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

StID 235

March 17, 1998

Mr. Li Sun
Golden Value Inc
530 MacDonald
Richmond, CA 94801

Mr. Donald Gibson
Donald & Majorie Gibson Trust
1175 Clarendon Cresent
Oakland, CA 94610

Re: Fuel Leak Site Case Closure for 1199 E 12th Street, Oakland, CA

Dear Messrs. Sun and Gibson:

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:

- up to 2,300 ppb TPH as gasoline and 1,800 ppb toluene exists in groundwater beneath the site; and,
- a risk management plan has been submitted to address future soil excavation and/or redevelopment of the stie.

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

eva chu
Hazardous Materials Specialist

enlosure:
1. Case Closure Letter
2. Case Closure Summary

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

files (gibson.5)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
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1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
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REMEDIAL ACTION COMPLETION CERTIFICATION

StID 235 - 1199 E 12th Street, Oakland, CA
(1-3K gallon laquer thinner and 1-6K gallon mineral spirits tanks removed in May 1990)

March 10, 1998

Mr. Li Sun
Golden Value Inc
530 MacDonald
Richmond, CA 94801

Mr. Donald Gibson
Donald & Majorie Gibson Trust
1175 Clarendon Cresent
Oakland, CA 94610

Dear Messrs. Sun and Gibson:

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

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

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

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

Sincerely,

Mee Ling Tung, Director

cc: Richard Pantages, Chief of Division of Environmental Protection
Kevin Graves, RWQCB
Dave Deaner, SWRCB
Leroy Griffin, OFD
files-ec (gibson.3)

RGF. let # 01-0699

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: December 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: **Eva Chu** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Gibson Paint Co**
Site facility address: **1199 E 12th Street, Oakland, CA 94606**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **235**
URF filing date: SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. Mr. Li Sun Golden Value Inc 530 MacDonald Richmond, CA 94801	2. Mr. Donald Gibson Donald & Majorie Gibson Trust 1175 Clarendon Cresent Oakland, CA 94610	(510) 444-3256

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	3,000	Lacquer Thinner	Removed	5/17/90
2	6,000	Mineral Spirits	Removed	5/17/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Leaking UST**
Site characterization complete? **YES**
Date approved by oversight agency: **12/1/97**
Monitoring Wells installed? **Yes** Number: **4**
Proper screened interval? **Yes, 10' to 25'bgs**
Highest GW depth below ground surface: **7.96'** Lowest depth: **16.66' in MW-3**
Flow direction: **SSW**
Most sensitive current use: **Residential**
Are drinking water wells affected? **No** Aquifer name: **Merritt Sand**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	2 USTs	Unknown	5/17/90
Piping			
Soil	~100 cy	Recycled at Valley Rock Products	4/23/92

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant		Soil (ppm) Before[1]	Soil (ppm) After[2]	Water (ppb) Before[3]	Water (ppb) After[4]
TPH (Gas)		330	NS	9,700	2,300
TPH (Diesel)		<10	NS		
Benzene		<.10	NS	77	ND
Toluene		110	NS	55,000	1,800
Ethylbenzene		1.0	NS	530	220
Xylenes		7.1	NS	5,200	410
Other	Acetone	53	NS	560	ND
	MEK	63	NS	930	ND
	MIBK			80	ND

Note: 1 soil sample, #4, collected at time of UST removal, 5/90
2 overexcavation of 3K mineral spirit tank pit, but no confirmatory soil samples collected
3 maximum concentrations ever detected from well MW-3
4 data from most recent groundwater sampling event, 1/97

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? _____
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 risk management plan has been submitted to address future soil excavation and/or redevelopment of site.**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **No, pending site closure**
Number Decommissioned: **0** Number Retained: **4**
List enforcement actions taken: **None**
List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

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

Signature: Eva Chu Date: 12/19/97

Reviewed by

Name: **Barney Chan** Title: **Haz Mat Specialist**

Signature: Barney Chan Date: 12-9-97

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

Signature: Thomas Peacock Date: 12-19-97

VI. RWQCB NOTIFICATION

Date Submitted to RB: 12/22/97 RB Response: Concur

RWQCB Staff Name: ~~**Kevin Graves**~~ Stephen Hill Title: ~~**AWRCE**~~ ~~ES~~ IV Sup

Signature: Stephen Hill Date: 1/8/98

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site was formerly a paint manufacturing factory, located at the NW corner of the intersection of E 12th Street and 12th Avenue in Oakland.

In May 17, 1990 a 6,000 gallon UST for the storage of lacquer thinner (located under the sidewalk of 12th Avenue) and a 3,000 gallon UST for the storage of mineral spirits (located under the driveway) were removed (see Fig 1). Mineral spirit is composed of straight chain and cycloparafins in the C_9-C_{12} range, detectable in the TPHg range. Lacquer thinner varies in composition but generally consists of toluene, xylene, paraffins, and the solvents MEK, Methyl propyl ketone, isopropyl- and iso-butyl acetate, and IPA, ethanol and methanol. These solvents are detected using EPA Method 8240.

The 3K UST had at least one large hole. Soil samples (#2, 3, 4, and 5) were collected below the ends of each UST. A water sample (#1) was collected from the lacquer thinner tank pit. All samples were analyzed for TPHg, TPHd, and VOCs (using Method 8240). Up to 330ppm TPHg, 110ppm toluene, 53ppm acetone, and 63ppm MEK were found in soil. Lower levels of BEX and MIBK were also identified in soil. The grab water sample contained 1,300ppb TPHg (info from text of reports, analytical are not available) and low levels of VOCs. (See Table 1)

The 3K mineral spirit tank pit was overexcavated, removing ~2' of soil from each sidewall. Confirmatory soil samples were not collected. The lacquer thinner UST pit (under the sidewalk) could not be overexcavated due to the proximity of 12th Avenue and overhead and underground utility lines.

In August 1991 three groundwater monitoring wells (MW-1 through MW-3) were installed around the former USTs. Groundwater was encountered at ~15' to 20' bgs. Soil samples from the capillary fringe contained elevated TPHg (1,300ppm) in borings MW-1 and MW-2; and VOCs (25ppm acetone, 27ppm 2-butanone (MEK) in boring MW-3 and 0.51ppm TCA in borings MW-1 and MW-2). Groundwater also contained elevated TPHg and VOCs. In addition, wells MW-2 and MW-3 contained floating product. (See Fig 1, Table 2)

