sandy clay
w/ Rings -

Bottom of Boring 28'-0"

MAP REFERENCE NO. 10

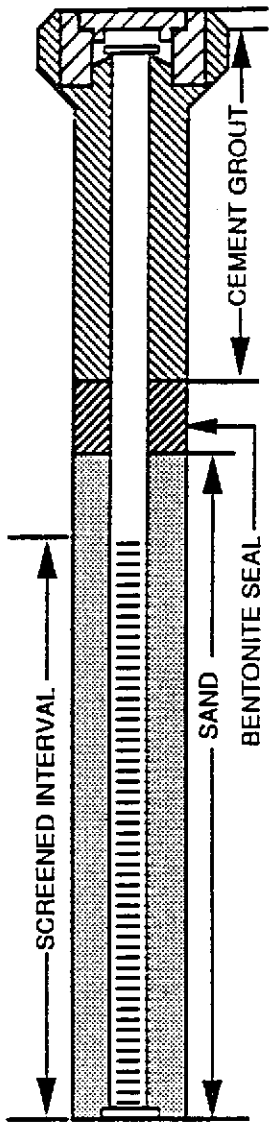
(8 1 13) (REV 11-80)

permit #91164
Kuiken
CST 422-390 1545
(415) 208-1354

DM-1

DATE DRILLED: 4/1/91

DEPTH IN FEET	SAMPLING: HNu (ppm)	SAMPLING: TYPE OF SAMPLER	SAMPLING: SAMPLING RESISTANCE	SAMPLES	SYMBOLS	DESCRIPTION
0						ASPHALT
					CL	REDDISH BROWN SILTY CLAY with some gravel (moist) (stiff)
5	0	U	70		CL	YELLOWISH RED SILTY CLAY with some coarse sand (moist) (very stiff)
10		U	95		ML	YELLOWISH RED TO BROWNISH YELLOW CLAYEY SILT with poorly graded, medium-grained sand (moist) (dense)
15		U	90			Grades with angular cobbles
20						
25						
30						
35						



NOTES:

1. Boring completed at a depth of 28.0 feet on 4/1/91.
2. 4-inch PVC observation well installed to a depth of 28.0 feet; screened interval from 13.0 to 28.0 feet.
3. Sampling resistance is measured in blows per foot required to drive the sampler 12 inches with a 140 lb. hammer falling 30 inches after sampler has been seated 6 inches.
4. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
5. For an explanation of terms used see the Soil Classification Chart and Key to Test Data.

LOG OF BORING

Dames & Moore

443-090-043

MAP REFERENCE NO. 10

LOCATION OF BORING 2S/3W 10J3

JOB NO.	CLIENT	LOCATION
C0443090	J H Penney	Oakland

DRILLING METHOD: Mobile B-61 12" hollow auger

SAMPLING METHOD: Split Spoon

BORING NO. DM-2

SHEET 1 OF 2

DRILLING START TIME / FINISH TIME

					DRILLING START TIME	DRILLING FINISH TIME
WATER LEVEL						
TIME						
DATE					DATE	DATE
CASING DEPTH						

DATUM ELEVATION

DM-2

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO / SAMPLE DEPTH	BLOWS/FT SAMPLER	NUMBER OF RINGS / WT	DEPTH IN FEET	SOIL GRAPH	SURFACE CONDITIONS: Drilling facility
						0		Asphalt
						1	CL	Dk Brown, silty clay, STIFF, MOIST w/ trace medium to fine sands
						2		
						3		
						4		
SPT	18/18	4'	B/05	10 13 30	0810	5	CL	Reddish brown, silty clay, very STIFF, MOIST
						6		
						7		
						8		
						9		
DM	18/18	9'	B/10	25 42	0830	10		Yellowish red, sandy clay very STIFF moist w/ fine to coarse sands trace fine gravels
						11	SC-SM	Reddish red, silty sand w/ gravel, dense MOIST
						12		
						13		
						14		
SPT	18/18	14'	C/15	10 20 50	0540	15		Brownish yellow clayey silt very STIFF moist
						16	ML	
						17		
						18		
						19		
DM		21'			0250	20		Brownish yellow silty clay - clayey silt STIFF moist w/ thin 1-2 inch [illegible]

