



September 25, 2002

167.002.01.006

Mr. Don Hwang  
Alameda County Environmental Health Services  
1131 Harbor Parkway, Suite 250  
Alameda, California 94502

*Alameda County  
SEP 27 2002  
Environmental Health*

**QUARTERLY MONITORING REPORT  
THIRD QUARTER 2002  
FORMER COX CADILLAC FACILITY  
230 BAY PLACE  
OAKLAND, CALIFORNIA  
LOP CASE RO-0000148**

Dear Mr. Hwang:

This report presents the results of groundwater monitoring conducted on July 25, 2002 at the former Bill Cox Cadillac facility at 230 Bay Place, Oakland, California (Site, Plate 1). The groundwater monitoring was performed by PES Environmental, Inc. (PES) on behalf of the former property owner, Greater Bay Trust Company, trustee for the Robert Shepard Trust, Brian F. Shepard Trust, Douglas C. Shepard Trust, and Lisa C. Shepard Trust. The current owner of the Site is Avalon Bay Communities. Groundwater monitoring has been conducted in accordance with the requirements presented in an April 6, 2001 letter from Alameda County Environmental Health Services (ACEHS) to Greater Bay Trust.

Nine monitoring wells are located at and adjacent to the Site (Plate 2). The monitoring wells were installed to investigate subsurface conditions related to two former underground storage tanks (USTs) on the Site: one 3,000-gallon waste oil UST and one 10,000-gallon gasoline UST. The waste oil UST was removed in December 1988 and the gasoline UST and associated piping were removed in January 1994. Additional excavation of soil in the vicinity of the gasoline UST pump and piping was conducted by PES in July 1997.

**QUARTERLY MONITORING ACTIVITIES**

Depth to groundwater measurements, groundwater sampling activities, and dissolved oxygen measurements were performed by Blaine Tech Services, Inc. (Blaine Tech) on July 25, 2002. Blaine Tech's field data forms are presented in Appendix A.

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### Groundwater Elevation Measurements

Blaine Tech measured water levels in seven of the nine monitoring wells (MW-1, MW-2, TW-2, TW-4, TW-5, TW-6, and TW-7) on July 25, 2002. Depth-to-groundwater measurements were obtained using an electronic water-level indicator and recorded to the nearest 0.01 foot. The water-level indicator was cleaned with a solution of non-phosphate detergent and de-ionized water, and rinsed before each use. Groundwater elevation data (referenced to Site datum) are presented in Table 1 and inferred groundwater elevation contours are presented on Plate 3. Groundwater elevations ranged from 91.33 feet in well MW-2 to 98.54 feet in well TW-2. Groundwater flow direction is to the west, at a hydraulic gradient of approximately 0.046-foot per foot. No separate-phase free product or hydrocarbon sheen were observed in the wells.

### Groundwater Sampling and Analysis

Five groundwater monitoring wells (MW-1, MW-2, TW-2, TW-6, and TW-7) were sampled on July 25, 2002. Samples from these wells were analyzed for total petroleum hydrocarbons quantified as gasoline (TPHg) using EPA Test Method 8015 modified; and benzene, toluene, ethylbenzene, total xylenes (BTEX compounds), and methyl tert-butyl ether (MTBE), using EPA Test Method 8020. Entech Analytical Labs, Inc. (Entech) of Santa Clara, California, a California state-certified laboratory, performed the chemical analyses. The analytical laboratory report, including chain-of-custody documentation, is included as Appendix B. Analytical results are presented in Table 2 and on Plate 4.

### Dissolved Oxygen Measurements

Total dissolved oxygen was measured in seven of the nine Site monitoring wells (MW-1, MW-2, TW-2, TW-4, TW-5, TW-6, and TW-7) prior to measuring groundwater levels or sampling the wells. The measurements were collected from each well within the middle portion of the water column using a YSI, Inc., Model 51B Dissolved Oxygen (DO) Meter. The equipment was calibrated according to the manufacturer's specifications before use. Prior to each measurement, the portion of the equipment submerged in the well was cleaned with a solution of non-phosphate detergent and de-ionized water then rinsed with de-ionized water. Total dissolved oxygen measurements through July 25, 2002 are summarized in Table 3 and are included with the well sampling documentation presented in Appendix A.