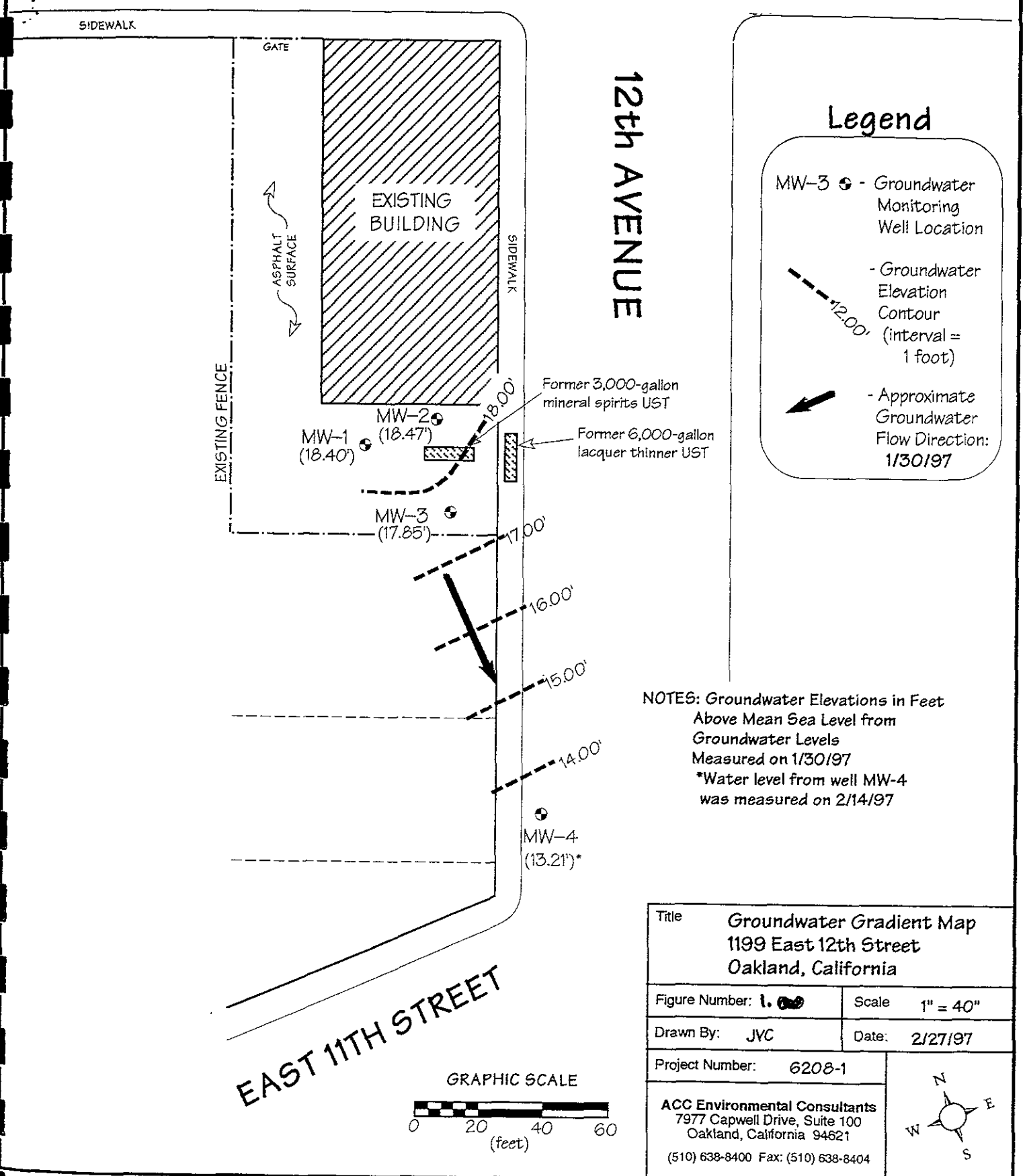
Groundwater was sampled regularly from August 1991. After April 1992 MBK and acetone were not detected above the detection limits. However MEK, as well as TPH (in the range of gasoline) and toluene, which are constituents of lacquer thinner, have been identified in elevated concentrations. In addition, HVOCs have also been identified in groundwater (1,1,DCA at 410ppb, 1,1,1-TCA at 10ppb). The HVOCs were not constituents of the substances stored in the former USTs and their source is not known. (See Table 3)

Another well, MW-4, was installed in January 1995 to delineate the extent of the groundwater plume. This well was sampled from Jan 1995 to Feb 1997 without detecting BTEX, HVOCs, or MEK. It appears that the plume is localized to the immediate vicinity of well MW-3. The VOC concentration trend indicated an overall decrease in concentration of all constituents identified in groundwater to levels which would not pose a risk to human health or the environment under current use scenario. A risk management plan was submitted to address potential future soil excavation and/or redevelopment of the site.

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.

gibson.1


EAST 12th STREET
SIDEWALK
GATE
EXISTING BUILDING
ASPHALT SURFACE
SIDEWALK
12th AVENUE
EXISTING FENCE
MW-2 (18.47')
MW-1 (18.40')
18.00'
Former 3,000-gallon mineral spirits UST
Former 6,000-gallon lacquer thinner UST
MW-3 (17.85')
17.00'
16.00'
15.00'
14.00'
MW-4 (13.21')*
EAST 11TH STREET
GRAPHIC SCALE
0 20 40 60
(feet)
Legend
MW-3 - Groundwater Monitoring Well Location
12.00' - Groundwater Elevation Contour (interval = 1 foot)
- Approximate Groundwater Flow Direction: 1/30/97
NOTES: Groundwater Elevations in Feet Above Mean Sea Level from Groundwater Levels Measured on 1/30/97
*Water level from well MW-4 was measured on 2/14/97
Title Groundwater Gradient Map 1199 East 12th Street Oakland, California
Figure Number: 1.
Scale 1" = 40"
Drawn By: JVC
Date: 2/27/97
Project Number: 6208-1
ACC Environmental Consultants
7977 Capwell Drive, Suite 100
Oakland, California 94621
(510) 638-8400 Fax: (510) 638-8404
N E W S

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 80872
CLIENT: Miller Environmental Company
CLIENT JOB NO.: ~~GIBSON PAINT~~

DATE RECEIVED: 05/17/90
DATE REPORTED: 05/23/90

Table 1

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 8015

LAB #	Sample Identification	Concentration (mg/Kg) Gasoline Range	Diesel Range
1	water sple from lac thinner pit		
2	EAST END OF 6000 GAL. TANK HOLE	ND<10	ND<10
3	WEST END OF 6000 GAL. TANK HOLE	110	ND<10
4	NORTH END OF 3000 GAL. TANK HOLE	20	ND<10
5	SOUTH END OF 3000 GAL. TANK HOLE	330	ND<10

mg/kg - parts per million (ppm)

Method Detection Limit for Gasoline and Diesel in Soil: 10 mg/Kg

QAQC Summary:

Daily Standard run at 200mg/L: RPD Gasoline = 3%
RPD Diesel = 2%
MS/MSD Average Recovery = 101%: Duplicate RPD = 2%

Richard Srna, Ph.D.
Laboratory Manager

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 52047-1
CLIENT: Miller Environmental

DATE RECEIVED: 05/17/90
DATE REPORTED: 06/04/90
JOB NO. Gibson Paint

cont. Table 1

water from pit lacquer thinner

EPA SW-846 METHOD 8240 - VOLATILE ORGANICS
by Gas Chromatography/ Mass Spectrometry

