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**GROUNDWATER
MONITORING REPORT**

R0384



August 23, 1999

Peralta Maintenance Yard
501 5th Avenue
Oakland, California

Prepared For:
Mr. Robert Mibach
Peralta Community College District

ACC Project No. 6045-014.00

OAKLAND • SACRAMENTO
SEATTLE • LOS ANGELES

GROUNDWATER MONITORING REPORT

**Peralta Community College District Maintenance Yard
501 5th Avenue
Oakland, California**

ACC Project No. 6045-014.00

Prepared for:

Mr. Robert Mibach
Peralta Community College District
333 East 8th Street
Oakland, California


August 23, 1999

Prepared by:



Stephen Southern
Project Manager

Reviewed by:



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Senior Geologist

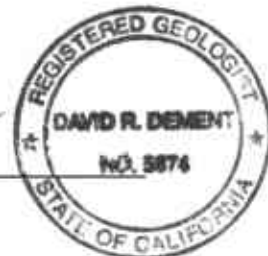


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GROUNDWATER MONITORING REPORT
Peralta Community College District Maintenance Yard
501 5th Avenue
Oakland, California

1.0 INTRODUCTION

This report presents the procedures and findings of the groundwater investigation conducted by ACC Environmental Consultants, Inc., (ACC) on behalf of the Peralta Community College District (District), site owner at 501 5th Avenue, Oakland, California (Figure 1). The project objective was to evaluate the extent of groundwater impact from the previous underground storage of petroleum products using analysis of groundwater samples collected from one of two onsite monitoring wells.

2.0 BACKGROUND

Five underground storage tanks (USTs) were installed at the subject property prior to the 1960s. The tanks were used for storage of fuel and waste oil for the City of Oakland Corporation Yard. The tanks consisted of two 6,000-gallon gasoline tanks, one 2,000-gallon diesel tank, one 2,000-gallon ethyl (premium) gasoline tank, and one 550-gallon waste-oil tank. In 1980, the District acquired the property. The District abandoned the five USTs by filling them with water and installed three new fiberglass USTs. The new tanks consisted of two 6,000-gallon and one 4,000-gallon fiberglass tanks used to store gasoline fuel. The new tanks were installed approximately 150 feet from the original tanks.

2.1 UST Removal

In 1992, the five original USTs were removed by R.S. Eagan. During removal, eight soil samples and one grab groundwater sample were collected from the excavation. Laboratory analysis of the soil samples indicated concentrations up to 228 parts per million (ppm) total petroleum hydrocarbons as diesel (TPHd), 134 ppm total petroleum hydrocarbons as gasoline (TPHg), 2,407 parts per billion (ppb) benzene, 4,617 ppb toluene, 7,170 ppb ethylbenzene, 6,147 ppb total xylenes, and 5,477 ppm oil and grease. Laboratory analysis of the water sample collected from the excavation indicated concentrations of 170,000 ppb TPHd, 15,000 ppb TPHg, 286 ppb benzene, 698 ppb toluene, 300 ppb ethylbenzene, 808 ppb total xylenes, and 284,000 ppb oil and grease.

2.2 Previous Assessments

In September 1992, a preliminary study was performed by Environ of Emeryville, California, to evaluate soil and groundwater conditions at the site and at neighboring sites as part of a due diligence investigation associated with the sale of the property. This study indicated that hydrocarbon constituents reported in the soil and grab groundwater samples at the District Maintenance Yard were possibly a result of regional impact.

In November 1992, ACC performed a subsurface environmental site assessment of the soil around the former tank excavation. Concentrations of TPHg and motor oil were detected in the soil and

groundwater samples collected from the borings. Laboratory analysis of the soil samples indicated concentrations up to 370 ppm TPHg, 12 ppm TPHd, 5,342 ppm motor oil, 76.94 ppm benzene, 73.9 ppm toluene, 30.4 ppm ethylbenzene, and 95.41 ppm xylenes.

In November 1993, the three fiberglass gasoline USTs were removed from the property. Soil samples collected from the excavation indicated concentrations up to 1.3 ppm TPHg, 0.019 ppm benzene, and 0.018 ppm toluene. Initial groundwater samples collected from the excavation indicated 27,000 ppb TPHg, 1,200 ppb benzene, 5,100 ppb toluene, 690 ppb ethylbenzene, and 5,700 ppb xylenes. During removal of the tanks, approximately 3,500 gallons of water were removed from the excavation. Analysis of subsequent groundwater samples from the excavation indicated concentrations of 210 ppb TPHg and 14 ppb xylenes. Due to the detectable levels of constituents reported in the soil and groundwater samples, additional groundwater investigation was requested by the Alameda County Health Care Services Agency (ACHCSA).