## **SUMMARY**

Groundwater monitoring of the former Cox Cadillac facility was conducted in the third quarter of 2002 on July 25, 2002. The monitoring was performed consistent with the monitoring program for the Site. The next quarterly sampling event is scheduled for October 2002.

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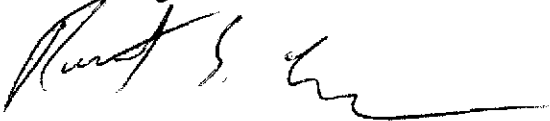
Please contact us at (415) 899-1600 should you have questions regarding this letter report.

Very truly yours,

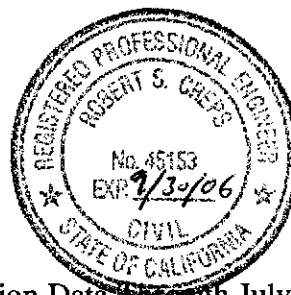
**PES ENVIRONMENTAL, INC.**



François A. Bush  
Senior Geologist



Robert S. Creps, P. E.  
Principal Engineer



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|--------------|------------|---|
| Attachments: | Table 1    | Groundwater Elevation Data Through July 25, 2002                      |
|              | Table 2    | Groundwater Sample Analytical Results Through July 25, 2002           |
|              | Table 3    | Summary of Dissolved Oxygen Measurements                              |
|              | Plate 1    | Site Location Map   |
|              | Plate 2    | Site Plan and Well Location Map                                       |
|              | Plate 3    | Groundwater Elevation Contours on July 25, 2002                       |
|              | Plate 4    | Distribution of Dissolved Hydrocarbons in Groundwater – July 25, 2002 |
|              | Appendix A | Well Sampling Documentation   |
|              | Appendix B | Laboratory Analytical Reports and Chain of Custody Documentation      |

cc: Ms. Cheryl Howell - Greater Bay Trust Company  
Rory Campbell, Esq. - Hanson Bridgett  
Mr. Mark Owens - California UST Cleanup Fund  
Ms. Lita Freeman - LFR

**Table 1**  
**Groundwater Elevation Data Through July 25, 2002**  
**Quarterly Monitoring**  
**Former Cox Cadillac, 230 Bay Place**  
**Oakland, California**

Well Number	Date Measured	Top-of-Casing Reference Elevation (feet*)	Depth to Water (feet BTOC)	Groundwater Elevation (feet*)
MW-1	12/22/1994	100.00	2.96	97.04
	3/24/1995		2.21	97.79
	6/29/1995		2.44	97.56
	9/29/1995		3.00	97.00
	2/23/1996		2.18	97.82
	1/12/1999		2.79	97.21
	4/13/1999		2.00	98.00
	7/7/1999		2.60	97.40
	10/6/1999		2.94	97.06
	1/11/2000		2.69	97.31
	4/6/2001		2.99	97.01
	7/25/2001		6.00	94.00
	11/20/2001		3.32	96.68
	1/23/2002		2.47	97.53
	4/26/2002		2.25	97.75
7/25/2002	3.04	96.96		
MW-2	1/12/1999	97.48	5.62	91.86
	4/13/1999		5.30	92.18
	7/7/1999		5.80	91.68
	10/6/1999		5.99	91.49
	1/11/2000		5.73	91.75
	4/6/2001		5.65	91.83
	7/25/2001		6.41	92.07
	11/20/2001		5.89	92.59
	1/23/2002		5.68	91.80
	4/26/2002		5.85	91.63
7/25/2002	6.15	91.33		
TW-2	12/22/1994	100.43	2.88	97.55
	3/24/1995		1.87	98.56
	6/29/1995		2.10	98.33
	9/29/1995		3.02	97.41
	2/23/1996		2.13	98.30
	1/12/1999		1.91	98.52
	4/13/1999		2.51	97.92
	7/7/1999		1.89	98.54
	10/6/1999		1.97	98.46
	1/11/2000		1.79	98.64
	4/6/2001		3.46	96.97
	7/25/2001		2.60	98.83
	11/20/2001		1.85	99.58
	1/23/2002		3.21	97.22
	4/26/2002		4.30	96.13
7/25/2002	1.89	98.54		