SAMPLE: #1

Compound	ug/l	Compound	ug/l
Chloromethane	ND<10	Cis-1,3-Dichloropropene	ND<3
Bromomethane	ND<10	Trichloroethene	ND<3
Vinyl Chloride	ND<10	Dibromochloromethane	ND<3
Chloroethane	ND<10	1,1,2-Trichloroethane	ND<3
Methylene Chloride	ND<10	Benzene (MDL=ND<2)	3
Acetone (MDL=ND<10)	560	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	MIBK 4-Methyl-2-Pentanone(MDL=ND<10)	80
1,1-Dichloroethane	ND<3	2-Hexanone	ND<10
1,2-Dichloroethene (total)	ND<3	Tetrachloroethene	ND<3
Chloroform	ND<3	1,1,2,2-Tetrachloroethane	ND<3
1,2-Dichloroethane	ND<3	Toluene (MDL=ND<3)	710
MEK 2-Butanone (MDL=ND<20)	930	Chlorobenzene	ND<3
1,1,1-Trichloroethane	ND<3	Ethylbenzene (MDL=ND<3)	15
Carbon Tetrachloride	ND<3	Styrene	ND<3
Vinyl Acetate	ND<10	Total Xylenes (MDL=ND<3)	84
Bromodichloromethane	ND<3	1,3-Dichlorobenzene	ND<3
1,2-Dichloropropane	ND<3	1,2&1,4-Dichlorobenzenes	ND<3

ug/l = part per billion (ppb)
QC DATA:

Surrogate Recoveries		QC Limits water	QC Limits soil
1,2-DCA-d4.....	99%	76-114	81-117
Toluene-d8.....	94%	88-110	81-140
Bromofluorobenzene.....	111%	86-115	74-121

comments:

Richard Srna, Ph.D.
Laboratory Director

RECEIVED
JUN - 6 1990
MILLER ENVIRONMENTAL CO.

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 52047-2
CLIENT: Miller Environmental

DATE RECEIVED: 05/17/90
DATE REPORTED: 06/04/90
JOB NO. Gibson Paint

Cont. Table 1

EPA SW-846 METHOD 8240 - VOLATILE ORGANICS
by Gas Chromatography/ Mass Spectrometry

SAMPLE: #3 (2) from 6000 tank pit East

Compound	ug/kg	Compound	ug/kg
Chloromethane	ND<500	Cis-1,3-Dichloropropene	ND<150
Bromomethane	ND<500	Trichloroethene	ND<150
Vinyl Chloride	ND<500	Dibromochloromethane	ND<150
Chloroethane	ND<500	1,1,2-Trichloroethane	ND<150
Methylene Chloride	ND<500	Benzene	ND<100
Acetone (MDL=ND<500)	43,000	Trans-1,3-Dichloropropene	ND<150
Carbon disulfide	ND<150	2-Chloroethyl vinyl ether	ND<150
Trichlorofluoromethane	ND<150	Bromoform	ND<150
1,1-Dichloroethene	ND<150	4-Methyl-2-Pentanone(MDL=ND<500)	1600
1,1-Dichloroethane	ND<150	2-Hexanone	ND<500
1,2-Dichloroethene (total)	ND<150	Tetrachloroethene	ND<150
Chloroform	ND<150	1,1,2,2-Tetrachloroethane	ND<150
1,2-Dichloroethane	ND<150	Toluene	ND<150
2-Butanone (MDL=ND<1000)	46,000	Chlorobenzene	ND<150
1,1,1-Trichloroethane	ND<150	Ethylbenzene (MDL=ND<150)	220
Carbon Tetrachloride	ND<150	Styrene	ND<150
Vinyl Acetate	ND<500	Total Xylenes (MDL=ND<150)	180
Bromodichloromethane	ND<150	1,3-Dichlorobenzene	ND<150
1,2-Dichloropropane	ND<150	1,2&1,4-Dichlorobenzenes	ND<150

ug/kg = part per billion (ppb)
QC DATA:

Surrogate Recoveries		QC Limits water	QC Limits soil
1,2-DCA-d4.....	104%	76-114	81-117
Toluene-d8.....	97%	88-110	81-140
Bromofluorobenzene.....	90%	86-115	74-121

comments:

Richard Srna, Ph.D.
Laboratory Director

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JUN - 6 1990
MILLER ENVIRONMENTAL CO.

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 52047-3
CLIENT: Miller Environmental

DATE RECEIVED: 05/17/90
DATE REPORTED: 06/04/90
JOB NO. Gibson Paint

cont. Table 1

EPA SW-846 METHOD 8240 - VOLATILE ORGANICS
by Gas Chromatography/ Mass Spectrometry

from 6000 tank pit

SAMPLE: #4 (#3)

Compound	ug/kg	Compound	ug/kg
Chloromethane	ND<500	Cis-1,3-Dichloropropene	ND<150
Bromomethane	ND<500	Trichloroethene	ND<150
Vinyl Chloride	ND<500	Dibromochloromethane	ND<150
Chloroethane	ND<500	1,1,2-Trichloroethane	ND<150
Methylene Chloride	ND<500	Benzene	ND<100
Acetone (MDL=ND<500)	53,000	Trans-1,3-Dichloropropene	ND<150
Carbon disulfide	ND<150	2-Chloroethyl vinyl ether	ND<150
Trichlorofluoromethane	ND<150	Bromoform	ND<150
1,1-Dichloroethene	ND<150	4-Methyl-2-Pentanone(MDL=ND<500)	500(
1,1-Dichloroethane	ND<150	2-Hexanone	ND<500
1,2-Dichloroethene (total)	ND<150	Tetrachloroethene	ND<150
Chloroform	ND<150	1,1,2,2-Tetrachloroethane	ND<150
1,2-Dichloroethane	ND<150	Toluene	ND<150
2-Butanone (MDL=ND<1000)	63,000	Chlorobenzene	ND<150
1,1,1-Trichloroethane	ND<150	Ethylbenzene (MDL=ND<150)	ND<150
Carbon Tetrachloride	ND<150	Styrene	ND<150
Vinyl Acetate	ND<500	Total Xylenes (MDL=ND<150)	ND<150
Bromodichloromethane	ND<150	1,3-Dichlorobenzene	ND<150
1,2-Dichloropropane	ND<150	1,2&1,4-Dichlorobenzenes	ND<150

ug/kg = part per billion (ppb)
QC DATA:

Surrogate Recoveries		QC Limits water	QC Limits soil
1,2-DCA-d4.....	105%	76-114	81-117
Toluene-d8.....	95%	88-110	81-140
Bromofluorobenzene.....	91%	86-115	74-121

comments:

Richard Srna, Ph.D.
Laboratory Director

RECEIVED
JUN - 6 1990
MILLER ENVIRONMENTAL CO.