In February 1994, four additional borings were drilled on site and converted into 2-inch-diameter monitoring wells (MW-1, MW-2, MW-3, and MW-4). The monitoring wells were used to evaluate the extent of groundwater impact from the two former excavations (Figure 2). Laboratory analysis of the groundwater samples collected in February 1994 from monitoring wells MW-1 and MW-4 (downgradient from the tank excavations) indicated no detectable levels of the constituents evaluated. The groundwater results from monitoring well MW-1 indicated a downgradient extent of groundwater impact. Laboratory analysis of groundwater samples collected from monitoring wells MW-2 and MW-3 (upgradient of the former tank excavations) indicated detectable levels of constituents. Groundwater samples collected from borings MW-2 and MW-3 indicated detectable levels of TPHd, TPHg, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Motor oil was reported in the soil sample collected from boring MW-2. However, motor oil was not detected in the groundwater sample collected from monitoring well MW-2. A concentration of TPHd was detected only in the soil sample from boring MW-2.

An additional soil and groundwater investigation was conducted on May 9, 1994, to evaluate possible upgradient sources of petroleum hydrocarbons on site. The investigation included drilling five borings upgradient (east) of existing monitoring wells MW-2 and MW-3. Laboratory analysis of the soil samples collected during the additional investigation indicated detectable concentrations of TPHd up to 11 ppm and motor oil up to 100 ppm. No detectable concentrations of TPHg or BTEX were reported in the soil samples analyzed. Groundwater was encountered at a depth of approximately 5 to 6 feet below ground surface (bgs) during the additional investigation. Laboratory analysis of grab groundwater samples collected from the boreholes indicated no detectable concentrations of TPHd, motor oil, or BTEX. A concentration of TPHg of 61 ppb was reported in one grab groundwater sample collected from one boring. Motor oil was not detected in the groundwater samples collected from the borings and monitoring wells. Results of the analytical data from previous investigations indicate that upgradient sources of TPHg and motor oil exist. Fine-grained fill material and Bay Mud appear to restrict the mobility of the petroleum hydrocarbons from impacting groundwater; however, groundwater flow direction data suggest that constituent movement is to the west, away from monitoring wells MW-2 and MW-3.

2.3 Interim Remedial Action

Based on the findings of the subsurface investigations, elevated concentrations of petroleum hydrocarbons in the soil and groundwater indicated that a source of impact still existed on site. To remediate the source, overexcavation of the area around the former tank excavation was recommended as a cost-effective means. The proposed scope of work, approved by the lead regulatory agency, ACHCSA, included excavating impacted soil in the vicinity of the former tank excavation, actively purging the groundwater during excavation, and destroying well MW-2 during excavation activity.

Interim remedial action as overexcavation of impacted soil around the former tank excavation (removed in 1992) was performed in the summer of 1995. The work consisted of source removal including overexcavation and removal of approximately 2,250 cubic yards of impacted soil and removal of approximately 14,888 gallons of excavation water. During soil removal, four previously unknown USTs were discovered, three of which were removed. In order to protect the adjacent portable building's integrity, the fourth tank was not removed at the time of remedial action. UST removal was performed in September 1998.

Based on previous investigations conducted on site, the extent of impact in the soil and groundwater was in the immediate vicinity of former monitoring well MW-2 and the existing UST, adjacent to the portable buildings. Due to the findings of the interim remedial action and the existence of previously unknown USTs, groundwater monitoring of the existing three wells (MW-1, MW-3, and MW-4) was reinstated after the interim remedial action.

In preparation for UST removal and excavation activity, well MW-3 was destroyed on March 18, 1998. Subsequent additional soil excavation and dewatering was performed from September to November 1998. Approximately 2,200 cubic yards of impacted soil were excavated and disposed off site and approximately 100,000 gallons of groundwater were extracted, treated, and discharged to the sanitary sewer under permit from the EBMUD. Work is summarized in ACC's Underground Storage Tank Removal And Remedial Action Report dated March 23, 1999.

3.0 FIELD PROCEDURES

3.1 Groundwater Monitoring

Before groundwater sampling, the depth to the surface of the water table was measured from the top of the polyvinyl chloride casing in each well using a Solinst water level meter. The water level measurements were recorded to the nearest 0.01 foot with respect to mean sea level (MSL). Groundwater monitoring data obtained at the site is included in Appendix 1. Information regarding well elevations and groundwater level measurements is summarized in Table 1.

