



environmental service

by Papineau, R.E.A. 791

R172
AG

January 21, 2003

Alameda County

Mr. Jack Sumski, Jr.
Davis Realty Co., Inc.
5010 Geary Boulevard Suite 1
San Francisco, CA 94118

FEB 24 2003

Environmental Health

**Subject: Ground Water Monitoring Event #4, January 15, 2003
for 1723 Fruitvale Avenue, Oakland, California (Project 2000-033.05)**

94601

Dear Mr. Sumski:

This letter is to convey the results of ground water monitoring event #4, conducted on January 15, 2003, at 1723 Fruitvale Avenue, Oakland (see Figure 1, page 6). Work was conducted on behalf of Davis Realty Co., Inc., by Environmental Service, to comply with the directive of the Alameda County Health Care Services Agency to perform monitoring of the three existing wells. This work was authorized by Davis Realty Co., Inc., under contract 2000-033.05. Attachments A and B include the ground water monitoring logs, laboratory analytical reports, and Sample Chain-of-Custody.

Background

The Property was formerly Walt's Transmission Shop. Jack Sumski acquired the Property in 1993 and has no actual knowledge or constructive knowledge of any past storage or use of perchlorethylene (PCE) on the Property. In December 1999 a Phase II investigation report was prepared at the discretion of the owner prior to a contemplated sale of the Property. In July 2000 a Phase III remediation report was prepared to document work overseen by the city of Oakland, including 1) removal of one hydraulic hoist and 2) remedial excavation of presumed PCE-affected soil.

The presumption of PCE impact was erroneous, based upon clerical or interpretive error by the contractor who performed the Phase II investigation. Laboratory-determined concentrations in parts per billion ($\mu\text{g}/\text{kg}$) were incorrectly reported as parts per million (mg/kg). Remedial excavation probably would not have been performed had the PCE concentration been accurately reported in December 1999.

In November 2000 and March 2001 Specified Soil and Ground Water Sampling reports were prepared on behalf of Davis Realty Co., Inc., by Environmental Service, at the request of the Alameda County Health Care Services Agency. The latter pair of reports documented soil borings drilled inside the building close to the location of the former hoist and Phase III remedial excavations, soil and ground water sampling, installation of three monitoring wells, and laboratory analysis results. Monitoring of the three wells was performed previously on February 20, 2001, June 27, 2001, and January 7, 2002.



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Based upon the available data in the above-mentioned reports, there has been no discovery of an unauthorized release of a petroleum hydrocarbon or PCE from the Property which could warrant a clean-up response. Gasoline and BTEX concentrations in the ground water sample collected outside in front of the building were reported by the analytical laboratory to be 270 µg/L as gasoline (with "no recognizable fuel pattern"); less than 0.5 µg/L as benzene, ethyl benzene and toluene; and 0.51 µg/L as xylenes. Detectable concentrations of PCE were found only in soil samples collected at locations SS-2, SB-4, and SB-5, all in parts per billion (see Figure 2, page 7). PCE concentrations in soil were reported as 24 µg/kg at 5-10 feet bgs at location SB-4, 34 µg/kg at 11 feet bgs at location SS-2, and 43 µg/kg at 20-20.5 feet bgs at location SB-5. PCE concentrations were highest near the ground water and decreased near the concrete floor at the surface. Concentrations of PCE, or its decomposition products TCE and cis 1,2-DCE, were not detected in the soil samples collected farther away from the hydraulic hoist area, and specifically were not detected in the soil sample collected adjacent to the floor drain or in the soil samples collected from locations in front of the building.

Monitoring wells MW-1, MWP-2 and MWP-3 were installed in January 2001, inside former Walt's Transmission Shop, generally within 10 to 15 feet of detectable PCE concentrations found in soil adjacent to the former hydraulic hoist (see Figure 2). The monitoring wells are screened with approximately 6 to 8 feet of 0.010-inch machine slotted, 2-inch diameter casing and Lonestar 2/12 sand. The screened interval was selected to span the saturated zone of sandy clay, sandy clayey gravel, and sandy gravel with trace clay, logged between 18 feet and 23.5 feet bgs. Each bore hole was terminated at 25.5 or 26 feet in a yellowish-brown (10 YR 5/4) sandy highly plastic clay soil observed at 23.5 to 26 feet bgs. In November 2000 and January 2001 first ground water was logged at 19 to 20 feet bgs. Well construction, well elevation survey, and analytical results are subjects of the report titled *Specified Soil and Ground Water Sampling and Laboratory Analyses for 1723 Fruitvale Avenue, Oakland, California, Project 2000-033.02, dated March 5, 2001, prepared by Environmental Service.*

