

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 114 - 1 Eastmont Mall, Oakland, CA
(1-500 gallon waste oil tank removed in October 23, 1995)**

April 16, 1998

Mr. Jack Sumski
1 Eastmont Mall
Oakland, CA 94605

Dear Mr. Sumski:

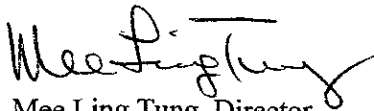
This letter confirms the completion of site investigation and remedial action for the underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Section 2721(e) of the California Code of Regulations.

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

Sincerely,


Mee Ling Tung, Director

cc: Richard Pantages, Chief of Division of Environmental Protection
Chuck Headlee, RWQCB
Dave Deaner, SWRCB
Leroy Griffin, OFD
files-ec (eastmont-4)

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StID 114

April 16, 1998

Mr. Jack Sumski
1 Eastmont Mall
Oakland, CA 94605

Re: Fuel Leak Site Case Closure for Eastmont Mall at 1 Eastmont Mall, Oakland, CA 94605

Dear Mr. Sumski:

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

SITE INVESTIGATION AND CLEANUP SUMMARY

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

- o up to 160 ppm TPH as diesel, 610 ppm TPH as motor oil, and 1,500 ppm Total Oil and Grease remain in soil beneath the site; and,
- o a site safety plan should be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of the former waste oil tank.

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enclosure:

1. Case Closure Letter
2. Case Closure Summary

c: Frank Kliewer
City of Oakland-Planning
1330 Broadway, 2nd Floor
Oakland, CA 94612

files (eastmont-5)

ENVIRONMENTAL
PROTECTION
97 AUG 21 PM 2:52

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: July 8, 1997
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: Eastmont Mall
Site facility address: 1 Eastmont Mall, Oakland, CA 94605
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 114
URF filing date: SWEEPS No: N/A

Responsible Parties: Addresses: Phone Numbers:
David Norwitt 1 Eastmont Mall, Oakland, CA 94605

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	500	Waste Oil	Removed	10/23/95

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Unknown
Site characterization complete? YES
Date approved by oversight agency: 7/3/97
Monitoring Wells installed? Yes Number: 25
Proper screened interval? Yes, 35' to 50'bgs in MW-9
Highest GW depth below ground surface: 26.01' Lowest depth: 33.97' in MW-9
Flow direction: WNW
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:

<u>Material</u>	<u>Amount</u> <u>(include units)</u>	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Tank	1 UST	Disposed by H & H, San Francisco	10/23/95
Soil	31.75 cy	Incinerated at Remco, Richmond	12/19/95

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before ¹	After ¹	Before ²	After ³
TPH (Gas)	ND	ND	78	ND
TPH (Diesel)	160	160	200	ND
TPH (Motor Oil)	610	610	4,300	4,300
Benzene	ND	ND	13	ND
Toluene	ND	ND	ND	ND
Ethylbenzene	ND	ND	1.5	ND
Xylenes	ND	ND	ND	ND
Oil & Grease	1,500	1,500	ND	NA
Other	HVOC	ND	237 ⁴	ND
	Benzo (a) pyrene			ND
	Naphthalene			ND

- NOTE: 1 soil samples collected from waste oil pit during UST removal (10/95) and after limited overexcavation (12/95)
 2 results from grab water from soil borings or initial two quarters of groundwater sampling
 3 results from final quarters of groundwater sampling
 4 8ppb 1,2 DCE, 19ppb TCE, and 210ppb PCE

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? _____
 Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? _____
 Does corrective action protect public health for current land use? **YES**
 Site management requirements: **A site safety plan must be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.**
 Should corrective action be reviewed if land use changes? **YES**
 Monitoring wells Decommissioned: **No, pending site closure**
 Number Decommissioned: **0** Number Retained: **3/5**
 List enforcement actions taken: **None**
 List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist


Signature:  Date: 8/11/97

Reviewed by


Name: Madhulla Logan Title: Haz Mat Specialist

Signature:  Date: 8/4/97

Name: Thomas Peacock Title: Supervisor

Signature:  Date: 8-7-97

VI. RWQCB NOTIFICATION

Date Submitted to RB: 8/12/97 RB Response: 

RWQCB Staff Name: Kevin Graves Title: AWRCE

Signature:  Date: 8-18-97

VII. ADDITIONAL COMMENTS, DATA, ETC.

In 1916 the site was occupied by an automobile assembly plant (Chevrolet Fisher Body Plant) where auto body parts were sanded, painted, and assembled. At this time five USTs were in use (12-K gasoline, 12K motor oil, 13-K fuel oil, 10K kerosene, and a 13K oil tank). The plant was demolished in 1965. Construction of the Eastmont Mall began in 1969. The mall consists of several commercial retailers, including clothing stores, car repair shops, a dry cleaner, fast food restaurants, and a supermarket. A gasoline station (BP Oil) is located at the south corner of the site. (See Figs 1 and 2)

Subsurface contamination has been identified at four areas of the site: 1) JC Penny area (also known as Firestone on site plan), 2) BP service Station, 3) Sparkle Cleaner, and 4) Eastmont Auto Center (in vicinity of Thrifty). Contamination at JC Penny and at BP service station is under a separate investigation, therefore, this closure summary only covers contamination in the vicinity of Sparkle Cleaner and Eastmont Auto Center.

In December 1989 Hunter Environmental Services, Inc. advanced four soil borings, of which three were completed as groundwater monitoring wells (MW-2 through MW-4). The monitoring wells are located at the JC Penny site (well MW-4), the BP service station (well MW-3), and by Sparkle Cleaners (well MW-2). Well MW-2 was drilled to 35' bgs. Groundwater was encountered at ~29' bgs. Soil samples from 10' and 20' bgs were analyzed for TPH and BTEX. None was identified. The groundwater was analyzed for TPH and VOCs.

Up to 8ppb 1-2 DCE, 19ppb TCE, 210ppb PCE and 200ppb TPH were identified. BTEX was not found above the detection limits. (See Fig 2, Tables 1 through 4)

In September 1993 five soil borings (B-5 through B-9) were drilled around the mall buildings and converted into monitoring wells MW-5 through MW-9, respectively. Well MW-6 is downgradient of the dry cleaners, and well MW-9 is near the location of the waste oil UST at Eastmont Auto Center. Soil samples were only collected from the capillary fringe (at 30' to 40'bgs). Soil and groundwater samples were analyzed for TPHd, TPHg, BTEX, and HVOCs. Contaminants were not detected above the detection limit. (See Fig 3, Tables 5 and 6, and Well Logs)

Wells MW-5 through MW-9 were sampled for seven quarters (Sep 1993 to September 1996) without detecting hydrocarbon contamination (except for low TPHg and benzene concentrations in December 1993, and 1.4ppb TCE in October 1995). Groundwater flows to the west-northwest. It appears the UST operated by the former auto assemble plant and dry cleaner did not adversely impact groundwater quality beneath the site. (See Tables 7 and 8)

In October 1995 two soil borings (AW-1 and AW-2) were drilled in the vicinity of Sparkle Cleaner, to verify that soil was not impacted by solvent use at the facility. Six selected soil samples (from 6' and 10.5'bgs and from the capillary fringe) were analyzed for HVOCs. None was detected. (See Fig 4, Table 9)

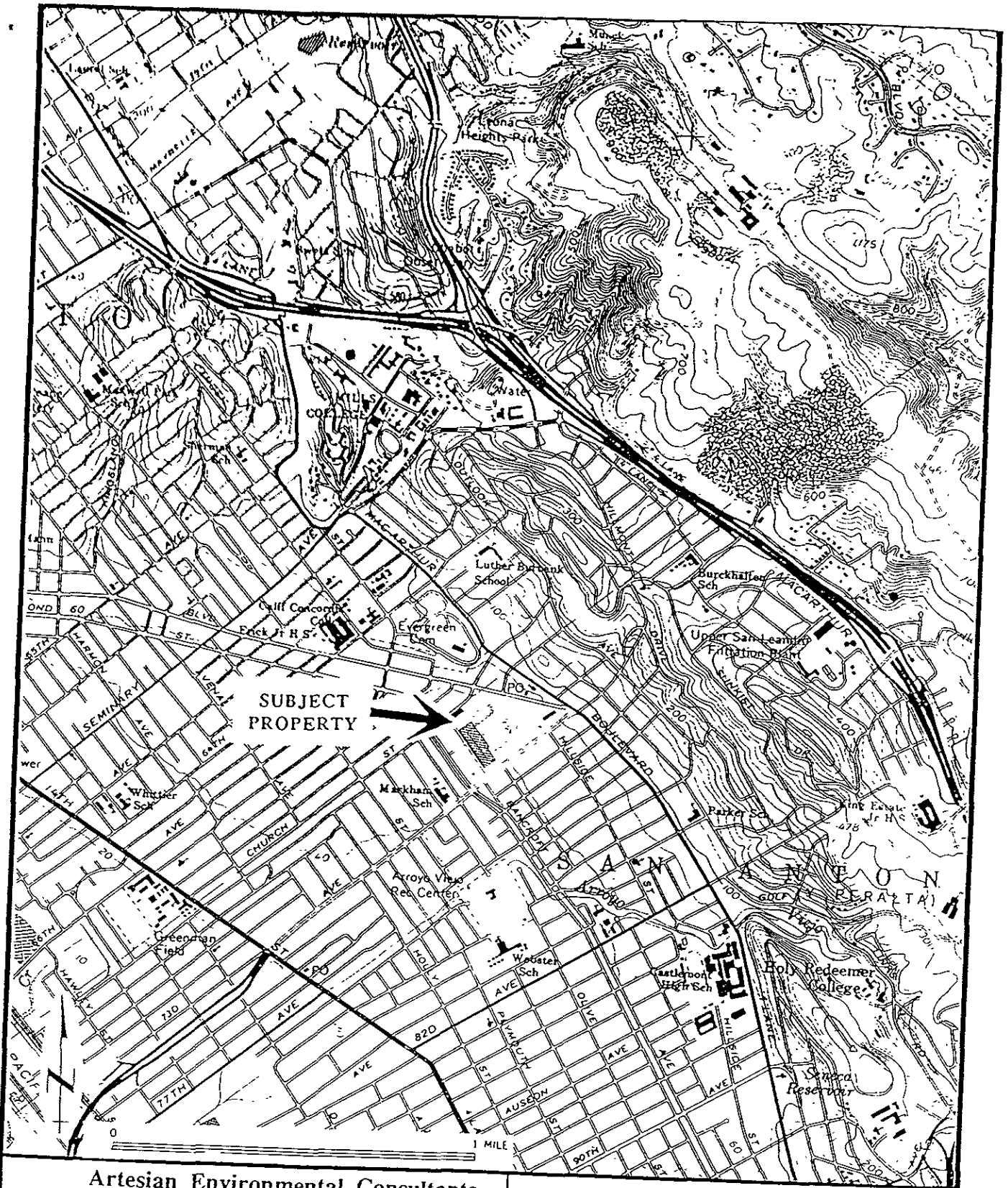
Also in October 1995 the 500 gallon waste oil UST was removed from the Eastmont Auto Center. A soil sample S1 was collected from the center of the pit bottom at 8'bgs. Elevated TPHd and TOG were identified. HVOCs and SVOCs were below detection limits. One to two feet of soil were removed from three of the four sidewalls. And the bottom of the pit was overexcavated to 10'bgs. A confirmatory soil sample (S2) was collected from the pit bottom. Up to 1,300ppm non-polar O&G and 610ppm TPH-mo were identified. (See Figs 5 and 6, Table 10)

In April 1996 three soil borings (B1, B2 and B3) were advanced just outside of the former waste oil UST to 40'bgs. Soil samples were collected at 15' and 25' to 35'bgs. Soil and grab water samples were analyzed for TPH-mo and TOG. No hydrocarbons were detected in the soil samples. Only water from boring B1 contained TPH-mo (at 4,300ppb). The laboratory reported that the contaminant appeared to be a lubricating oil, lighter than motor oil. (See Fig 7, Table 11, and Boring Logs)

The low levels of TPH in groundwater identified from boring B1 appears limited in extent because well MW-9, located ~200' downgradient of the former waste oil UST, has not identified any TPHg, TPHd, BTEX, benzo(a)pyrene or naphthalene in groundwater. Continued groundwater sampling is not warranted.