TABLE 1 - GROUNDWATER DEPTH INFORMATION

Well No.	Date Monitored	Well Elevation* (above MSL)	Depth to Groundwater	Groundwater Elevation
MW-1	02/14/94	6.78	3.69	3.09
	05/16/94		6.80	-0.02
	08/25/94		7.05	-0.27
	11/16/94		3.50	3.28
	02/14/95		3.91	2.87
	05/18/95		6.46	0.32
	03/27/96		4.32	2.46
	10/08/96		6.96	-0.18
	01/13/97		3.36	3.42
	07/17/97		6.21	0.57
	01/19/98		3.41	3.37
	07/21/98		5.58	1.20
	01/25/99		4.78	2.00
	08/11/99		6.30	0.48
MW-2	02/14/94	8.70	4.70	4.00
	05/16/94		4.74	3.96
	08/25/94		5.49	3.21
	11/16/94		5.03	3.67
	02/14/95		4.55	4.15
	05/18/95		4.77	3.93
	Destroyed		---	---
MW-3	02/14/94	8.83	4.57	4.26
	05/16/94		4.78	4.05
	08/25/94		5.93	2.90
	11/16/94		4.04	4.79
	02/14/95		4.55	2.72
	05/18/95		4.49	4.34
	03/27/96		4.51	4.32
	10/08/96		6.60	2.23
	01/13/97		4.12	4.71
	07/17/97		6.60	2.23
	01/19/98		4.16	4.67
	Destroyed		---	---

Well No.	Date Monitored	Well Elevation* (above MSL)	Depth to Groundwater	Groundwater Elevation
MW-4	02/14/94	5.45	1.69	3.76
	05/16/94		2.36	3.09
	08/25/94		3.25	2.20
	11/16/94		1.01	4.44
	02/14/95		6.11	2.72
	05/18/95		2.32	3.13
	03/27/96		2.35	3.10
	10/08/96		3.75	1.70
	01/13/97		1.69	3.76
	07/17/97		3.48	1.97
	01/19/98		1.73	3.72
	07/21/98		3.08	2.37
	01/25/99		1.85	3.60
	----		----	----

Notes: *All measurements are reported in feet; well elevation measured to top of casing

MW-4 was unable to be sampled because a storage container was parked on top of the well

3.2 Groundwater Gradient

Groundwater elevations were calculated from water level measurements collected in the wells on January 25, 1999. Groundwater gradient and flow direction could not be calculated because only two wells remain to be monitored. Historic groundwater flow direction on site is summarized in Table 2.

TABLE 2 - GROUNDWATER GRADIENT AND FLOW DIRECTION

Date Monitored	Gradient (foot/foot)	Direction
02/14/94	0.01	west
05/16/94	0.025	west
08/25/94	0.031	west
11/16/94	0.013	west
02/14/95	0.014	northwest
05/18/95	0.033	west
03/27/96	0.033	west-northwest
10/08/96	0.05	west
01/13/97	0.028	west
07/17/97	0.043	west
01/19/98	0.031	west
07/21/98	---	---
01/25/99	---	---
08/11/99	---	---

3.3 Groundwater Sampling

After water level measurements were collected, groundwater pH, temperature, dissolved oxygen (DO), turbidity, salinity, and electrical conductivity were monitored. A total volume of 5.2 gallons of groundwater was purged from the well prior to sampling. The well monitoring worksheet is included as Appendix 1.

After the groundwater level had recovered to a minimum of approximately 85 percent of its static level, water samples were obtained from wells MW-1 using disposable polyethylene bailers. Three 40-milliliter laboratory-supplied VOA vials, without headspace, and one amber liter jar were filled with the water collected from each monitoring well. Sample containers were labeled with self-adhesive, preprinted tags. The samples were stored in a pre-chilled, insulated container pending delivery to Chromalab, Inc. (Chromalab), a state-certified laboratory for analysis.

4.0 FINDINGS

Groundwater samples were collected from monitoring wells MW-1 and submitted to Chromalab for analysis of TPHg, BTEX, and methyl tertiary butyl ether (MTBE) by EPA Method SW846 8020A Nov 1990/8015 Mod and total extractable petroleum hydrocarbons (TEPH) as diesel, kerosene, and motor oil by EPA Method 8015M. Analytical results from the groundwater samples are summarized in Table 3. A copy of the analytical results and chain of custody record is included as Appendix 2.

TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS

Well No.	Date Sampled	TPHg (µg/L)	TEPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-1	02/14/94	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	05/23/94	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	08/25/94	<50	---	<0.5	<0.5	<0.5	<0.5	---
	11/16/94	<50	---	<0.5	<0.5	<0.5	<0.5	---
	02/14/95	<50	---	<0.5	<0.5	<0.5	<0.5	---
	05/18/95	<50	---	<0.5	<0.5	<0.5	<0.5	---
	03/27/96	<50	120(d)	<0.5	<0.5	<0.5	<0.5	---
	10/08/96	<50	570(d)/670(m)*	<0.5	<0.5	<0.5	<0.5	---
	01/13/97	<50	720(d)/1,000(m)*	<0.5	<0.5	<0.5	<0.5	---
	07/17/97	<50	500(d)*/760(m)	<0.5	<0.5	<0.5	<0.5	<5.0
	01/19/98	<50	340(d)*/740(m)*	<0.5	<0.5	<0.5	<0.5	<5.0
	07/21/98	<50	54(d)*	<0.5	<0.5	<0.5	<0.5	<5.0
	01/25/99	<50	170(d)*	<0.5	<0.5	<0.5	<0.5	<5.0
	08/11/99	<50	230(d)	<0.5	<0.5	<0.5	<0.5	<0.5

*Always Dialo
over level
3/15/98*

*→ OK (12/10)
(AG)*

Well No.	Date Sampled	TPHg (µg/L)	TEPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-2	02/14/94	200	< 50	1.7	< 0.5	1.1	1.1	---
	05/23/94	600	< 50	1.8	0.9	0.7	2.1	---
	08/25/94	70	---	< 50	< 0.5	< 0.5	0.5	---
	11/16/94	< 50	---	< 50	< 0.5	< 0.5	0.6	---
	02/14/95	160	---	0.7	0.6	< 0.5	1.0	---
	05/18/95	50	---	< 0.5	< 0.5	< 0.5	0.6	---
	Destroyed	---	---	---	---	---	---	---
MW-3	02/14/94	780	< 50	0.6	0.6	1.7	2.7	---
	05/23/94	680	< 50	< 0.5	< 0.5	2.2	2.2	---
	08/25/94	310	---	6.4	2.7	1.9	4.1	---
	11/16/94	650	---	1.6	1.5	< 0.5	2.7	---
	02/14/95	70	---	< 0.5	< 0.5	< 0.5	< 0.5	---
	05/18/95	470	---	< 0.5	1.1	0.7	0.6	---
	03/27/96	740	390(d)*	7.9	19	3.0	8.0	---
	10/08/96	640	640(d)/680(m)	7.6	3.8	3.9	5.6	---
	01/13/97	640	1,300(k)/1,200(m)*	4.4	2.2	2.6	4.0	---
	07/17/97	600	1,400(d)*/1,100(m)	7.3	11	3.6	4.8	< 5.0
	01/19/98	< 50	520(d)*/1,000(m)*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
Destroyed	---	---	---	---	---	---	---	
MW-4	02/14/94	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	---
	05/23/94	93	< 50	< 0.5	< 0.5	< 0.5	< 0.5	---
	08/29/94	< 50	---	< 0.5	< 0.5	< 0.5	< 0.5	---
	11/16/94	100	---	2.7	< 0.5	< 0.5	1.0	---
	02/14/95	60	---	< 0.5	< 0.5	< 0.5	< 0.5	---
	05/18/95	< 50	---	< 0.5	< 0.5	< 0.5	< 0.5	---
	03/27/96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	---
	10/08/96	< 50	430(d)*	< 0.5	< 0.5	< 0.5	< 0.5	---
	01/13/97	< 50	830(d)/950(m)*	0.8	< 0.5	< 0.5	< 0.5	---
	07/17/97	< 50	190(d)*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	01/19/98	53	200(d)*/550(m)*	2.2	< 0.5	< 0.5	< 0.5	< 5.0
	07/21/98	< 50	53(d)*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	01/25/99	< 50	200(d)*	< 0.5	< 0.5	< 0.5	< 0.5	10.0
08/11/99	---	---	---	---	---	---	---	

Notes: µg/L = micrograms per liter (approximately equivalent to ppb)

< = Less than laboratory reporting limit indicated

d = The noted concentration is TEPH as diesel

m = The noted concentration is TEPH as motor oil

k = The noted concentration is TEPH as kerosene

*Hydrocarbons do not match laboratory's standard profile

5.0 DISCUSSION

Minor concentrations of TEPH as diesel were detected in MW-1. The concentrations of TEPH as motor oil were no longer detectable above laboratory reporting limits. Because only two wells remain at the site, groundwater gradient and flow direction can no longer be calculated, but historical trends

during previous sampling events were consistent. No concentrations of TPHg, BTEX, or MTBE were detected above the reporting limits in MW-1. While well MW-4 could not be sampled, previous sampling only reported minor concentrations of diesel range petroleum hydrocarbons and no BTEX.