**Table 1**  
**Groundwater Elevation Data Through July 25, 2002**  
**Quarterly Monitoring**  
**Former Cox Cadillac, 230 Bay Place**  
**Oakland, California**

<b>Well Number</b>	<b>Date Measured</b>	<b>Top-of-Casing Reference Elevation (feet*)</b>	<b>Depth to Water (feet BTOC)</b>	<b>Groundwater Elevation (feet*)</b>
<b>TW-4</b>	4/13/1999	99.35	1.82	97.53
	7/7/1999		2.36	96.99
	1/11/2000		2.63	96.72
	4/6/2001		3.97	95.38
	7/25/2001		2.55	96.80
	11/20/2001		2.33	97.02
	1/23/2002		2.26	97.09
	4/26/2002		2.20	97.15
	<b>7/25/2002</b>		<b>2.24</b>	<b>97.11</b>
<b>TW-5</b>	4/13/1999	99.40	1.96	97.44
	7/7/1999		3.12	92.28
	1/11/2000		1.03	98.37
	4/6/2001		3.04	96.36
	7/25/2001		3.90	95.50
	11/20/2001		2.55	96.85
	1/23/2002		2.64	96.76
	4/26/2002		2.50	96.90
	<b>7/25/2002</b>		<b>3.15</b>	<b>96.25</b>
<b>TW-6</b>	12/22/1994	98.75	4.66	94.09
	3/24/1995		3.81	94.94
	6/29/1995		5.25	93.50
	9/29/1995		6.12	92.63
	2/23/1996		3.66	95.09
	1/12/1999		5.52	93.23
	4/13/1999		4.91	93.84
	7/7/1999		6.04	92.71
	10/6/1999		6.64	92.11
	1/11/2000		6.41	92.34
	4/6/2001		4.93	93.82
	7/25/2001		6.72	92.03
	11/20/2001		5.44	93.31
	1/23/2002		3.25	95.50
	4/26/2002		3.40	95.35
	<b>7/25/2002</b>		<b>6.54</b>	<b>92.21</b>
<b>TW-7</b>	12/22/1994	97.96	4.50	93.46
	3/24/1995		2.98	94.98
	6/29/1995		4.30	93.66
	9/29/1995		5.19	92.77
	2/23/1996		3.45	94.51
	1/12/1999		4.81	93.15
	4/13/1999		4.73	93.23
	7/7/1999		5.17	92.79
	10/6/1999		5.70	92.26

**Table 1**  
**Groundwater Elevation Data Through July 25, 2002**  
**Quarterly Monitoring**  
**Former Cox Cadillac, 230 Bay Place**  
**Oakland, California**

Well Number	Date Measured	Top-of-Casing Reference Elevation (feet*)	Depth to Water (feet BTOC)	Groundwater Elevation (feet*)
TW-7 (cont.)	1/11/2000		5.42	92.54
	4/6/2001		4.63	93.33
	7/25/2001		6.80	91.16
	11/20/2001		4.75	93.21
	1/23/2002		5.68	92.28
	4/26/2002		4.80	93.16
	7/25/2002		5.61	92.35

**Notes:**

\* = Referenced to site datum  
 BTOC = Below top of casing

NA = Data not available  
 NM = Depth to water not measured

**Table 2**  
**Groundwater Sample Analytical Results Through July 25, 2002**  
**Quarterly Monitoring**  
**Former Cox Cadillac, 230 Bay Place**  
**Oakland, California**