Well Purging and Sampling

On January 14 and 15, 2003, before purging, depth to ground water was measured relative to the tops of the well casings (TOC), to the nearest hundredth of a foot, using an Environmental Instruments water level meter. On January 15, 2003, the depths to water surface from top of casing were 15.97 feet in well MW-1, 16.17 feet in well MWP-2, and 16.01 feet in well MWP-3. In comparison, on January 7, 2002, depths to water surface were 14.79 feet in well MW-1, 15.01 feet in well MWP-2, and 14.84 feet in well MWP-3. Floating product and sheen were not present in any of the three wells on January 15, 2003, or previously on June 27, 2001, February 20, 2001, and January 7, 2002.

Monitoring wells were purged with a submersible pump, until temperature, pH, and electrical conductivity had stabilized. After purging, before sampling, the temperature, pH, and electrical conductivity were observed to stabilize at 66 degrees Fahrenheit (°F), 6.4 pH, and approximately 410 µmhos/cm, on January 15, 2003. Dissolved oxygen and turbidity also were measured, and the concentration of dissolved oxygen was found to be approximately 3 mg/L and the turbidity was found to be less than 50 nephelometric turbidity units (NTUs) in all samples. Refer to Attachment A, Ground Water Monitoring Logs.



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Within 20 minutes after purging on January 15, 2002, the water surface elevation had recovered to within 0.05 foot of the original measured depth. All wells then were hand bailed using disposable polyethylene bailers and twisted polypropylene line to collect ground water samples. Ground water was observed and noted to be clear in all wells MW-1, MWP-2 and MWP-3. Each ground water sample was poured carefully into triplicate 40-ml VOAs with 1:1 hydrochloric acid (HCl) preservative. VOAs were labeled immediately after collection and then placed in an ice chest with blue ice and water ice.

Sample Handling and Laboratory Analysis

Ground water samples were delivered to McCampbell Analytical Inc., a State of California certified laboratory, ELAP #1644, on the same day as sampling. Prior to delivery, the samples remained in the custody of Environmental Service, chilled in the ice chest. Sample Chain-of-Custody procedures were used throughout to document sample condition and transfer.

The three ground water samples collected on January 15, 2003, were analyzed for PCE and other halogenated volatile organic compounds, in accordance with U.S. EPA Method 8010/601. The Sample Chain-of-Custody and laboratory analytical report are provided in Attachment B.

Results

Table 1 (page 5) summarizes results for January 15, 2003, January 7, 2002, June 27, 2001, February 20, 2001, and previous grab ground water sampling events. On January 15, 2003, PCE concentrations were similar to those monitored previously in January 2002, June 2001, and February 2001. On January 15, 2002, the ground water potentiometric surface sloped down toward the southwest (see Figure 2, page 7). Previously, the ground water potentiometric surface has sloped down toward the south southwest, southwest, or west southwest.

Interpretation

The shallow ground water impact zone is vertically confined within a thin lens between 18 and 24 feet bgs, which overlies yellowish-brown, sandy, clay logged from 23.5 feet bgs to the total depth in each bore hole. In January 2003, January 2002, and February 2001, the lens generally has had ground water throughout the permeable layer. In June 2001, only, the water column was 2 feet thick and the lens was not capable of producing 2 gallons per minute without drawing down or de-watering the wells.

The source of PCE potentially could be upgradient of SB-5 (see Figure 2), even off site. A vicinity drive-by indicated that dry cleaners are located at 1917 Fruitvale and 2210 Fruitvale. According to the Polk's reverse directories, Vale Cleaners (1917 Fruitvale Avenue) and Payless Cleaners (2210 Fruitvale Avenue) were present at the latter addresses in 1967 and 1969, and presumably for the entire intervening period through January 2003. In 1967 there were additional dry cleaners at 2231 Fruitvale Avenue and 2683 Fruitvale Avenue, and also at 2621 Foothill Boulevard, 3666 Foothill Boulevard, and 3941 Foothill Boulevard. Old dry cleaners are potential off-site sources of PCE and, like all commercial and residential uses, have sewer connections to the municipal sewer. Flow in the sewer beneath Fruitvale Avenue is downslope, toward the south.