In summary, case closure is recommended because:

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



Artesian Environmental Consultants
 3100 Kerner Blvd., Suite C
 San Rafael, California 94901
 415-257-4801
 Fax 257-4805

REGIONAL MAP

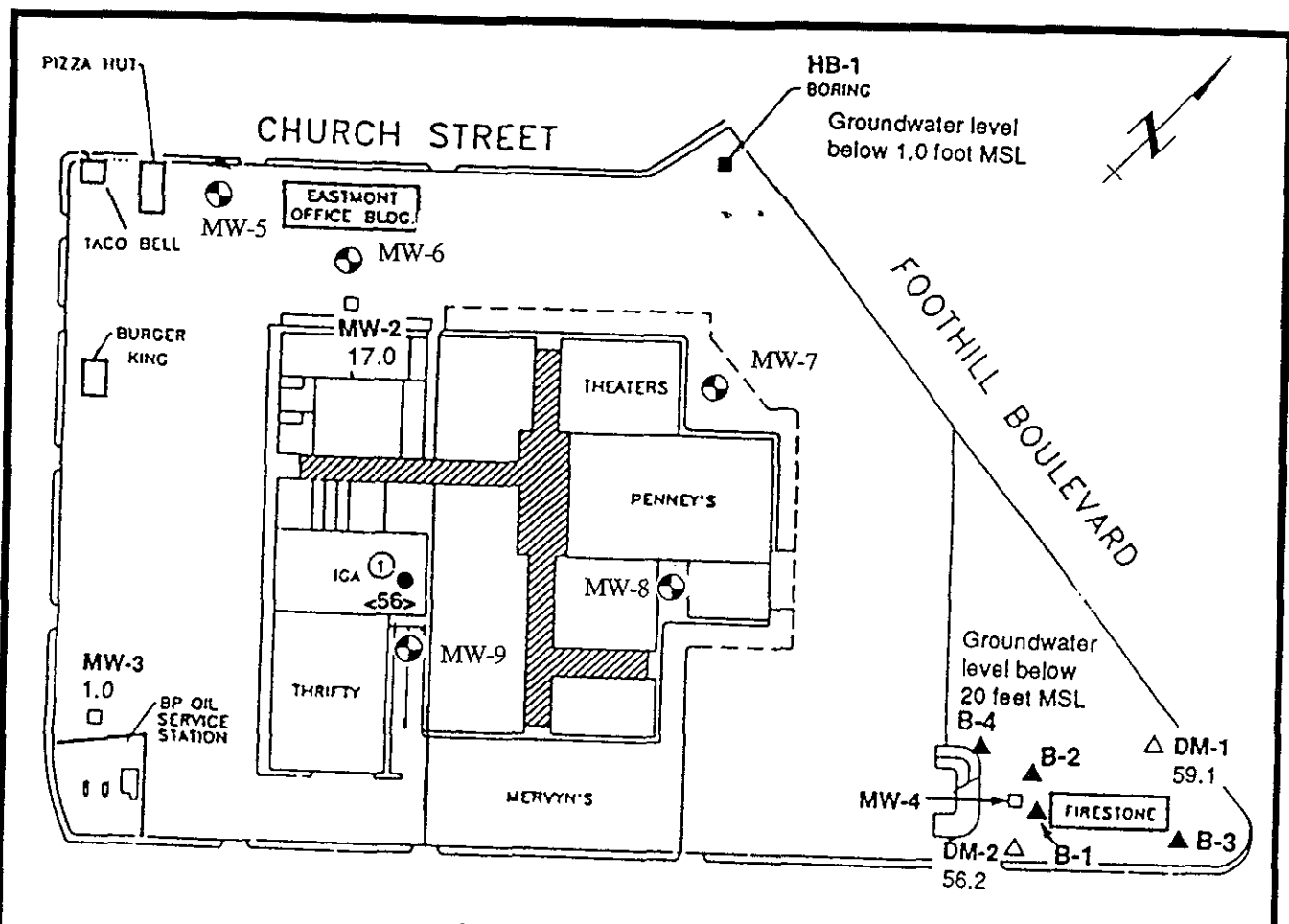
One Eastmont Mall
 Oakland, California 94605

Project No: 93-001-01

Date: 8/27/93

Drawn by: BIM

Figure 1



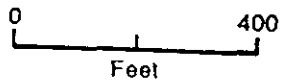
NOTE:

73rd AVENUE

① Groundwater measured in industrial well at 96 feet below ground surface (bgs) or 56 feet below mean sea level. Perforated in lower aquifer from 90 to 393 feet bgs.



Installed Monitor Wells
Artesian Environmental



KEY

- Abandoned Industrial Well (1951)
- △ Dames & Moore Monitoring Well (4/91)
- ▲ Dames & Moore Soil Boring (4/91)
- Hunter Environ. Monitoring Well (12/89)
- Hunter Environ. Soil Boring (12/89)
- 17.0 Groundwater elevation in feet above mean sea level (MSL)

After Dames & Moore, 1991

<p>Artesian Environmental Consultants 3175 Kerner Blvd., Suite E San Rafael, California 94901 415-257-4801 Fax 257-4805</p>		<p>SITE MAP One Eastmont Mall Oakland, California 94605</p>	
<p>Project No: 93-001-01</p>	<p>Date: 8/27/93</p>	<p>Drawn by: BIM</p>	<p>Figure 2</p>

TABLE 1. RESULTS OF TPH, BTEX, AND STODDARD ANALYSES
ON SOIL SAMPLES TAKEN DECEMBER 5 AND 6, 1989
AT EASTMONT MALL, OAKLAND, CALIFORNIA

SAMPLE ID	DATE SAMPLED	TPH (ppm)	B T E X (ppb)				STODDARD (ppm)
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	
MW-1@10'	12/5/89	ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-1@30'		ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-2@10'		ND<1	ND<3	ND<3	ND<3	ND<3	ND<10
MW-2@20'		ND<1	ND<3	ND<3	ND<3	ND<3	ND<10
MW-3@10'	12/6/89	ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-3@20'		ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-4@10'		ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-4@15'		2000	1400	4300	23,000	150,000	-

NOTES: ppm - Parts per million or milligrams per kilogram
ppb - Parts per billion or micrograms per kilogram
ND<1 - Not detected at indicated detection limit

Hunter Environmental Services, Inc.
597 Center Avenue, Suite 350
Martinez, CA 94553

TABLE 2. RESULTS OF OIL AND GREASE (O&G) ANALYSES
ON SOIL SAMPLES TAKEN DECEMBER 6, 1989
AT EASTMONT MALL, OAKLAND, CALIFORNIA

SAMPLE ID	DATE SAMPLED	OIL & GREASE (ppm)
MW-3@10'	12/6/89	ND<20
MW-3@20'		ND<20
MW-4@10'		ND<20
MW-4@15'		ND<20

Notes: ppm - Parts per million or milligrams per kilogram (mg/kg)
ND<20 - Not detected at indicated detection limit

Hunter Environmental Services, Inc.
597 Center Avenue, Suite 350
Martinez, CA 94553

TABLE 3. RESULTS OF TPH, BTEX, AND STODDARD ANALYSES
ON WATER SAMPLES TAKEN DECEMBER 11, 1989
AT EASTMONT MALL, OAKLAND, CALIFORNIA

SAMPLE ID	DATE SAMPLED	TPH (ppm)	B T E X (ppb)				STODDARD (ppm)
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	
MW-2	12/11/89	0.2	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<1.
MW-3		2.7	530	16	150	59	-
MW-4		2.2	28	21	50	290	-

Notes: ND<0.3 - Not detected at indicated detection limit
ppm - Parts per million or milligrams per kilogram
ppb - Parts per billion or micrograms per kilogram

Hunter Environmental Services, Inc.
597 Center Avenue, Suite 350
Martinez, CA 94553

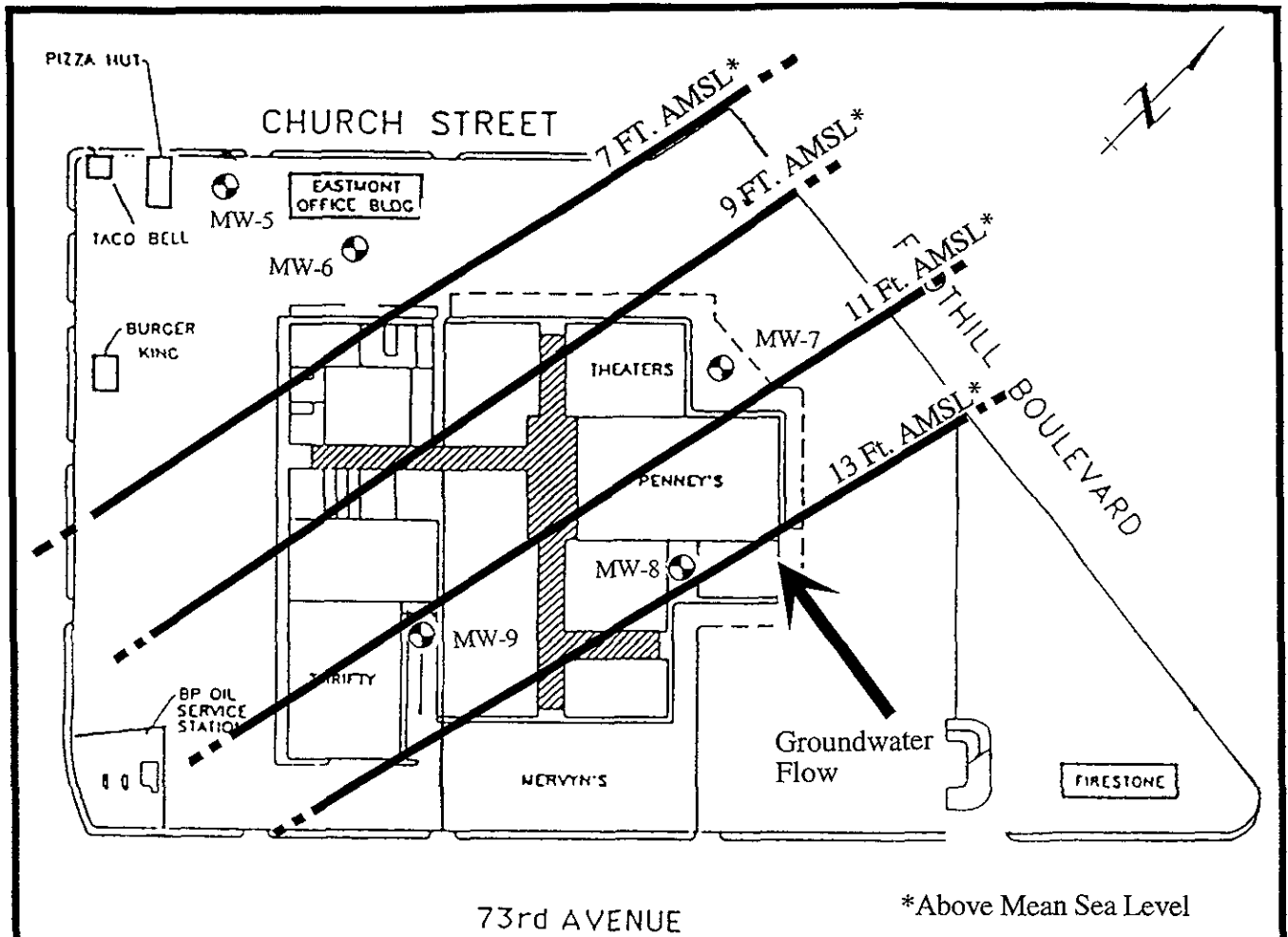
TABLE 4. RESULTS OF TOTAL VOLATILE ORGANIC ANALYSES FOR WATER
 SAMPLE FROM MW-2 COLLECTED DECEMBER 11, 1989