6.0 CONCLUSIONS

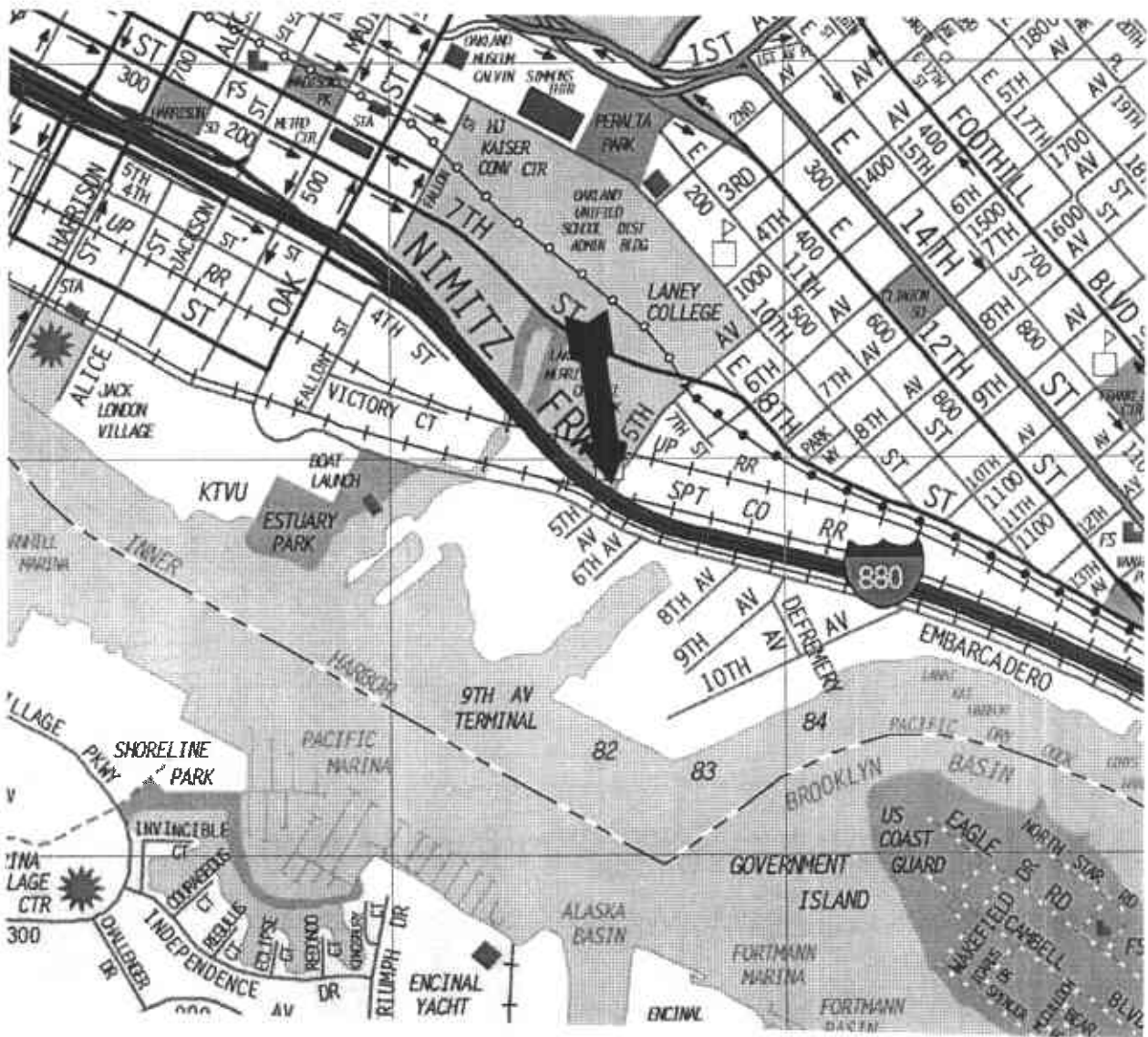
Based on groundwater monitoring and sampling, ACC has the following conclusions:

- Results of the groundwater investigation indicated minor detectable concentrations of hydrocarbons in the diesel range in monitoring well MW-1 and historically in MW-4;
- TPHg and BTEX were not detected during this sampling event; and
- The site should be evaluated for regulatory case closure.