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 52047-4
CLIENT: Miller Environmental

DATE RECEIVED: 05/17/90
DATE REPORTED: 06/04/90
JOB NO. Gibson Paint

cont. Table 1

EPA SW-846 METHOD 8240 - VOLATILE ORGANICS
by Gas Chromatography/ Mass Spectrometry

SAMPLE: #5 (#4) from 3050 pit north

Compound	ug/kg	Compound	ug/kg
Chloromethane	ND<500	Cis-1,3-Dichloropropene	ND<150
Bromomethane	ND<500	Trichloroethene	ND<150
Vinyl Chloride	ND<500	Dibromochloromethane	ND<150
Chloroethane	ND<500	1,1,2-Trichloroethane	ND<150
Methylene Chloride	ND<500	Benzene	ND<100
Acetone (MDL=ND<500)	9,200	Trans-1,3-Dichloropropene	ND<150
Carbon disulfide	ND<150	2-Chloroethyl vinyl ether	ND<150
Trichlorofluoromethane	ND<150	Bromoform c-2-c-2-c	ND<150
1,1-Dichloroethene	ND<150	4-Methyl-2-Pentanone (MDL=ND<500)	2200
1,1-Dichloroethane	ND<150	2-Hexanone MIBK	ND<500
1,2-Dichloroethene (total)	ND<150	Tetrachloroethene	ND<150
Chloroform	ND<150	1,1,2,2-Tetrachloroethane	ND<150
1,2-Dichloroethane c-2-c-2	ND<150	Toluene	ND<150
2-Butanone (MDL=ND<1000) MEK	3,300	Chlorobenzene	ND<150
1,1,1-Trichloroethane	ND<150	Ethylbenzene (MDL=ND<150)	220
Carbon Tetrachloride	ND<150	Styrene	ND<150
Vinyl Acetate	ND<500	Total Xylenes (MDL=ND<150)	180
Bromodichloromethane	ND<150	1,3-Dichlorobenzene	ND<150
1,2-Dichloropropane	ND<150	1,2&1,4-Dichlorobenzenes	ND<150

ug/kg = part per billion (ppb)
QC DATA:

Surrogate Recoveries		QC Limits	
		water	soil
1,2-DCA-d4.....	102%	76-114	81-117
Toluene-d8.....	101%	88-110	81-140
Bromofluorobenzene.....	94%	86-115	74-121

comments:

Richard Srna, Ph.D.
Laboratory Director

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO. 52047-5
CLIENT: Miller Environmental

DATE RECEIVED: 05/17/90
DATE REPORTED: 06/04/90
JOB NO. Gibson Paint

Cont. Table 1

EPA SW-846 METHOD 8240 - VOLATILE ORGANICS
by Gas Chromatography/ Mass Spectrometry

from 3000 South

SAMPLE: #6 (#5)

Compound	ug/kg	Compound	ug/kg
Chloromethane	ND<500	Cis-1,3-Dichloropropene	ND<150
Bromomethane	ND<500	Trichloroethene	ND<150
Vinyl Chloride	ND<500	Dibromochloromethane	ND<150
Chloroethane	ND<500	1,1,2-Trichloroethane	ND<150
Methylene Chloride	ND<500	Benzene	ND<100
Acetone (MDL=ND<500)	1,000	Trans-1,3-Dichloropropene	ND<150
Carbon disulfide	ND<150	2-Chloroethyl vinyl ether	ND<150
Trichlorofluoromethane	ND<150	Bromoform	ND<150
1,1-Dichloroethene	ND<150	4-Methyl-2-Pentanone	ND<500
1,1-Dichloroethane	ND<150	2-Hexanone	ND<500
1,2-Dichloroethene (total)	ND<150	Tetrachloroethene	ND<150
Chloroform	ND<150	1,1,2,2-Tetrachloroethane	ND<150
1,2-Dichloroethane	ND<150	Toluene (MDL=ND<150)	110,000
2-Butanone	ND<1000	Chlorobenzene	ND<150
1,1,1-Trichloroethane	ND<150	Ethylbenzene (MDL=ND<150)	1000
Carbon Tetrachloride	ND<150	Styrene	ND<150
Vinyl Acetate	ND<500	Total Xylenes (MDL=ND<150)	7100
Bromodichloromethane	ND<150	1,3-Dichlorobenzene	ND<150
1,2-Dichloropropane	ND<150	1,2&1,4-Dichlorobenzenes	ND<150

ug/kg = part per billion (ppb)
QC DATA:

Surrogate Recoveries		QC Limits water	QC Limits soil
1,2-DCA-d4.....	93%	76-114	81-117
Toluene-d8.....	84%	88-110	81-140
Bromofluorobenzene.....	99%	86-115	74-121

comments:

Richard Srna, Ph.D.
Laboratory Director

TABLE 1
Analytical Results for Soil samples
Ground-water Monitoring Well Installation

Sample	ft Depth	TPH Gasoline	B	T	E	X	Pb
MW1-5	5	ND	ND	ND	ND	ND	NA
-10	10	5.3	ND	ND	ND	ND	0.15
-15	15	ND	ND	ND	ND	ND	NA
-20	20	1600	ND	ND	ND	ND	NA
MW2-5	5	ND	ND	ND	ND	ND	NA
-10	10	ND	ND	ND	ND	ND	0.27
-15	15	1.2	ND	ND	ND	ND	NA
-17	17	1300	ND	ND	ND	ND	NA
MW3-5	5	ND	ND	ND	ND	ND	ND
-10	10	16	ND	ND	ND	ND	NA
-15	15	4.9	ND	850	ND	ND	NA

a) TPH/gas results expressed in mg/kg which is equivalent to parts per million (ppm). BTEX results expressed in micrograms per kilogram which is equivalent to parts per billion. Pb results expressed in milligrams per Liter which is equivalent to ppm.
b) ND = Not detected
C) NA = not analyzed

TABLE 2
Other detected compounds by GC/MS-EPA 8240

Sample	ft Depth	Acetone	2-Buta-none	4-methyl-2-Penta-none	TCA
MW1-5	5	ND	ND	ND	ND
-10	10	ND	ND	ND	ND
-15	15	ND	ND	ND	510
-20	20	ND	ND	ND	ND
MW2-5	5	ND	ND	ND	ND
-10	10	ND	ND	ND	ND
-15	15	ND	ND	ND	ND
-17	17	ND	ND	ND	510
MW3-5	5	ND	ND	ND	ND
-10	10	ND	ND	ND	ND
-15	15	25,000	27,000	4000	ND

TABLE 3

LABORATORY RESULTS FOR GASOLINE RANGE HYDROCARBONS AS TPHG FROM 1991 TO 1994

WELL	DATE	TPHG DHS MG/L	MDL UG/L
MW1	Aug-91	3.7	500
	Oct-91	1.6	50
	Nov-91	7.4	50
	Apr-92	3.3	50
	Oct-92	1.6	50
	Mar-93	0.48	50
	Jul-93	0.65	80
	Oct-93	0.38	50
	Feb-94	0.39	50
	Jun-94	0.25	50
MW2	Aug-91	26	500
	Oct-91	6.8	50
	Nov-91	15	50
	Apr-92	5.9	50
	Oct-92	16	50
	Mar-93	2.9	50
	Jul-93	2.3	400
	Oct-93	1.4	50
	Feb-94	2.3	160
	Jun-94	1.2	230
MW3	Aug-91	73	500
	Oct-91	40	50
	Nov-91	58	50
	Apr-92	5.9	50
	Oct-92	33	50
	Mar-93	36	1000
	Jul-93	27	4000
	Oct-93	30	1600
	Feb-94	150	9700
	Jun-94	23	2300

MDL = METHOD DETECTION LIMIT AS REPORTED BY LABORATORY
NA = NOT ANALYZED FOR / NOT REPORTED
ND = NOT DETECTED AT OR ABOVE METHOD DETECTION LIMITS

C:\GIBSON\915TABL2.XLS

Water purged during the development and sampling of the monitoring wells was temporarily stored on site in Department of Transportation approved, 55-gallon steel drums pending laboratory analytical results and proper disposal.