SAMPLE: MW-2


Compound	ug/l	Compound	ug/l
Chloromethane	ND<10	Cis-1,3-Dichloropropene	ND<3
Bromoethane	ND<10	Trichloroethene	19
Vinyl Chloride	ND<10	Dibromochloromethane	ND<3
Chloroethane	ND<10	1,1,2-Trichloroethane	ND<3
Methylene Chloride	ND<10	Benzene	ND<2
Acetone	ND<10	Trans-1,3-Dichloropropene	ND<3
Carbon disulfide	ND<3	2-Chloroethyl vinyl ether	ND<3
Trichlorofluoromethane	ND<3	Bromoform	ND<3
1,1-Dichloroethene	ND<3	4-Methyl-2-Pentanone	ND<10
1,1-Dichloroethane	ND<3	2-Hexanone	ND<10
1,2-Dichloroethene (total)	8	Tetrachloroethene	210
Chloroform	ND<3	1,1,2,2-Tetrachloroethane	ND<3
1,2-Dichloroethane	ND<3	Toluene	ND<3
2-Butanone	ND<20	Chlorobenzene	ND<3
1,1,1-Trichloroethane	ND<3	Ethylbenzene	ND<3
Carbon Tetrachloride	ND<3	Styrene	ND<3
Vinyl Acetate	ND<10	Total Xylenes	ND<3
Bromodichloromethane	ND<3	1,3-Dichlorobenzene	ND<3
1,2-Dichloropropane	ND<3	1,2&1,4-Dichlorobenzenes	ND<3

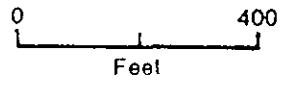
Notes: ug/l - Micrograms per liter or parts per billion (ppb)
 ND<10 - Non-detectable at indicated detection limit

Hunter Environmental Services, Inc
 597 Center Avenue, Suite 350
 Martinez, CA 94553



*Above Mean Sea Level

 Installed Monitor Wells
 Artesian Environmental



Groundwater Elevation
Above Mean Sea Level

MW-5	6.82 Feet
MW-6	6.50 Feet
MW-7	10.95 Feet
MW-8	12.80 Feet
MW-9	11.18 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

Table 1.5 Summary of Soil Analytical Results

Boring Number	Sample Depth	TPH-d ppb	TPH-g ppm	Benzene ppb	Toluene ppb	Ethyl Benzene ppb	Total Xylenes ppb
B-5-35'	35'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-6-35'	35'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-7-30'	30'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-8-30'	30'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
B-9-40'	40'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Compound Name	B-5-35' ppb	B-6-35' ppb	B-7-30' ppb	B-8-30' ppb	B-9-40' ppb
Chloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.
Bromochloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Trichlorofluoromethane	N.D.	N.D.	N.D.	N.D.	N.D.
1, 1-Dichloroethene	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloroethene (Trans)	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloroethene (Cis)	N.D.	N.D.	N.D.	N.D.	N.D.
1, 1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1- Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon Tetrachloride	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethene	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
2-chloroethylvinylether	N.D.	N.D.	N.D.	N.D.	N.D.
Trans-1, 3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.
Cis-1, 3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromochloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
Bromoform	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-tetrachloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
Freon 113	N.D.	N.D.	N.D.	N.D.	N.D.

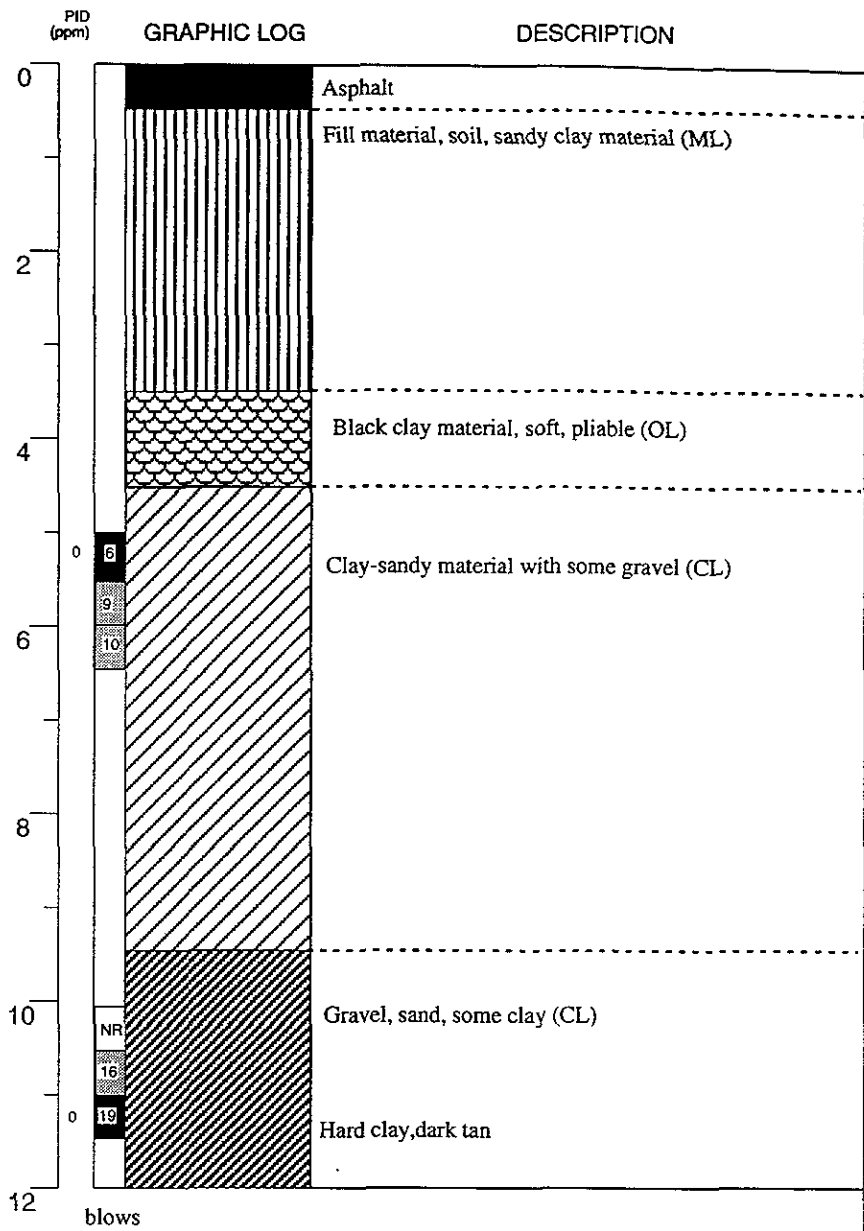
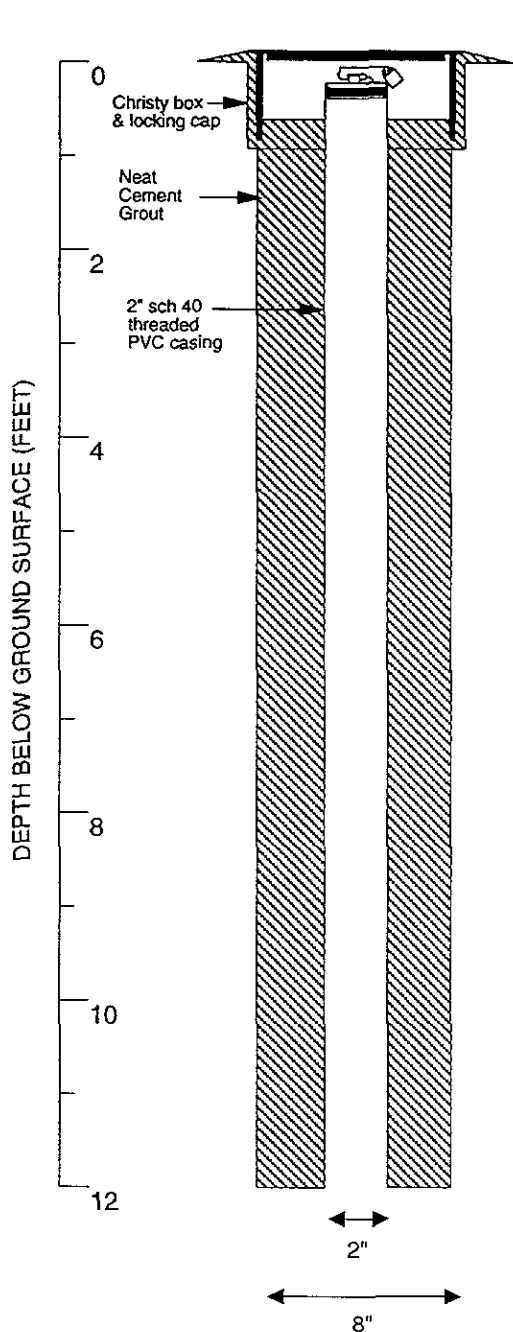
TPH-d= total petroleum hydrocarbons as diesel	N.D.= non-detect
TPH-g= total petroleum hydrocarbons as gasoline	ppb= parts per billion
B-T-E-X= benzene, toluene, ethyl benzene, and total xylenes	ppm=parts per million
	All soil sampling done on 9/13-14/93.

Table 2 Summary of Water Analytical Results

Monitor Well	TPH-d ppm	TPH-g ppm	Benzene ppb	Toluene ppb	Ethyl Benzene ppb	Total Xylenes ppb
MW-5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Compound Name	MW-5 ppb	MW-6 ppb	MW-7 ppb	MW-8 ppb	MW-9 ppb
Chloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.
Bromochloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Trichlorofluoromethane	N.D.	N.D.	N.D.	N.D.	N.D.
1, 1-Dichloroethene	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloroethene (Trans)	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloroethene (Cis)	N.D.	N.D.	N.D.	N.D.	N.D.
1, 1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1- Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon Tetrachloride	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethene	N.D.	N.D.	N.D.	N.D.	N.D.
1, 2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
2-chloroethylvinylether	N.D.	N.D.	N.D.	N.D.	N.D.
Trans-1, 3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.
Cis-1, 3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromochloromethane	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
Bromoform	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-tetrachloroethane	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.
Freon 113	N.D.	N.D.	N.D.	N.D.	N.D.

TPH-d= total petroleum hydrocarbons as diesel	ppb= parts per billion
TPH-g= total petroleum hydrocarbons as gasoline	ppm=parts per million
B-T-E-X= benzene, toluene, ethyl benzene, and total xylenes	All water sampling done on 9/28/93.