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Conclusions and Recommendations

No source of PCE in soil remains on the Property that could warrant a remedial action. The shallow ground water impact zone is vertically confined within the interval from 18 to 24 feet bgs. Concentrations of PCE in ground water are relatively low, stable, and vertically confined, such that remedial action is not warranted. The U.S. EPA's Maximum Contaminant Level for Drinking Water is 5 µg/L as PCE, but the shallow ground water that has been affected is not a potential drinking water source.

A signed copy of this report should be forwarded by the Property Owner to Alameda County Health Care Services Agency, to the specialist named below:

Mr. Don Hwang
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway Suite 250
Alameda, CA 94502-6577

TEL (510) 567-6746 FAX (510) 337-9335

Thank you for this opportunity to serve Davis Realty Co., Inc. If you have any questions or require additional information, please contact me directly.

Sincerely,

FOR AND ON BEHALF OF ENVIRONMENTAL SERVICE

Marc Papineau
California Registered Environmental Assessor #791

R. Mark Armstrong
California Registered Geologist #6134

enclosures: **Figures 1 and 2**
 Attachment A, Ground Water Monitoring Logs
 Attachment B, Laboratory Analytical Report and Sample Chain-of-Custody



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1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.05

TABLE 1
ANALYTICAL RESULTS FOR GROUND WATER SAMPLES
Date of Last Revision: 1/15/2003 All Results in Parts per Billion (µg/L)^a

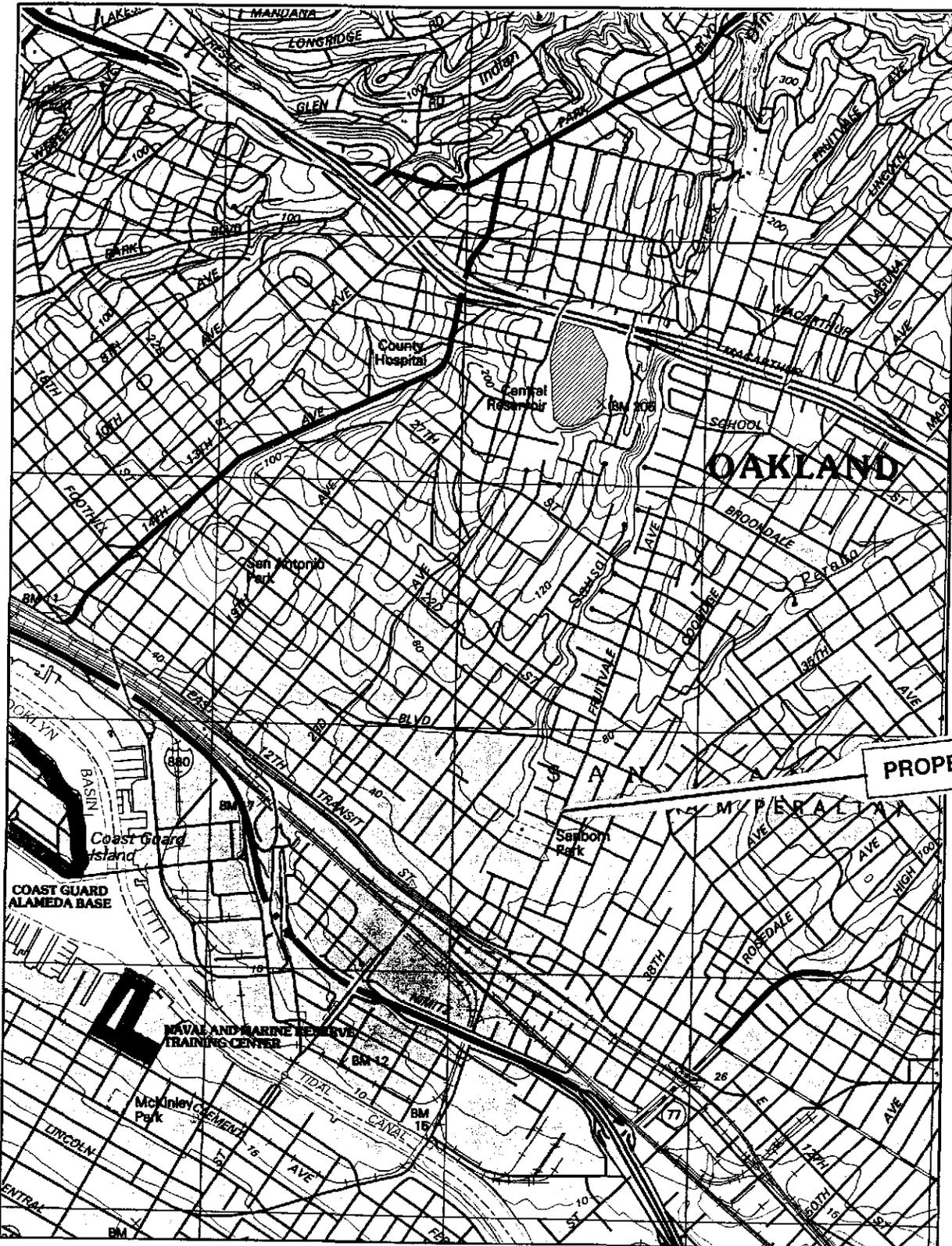
Sample or Well Number	Date of Sample Collection	Ground Water		Volatile Halocarbons ^b PCE	Specified Petroleum Hydrocarbons			
		Depth (Feet)	Elevation (Feet msl)		Gasoline ^c	BTEX ^d	MtBE ^d	Total Petroleum Hydrocarbons ^e
MW-1	1/15/2003	15.97	43.97	180	nt	nt	nt	nt
	1/7/2002	14.79	45.15	160	nt	nt	nt	nt
	6/27/2001	21.53	38.41	130	nt	nt	nt	nt
	2/20/2001	16.69	43.25	160	68g	ND	ND	ND
MWP-2	1/15/2003	16.17	43.87	180	nt	nt	nt	nt
	1/7/2002	15.01	45.03	150	nt	nt	nt	nt
	6/27/2001	21.64	38.40	120	nt	nt	nt	nt
	2/20/2001	16.89	43.15	140	62g	ND	ND	ND
MWP-3	1/15/2003	16.01	43.98	120	nt	nt	nt	nt
	1/7/2002	14.84	45.15	110	nt	nt	nt	nt
	6/27/2001	21.55	38.44	130	nt	nt	nt	nt
	2/20/2001	16.75	43.24	140	64g	ND	ND	ND
SB6-GW	11/14/2000	20	40	290	65g	ND	nt	ND (<74) ^{f,DL} ND (<368) ^{f,HO}
SB1-GW-1	12/10/1999	23.5	35	42	270 ^h	0.51(X)	ND	2,100
Detection Limits				2.5	50	0.5	5.0	1,000 ^e