Well Number	Sample Date	TPH as Gasoline (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Dissolved Lead (µg/L)
MW-1	3/3/1993	110,000	NA	8,500	7,500	4,400	15,000	NA	350	NA	NA
	10/13/1993	74,000	NA	6,100	4,800	4,000	11,000	NA	350	80	NA
	12/22/1994	110,000	NA	18,000	11,000	2,800	16,000	<1.0	130	NA	NA
	3/24/1995	25,000	NA	3,700	1,800	2,200	4,700	<5.0	130	NA	23
	6/29/1995	28,000	NA	5,300	2,100	3,200	7,500	<2.0	110	NA	14
	9/29/1995	43,000	NA	5,600	2,200	3,800	7,400	<1.0	98	NA	16
	2/23/1996	46,000	NA	4,800	3,000	3,400	7,700	<1.0	96	NA	24
	1/12/1999	39,000	800	2,600	970	2,900	5,700	NA	NA	NA	NA
	4/13/1999	29,000	520	1,500	500	<50	4,000	NA	NA	NA	NA
	7/7/1999	31,000	<250	1,900	870	1,600	3,900	NA	NA	NA	NA
	10/6/1999	32,000	<250*	2,100	910	1,800	4,400	NA	NA	NA	NA
	1/11/2000	2,400	<5.0*	52	3.9	63	12	NA	NA	NA	NA
	4/6/2001	32,000	<10*	4,300	3,200	2,600	7,300	NA	NA	NA	NA
	7/25/2001	24,000	<25*	2,300	1,300	2,500	6,200	NA	NA	NA	NA
	11/20/2001	33,000	<100*	2,100	890	2,500	3,600	NA	NA	NA	NA
	1/23/2002	28,000	350	2,400	1,400	2,500	5,900	NA	NA	NA	NA
	4/26/2002	39,000	2,800	3,200	2,400	2,700	6,300	NA	NA	NA	NA
7/25/2002	26,000	<500	2,300	1,300	2,500	4,700	NA	NA	NA	NA	
MW-2	1/12/1999	<50	2,900	1.5	<0.50	<0.50	<0.50	NA	NA	NA	NA
	4/13/1999	<50	3,800	0.76	<0.50	<0.50	<0.50	NA	NA	NA	NA
	7/7/1999	<2,500	7000*	<25	<25	<25	<25	NA	NA	NA	NA
	10/6/1999	2,800	300*	73	<25	<25	<25	NA	NA	NA	NA
	1/11/2000	11,000	8,400*	890	<100	<100	<100	NA	NA	NA	NA
	4/6/2001	2,800	3,800	210	<25	<25	<25	NA	NA	NA	NA
	7/25/2001	3,400	4,200*	250	<12.5	<12.5	<12.5	NA	NA	NA	NA
	11/20/2001	12,000	8,700	870	<100	<100	<100	NA	NA	NA	NA
	1/23/2002	3,900	3,300	100	<25	<25	<25	NA	NA	NA	NA
	4/26/2002	90	6,900	13	<0.5	<0.5	<1.5	NA	NA	NA	NA
	7/25/2002	<5,000	6,600	<50	<50	<50	<100	NA	NA	NA	NA
TW-1	10/13/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	NA
TW-2	10/13/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	NA
	1/12/1999	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	4/13/1999	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	7/7/1999	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/6/1999	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	1/11/2000	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	4/6/2001	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	7/25/2001	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	11/20/2001	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	1/23/2002	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	4/26/2002	<50	<5	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA
7/25/2002	<50	<5	<0.5	<0.5	<0.5	<1	NA	NA	NA	NA	
TW-3	10/13/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	NA
TW-4	10/13/1993	2,000	NA	65	18	49	33	NA	<5.0	<5.0	NA
TW-5	10/13/1993	140,000	NA	20,000	25,000	3,800	23,000	NA	<100	<100	NA
TW-6	10/14/1993	4,100	NA	3,800	1,600	110	540	NA	<1.0	<1.0	NA
	12/22/1994	24,000	NA	5,400	2,700	3,100	6,800	<1.0	<1.0	NA	NA
	3/24/1995	10,000	NA	4,900	530	270	380	<2.0	<2.0	NA	<3.0
	6/29/1995	28,000	NA	12,000	6,600	1,000	3,000	<1.0	<1.0	NA	4.2
	9/29/1995	47,000	NA	19,000	5,200	1,500	4,000	<1.0	<1.0	NA	3.3
	2/23/1996	25,000	NA	13,000	5,200	1,100	2,770	<1.0	<1.0	NA	5.2
	1/12/1999	29,000	210	9,900	4,100	1,000	4,000	NA	NA	NA	NA
	4/13/1999	<50	22	0.70	<0.5	<0.5	0.62	NA	NA	NA	NA
	7/7/1999	55	8.1*	13	<0.5	<0.5	2.2	NA	NA	NA	NA
	10/6/1999	<50	<5	0.59	<0.5	<0.5	<0.5	NA	NA	NA	NA
	1/11/2000	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	4/6/2001	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	7/25/2001	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	11/20/2001	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
	1/23/2002	<50	<5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
4/26/2002	<50	<5	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	
7/25/2002	<50	<5	0.60	<0.5	<0.5	<1	NA	NA	NA	NA	