7.0 REQUEST FOR REGULATORY SITE CLOSURE

On behalf of the responsible party, Peralta Community College District, ACC formally requests that the site be evaluated for regulatory site closure based on the following:

- Ongoing site investigation and remediation activity have demonstrated: 1) source removal has been performed to the extent feasible; 2) a predictable, minor plume of impacted groundwater exists immediately adjacent to the former USTs but is not migrating due to the flat gradient, soil type, and natural attenuation processes; 3) decreasing concentrations of dissolved-phase gasoline and BTEX constituents have been reported; and 4) the first encountered water bearing zone contains relatively poor quality water and is not a current or likely future source of potable water;
- No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are reported to be impacted, nor likely to be impacted in the future, and no receptors are in the downgradient direction within 300 feet;
- The subject property and the area downgradient of the subject property are primarily zoned for commercial to light industrial use;
- The site presents no significant risk to human health and the environment due to the fact that concentrations of benzene have been below laboratory reporting limits since January 1998; and
- Based on demonstrated natural attenuation processes, concentrations of gasoline constituents should continue to decrease below reportable levels before any further, appreciable downgradient migration can occur.

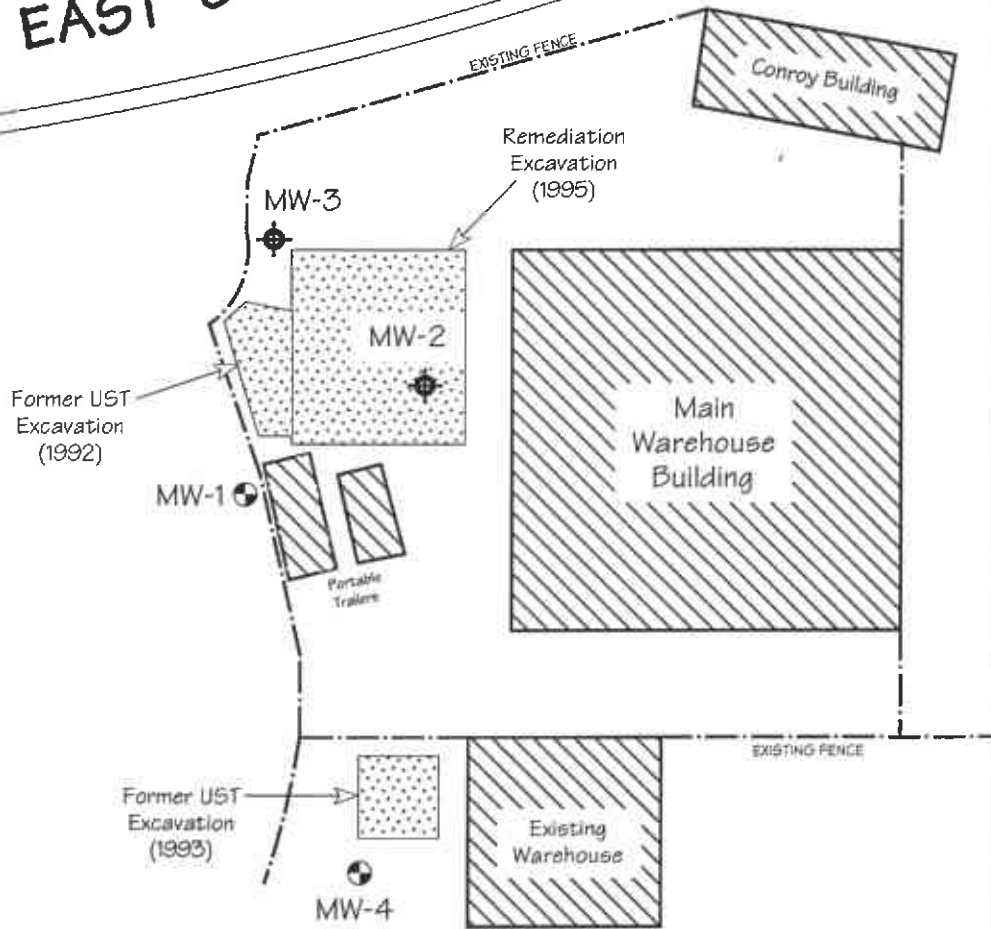


SOURCE: THOMAS BROTHERS GUIDE, 1996 ed.