NOTES:

- PCE Tetrachloroethene, also perchloroethylene or PCE
- nt Not tested for the stated parameter or not available
- ND None detected at or above the Detection Limits reported by the laboratory either in the bottom row of Table 1 or in parentheses "()" if different.
- ^a Laboratory results for Volatile Halocarbons (HVOCs), and also for gasoline; benzene, toluene, ethyl benzene, and xylenes (BTEX); methyl tertiary butyl ether (MtBE); and Total Petroleum Hydrocarbons are all stated in parts per billion (µg/L) for consistency.
- ^b HVOCs were analyzed in accordance with U.S. EPA Method 601/8010.
- ^c Gasoline was analyzed in accordance with U.S. EPA method 5030/8015M.
- ^d Benzene, toluene, ethyl benzene, and xylenes (BTEX), and methyl tertiary butyl ether (MtBE) were analyzed in accordance with U.S. EPA Method 8020.
- ^e Total petroleum hydrocarbons were analyzed as Total Recoverable Petroleum Hydrocarbons in accordance with U.S. EPA Method 418.1, unless noted specifically otherwise.
- ^f Tested in accordance with U.S. EPA Method 3550/8015M as diesel (DL) and also as hydraulic oil (HO).
- ^g Laboratory flagged the result and/or noted "one or more individual peaks."
- ^h Laboratory flagged result and noted "no recognizable pattern."

SOURCE:

McCampbell Analytical Inc, (Cal/EPA ELAP # 1644), January 15, 2003;
January 14, 2002; June 29, 2001; February 26, 2001; and December 17, 1999; and,
Entech Analytical Labs, Inc. (Cal/EPA ELAP #2346), November 20, 2000.