4.0 RESULTS OF GROUNDWATER SAMPLING

Groundwater samples collected from each of the monitoring wells MW-1 through MW-4 were submitted to Entech Analytical Labs, Inc., (formally known as Trace Analytical) following chain of custody protocol and were analyzed for volatile organic hydrocarbons by EPA Method 624. Copies of the chain of custody record and analytical reports are included as Appendix 2. Water sample analytical results are summarized in Tables 3 through 6.

cont TABLE 3 - DETECTED CONSTITUENTS IN WELL MW-1

Date	Ethyl-benzene	Methylene Chloride	Toluene	Xylene	Cis-1,2-Dichloroethene	1,2-Dichloroethene
Aug-91	ND	ND	ND	ND	ND	---
Oct-91	ND	ND	ND	ND	---	20
Nov-91	ND	6.8	ND	ND	---	---
Apr-92	35	ND	ND	10	---	---
Oct-92	ND	ND	ND	ND	16	---
Mar-93	2	ND	5	ND	ND	8.4
Jun-93	ND	ND	ND	ND	ND	ND
Oct-93*	ND	ND	ND	ND	ND	ND
Feb-94	ND	ND	ND	ND	ND	ND
June-94	ND	ND	ND	ND	ND	ND
01/16/95	4.7	ND	ND	ND	18	ND
1/16/95**	ND	ND	ND	ND	ND	ND
04/18/95	ND	ND	ND	ND	ND	ND
10/25/95	ND	ND	ND	ND	ND	ND
01/26/96	---	---	---	---	---	---
04/26/96	ND	ND	ND	ND	ND	ND
08/07/96	---	---	---	---	---	---
01/30/97	ND	ND	ND	ND	ND	ND

Notes: All results in µg/L (approximately equal to ppb)
**A concentration of 8.2 ppb TCE was detected during this sampling event*
***A concentration of 2.4 ppb benzene was detected during this sampling event*
ND = Not detected above laboratory reporting limit

cont. TABLE 3 - DETECTED CONSTITUENTS IN WELL MW-2

Date	Ethyl-benzene	Toluene	Xylenes	1,1-Dichloro-ethene	Cis-1,2-Dichloro-ethene	1,2-Dichloro-ethene
Aug-91*	97	200	540	ND	51	ND
Oct-91	120	350	820	ND	ND	ND
Nov-91**	ND	330	830	ND	ND	ND
Apr-92	81	ND	1,100	11	ND	ND
Oct-92	ND	ND	ND	ND	34	9.6
Mar-93	15	8.4	ND	11	ND	16
Jun-93	26	ND	26	7.3	ND	ND
Oct-93	17	ND	8.8	ND	ND	ND
Feb-94	ND	ND	ND	ND	ND	ND
Jun-94	ND	ND	ND	ND	ND	ND
01/16/95	9.2	ND	ND	12	21	ND
01/16/95	ND	ND	ND	8.5	ND	ND
04/18/95	ND	ND	ND	ND	ND	ND
10/25/95	ND	ND	ND	ND	ND	ND
01/26/96	---	---	---	---	---	---
04/26/96	ND	ND	ND	ND	ND	ND
08/07/96	---	---	---	---	---	---
01/30/97	ND	ND	ND	ND	ND	ND

Notes: All results in µg/L (approximately equal to ppb); ND = Not detected above laboratory reporting limits
**A concentration of 59 ppb 1,1,1-trichloroethene was detected during this sampling event*
***A concentration of 100 ppb 1,1,1-trichloroethene was detected during this sampling event*

cont. TABLE 3 - DETECTED CONSTITUENTS IN WELL MW-3

Date	Benzene	Ethyl-benzene	Toluene	Xylenes	1,1-Dichloro-ethane	1,2-Dichloro-ethene	MEK	1,1,1-Tri-chloro-ethane
Aug-91	ND	340	24,000	1,900	400	ND	21,000	100
Oct-91	ND	300	20,000	2,000	410	ND	17,000	ND
Nov-91	77	360	55,000	2,700	320	ND	64,000	100
Apr-92	76	350	32,000	5,200	200	ND	37,000	64
Oct-92	ND	270	1,500	1,300	230	94	ND	61
Mar-93	24	130	3,700	NA	67	34	1,400	34
Jun-93	18	530	1,100	1,000	57	ND	1,300	77
Oct-93	30	250	2,300	470	67	ND	300	ND
Feb-94	ND	300	27,000	1,400	ND	ND	ND	ND
Jun-94	ND	ND	16,000	6,100	ND	ND	ND	ND

Date	Benzene	Ethyl-benzene	Toluene	Xylenes	1,1-Dichloro-ethane	1,2-Dichloro-ethene	MEK	1,1,1-Tri-chloro-ethane
01/16/95	40	220	16,000	1,600	60	40	160	21
01/16/95	<1,200	340	20,000	5,000	<1,200	NA	<25,000	<1200
04/18/95	13	73	3,900	570	15	<5.0	<100	14
10/25/95	46	260	9,800	700	22	<5.0	<100	160
1/26/96*								
4 vols.	<250	380	9,900	2,000	<250	<250	<5,000	<250
10 vols.	<120	280	4,400	1,300	<120	<120	<2,500	<120
04/26/96	<5.0	54	2,500	750	<5.0	<5.0	<100	<5.0
08/07/96	<5.0	<5.0	3,400	<15	<5.0	<5.0	<100	<5.0
01/30/97	<5.0	220	1,800	410	<5.0	<5.0	<100	<5.0

Notes: All results in µg/L (approximately equal to ppb)
ND = Not detected above laboratory reporting limits
MEK = 2-Butanone
**Samples were collected first after 4 and then again after 10 well volumes were purged*

1/4 ppm for chlorin... chlorin... last 3 ...