Continues

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

Boring Log and Well Completion Details
MW-6

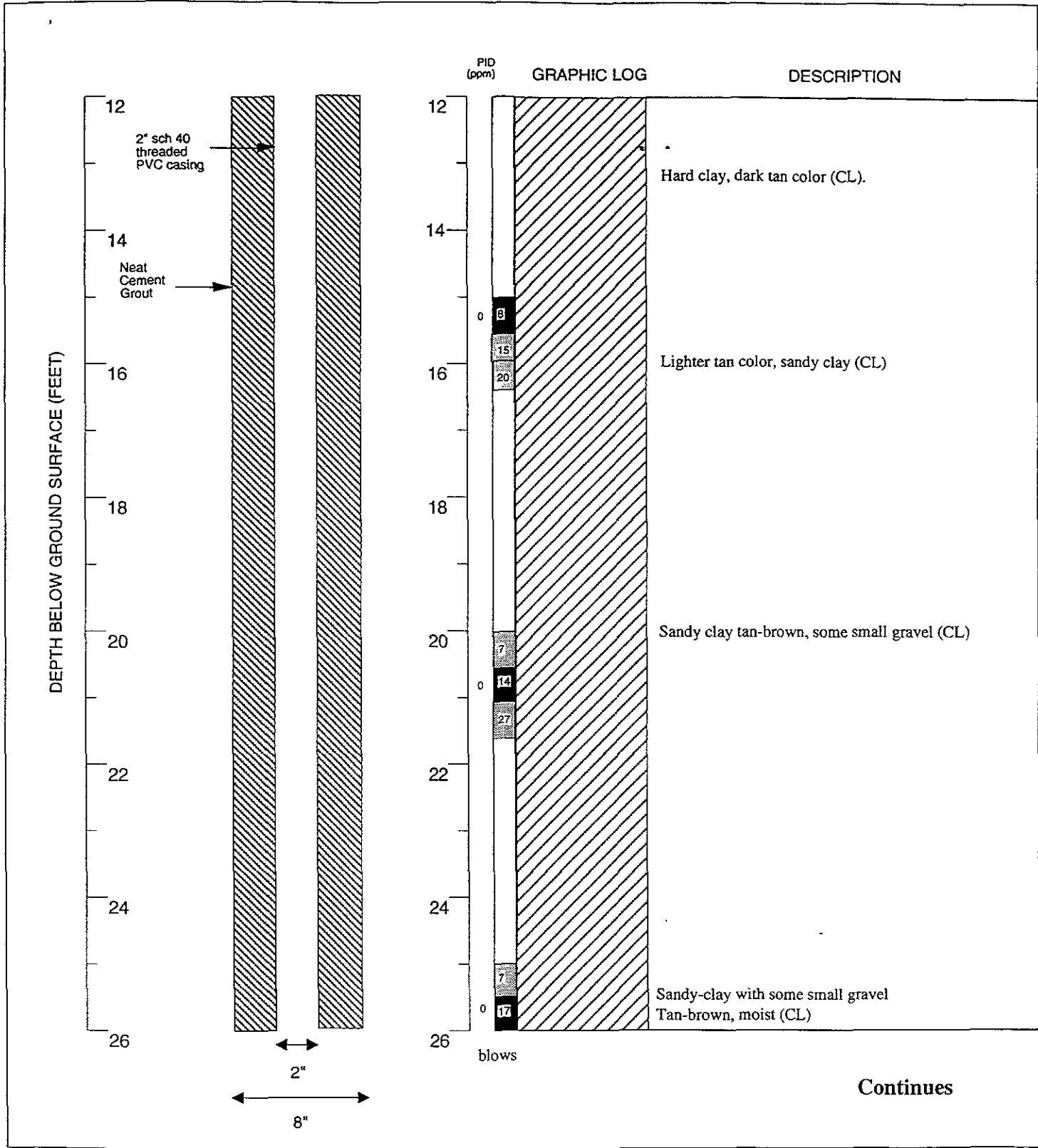
One Eastmont Mall
Oakland, California

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

MONITOR WELL

6

110-01-01



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

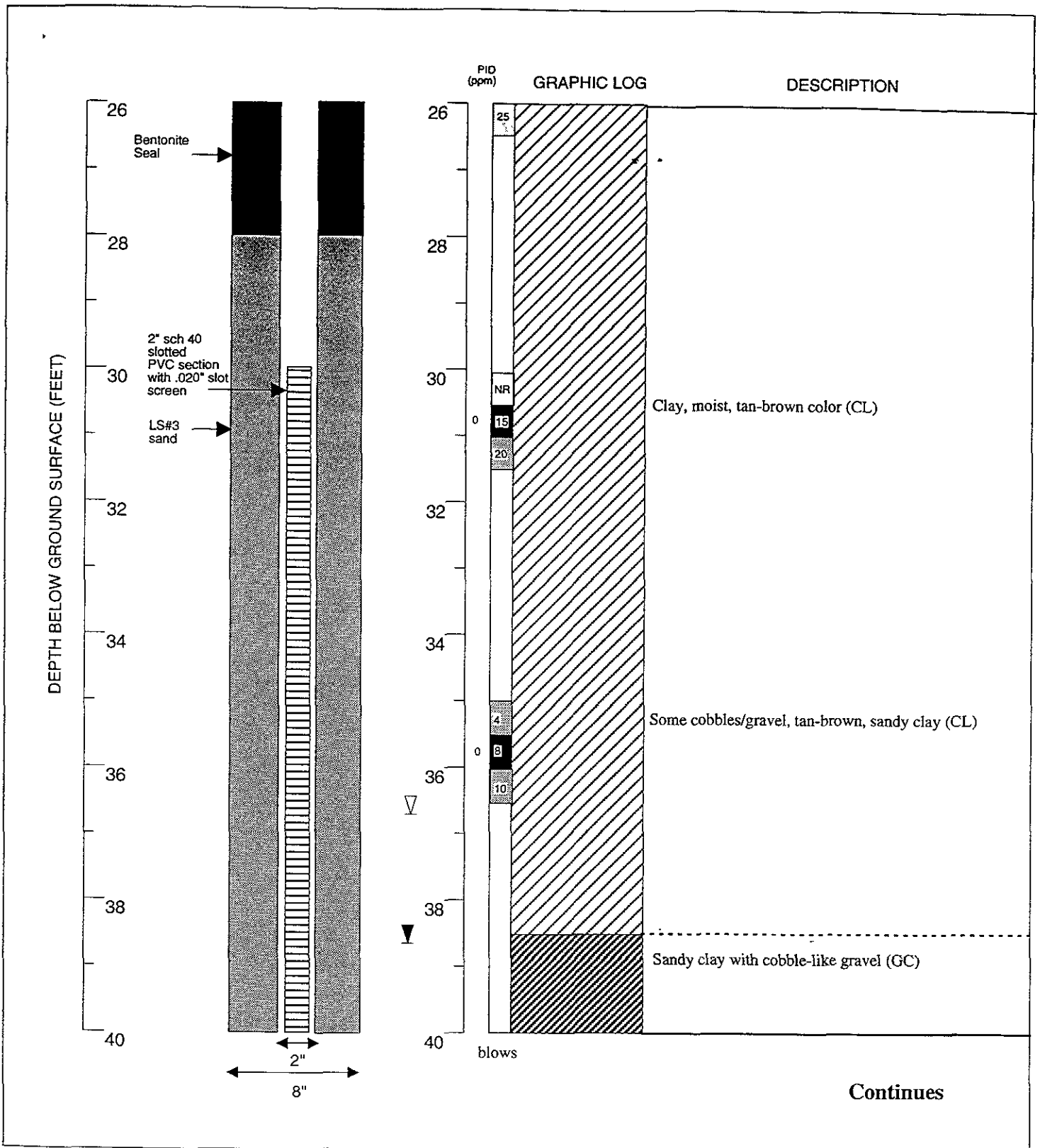
One Eastmont Mall
Oakland, California

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

MONITOR WELL

6

110-01-01



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

Boring Log and Well Completion Details
MW-6

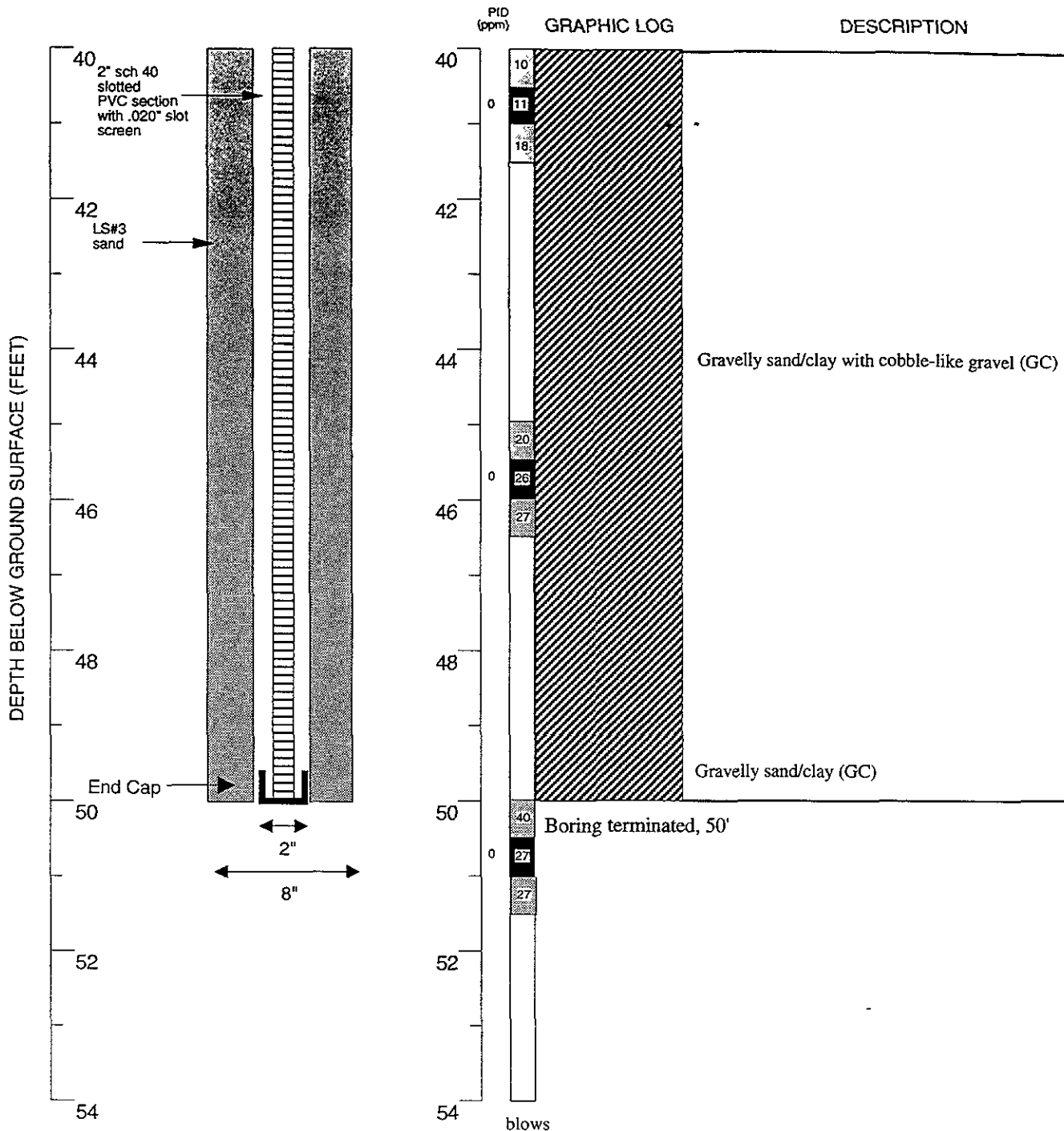
One Eastmont Mall
Oakland, California

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

MONITOR WELL

6

110-01-01



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-6

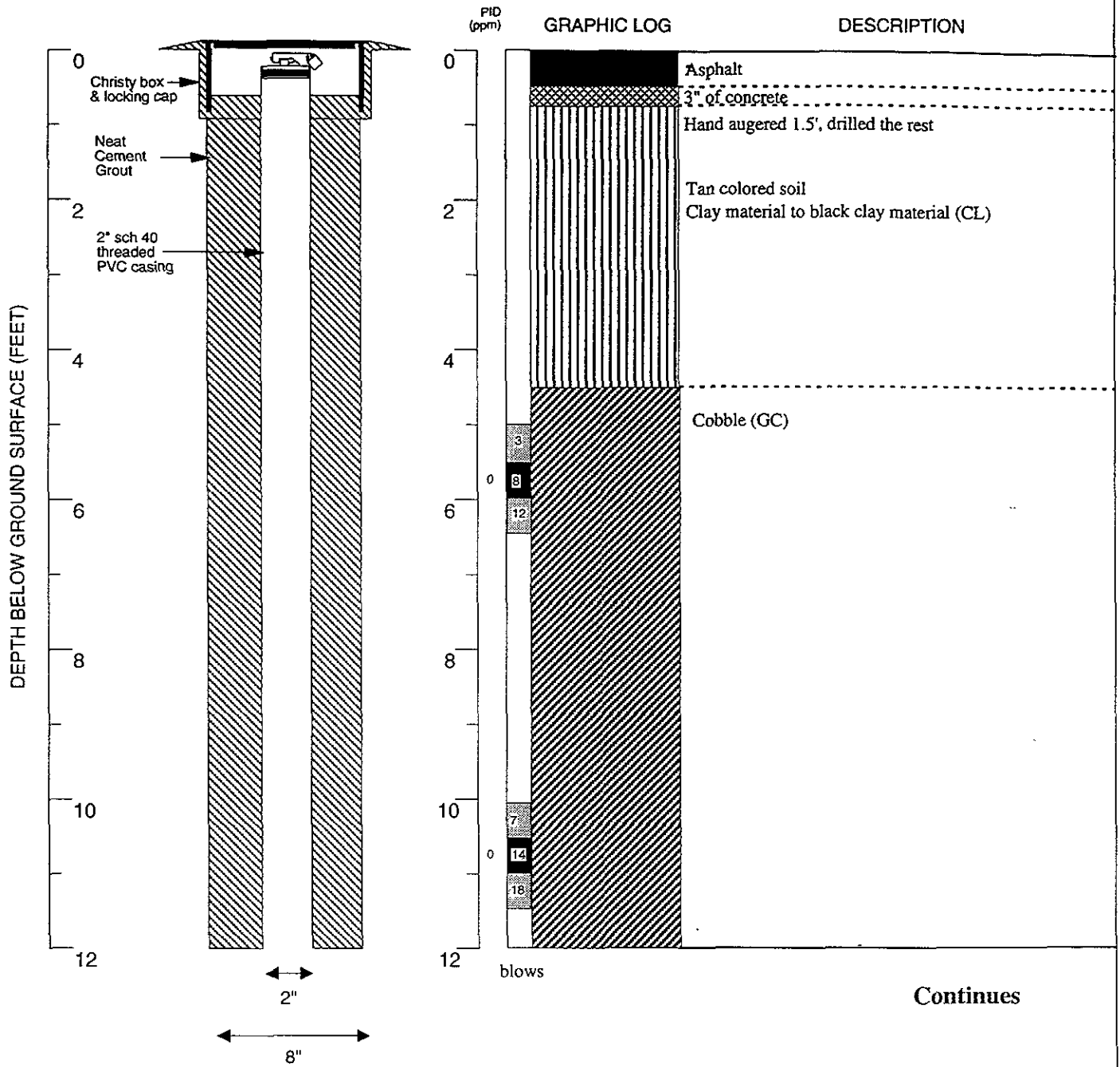
One Eastmont Mall
Oakland, California