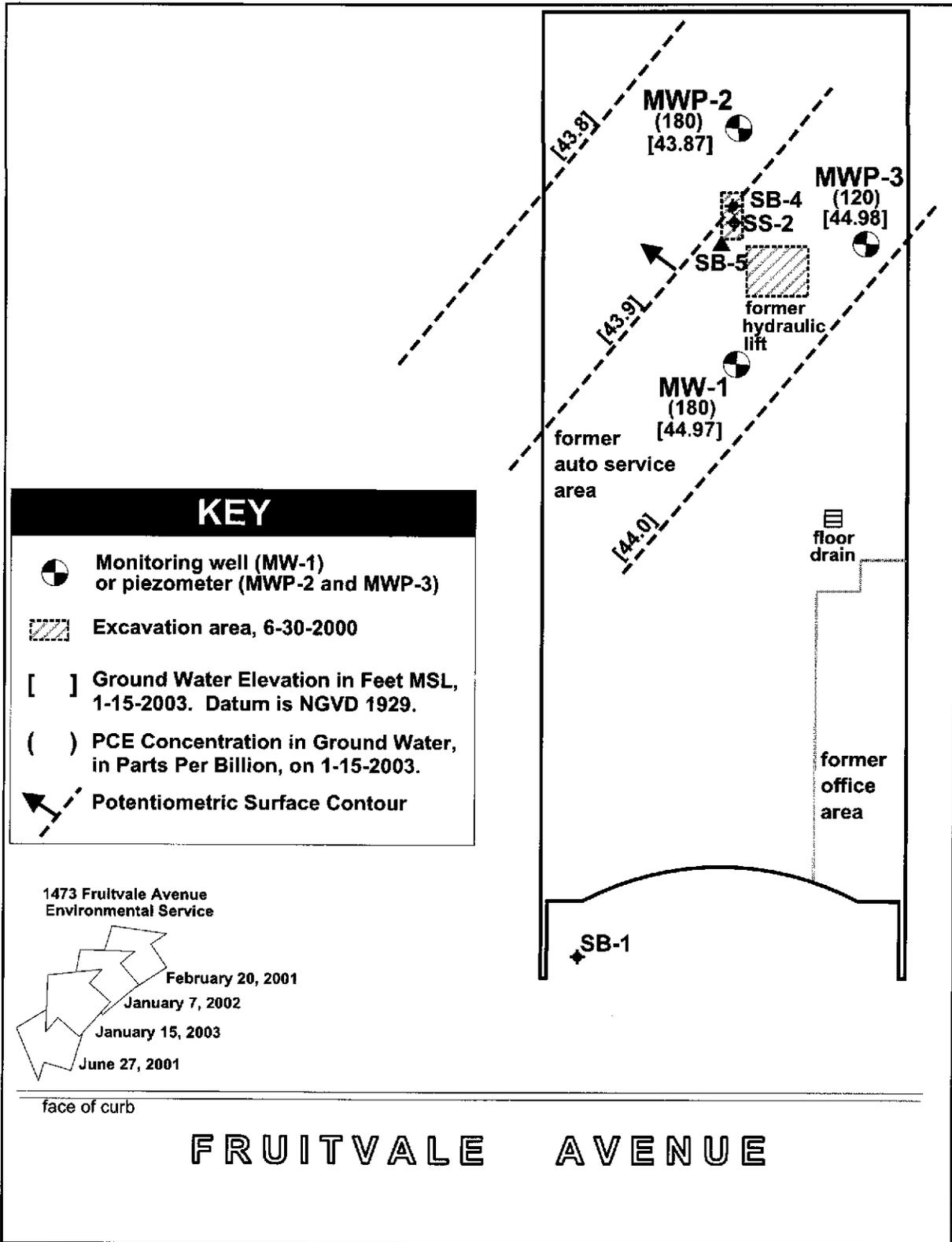
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1:24,000

Figure 1
Topographic Map
1723 Fruitvale Avenue
Oakland, California

U. S. Geological Survey, 7.5-Minute Series (Topographic),
Oakland East, 1997



 <p>environmental service by Papineau, R.E.A. 791</p>	 <p>5.0 ft 10.0 ft</p>	<p>Figure 2 Potentiometric Surface Map for January 15, 2003 1723 Fruitvale Avenue Oakland, California</p>
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Ground Water Monitoring Log

Well and Sampling Information



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Site Location 1723 Fruitvale Av. Oakland, CA
 Client Davis Realty Co.
 Well Number MW-1
 Project No. 2000-033.05

Date 1/15/2003
 Time 1146
 Weather Fair, sunny
 Sampler M. Papineau

WELL INFORMATION

Casing Type PVC
 Casing Diameter 2-inch
 Water Level (Pre-Purge) 15.97 ft
 Total Depth 25 ft
 Measuring Instrument Env. Instru.
 Datum TOC

Well Condition

Sediment Suspended
 Casing O.K.
 Cover Present
 Cap Present
 Lock Present, locked

PURGING INFORMATION

Method Submersible pump
 Bailer or Tubing Material
 Polyethylene
 1/2-In. Braided PVC X
 Teflon
 Braided Nylon
 Stainless
 Rope None
 Nylon Braided
 Polypropylene Twist
 Polypropylene Braided

Cleaning Procedure

Downhole tape, line, tubing, and electrical line were washed with TSP and water and rinsed in a 19-gallon bucket. MW-1 was purged first, then MWP-2 & MWP-3.