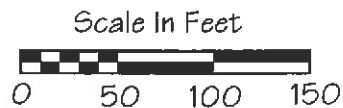
Location Map Peralta Community College District Maintenance Yard 501 5th Avenue, Oakland, California	
Figure Number: 1	Scale: 1" = 1/4 mi
Drawn By: SPS	Date: 8/23/99
Project Number: 6045-014.00	
ACC Environmental Consultants 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax: (510) 638-8404	

EAST 8th STREET

5th AVENUE



Legend



- MW-3 - Existing Groundwater Monitoring Well
- MW-2 - Former Groundwater Monitoring Well (destroyed)

Site Plan
Peralta Community College District
Maintenance Yard
501 5th Avenue, Oakland, California

Figure Number: 2	Scale: 1" = 100'
Drawn By: JVC	Date: 3/25/98

Project Number: 6045-014.00

ACC Environmental Consultants
 7977 Capwell Drive, Suite 100
 Oakland, California 94621
 (510) 638-8400 Fax: (510) 638-8404



JOB NAME: <u>Peralta Corp. Yard</u>	PURGE METHOD: <u>Manual Bailing</u>
SITE ADDRESS: <u>501 5th Ave., Oakland</u>	SAMPLED BY: <u>Neil Doran</u>
JOB #: <u>6045-004.00</u>	LABORATORY: <u>Chromalab</u>
DATE: <u>8/11/99</u>	ANALYSIS: <u>TPH_g / BTEX / MTBE / TEPH</u>
Onsite Drum Inventory SOIL:	MONITORING <input checked="" type="checkbox"/> DEVELOPING <input type="checkbox"/>
EMPTY: WATER: <u>1 = 100% , 1 = 50%</u>	SAMPLING <input checked="" type="checkbox"/>

	PURGE VOL.	PURGE WATER READINGS						OBSERVATIONS
	(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.	
WELL: <u>MW-1</u> DEPTH OF BORING: <u>14.30'</u> DEPTH TO WATER: <u>6.30'</u> WATER COLUMN: <u>8.00'</u> WELL DIAMETER: <u>2"</u> WELL VOLUME: <u>1.3 gal</u> COMMENTS:	1.3	6.56	19.4	6.42	0.34	0.28	1.15	<input type="checkbox"/> Froth
	2.6	6.72	19.0	7.72	0.41	4.78	1.36	<input type="checkbox"/> Sheen
	3.9	6.61	19.0	7.71	0.40	5.28	1.40	<input type="checkbox"/> Odor Type _____
	5.2	6.70	18.9	6.91	0.40	6.10	1.35	<input type="checkbox"/> Free Product
								Amount _____ Type _____
								<input type="checkbox"/> Other
WELL: <u>MW-4</u> DEPTH OF BORING: DEPTH TO WATER: WATER COLUMN: WELL DIAMETER: WELL VOLUME: COMMENTS: <u>Access blocked by storage trailer</u>								<input type="checkbox"/> Froth
								<input type="checkbox"/> Sheen
								<input type="checkbox"/> Odor Type _____
								<input type="checkbox"/> Free Product
								Amount _____ Type _____
								<input type="checkbox"/> Other
WELL: DEPTH OF BORING: DEPTH TO WATER: WATER COLUMN: WELL DIAMETER: WELL VOLUME: COMMENTS:								<input type="checkbox"/> Froth
								<input type="checkbox"/> Sheen
								<input type="checkbox"/> Odor Type _____
								<input type="checkbox"/> Free Product
								Amount _____ Type _____
								<input type="checkbox"/> Other

JOB NAME: <i>Peralta Corp. Yard</i>	PURGE METHOD: <i>Manual Bailing</i>
SITE ADDRESS: <i>501 5th Ave</i>	SAMPLED BY: <i>Eloy Cisneros</i>
JOB #: <i>6045-004.00</i>	LABORATORY: <i>Chromalab</i>
DATE: <i>1/25/99</i>	ANALYSIS: <i>TPH_g, BTEX, MRBE, TEPH</i>
Onsite Drum Inventory SOIL:	MONITORING <input type="checkbox"/> DEVELOPING <input type="checkbox"/>
EMPTY: WATER: <i>1=100% 1=80%</i>	SAMPLING <input type="checkbox"/>