DRILLING CONTR. BY DATE CHK'D BY

No. 139177

MAP REFERENCE NO. 10

LOCATION OF BORING	JOB NO.	CLIENT	LOCATION
See Pg 1 2S13W 10J3	CO443.90[illegible]	[illegible]	Carson

DRILLING METHOD:	BORING NO.
[illegible]	

SHEET
2 OF 2

SAMPLING METHOD:

WATER LEVEL					DRILLING START TIME	FINISH TIME
TIME						
DATE					DATE	DATE
CASING DEPTH						

DATUM

ELEVATION

SURFACE CONDITIONS:

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO / SAMPLE DEPTH	BLOWS/FT SAMPLER	NUMBER OF RINGS	DEPTH IN FEET	SOIL GRAPH	
						20		
						1		
						2		
						3		
						4		Brownish yellow, silty clay, w/ [illegible] silt
D&M	18/12	24.5	E/25		0915	25		stiff, moist.
						6		
						7		BOB 26.5
						8		
						9		
						30		
						1		
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						0		

DRILLING CONTR. ____

No.1391178

BY ____ DATE ____ CHK'D BY ____

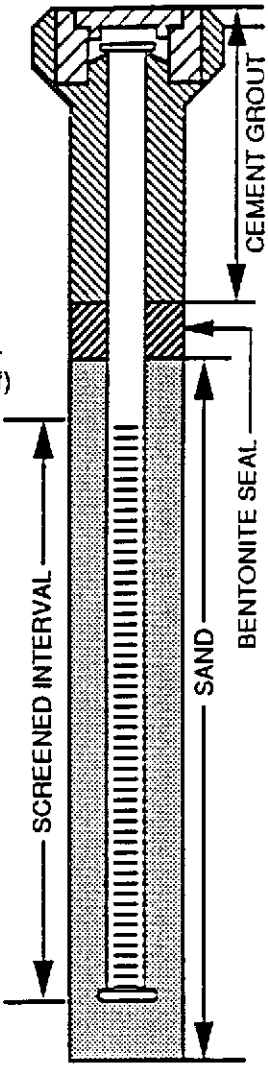
MAP REFERENCE NO. 10

permit # 91164

DM-2

DATE DRILLED:

DEPTH IN FEET	SAMPLING: HNu (ppm)	SAMPLING: TYPE OF SAMPLER	SAMPLING: SAMPLING RESISTANCE	SAMPLES	SYMBOLS	DESCRIPTION
0						ASPHALT
		U	43		CL	DARK BROWN SILTY CLAY with trace medium to fine-grained sand (moist) (stiff)
5					CL	REDDISH BROWN SILTY CLAY (moist) (very stiff)
	0	U	67		ML	YELLOWISH RED SANDY SILTY with fine to coarse-grained sand and trace pea gravel (moist) (very stiff)
10					SM	YELLOWISH RED SILTY SAND with gravel (moist) (dense)
	0	U	80		ML	BROWNISH YELLOW CLAYEY SILT (moist) (very stiff)
15						
	0	U	—			Grades with 1-2 inch gravel lens.
20						
	0	U	—			
25						
30						
35						



NOTES:

1. Boring completed at a depth of 28.0 feet on 4/1/91.
2. 4-inch PVC observation well installed to a depth of 30.0 feet; screened interval from 23.0 to 28.5 feet.
3. Sampling resistance is measured in blows per foot required to drive the sampler 12 inches with a 140 lb. hammer falling 30 inches after sampler has been seated 6 inches.
4. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
5. For an explanation of terms used see the Soil Classification Chart and Key to Test Data.

LOG OF BORING

Dames & Moore

443-090-043

MAP REFERENCE NO. 10

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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WELL COMPLETION REPORT
(WELL LOGS)

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REMOVED