Pump Rate 1.1 gpm
 Elapsed Time 11 min
 Volume Pumped 12 gallons
 Number of Casing 8
 Volumes Purged
 Start Time 1402 End Time 1413

TIME SERIES DATA

Measurement	1	2	3	4	5	6	7	8
Number of Casing Volumes	3	4	5	7	8			
Water Temp. (°C)	18.1	18.1	18.4	19.0	19.1	NOTE: Temperature may be affected by pump and hose.		
pH	6.18	6.27	6.26	6.28	6.30			
Dissolved Oxygen (mg/L)	8.21	7.80	7.70	7.64	7.48			
Turbidity (NTUs)	71	11	1	1	2			
Specific Conductance (µmhos/cm)	433	410	416	415	413			

SAMPLING INFORMATION

Method Hand Bail
 Material (X Bailer Tubing)
 Polyethylene X
 Tygon
 Teflon
 Stainless
 Cleaning Procedure Clean dedicated bailer.

Rope
 Polypropylene Twist
 Polypropylene Braided X
 Sample Time 1243, on 1/15/2003
 pH 6.47
 Temp. °F 65
 Spec. Cond. (µmhos/cm) 404



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Ground Water Monitoring Log Well and Sampling Information

Site Location 1723 Fruitvale Av. Oakland, CA
Client Davis Realty Co., Inc.
Well Number MWP-2
Project No. 2000-033.05

Date 1/15/2003
Time 1147
Weather Fair, sunny
Sampler M. Papineau

WELL INFORMATION

Casing Type PVC
Casing Diameter 2-inch
Water Level (Pre-Purge) 16.17 ft
Total Depth 24.8 ft
Measuring Instrument Env. Instru.
Datum TOC

Well Condition

Sediment Clear
Casing O.K.
Cover Present
Cap Present
Lock Present, locked

PURGING INFORMATION

Method Submersible pump
Bailer or Tubing Material
Polyethylene
1/2-In. Braided PVC X
Teflon
Braided Nylon
Stainless
Rope None
Nylon Braided
Polypropylene Twist
Polypropylene Braided

Cleaning Procedure

The downhole tape, pump, line, tubing, and electrical line were washed with TSP and water and rinsed in a 19-gallon bucket. MWP-2 was purged first second.

Pump Rate 1.3 gpm
Elapsed Time 9 min
Volume Pumped 11 gallons
Number of Casing 8
Volumes Purged
Start Time 1427 **End Time** 1436

TIME SERIES DATA

Measurement	1	2	3	4	5	6	7	8
Number of Casing Volumes	2	3	5	8				
Water Temp. (°C)	19.1	18.9	19.0	19.2		NOTE: Temperature may be affected by the pump.		
pH	6.44	6.32	6.32	6.30				
Dissolved Oxygen (mg/L)	7.00	7.04	7.03	6.66				
Turbidity (NTUs)	82	81	82	69				
Specific Conductance (µmhos/cm)	404	402	401	401				

SAMPLING INFORMATION

Method Hand Bail
Material (X Bailer Tubing)
Polyethylene X
Tygon
Teflon
Stainless
Cleaning Procedure Clean dedicated bailer.

Rope Polypropylene Twist
Polypropylene Braided X
Sample Time 1229, on 1/15/2003
pH 6.39
Temp. °F 66
Spec. Cond. (µmhos/cm) 410



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Ground Water Monitoring Log Well and Sampling Information

Site Location 1723 Fruitvale Av. Oakland CA
 Client Davis Realty Co., Inc.
 Well Number MWP-3
 Project No. 2000-033.05

Date 1/15/2003
 Time 1149
 Weather Fair, sunny
 Sampler M. Papineau

WELL INFORMATION

Casing Type PVC
 Casing Diameter 2-inch
 Water Level (Pre-Purge) 16.01 ft
 Total Depth 25.9 ft
 Measuring Instrument Env. Instr.
 Datum TOC

Well Condition

Sediment Suspended
 Casing O.K.
 Cover Present
 Cap Present
 Lock Present, locked

PURGING INFORMATION

Method Submersible pump
 Bailer or Tubing Material
 Polyethylene
 1/2-In. Braided PVC X
 Teflon
 Braided Nylon
 Stainless
 Rope None
 Nylon Braided
 Polypropylene Twist
 Polypropylene Braided

Cleaning Procedure

The downhole tape, pump, tubing, and electrical line were washed with TSP and water and rinsed with water.