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

MONITOR WELL

6

110-01-01



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

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

Boring Log and Well Completion Details
MW-9

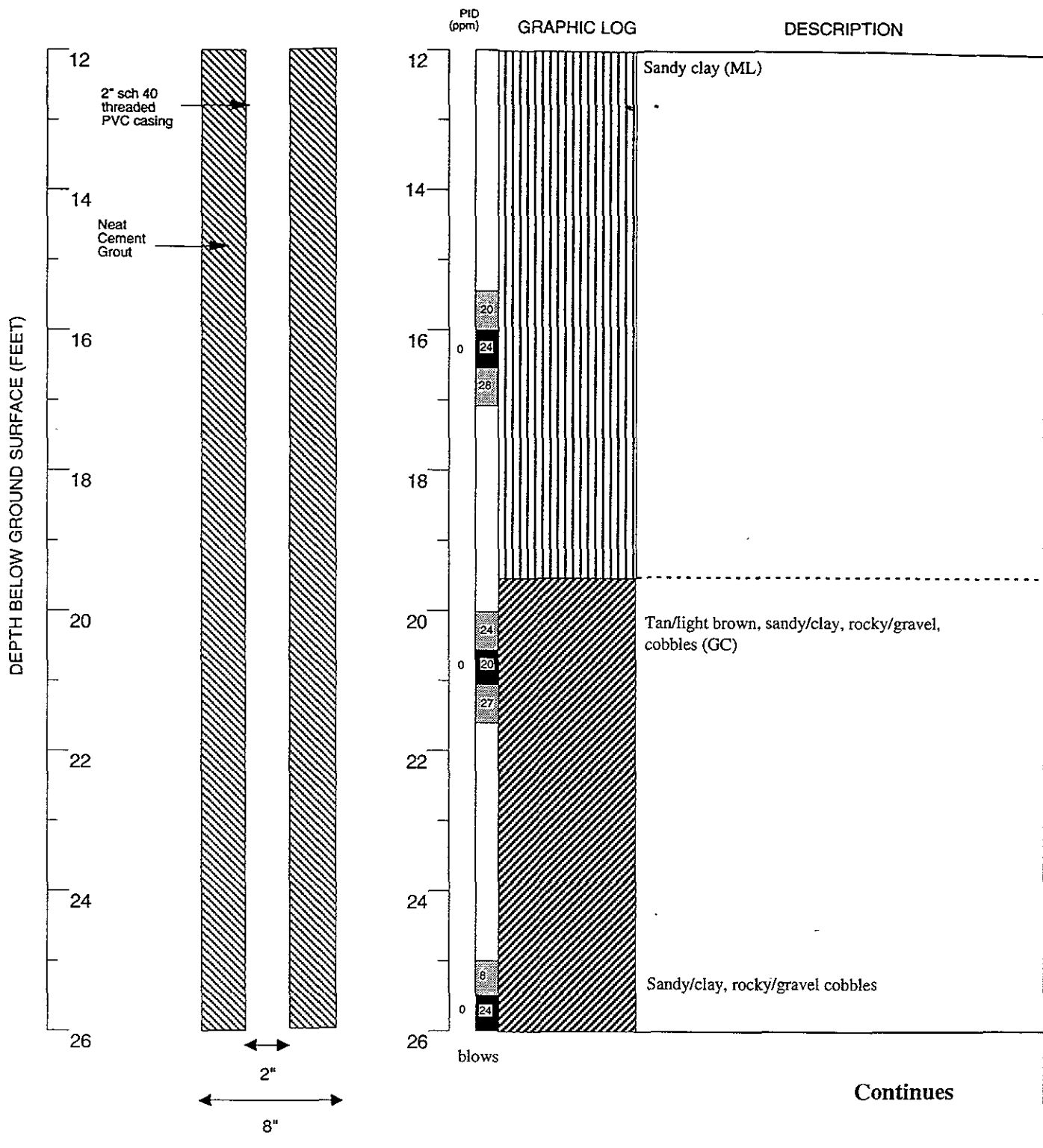
One Eastmont Mall
Oakland, California

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

MONITOR WELL

9

110-01-01



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
	est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
	NR No recovery

Boring Log and Well Completion Details
MW-9

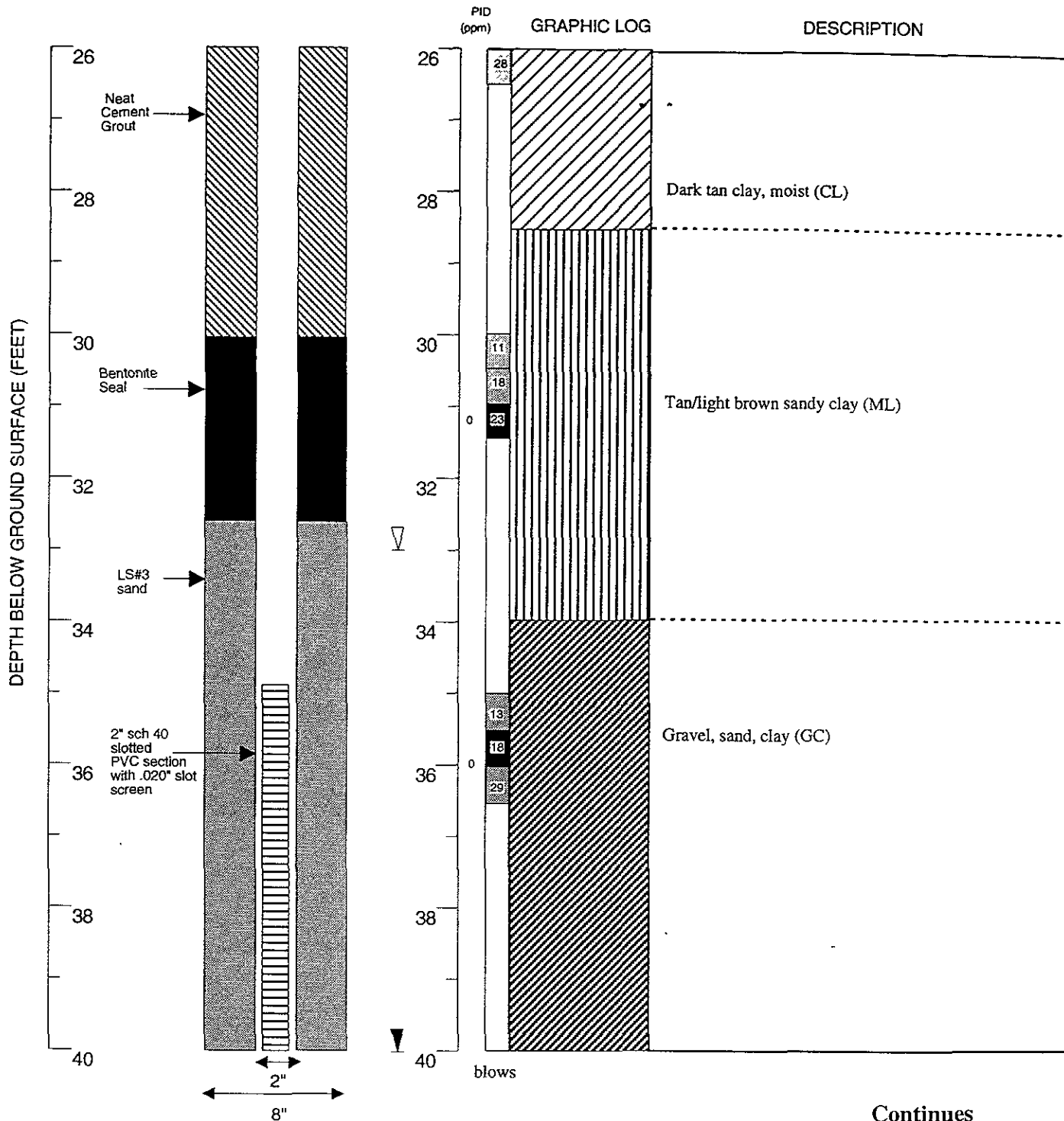
One Eastmont Mall
 Oakland, California

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

MONITOR WELL

9

110-01-01



Continues

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
	Hachured where gradational
	est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
	NR No recovery