cont. TABLE 3 - DETECTED CONSTITUENTS IN WELL MW-4

Date	Benzene	Ethyl-benzene	Toluene	Xylenes	1,1-Dichloro-ethane	1,2-Dichloro-ethene	MEK	1,1,1-Tri-chloro-ethane
01/16/95	ND	ND	ND	ND	ND	ND	ND	ND
01/16/95	ND	ND	ND	ND	ND	ND	ND	ND
04/18/95	ND	ND	ND	ND	ND	ND	ND	ND
10/30/95	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<100	<5.0
1/26/96	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<100	<5.0
04/26/96	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<100	<5.0
08/07/96	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<100	<5.0
02/14/97	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<100	<5.0

Notes: All results in µg/L (approximately equal to ppb)
ND = Not detected above laboratory reporting limits
MEK = 2-Butanone

5.0 DISCUSSION

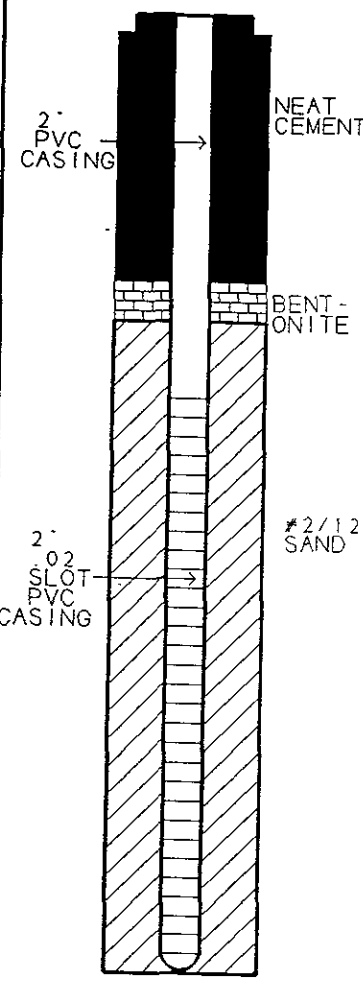
The samples collected from monitoring wells MW-1, MW-2, and MW-4 did not indicate detectable concentrations of constituents above reporting limits. The sample collected from monitoring well MW-3 indicated detectable concentrations of ethylbenzene, toluene, and xylenes. Concentrations of toluene reported from well MW-3 decreased since the previous sampling event conducted in August 1996. Concentrations of ethylbenzene and xylenes increased since the previous sampling event. However, only the toluene concentration was reported at a concentration above the Regional Water

BORING LOG

PROJECT NO: 90-1083	PROJECT NAME: GIBSON	BORING NO: MW1
LOCATION: 1199 E. 12th STREET. OAKLAND		DATE: 08/15/91
GEOLOGIST: REINHARD RUHMKE		PAGE 1 OF 1
GROUND WATER DEPTH: 21 FEET		DRILLER: HEW
DRILLING METHODS: 8" OD HOLLOW-STEM AUGER		

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL
0				4" ASPHALT: BASEROCK.		
5	MW1-5	18"	9 20 29	GRAYISH-GREEN. FINE SANDY CLAY: DRY	CL	
10	MW1-10	18"	9 12 17	GRAY MEDIUM SAND: DAMP: FRIABLE.		
15	MW1-15	18"	8 20 25	BROWN FINE SAND: DRY: GRAY PEBBLY MEDIUM SAND: LOOSE: DRY.	SC	
20	MW1-20	18"	17 26 27	DARK GRAY MEDIUM SAND: ODOR: WET.	SC	
25				BROWN CLAY: DRY END OF BORING		

WELL CONSTRUCTION



REMARKS

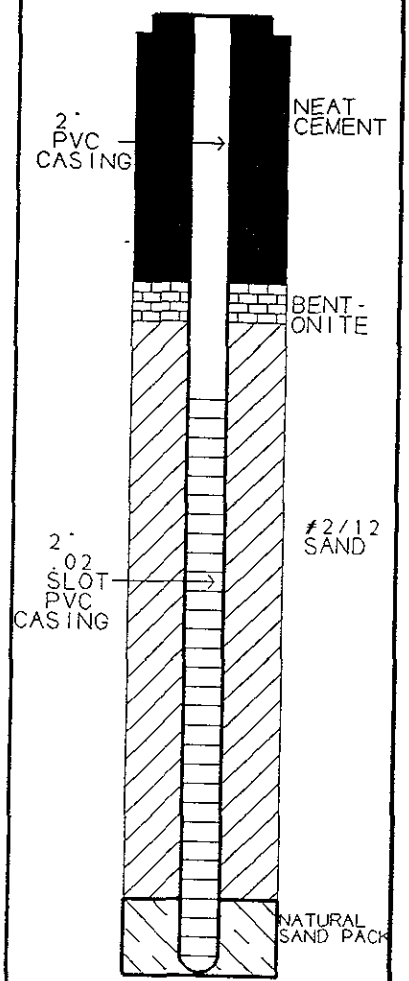
MILLER ENVIRONMENTAL COMPANY
RICHMOND, CA

BORING LOG

OJECT NO:90-1083	PROJECT NAME: GIBSON	BORING NO: MW2
OCATION:1199 E. 12th STREET, OAKLAND		DATE:08/15/91
EOLOGIST:REINHARD RUHMKE		PAGE 1 OF 1
GROUND WATER DEPTH:18.5 FEET		DRILLER: HEW
DRILLING METHODS:8" OD HOLLOW-STEM AUGER		

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL
0				4" ASPHALT: BASEROCK.		
1						
2						
3				BROWN GRAVELLY, SANDY, SILTY CLAY: CONTAINS OYSTER SHELLS: STIFF, DRY SLIGHTLY PLASTIC.		
4						
5	MW2-5	18"	12 19 18		CL	
6						
7						
8				GRAY SANDY, SILTY CLAY: CACANOID: SHELL FRAGMENTS		
9						
10	MW2-10	18"	5 7 14			
11						
12				GRAY-BROWN SILTY CLAY: NO SHELL FRAGMENTS: DRY		
13						
14						
15	MW2-15	18"	9 17 35			
16						
17	MW2-17	18"	10 12 15	GRAY FINE SAND: LOOSE: WET.	SC	
18						
19						
20						
21						
22						
23					SC	
24						
25						
26				BROWN CLAY: DRY END OF BORING		
27						
28						
29						
30						