Pump Rate 1.5 gpm
 Elapsed Time 8 minutes
 Volume Pumped 12 gallons
 Number of Casing 7
 Volumes Purged
 Start Time 1154 End Time 1202

TIME SERIES DATA

Measurement	1	2	3	4	5	6	7	8
Number of Casing Volumes	1	4	5	6	7			
Water Temp. (°F)	18.3	18.7	18.9	18.9	18.9	NOTE: Temperature may be affected by pump & discharge hose.		
pH	6.30	6.37	6.34	6.35	6.30			
Dissolved Oxygen (mg/L)	2.77	2.32	2.42	2.51	2.74			
Turbidity (NTUs)	122	49	47	21	21			
Specific Conductance (µmhos/cm)	414	417	415	415	410			

SAMPLING INFORMATION

Method Hand Bail
 Material (X Bailer ___ Tubing)
 Polyethylene X
 Tygon
 Teflon
 Stainless
 Cleaning Procedure Clean dedicated bailer.

Rope
 Polypropylene Twist
 Polypropylene Braided X
 Sample Time 1217, on 1/15/2003
 pH 6.40
 Temp. °F 66
 Spec. Cond. (µmhos/cm) 412

**LABORATORY ANALYTICAL REPORT
AND
SAMPLE CHAIN-OF-CUSTODY**



McC Campbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Service 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID: #2000-033.05	Date Sampled: 01/15/03
		Date Received: 01/15/03
	Client Contact: Marc Papinean	Date Reported: 01/21/03
	Client P.O.:	Date Completed: 01/21/03

WorkOrder: 0301175

January 21, 2003

Dear Marc:

Enclosed are:

- 1). the results of 3 analyzed samples from your #2000-033.05 project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



Environmental Service 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID: #2000-033.05	Date Sampled: 01/15/03
		Date Received: 01/15/03
	Client Contact: Marc Papinean	Date Extracted: 01/15/03
	Client P.O.:	Date Analyzed: 01/15/03

Halogenated Volatile Organics by P&T and GC-ELCD (8010 Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8021B

Work Order: 0301175

Lab ID	0301175-001A	0301175-002A	0301175-003A	Reporting Limit for DF =1	
Client ID	MW-1	MWP-2	MWP-3	S	W
Matrix	W	W	W		
DF	20	20	10		
Compound	Concentration			µg/kg	µg/L
Bromodichloromethane	ND<10	ND<10	ND<5.0	NA	0.5
Bromoform	ND<10	ND<10	ND<5.0	NA	0.5
Bromomethane	ND<10	ND<10	ND<5.0	NA	0.5
Carbon Tetrachloride	ND<10	ND<10	ND<5.0	NA	0.5
Chlorobenzene	ND<10	ND<10	ND<5.0	NA	0.5
Chloroethane	ND<10	ND<10	ND<5.0	NA	0.5
2-Chloroethyl vinyl ether	ND<10	ND<10	ND<5.0	NA	0.5
Chloroform	ND<10	ND<10	ND<5.0	NA	0.5
Chloromethane	ND<10	ND<10	ND<5.0	NA	0.5
Dibromochloromethane	ND<10	ND<10	ND<5.0	NA	0.5
1,2-Dichlorobenzene	ND<10	ND<10	ND<5.0	NA	0.5
1,3-Dichlorobenzene	ND<10	ND<10	ND<5.0	NA	0.5
1,4-Dichlorobenzene	ND<10	ND<10	ND<5.0	NA	0.5
Dichlorodifluoromethane	ND<10	ND<10	ND<5.0	NA	0.5
1,1-Dichloroethane	ND<10	ND<10	ND<5.0	NA	0.5
1,2-Dichloroethane	ND<10	ND<10	ND<5.0	NA	0.5
1,1-Dichloroethene	ND<10	ND<10	ND<5.0	NA	0.5
cis-1,2-Dichloroethene	ND<10	ND<10	ND<5.0	NA	0.5
trans-1,2-Dichloroethene	ND<10	ND<10	ND<5.0	NA	0.5
1,2-Dichloropropane	ND<10	ND<10	ND<5.0	NA	0.5
cis-1,3-Dichloropropene	ND<10	ND<10	ND<5.0	NA	0.5
trans-1,3-Dichloropropene	ND<10	ND<10	ND<5.0	NA	0.5
Methylene chloride	ND<10	ND<10	ND<5.0	NA	0.5
1,1,2,2-Tetrachloroethane	ND<10	ND<10	ND<5.0	NA	0.5
Tetrachloroethene	180	180	120	NA	0.5
1,1,1-Trichloroethane	ND<10	ND<10	ND<5.0	NA	0.5
1,1,2-Trichloroethane	ND<10	ND<10	ND<5.0	NA	0.5
Trichloroethene	ND<10	ND<10	ND<5.0	NA	0.5
Trichlorofluoromethane	ND<10	ND<10	ND<5.0	NA	0.5
Vinyl Chloride	ND<10	ND<10	ND<5.0	NA	0.5