Boring Log and Well Completion Details
 MW-9

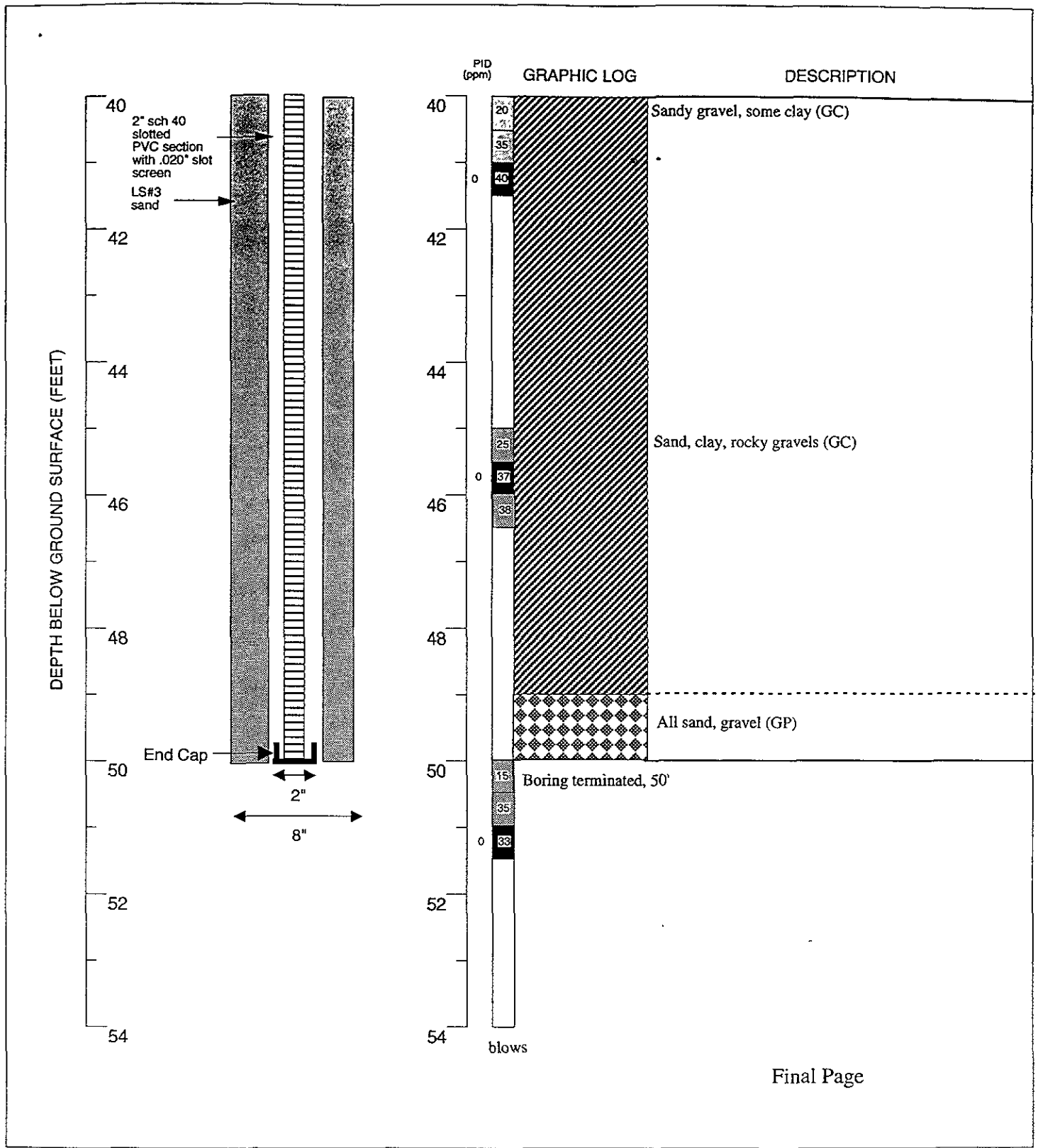
One Eastmont Mall
 Oakland, California

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

MONITOR WELL

9

110-01-01



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

Boring Log and Well Completion Details
MW-9

One Eastmont Mall
Oakland, California

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

MONITOR WELL

9

110-01-01

TABLE 7

CUMULATIVE GROUNDWATER ELEVATION MEASUREMENTS

*Eastmont Mall
Oakland, California*

October 1996

Well Number	Well Casing Elevation	Date of Measurement	Depth to Groundwater	Groundwater Elevation	Average Gradient and Direction
MW-5	+ 42.07'	9-28-93	35.25'	6.82'	West 0.007 ft/ft West 0.005 ft/ft West 0.004 ft/ft Northwest 0.004 ft/ft Northwest 0.002 ft/ft South
		12-29-93	36.10'	5.97'	
		10-19-95	30.10'	11.97'	
		3-6-96	29.40'	12.67'	
		6-4-96	26.55'	15.52'	
		9-30-96	30.10'	11.97'	
MW-6	+ 43.35'	9-28-93	36.85'	6.50'	West 0.007 ft/ft West 0.005 ft/ft West 0.004 ft/ft Northwest 0.004 ft/ft Northwest 0.002 ft/ft South
		12-29-93	37.15'	6.20'	
		10-19-95	31.26'	12.09'	
		3-6-96	30.17'	13.18'	
		6-4-96	28.00'	15.38'	
		9-30-96	27.12'	16.23'	
MW-7	+ 44.37'	9-28-93	33.42'	10.95'	West 0.007 ft/ft West 0.005 ft/ft West 0.004 ft/ft Northwest 0.004 ft/ft Northwest 0.002 ft/ft South
		12-29-93	34.25'	10.12'	
		10-19-95	28.78'	15.59'	
		3-6-96	28.97'	15.40'	
		6-4-96	26.84'	17.53'	
		9-30-96	27.96'	16.41'	
MW-8	+ 44.90'	9-28-93	32.10'	12.80'	West 0.007 ft/ft West 0.005 ft/ft West 0.004 ft/ft Northwest 0.004 ft/ft Northwest 0.002 ft/ft South
		12-29-93	32.75'	12.15'	
		10-19-95	28.95'	15.95'	
		3-6-96	28.80'	16.10'	
		6-4-96	26.92'	17.98'	
		9-30-96	28.95'	15.95'	
MW-9	+ 44.18'	9-28-93	33.00'	11.18'	West 0.007 ft/ft West 0.005 ft/ft West 0.004 ft/ft Northwest 0.004 ft/ft Northwest 0.002 ft/ft South
		12-29-93	33.97'	10.21'	
		10-19-95	29.18'	15.00'	
		3-6-96	28.09'	16.09'	
		6-4-96	26.01'	18.17'	
		9-30-96	29.02'	15.16'	

Note:

TABLE 28

CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

*Eastmont Mall
Oakland, California*

October 1996

Well Number	Sampling Date	¹ TPH-g	² Benzene	² Toluene	² Ethyl-Benzene	² Xylene	³ Naphthalene Benzo(a)Pyrene	⁴ Volatile Organic Compounds
MW-5	12-29-93	ND	ND	ND	ND	ND	ns	ND
	10-19-95	ND	ND	ND	ND	ND	ND	ND
	3-6-96	ND	ND	ND	ND	ND	ns	ns
	6-4-96	ND	ND	ND	ND	ND	ns	ns
	9-30-96	ND	ND	ND	ND	ND	ns	ns
MW-6	12-29-93	73	13	ND	1.5	ND	ns	ND
	10-19-95	ND	ND	ND	ND	ND	ND	TCE - 1.4
	3-6-96	ND	ND	ND	ND	ND	ns	ND
	6-4-96	ND	ND	ND	ND	ND	ns	ND
	9-30-96	ND	ND	ND	ND	ND	ns	ND
MW-7	12-29-93	78	15	ND	1.7	ND	ns	ND
	10-19-95	ND	ND	ND	ND	ND	ND	ND
	3-6-96	ND	ND	ND	ND	ND	ns	ns
	6-4-96	ND	ND	ND	ND	ND	ns	ns
	9-30-96	ND	ND	ND	ND	ND	ns	ns
MW-8	12-29-93	ND	ND	ND	ND	ND	ns	ND
	10-19-95	ND	ND	ND	ND	ND	ND	ND
	3-6-96	ND	ND	ND	ND	ND	ns	ns
	6-4-96	ND	ND	ND	ND	ND	ns	ns
	9-30-96	ND	ND	ND	ND	ND	ns	ns
MW-9	12-29-93	ND	ND	ND	ND	ND	ns	ND
	10-19-95	ND	ND	ND	ND	ND	ND	ND
	3-6-96	ND	ND	ND	ND	ND	ns	ns
	6-4-96	ND	ND	ND	ND	ND	ns	ns
	9-30-96	ND	ND	ND	ND	ND	ns	ns

Notes: All concentration values were reported in $\mu\text{g}/\text{kg}$ equivalent to parts per billion (ppb).

ND is equivalent to "None Detected" at or above the laboratory limit of detection.

ns is equivalent to Not Sampled or the sample was not analyzed.

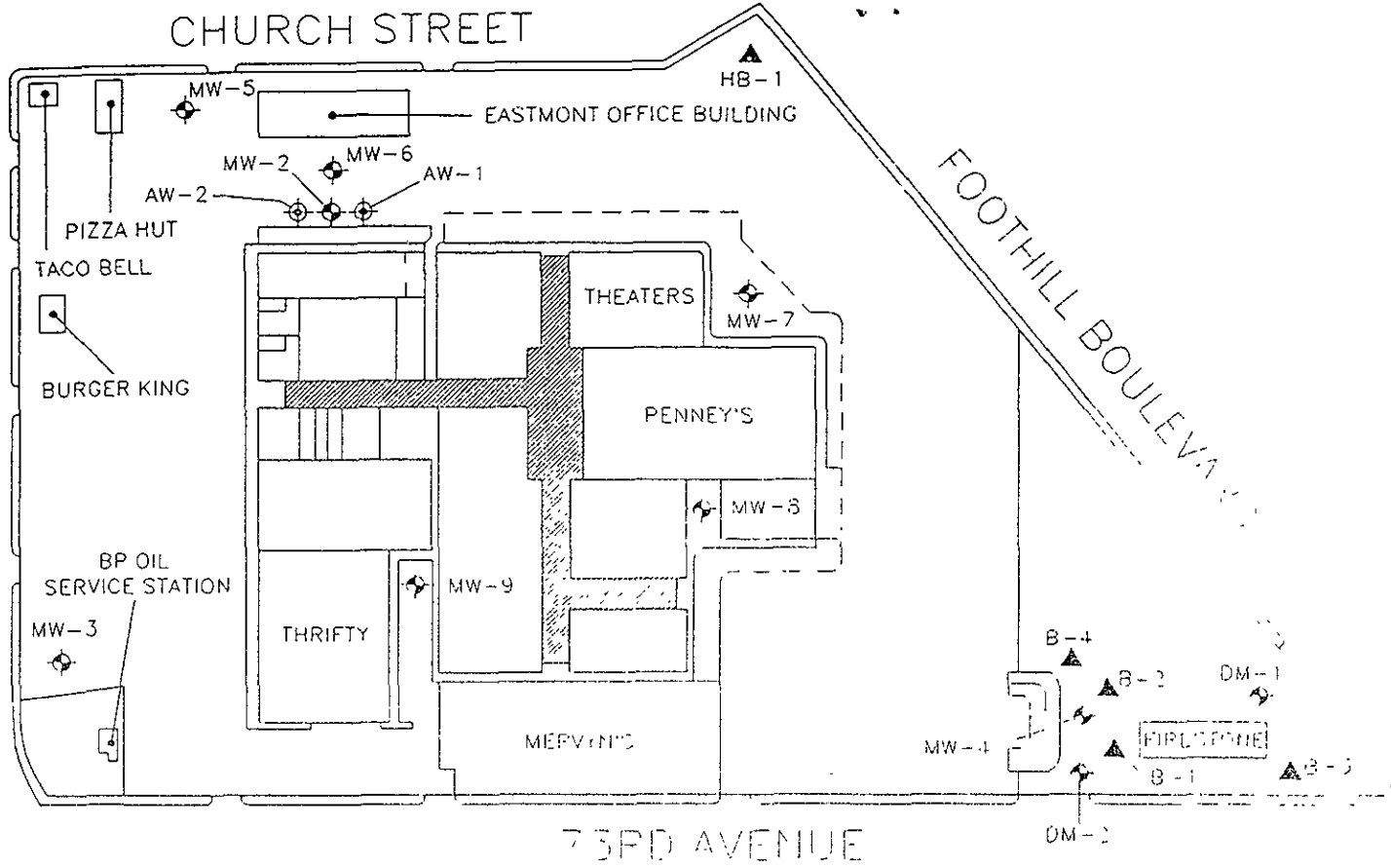
The Laboratory Limit of Detection for TPH-g is 50 ppb, for BTEX is 0.5 ppb.

¹TPH-g, TPH-d, TPH-mo are equivalent to Total Petroleum Hydrocarbons as gasoline, diesel and motor oil, respectively and analyzed by EPA method 8015(m).

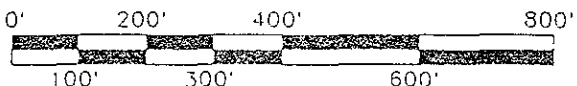
²Benzene, toluene, ethylbenzene, and xylene (BTEX) are volatile organic compounds found in fuels and analyzed by EPA method 8020.

³Benzo(a)pyrene and Naphthalene compounds are analyzed by EPA method 8010. ?

⁴Volatile organic compounds are analyzed by EPA method 8010.