**Table 2**  
**Groundwater Sample Analytical Results Through July 25, 2002**  
**Quarterly Monitoring**  
**Former Cox Cadillac, 230 Bay Place**  
**Oakland, California**

Well Number	Sample Date	TPH as Gasoline (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Dissolved Lead (µg/L)
TW-7	10/14/1993	100,000	NA	48,000	15,000	3,400	18,000	NA	<50	<50	NA
	12/22/1994	210,000	NA	49,000	33,000	7,300	28,000	<1.0	<1.0	NA	NA
	3/24/1995	56,000	NA	13,000	7,000	1,500	5,600	<2.0	<2.0	NA	<3.0
	6/29/1995	100,000	NA	39,000	8,100	3,000	8,300	<1.0	<1.0	NA	3.5
	9/29/1995	74,000	NA	32,000	8,700	2,900	8,600	<1.0	<1.0	NA	3.5
	2/23/1996	50,000	NA	22,000	8,400	2,700	6,900	<5.0	<5.0	NA	3.8
	1/12/1999	29,000	<100	7,300	670	2,700	960	NA	NA	NA	NA
	4/13/1999	54,000	1,200	4,500	1,800	180	8,200	NA	NA	NA	NA
	7/7/1999	42,000	2200*	8,000	4,500	1,200	3,500	NA	NA	NA	NA
	10/6/1999	29,000	580*	9,700	1,600	1,600	2,100	NA	NA	NA	NA
	1/11/2000	52,000	2,600*	8,500	7,100	1,600	6,700	NA	NA	NA	NA
	4/6/2001	22,000	690	4,800	1,800	2,200	3,400	NA	NA	NA	NA
	7/25/2001	20,000	1,100*	5,100	660	1,400	2,100	NA	NA	NA	NA
	11/20/2001	26,000	1,600	6,400	1,100	1,000	2,400	NA	NA	NA	NA
	1/23/2002	25,000	1,200	5,100	510	2,200	3,900	NA	NA	NA	NA
	4/26/2002	29,000	1,600	4,400	1,300	2,900	2,370	NA	NA	NA	NA
	7/25/2002	21,000	1,900	4,900	470	1,600	1,700	NA	NA	NA	NA

Notes:

TPH - Total Petroleum Hydrocarbons

MTBE - Methyl tert-butyl ether

1,1-DCA and 1,2-DCA - Dichloroethane

EDB - Ethylene dibromide

µg/L = Micrograms per liter.

&lt;0.50 = Not detected at or above indicated laboratory reporting limit.

Samples analyzed for BTEX and MTBE by EPA Method 8020.

Samples analyzed for TPHg as by EPA Methods 8020 and 8015 Modified.

Samples analyzed for 1,1-DCA and 1,2-DCA by EPA Method 8010 or EPA Method 8240.

Samples analyzed for dissolved lead by EPA Method 6010A. Samples filtered through a 0.45 micron filter prior to analysis.

\*MTBE confirmation by EPA Method 8260.

NA= Not Analyzed

TW-1, TW-3, TW-4 and TW-5 only sampled one time (October 13, 1993)

Samples collected in 1993 and 1999 to 2002 were collected by PES Environmental, Inc.

Samples collected in 1994, 1995, and 1996 collected by Eisenberg, Olivieri &amp; Associates, Inc.