	PURGE VOL.	PURGE WATER READINGS						OBSERVATIONS
	(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.	
WELL: <i>MW-1</i> DEPTH OF BORING: <i>14.38'</i> DEPTH TO WATER: <i>4.78'</i> WATER COLUMN: <i>9.60'</i> WELL DIAMETER: <i>2"</i> WELL VOLUME: <i>1.6 gal</i> COMMENTS:	<i>1.6</i>	<i>6.31</i>	<i>19.6</i>	<i>4.21</i>	<i>0.06</i>	<i>101</i>	<i>3.54</i>	<input type="checkbox"/> Froth <input type="checkbox"/> Sheen <input type="checkbox"/> Odor Type _____ <input type="checkbox"/> Free Product Amount _____ Type _____ <input type="checkbox"/> Other
WELL: <i>MW-4</i> DEPTH OF BORING: <i>14.35'</i> DEPTH TO WATER: <i>1.85'</i> WATER COLUMN: <i>12.50'</i> WELL DIAMETER: <i>2"</i> WELL VOLUME: <i>≈ 2.05 gal</i> COMMENTS:	<i>2.05</i>	<i>6.42</i>	<i>19.8</i>	<i>4.12</i>	<i>0.07</i>	<i>458</i>	<i>3.08</i>	<input type="checkbox"/> Froth <input type="checkbox"/> Sheen <input type="checkbox"/> Odor Type _____ <input type="checkbox"/> Free Product Amount _____ Type _____ <input type="checkbox"/> Other
WELL: DEPTH OF BORING: DEPTH TO WATER: WATER COLUMN: WELL DIAMETER: WELL VOLUME: COMMENTS:								<input type="checkbox"/> Froth <input type="checkbox"/> Sheen <input type="checkbox"/> Odor Type _____ <input type="checkbox"/> Free Product Amount _____ Type _____ <input type="checkbox"/> Other

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 1999-08-0210

Date: August 20, 1999

ACC Environmental Consultants
7977 Capwell Drive, Suite 100
Oakland, CA 94621

Attn.: Mr. Dave DeMent

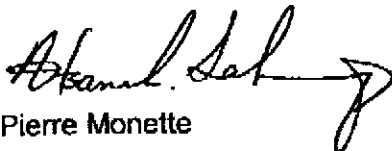
Project: 6045.004.00
501 5th Ave.

Dear Mr. DeMent,

Attached is our report for your samples received on Friday August 13, 1999.
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after September 12, 1999
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919.

Sincerely,


Pierre Monette

CHROMALAB, INC.

Submission #: 1999-08-0210

Environmental Services (SDB)

Gas/BTEX and MTBE

ACC Environmental Consultants	✉ 7977 Capwell Drive, Suite 100 Oakland, CA 94621
Attn: Dave DeMent	Phone: (510) 638-8400 Fax: (510) 638-8404
Project #: 6045.004.00	Project: 501 5th Ave.

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	08/11/1999 10:00	1

CHROMALAB, INC.

Submission #: 1999-08-0210

Environmental Services (SDB)

To: **ACC Environmental Consultants**
 Attn.: Dave DeMent

Test Method: 8015m
 Prep Method: 3510/8015M

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID: MW-1	Lab Sample ID: 1999-08-0210-001
Project: 6045.004.00 501 5th Ave.	Received: 08/13/1999 17:53
Sampled: 08/11/1999 10:00	Extracted: 08/18/1999 09:43
Matrix: Water	QC-Batch: 1999/08/18-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	230	50	ug/L	1.00	08/20/1999 12:16	ndp
Motor Oil	ND	500	ug/L	1.00	08/20/1999 12:16	
Surrogate(s) o-Terphenyl	94.2	60-130	%	1.00	08/20/1999 12:16	

CHROMALAB, INC.

Submission #: 1999-08-0210

Environmental Services (SDB)

To: ACC Environmental Consultants

Test Method: 8015M
8020

Attn.: Dave DeMent

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-1	Lab Sample ID: 1999-08-0210-001
Project: 6045.004.00 501 5th Ave.	Received: 08/13/1999 17:53
Sampled: 08/11/1999 10:00	Extracted: 08/19/1999 12:56
Matrix: Water	QC-Batch: 1999/08/19-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/19/1999 12:56	
Benzene	ND	0.50	ug/L	1.00	08/19/1999 12:56	
Toluene	ND	0.50	ug/L	1.00	08/19/1999 12:56	
Ethyl benzene	ND	0.50	ug/L	1.00	08/19/1999 12:56	
Xylene(s)	ND	0.50	ug/L	1.00	08/19/1999 12:56	
MTBE	ND	5.0	ug/L	1.00	08/19/1999 12:56	
Surrogate(s)						
Trifluorotoluene	98.9	58-124	%	1.00	08/19/1999 12:56	
4-Bromofluorobenzene-FID	95.0	50-150	%	1.00	08/19/1999 12:56	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Submission #: 1999-08-0210

Environmental Services (SDB)

Total Extractable Petroleum Hydrocarbons (TEPH)

ACC Environmental Consultants	✉ 7977 Capwell Drive, Suite 100 Oakland, CA 94621
Attn: Dave DeMent	Phone: (510) 638-8400 Fax: (510) 638-8404
Project #: 6045.004.00	Project: 501 5th Ave.

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	08/11/1999 10:00	1