	HB-1	soil borings (previously installed by others)
	MW-3	monitoring wells (previously installed by others)
	AW-1	soil borings (installed by AllWest)



November
1995

Generalized
Site Map &
Boring Locations

Project
95278.23

Figure
04

One Eastmont Mall,
Oakland, California

Source
AllWest

Table 9
California Laboratory Services

Analysis Report: Halogenated Volatile Organics, EPA Method 8010
 Purge and Trap, EPA Method 5030

Client: AllWest Environmental
 One Sutter Street Ste 600
 San Francisco, CA 94104

Project No.: 95278.23
 Contact: Keith Craig
 Phone: (415) 391-2510

Project: Eastmont Sub

Lab Contact: John Arndt
 Job No.: 800651
 COC Log No.: 13269
 Lab ID No.: N0651-1A
 Batch No.: 17016
 Matrix: SOIL

Date Sampled: 10/30/95
 Date Received: 10/31/95
 Date Extracted: 11/01/95
 Date Analyzed: 11/01/95
 Date Reported: 11/02/95
 Client ID No.: B-1-6.0'

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	97

Sample: B-1-6.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	5.0	1.0
2-Chloroethyl vinyl ether	110-75-8	ND	5.0	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	5.0	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
1,2-Dichloroethene, total	540-59-0	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

Cont. Table 9
California Laboratory Services

Analysis Report: Halogenated Volatile Organics, EPA Method 8010
 Purge and Trap, EPA Method 5030

Client: AllWest Environmental
 One Sutter Street Ste 600
 San Francisco, CA 94104

Project No.: 95278.23
 Contact: Keith Craig
 Phone: (415) 391-2510

Project: Eastmont Sub

Lab Contact: John Arndt
 Job No.: 800651
 COC Log No.: 13269
 Lab ID No.: N0651-2A
 Batch No.: 17016
 Matrix: SOIL

Date Sampled: 10/30/95
 Date Received: 10/31/95
 Date Extracted: 11/01/95
 Date Analyzed: 11/01/95
 Date Reported: 11/02/95
 Client ID No.: B-1-10.5

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	97

Sample: B-1-10.5

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	5.0	1.0
2-Chloroethyl vinyl ether	110-75-8	ND	5.0	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	5.0	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
1,2-Dichloroethene, total	540-59-0	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

Cont. Table 9
California Laboratory Services

Analysis Report: Halogenated Volatile Organics, EPA Method 8010
 Purge and Trap, EPA Method 5030

Client: AllWest Environmental
 One Sutter Street Ste 600
 San Francisco, CA 94104

Project No.: 95278.23
 Contact: Keith Craig
 Phone: (415) 391-2510

Project: Eastmont Sub

Lab Contact: John Arndt
 Job No.: 800651
 COC Log No.: 13269
 Lab ID No.: N0651-8A
 Batch No.: 17016
 Matrix: SOIL

Date Sampled: 10/30/95
 Date Received: 10/31/95
 Date Extracted: 11/01/95
 Date Analyzed: 11/01/95
 Date Reported: 11/02/95
 Client ID No.: B-1-46.0

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	101

Sample: B-1-46.0

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	5.0	1.0
2-Chloroethyl vinyl ether	110-75-8	ND	5.0	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	5.0	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
1,2-Dichloroethene, total	540-59-0	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

California Laboratory Services

Analysis Report: Halogenated Volatile Organics, EPA Method 8010
Purge and Trap, EPA Method 5030

Client: AllWest Environmental
One Sutter Street Ste 600
San Francisco, CA 94104

Project No.: 95278.23
Contact: Keith Craig
Phone: (415) 391-2510

Project: Eastmont Sub

Lab Contact: John Arndt
Job No.: 800651
COC Log No.: 13269
Lab ID No.: N0651-9A
Batch No.: 17016
Matrix: SOIL

Date Sampled: 10/30/95
Date Received: 10/31/95
Date Extracted: 11/01/95
Date Analyzed: 11/01/95
Date Reported: 11/02/95
Client ID No.: B-2-6.0'

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	104

Sample: B-2-6.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	5.0	1.0
2-Chloroethyl vinyl ether	110-75-8	ND	5.0	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	5.0	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
1,2-Dichloroethene, total	540-59-0	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

California Laboratory Services

Analysis Report: Halogenated Volatile Organics, EPA Method 8010
Purge and Trap, EPA Method 5030

Client: AllWest Environmental
One Sutter Street Ste 600
San Francisco, CA 94104

Project No.: 95278.23
Contact: Keith Craig
Phone: (415) 391-2510

Project: Eastmont Sub

Lab Contact: John Arndt
Job No.: 800651
COC Log No.: 13269
Lab ID No.: N0651-10A
Batch No.: 17016
Matrix: SOIL

Date Sampled: 10/30/95
Date Received: 10/31/95
Date Extracted: 11/01/95
Date Analyzed: 11/01/95
Date Reported: 11/02/95
Client ID No.: B-2-10.5

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	102
Sample: B-2-10.5			

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	5.0	1.0
2-Chloroethyl vinyl ether	110-75-8	ND	5.0	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	5.0	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
1,2-Dichloroethene, total	540-59-0	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

California Laboratory Services

Analysis Report: Halogenated Volatile Organics, EPA Method 8010
Purge and Trap, EPA Method 5030

Client: AllWest Environmental
One Sutter Street Ste 600
San Francisco, CA 94104

Project No.: 95278.23
Contact: Keith Craig
Phone: (415)391-2510

Project: Eastmont Sub

Lab Contact: John Arndt
Job No.: 800651
COC Log No.: 13269
Lab ID No.: N0651-14A
Batch No.: 17016
Matrix: SOIL

Date Sampled: 10/30/95
Date Received: 10/31/95
Date Extracted: 11/01/95
Date Analyzed: 11/01/95
Date Reported: 11/02/95
Client ID No.: B-2-31.0

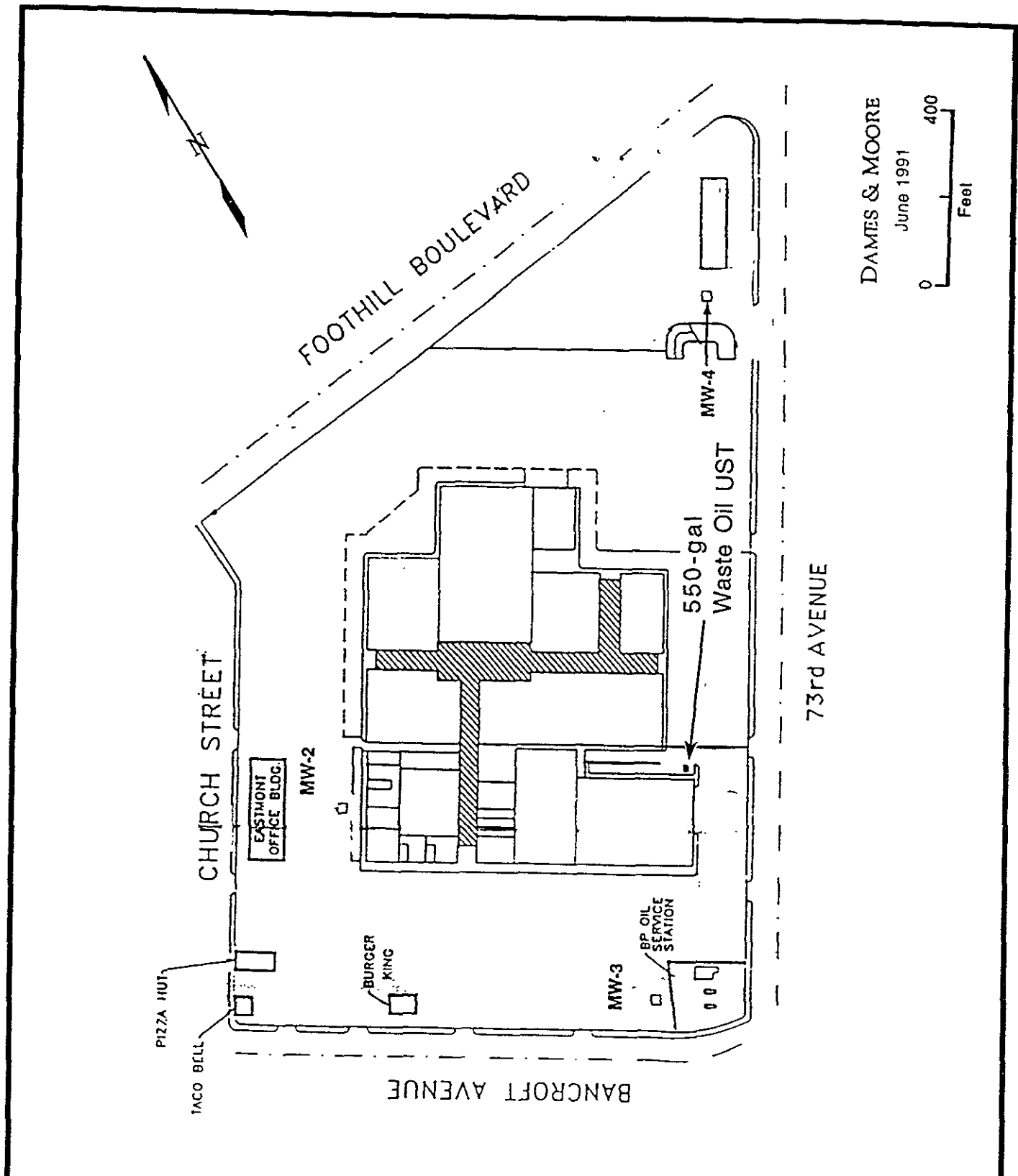
SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	101

Sample: B-2-31.0

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	5.0	1.0
2-Chloroethyl vinyl ether	110-75-8	ND	5.0	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	5.0	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
1,2-Dichloroethene, total	540-59-0	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit



DAMES & MOORE
 June 1991
 0 400
 Feet

Artesian Environmental Consultants
 3100 Kerner Blvd., Ste. C
 San Rafael, CA 94901
 (415) 257-4801 fax (415) 257-4805

SITE MAP
 The Eastmont Mall
 One Eastmont Mall
 Oakland, CA 94605

Project No.: 1695

Date: 9/27/95

Prepared by: J. French

Figure 35

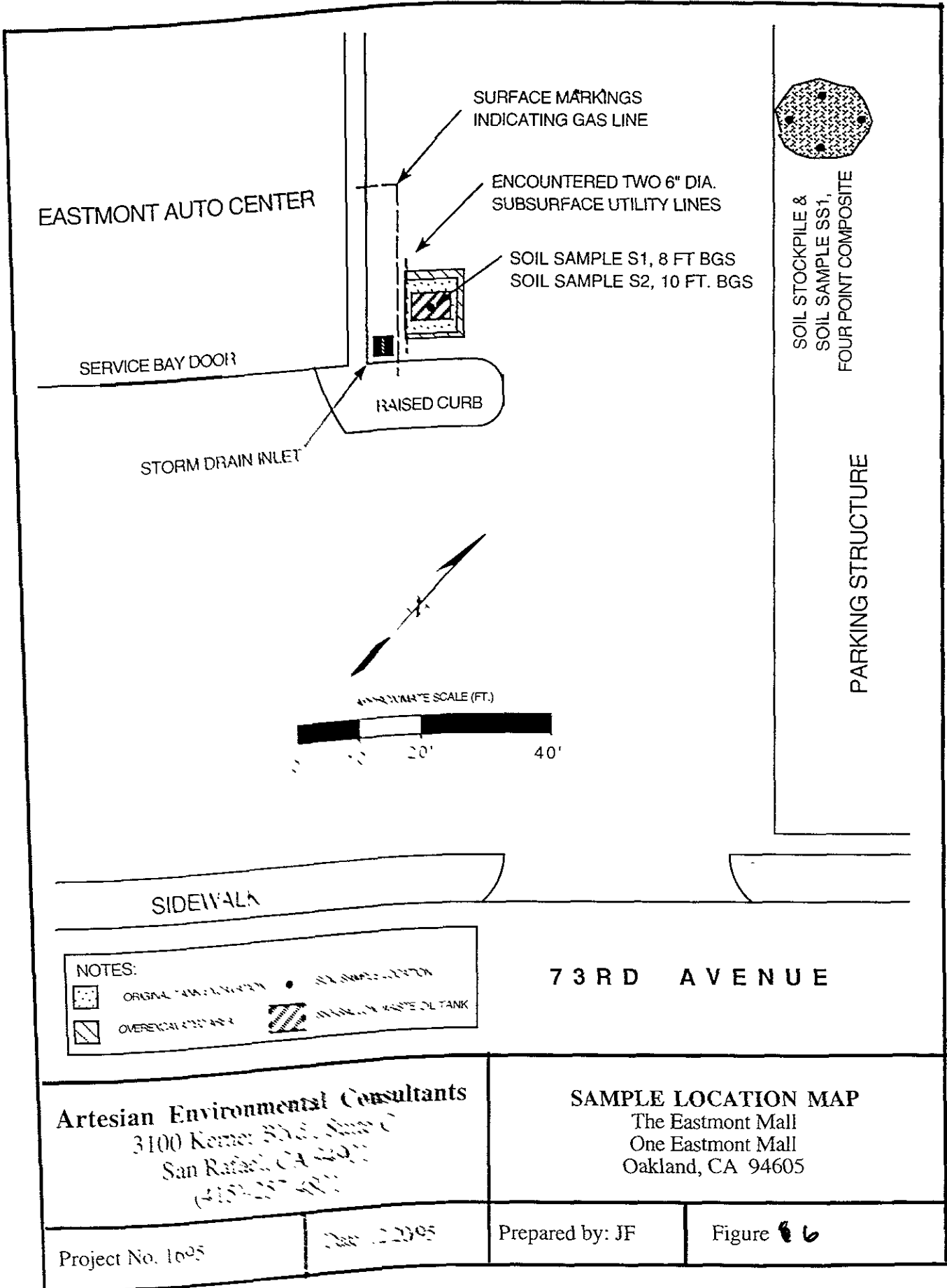


Table 10. Summary of Soil Analytical Results

Project Site:
 Waste Oil UST Removal and Soil Remediation
 One Eastmont Mall
 Oakland, California