**Table 3**  
**Summary of Total Dissolved Oxygen Measurements**  
**Quarterly Monitoring**  
**Former Cox Cadillac, 230 Bay Place**  
**Oakland, California**

<b>Well Number</b>	<b>Date Measured</b>	<b>Time of Day</b>	<b>Total Dissolved Oxygen (mg/L)</b>	<b>Notes</b>
<b>MW-1</b>	1/12/1999	15:30	3.4	(1)
	3/11/1999	15:46	0.72	(1)
	3/17/1999	12:30	14.1	(2)
	3/17/1999	18:13	>15.0	(3)
	4/13/1999	9:44	8.9	(2)
	6/1/1999	14:59	6.2	(2)
	6/1/1999	18:46	>15.0	(3)
	7/7/1999	9:20	3.55	(2)
	7/7/1999	19:38	>18.0	(3)
	8/19/1999	10:45	1.0	(2)
	8/19/1999	18:48	>15.0	(3)
	10/6/1999	10:42	10.3	(2)
	10/6/1999	17:11	>15.0	(3)
	11/17/1999	11:13	4.4	(2)
	11/17/1999	17:34	>15.0	(3)
	1/11/2000	NA	4.0	(2)
	4/6/2001	10:55	0.45	(4)
	7/25/2001	11:25	3.60	(4)
	11/20/2001	12:30	10.3	(4)
	1/23/2002	12:05	0.5	(4)
4/26/2002	10:20	0.5	(4)	
7/25/2002	10:15	1.0	(4)	
<b>MW-2</b>	1/12/1999	12:30	3	(1)
	4/13/1999	9:17	0.2	(2)
	4/13/1999	19:11	0.6	(3)
	7/7/1999	8:56	1.03	(2)
	7/7/1999	19:13	7.22	(3)
	10/6/1999	10:10	1.2	(2)
	10/6/1999	16:58	0.5	(3)
	1/11/2000	NA	3.9	(2)
	4/6/2001	10:21	0.69	(4)
	7/25/2001	11:25	3.10	(4)
	11/20/2001	13:20	5.00	(4)
	1/23/2002	11:46	0.30	(4)
	4/26/2002	9:40	0.40	(4)
7/25/2002	11:10	0.8	(4)	
<b>TW-2</b>	1/12/1999	15:03	5.5	(1)
	4/13/1999	9:10	2.6	(2)
	4/13/1999	19:06	5.8	(3)
	7/7/1999	8:50	0.65	(2)
	7/7/1999	19:01	5.14	(3)
	10/6/1999	9:59	3.2	(2)
	10/6/1999	16:48	2.6	(3)
	1/11/2000	NA	4.6	(2)
	4/6/2001	9:45	2.9	(4)
	7/25/2001	11:25	3.0	(4)
	11/20/2001	11:00	10.3	(4)
	1/23/2002	10:54	2.6	(4)
	4/26/2002	10:40	2.00	(4)
7/25/2002	9:55	1.8	(4)	

**Table 3**  
**Summary of Total Dissolved Oxygen Measurements**  
**Quarterly Monitoring**  
**Former Cox Cadillac, 230 Bay Place**  
**Oakland, California**