WELL CONSTRUCTION



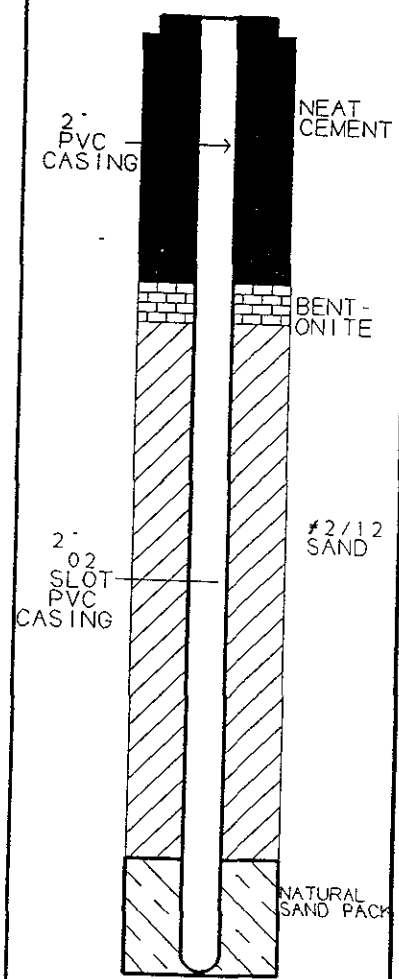
REMARKS

MILLER ENVIRONMENTAL COMPANY
RICHMOND, CA

BORING LOG

JECT NO: 90-1083	PROJECT NAME: GIBSON	BORING NO: MW3
CATION: 1199 E. 12th STREET. OAKLAND		DATE: 08/15/91
OLOGIST: REINHARD RUHMKE		PAGE 1 OF 1
ROUND WATER DEPTH: 16.5 FEET		DRILLER: HEW
DRILLING METHODS: 8" OD HOLLOW-STEM AUGER		

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL	WELL CONSTRUCTION
0				4" ASPHALT: BASEROCK.			
5	MW3-5	18"	25 16 17	BROWN SILTY CLAY: DRY: STIFF: SLIGHTLY PLASTIC.	CL		
10	MW3-10	18"	7 15 10	GRAY SANDY. SILTY CLAY: DRY			
15	MW2-15	18"	7 11 16				
20				GRAY CLAYEY FINE SAND: WET: LOOSE.	SC		
25				BROWN CLAY: DRY END OF BORING.			
30							



REMARKS

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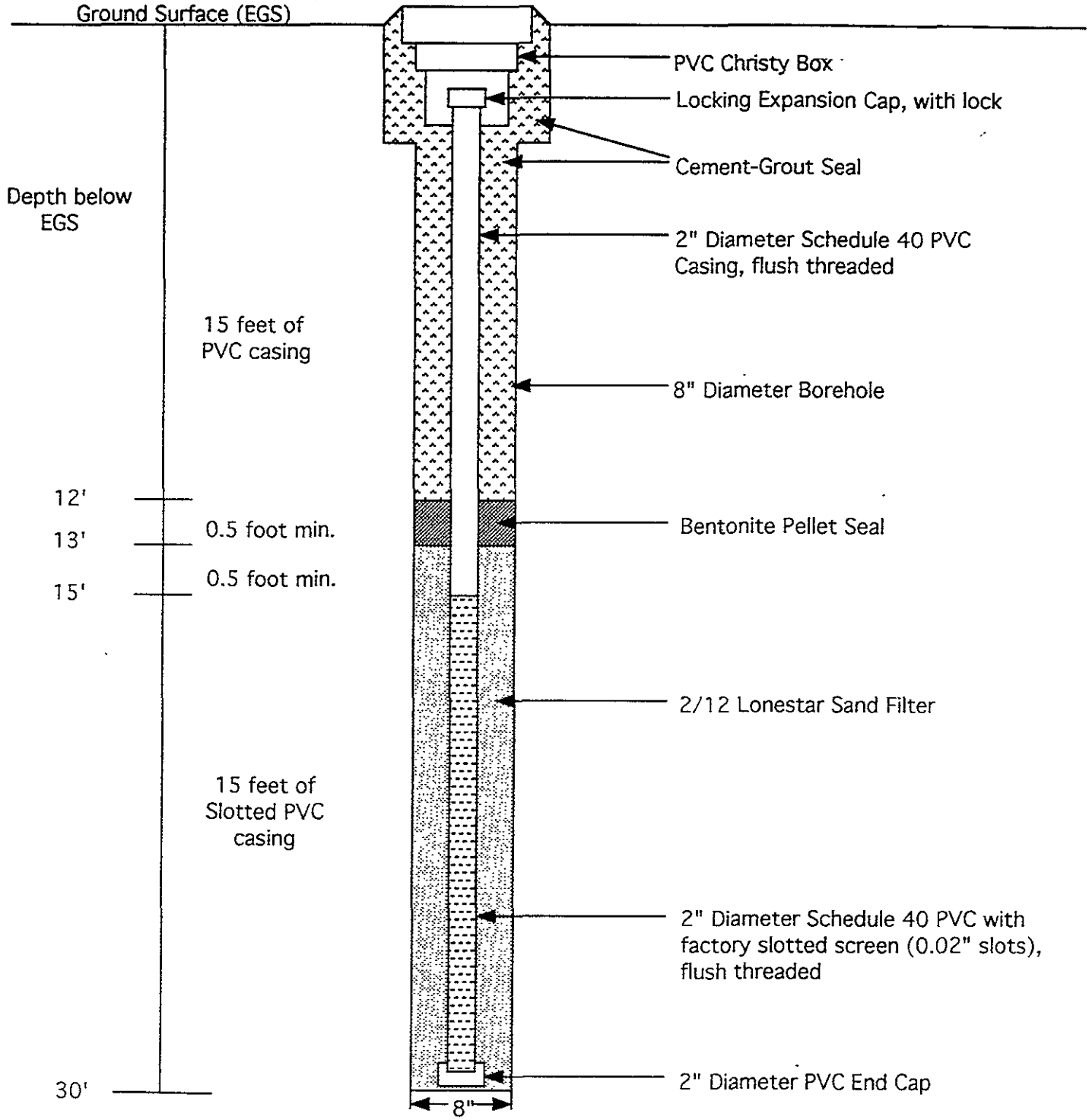
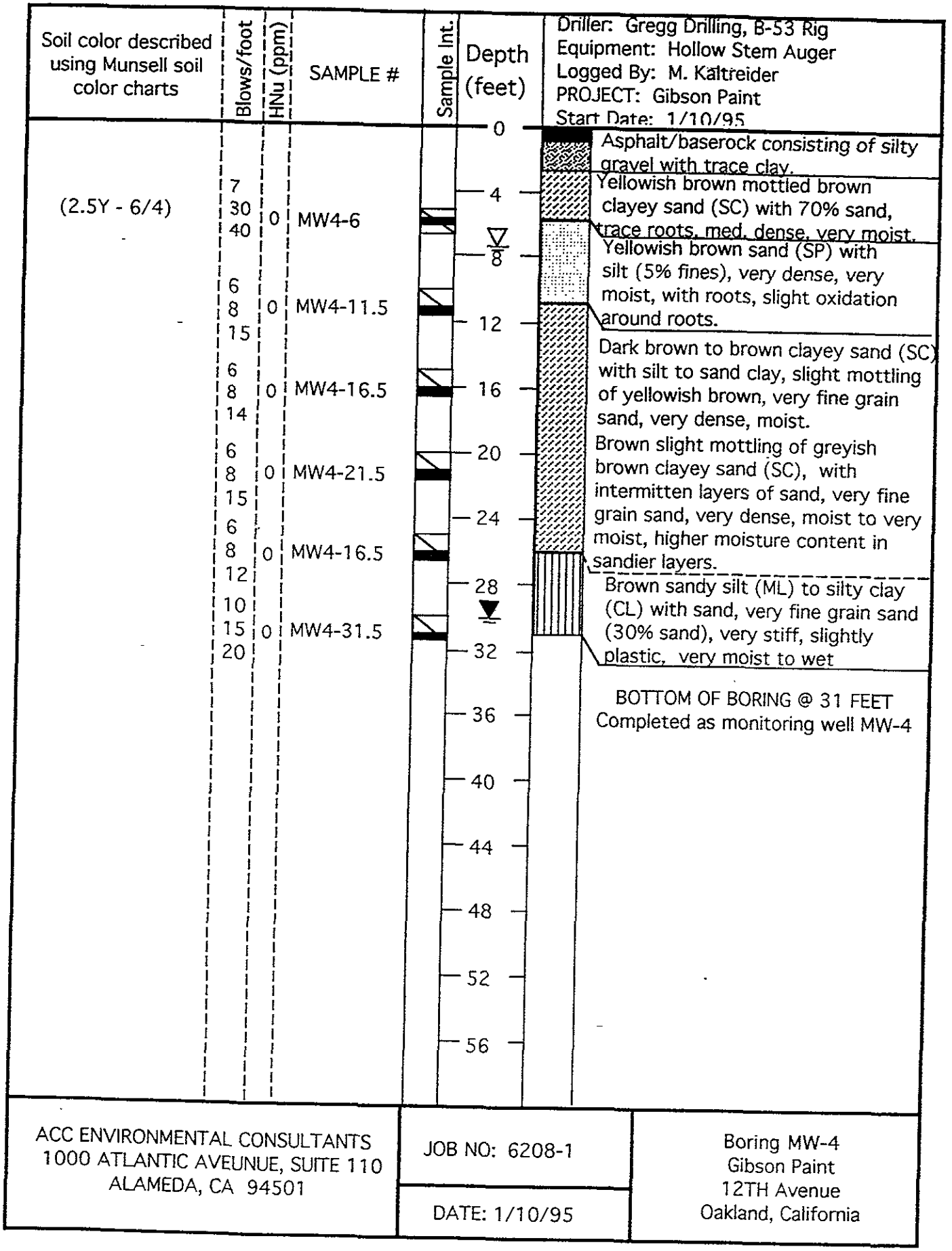
RICHMOND, CA