Artesian Environmental Job # 1695
 3100 Kerner Blvd., Suite C
 San Rafael, CA 94901
 (415) 257-4801

Sample Number		Date Sampled	O&G T ppm	O&G N-P ppm	TPH-d ppm	TPH-g ppm	Benzene ppb	Toluene ppb	Ethyl Benzene ppb	Xylenes ppb
S-1	Tank pit sample	10/23/95	410	330	160	ND	ND	ND	ND	ND
SS-1	Soil stockpile	10/23/95	11,110	8500	23,000	220	ND	360	1,700	9,500
S-2	Tank pit/overex. sample	12/19/95	1,500	1,300	ND*4	NA	NA	NA	NA	NA

Compound Name			Cd ppm	Cr ppm	Pb ppm	Ni ppm	Zn ppm	Creosote ppm	8010/8270 ppb	Other
S-1	Tank pit sample	10/23/95	ND	48	2.7	71	32	N.D.	N.D.	*2
SS-1	Soil stockpile	10/23/95	ND	38	12	39	30	N.D.	*1	*3
S-2	Tank pit/overex. sample	12/19/95	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

*1= 2.2 ppb cis-1,2-Dichloroethene, 2.3 ppb tetrachloroethene

*2= pH= 8.5, Sulfide= 55, Cyanide= ND

*3=pH=7.9, Sulfide= 62 ppm, Cyanide= ND; Flashpoint/ignitability=>140 degrees F

ND*\$= ND for diesel, 610 ppm for TPH-motor oil by Method M8015

ppb= parts per billion

ppm= parts per million

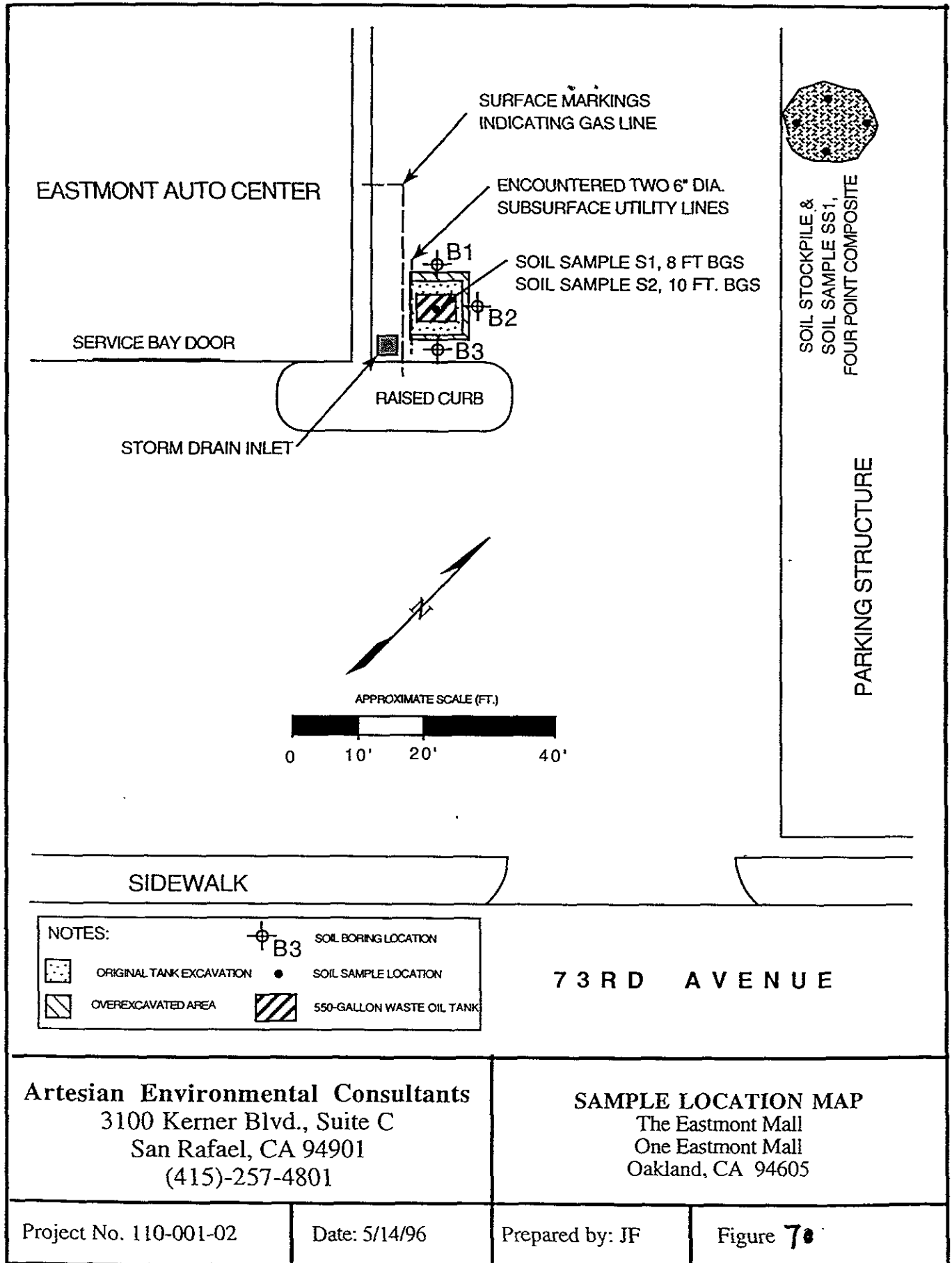
NA= not analyzed; ND= below reporting level (non-detect)

O&G= oil and grease; T= total, N-T= non-polar

TPH-d= total petroleum hydrocarbons as diesel

TPH-g= total petroleum hydrocarbons as gasoline

B-T-E-X= benzene, toluene, ethyl benzene, and total xylenes



Artesian Environmental Consultants
 3100 Kerner Blvd., Suite C
 San Rafael, CA 94901
 (415)-257-4801

SAMPLE LOCATION MAP
 The Eastmont Mall
 One Eastmont Mall
 Oakland, CA 94605

Project No. 110-001-02

Date: 5/14/96

Prepared by: JF

Figure 7e

**TABLE II. ANALYTICAL LABORATORY RESULTS
THE EASTMONT MALL
7100 BANCROFT AVENUE
OAKLAND, CALIFORNIA**

SOIL			
Sample Number	Sample Date	TPH-MO mg/Kg	Oil & Grease mg/Kg
B1 15'	4/10/96	<50	<50
B1 25'	4/10/96	<50	<50
B2 15'	4/10/96	<50	<50
B2 30'	4/10/96	<50	<50
B3 15'	4/10/96	<50	<50
B3 35'	4/10/96	<50	<50
GROUNDWATER			
Sample Number	Sample Date	TPH-MO ug/L	Oil & Grease mg/L
B1 AQ	4/10/96	4300	<1
B2 AQ	4/10/96	<500	<1
B3 AQ	4/10/96	<500	<1

Notes:

<50 = Analyte concentration below indicated laboratory reporting limit
 TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
 mg/Kg = Milligrams per Kilogram, equivalent to parts per million
 ug/L = Milligrams per Liter, equivalent to parts per billion
 mg/L = Milligrams per Liter, equivalent to parts per million
 See laboratory report for analytical methods



AllWest
West Environmental, Inc.

Log of Boring: B-1
 Project Name: Eastmont Sub
 Project Number: 95278.23
 Drilling Date: 10/30/95

Drilling Contractor: Soils Exploration Services Sampler: 2" Modified California
 Drill Rig: CME - 55 Hammer: 140 lb. slide hammer
 Auger: 6" Auger Logged By: Keith Craig

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
			0			2" asphalt with 4" of baserock
			1		CL	dark brown sandy clay (cl); soft to firm, moist; changes to moderate brown clay at 3.5';
			2			
			3			
			4			
			5			
6	ND		6			
			7		SC	increase in sand content at 7.5'; moderate brown clayey gravelly sand (sc) with sandy gravelly clay interbed; moist to wet, loose, fine to coarse grained;
			8			
			9			
6	ND		10			
10			11			
12			12			
			13		CL	moderate brown silty clay (cl); stiff, wet, mottled orange;
			14			
			15			
5	ND		16			
11			17			
15			18			
			19			
			20			
10	ND		21			
8						
9						

Notes:

Drawn By: MJ Cunningham
 Reviewed By: I. Ching



Log of Boring: B-1
 Project Name: Eastmont Sub
 Project Number: 95278.23
 Drilling Date: 10/30/95

Drilling Contractor: Soils Exploration Services
 Drill Rig: CME - 55
 Auger: 6" Auger
 Sampler: 2" Modified California
 Hammer: 140 lb. slide hammer
 Logged By: Keith Craig

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
8	ND		21		CL	moderate brown silty clay (cl); stiff, wet, mottled orange;
9			22			
			23			
			24			
			25			
12	ND		26		CL	clay becomes firm from 28.0' to 45.0';
12			27			
			28			
			29			
			30			
8	ND		31		CL	no changes;
9			32			
			33			
			34			
			35			
5	ND		36			
8			37			
			38			
			39			
			40			
			41			

Notes:

Drawn By: MJ Cunningham
 Reviewed By: L Ching



AllWest
West Environmental, Inc.

Log of Boring: B-1
 Project Name: Eastmont Sub
 Project Number: 95278.23
 Drilling Date: 10/30/95

Drilling Contractor: Soils Exploration Services Sampler: 2" Modified California
 Drill Rig: CME - 55 Hammer: 140 lb. slide hammer
 Auger: 6" Auger Logged By: Keith Craig

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description		
0 9 12	ND		41 -		CL	moderate brown silty clay (cl); stiff, wet;		
			42 -					
			43 -					
			44 -				SW	moderate brown gravelly sand (sw); saturated, loose, well graded, fine to coarse grained;
			45 -					
			46 -					
			47 -					
			48 -					
			49 -					
			50 -					
			51 -					
52 -					borehole terminated at 46.5'; groundwater first encountered at 45.3'.			
53 -								
54 -								
55 -								
56 -								
57 -								
58 -								
59 -								
60 -								
61 -								

Notes:

Drawn By:
MJ Cunningham
 Reviewed By:
L Ching



Log of Boring: B-2
 Project Name: Eastmont Sub
 Project Number: 95278.23
 Drilling Date: 10/30/95

Drilling Contractor: Soils Exploration Services
 Drill Rig: CME - 55
 Auger: 6" Auger

Sampler: 2" Modified California
 Hammer: 140 lb. slide hammer
 Logged By: Keith Craig

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
						2" asphalt with 4" of baserock
			1 -		CL	dark brown sandy clay (cl); wet, firm; changes to moderate brown clay at 3.5';
			2 -			
			3 -			
			4 -			
7			5 -			
8	ND		6 -			
			7 -			
			8 -			
			9 -			
6			10 -		SW	moderate brown gravelly sand (sw); moist, loose, poorly sorted, fine to coarse grained;
7	ND		11 -			
6			12 -			
			13 -			
			14 -			
8			15 -		CL	moderate brown silty clay (cl); moist to wet, stiff, mottled orange;
9	ND		16 -			
8			17 -			
			18 -			
			19 -			
6			20 -			
7	ND		21 -			

Notes:

Drawn By: MJ Cunningham
 Reviewed By: L Ching



AllWest
 AllWest Environmental, Inc.

Log of Boring: B-2
 Project Name: Eastmont Sub
 Project Number: 95278.23
 Drilling Date: 10/30/95

Drilling Contractor: Soils Exploration Services Sampler: 2" Modified California
 Drill Rig: CME - 55 Hammer: 140 lb. slide hammer
 Auger: 6" Auger Logged By: Keith Craig

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description	
6			-				
7 10	ND		21 - 22 - 23 - 24 - 25 -		CL	moderate brown silty clay (cl); stiff, wet, mottled orange;	
6 8 12	ND		26 - 27 - 28 - 29 -				
11 10 10	ND		30 - 31 - 32 - 33 - 34 - 35 - 36 - 37 - 38 - 39 - 40 - 41 -		SW		
							moderate brown silty sand (sw); saturated, loose, fine grained;
							borehole terminated at 31.5'; groundwater first encountered at 30.0';

Notes:

Drawn By:
 MJ Cunningham
 Reviewed By:
 L Ching