Surrogate Recoveries (%)

%SS:	95.7	95.5	95.9		
Comments					

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



QC SUMMARY REPORT FOR SW8021B

Matrix: W

WorkOrder: 0301175

EPA Method: SW8021B		Extraction: SW5030B			BatchID: 5636		Spiked Sample ID: N/A			
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD/Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Chlorobenzene	N/A	10	N/A	N/A	N/A	93.7	90.8	3.18	70	130
1,1-Dichloroethene	N/A	10	N/A	N/A	N/A	115	113	1.98	70	130
Trichloroethene	N/A	10	N/A	N/A	N/A	86	83.5	3.03	70	130
%SS:	N/A	100	N/A	N/A	N/A	93.6	90.6	3.18	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / (MS + MSD) * 2$.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

McC Campbell Analytical Inc.



110 Second Avenue South, #107
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0301175

Client:

Environmental Service
5789 Gold Creek Drive
Castro Valley, CA 94552

TEL: (510) 881-8574
FAX: (510) 581-7204
ProjectNo: #2000-033.05
PO:

Date Received: 1/15/03

Date Printed: 1/15/03

Sample ID	ClientSampleID	Matrix	Collection Date	Hold	SW8021B	Requested Tests
0301175-001	MW-1	Water	1/15/03 12:43:00 PM		A	
0301175-002	MWP-2	Water	1/15/03 12:29:00 PM		A	
0301175-003	MWP-3	Water	1/15/03 12:17:00 PM		A	

Prepared by: Sonia Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

8015/175

0301175

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH
 24 HR
 48 HR
 72 HR
 5 DAY

EDF Required? Yes No

Report To: MARC PAPIREAU Bill To: SAME
 Company: environmental service
5789 GOLD CREEK DRIVE
CASANO VALLEY, CA E-Mail: Marc.Papireau@es.com
 Tele: (925) 881-8574 Fax: (925) 881-7204
 Project #: 2000-033.05 Project Name:
 Project Location: 1723 FRUITVALE AVE, OAKLAND, CA
 Sampler Signature: Marc Papireau (MP)

Analysis Request

Other

Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED									
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other						
✓ MW-1		1-15-2003	1243	3	VOA	X					X	X								
✓ MWP-2		1-15-2003	1229	3	VOA	X					X	X								
+ MWP-3		1-15-2003	1217	3	VOA	X					X	X								

BTEX & TPH as Gas (602/8020 + 8015)/MTBE																				
TPH as Diesel (8015)																				
Total Petroleum Oil & Grease (S520 E&F/B&F)																				
Total Petroleum Hydrocarbons (418.1)																				
EPA 601 / 8010											X									
BTEX ONLY (EPA 602 / 8020)																				
EPA 608 / 8080																				
EPA 608 / 8080 PCB's ONLY																				
EPA 624 / 8240 / 8260																				
EPA 625 / 8270																				
PAH's / PNA's by EPA 625 / 8270 / 8310																				
CAM-17 Metals																				
LUFT 5 Metals																				
Lead (7240/7421/239.2/6010)																				
RC1																				

Relinquished By: <u>Marc Papireau</u>	Date: <u>1/15/03</u>	Time: <u>1412</u>	Received By: <u>Wilson</u>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/C **GOOD CONDITION**
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB PRESERVED IN LAB

VOAS O&G METALS OTHER
 PRESERVATION APPROPRIATE CONTAINERS

Martin Keller