ACC Environmental Consultants 1000 Atlantic Avenue, Suite 110 Alameda, CA 94501	Job No.: 6208-1	Schematic of Monitoring Well No.: MW-4
	Date: 1/10/95	Gibson Paint Oakland, CA



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

JOB NO: 6208-1

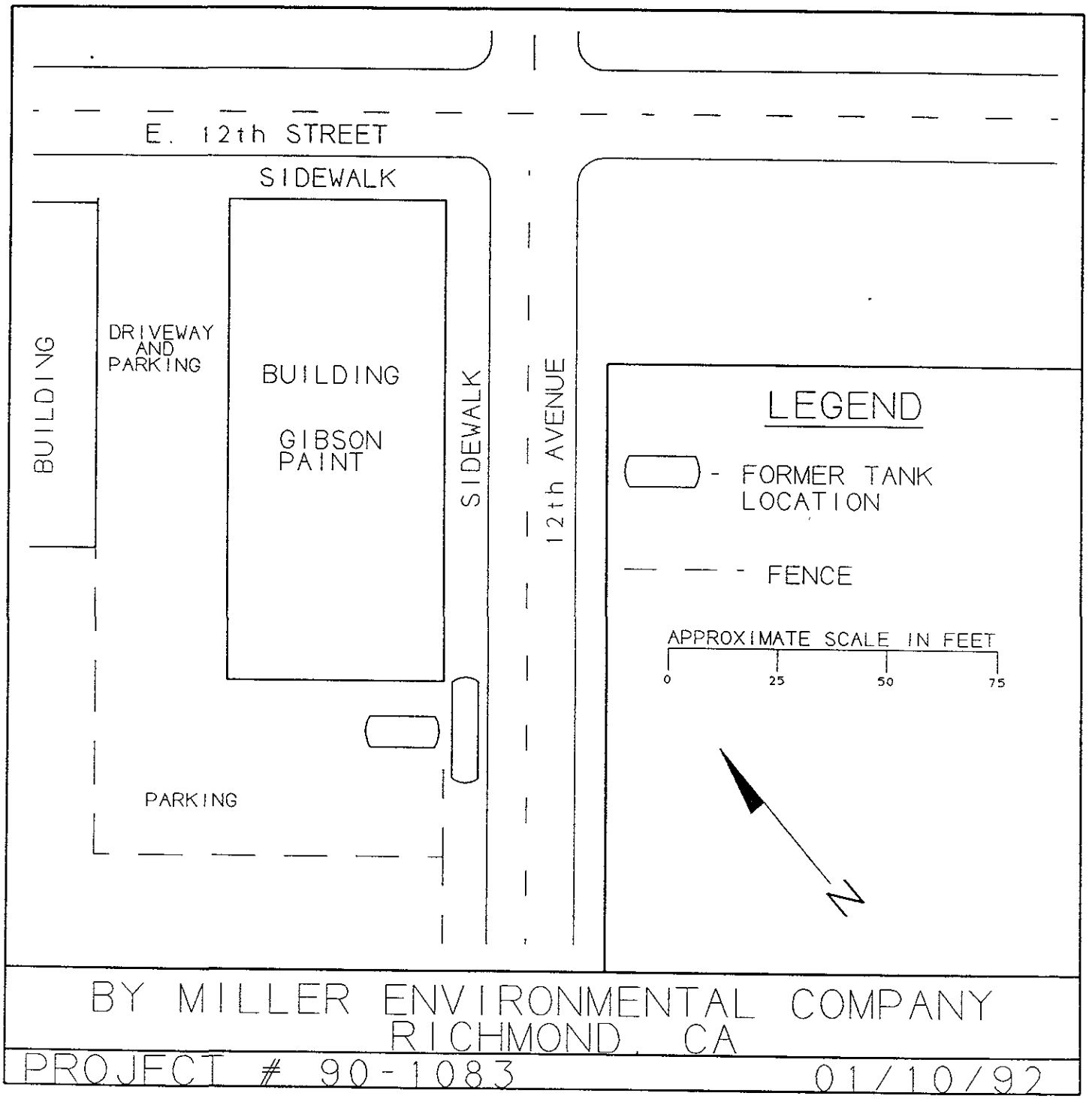
DATE: 1/10/95

Boring MW-4
Gibson Paint
12TH Avenue
Oakland, California

FIGURE 2

FORMER TANK LOCATIONS

GIBSON PAINT - 1199 E. 12th STREET. OAKLAND



BY MILLER ENVIRONMENTAL COMPANY
RICHMOND, CA

PROJECT # 90-1083 01/10/92