Well Number	Date Measured	Time of Day	Total Dissolved Oxygen (mg/L)	Notes
TW-4	3/11/1999	15:20	3.4	(1)
	3/17/1999	12:18	14.4	(2)
	3/17/1999	17:54	12.6	(3)
	4/13/1999	9:00	12.2	(2)
	4/13/1999	19:03	>15.0	(3)
	6/1/1999	14:29	9.3	(2)
	6/1/1999	18:33	>15.0	(3)
	7/7/1999	9:09	>18.0	(2)
	7/7/1999	19:36	>18.0	(3)
	8/19/1999	10:41	13.4	(2)
	8/19/1999	18:27	>15.0	(3)
	10/6/1999	9:50	>15.0	(2)
	10/6/1999	16:40	>15.0	(3)
	11/17/1999	11:16	10.6	(2)
	11/17/1999	17:35	>15.0	(3)
	7/25/2001	11:25	17.0*	(4)
11/20/2001	NA	15.3*	(4)	
1/23/2002	NA	13.3	(4)	
4/26/2002	10:00	39.00	(4)	
7/25/2002	NA	5.0	(4)	
TW-5	1/12/1999	16:40	1.7	(1)
	3/11/1999	15:36	0.58	(1)
	3/17/1999	12:20	14.3	(2)
	3/17/1999	17:57	14.6	(3)
	4/13/1999	9:39	3.8	(2)
	4/13/1999	19:28	>15.0	(3)
	6/1/1999	14:40	5.4	(2)
	6/1/1999	18:38	>15.0	(3)
	7/7/1999	9:05	0.25	(2)
	7/7/1999	19:32	>18.0	(3)
	8/19/1999	10:38	1.0	(2)
	8/19/1999	18:33	>15.0	(3)
	10/6/1999	10:31	0.2	(2)
	10/6/1999	17:08	>15.0	(3)
	11/17/1999	11:22	0.8	(2)
	11/17/1999	17:37	>15.0	(3)
7/25/2001	11:25	0.7	(4)	
11/20/2001	NA	5.0	(4)	
1/23/2002	NA	0.5	(4)	
4/26/2002	NA	0.2	(4)	
7/25/2002	NA	0.2	(4)	
TW-6	1/12/1999	15:02	3.9	(1)
	3/11/1999	15:39	0.62	(1)
	3/17/1999	12:23	14.1	(2)
	3/17/1999	18:06	>15.0	(3)
	4/13/1999	9:35	14.2	(2)
	4/13/1999	19:23	>15.0	(3)
	6/1/1999	14:48	11.1	(2)
	6/1/1999	18:40	>15.0	(3)
	7/7/1999	9:00	>18.0	(2)
	7/7/1999	19:21	>18.0	(3)
8/19/1999	10:35	14.8	(2)	

**Table 3  
Summary of Total Dissolved Oxygen Measurements  
Quarterly Monitoring  
Former Cox Cadillac, 230 Bay Place  
Oakland, California**

Well Number	Date Measured	Time of Day	Total Dissolved Oxygen (mg/L)	Notes
TW-6 (Cont.)	8/19/1999	18:38	>15.0	(3)
	10/6/1999	10:27	3.8	(2)
	10/6/1999	17:06	>15.0	(3)
	11/17/1999	11:24	1.5	(2)
	11/17/1999	17:39	>15.0	(3)
	1/11/2000	NA	4.9	(2)
	4/6/2001	10:00	0.78	(4)
	7/25/2001	11:25	2.70	(4)
	11/20/2001	11:30	9.40	(4)
	1/23/2002	11:22	8.60	(4)
	4/26/2002	10:00	39.00	(4)
	7/25/2002	10:30	1.1	(4)
TW-7	1/12/1999	13:10	2.7	(1)
	3/11/1999	15:42	0.74	(1)
	3/17/1999	12:25	6.5	(2)
	3/17/1999	18:12	14	(3)
	4/13/1999	9:25	0.4	(2)
	4/13/1999	19:16	>15.0	(3)
	6/1/1999	14:52	0.7	(2)
	6/1/1999	18:43	>15.0	(3)
	7/7/1999	9:15	0.26	(2)
	7/7/1999	19:26	>18.0	(3)
	8/19/1999	10:30	0.9	(2)
	8/19/1999	18:46	>15.0	(3)
	10/6/1999	10:19	0.5	(2)
	10/6/1999	17:03	>15.0	(3)
	11/17/1999	11:28	1.1	(2)
	11/17/1999	17:40	>15.0	(3)
	1/11/2000	NA	5.2	(2)
	4/6/2001	11:25	0.53	(4)
	7/25/2001	11:25	2.0	(4)
	11/20/2001	13:00	4.6	(4)
	1/23/2002	12:25	0.3	(4)
4/26/2002	9:20	0.50	(4)	
7/25/2002	10:45	0.8	(4)	

**Notes:**

>15 = Above indicated equipment quantification maximum

(1) = Baseline measurement taken before initial introduction of enriched water

(2) = Measured prior to enriched water introduction, and water-level measurement and well purging

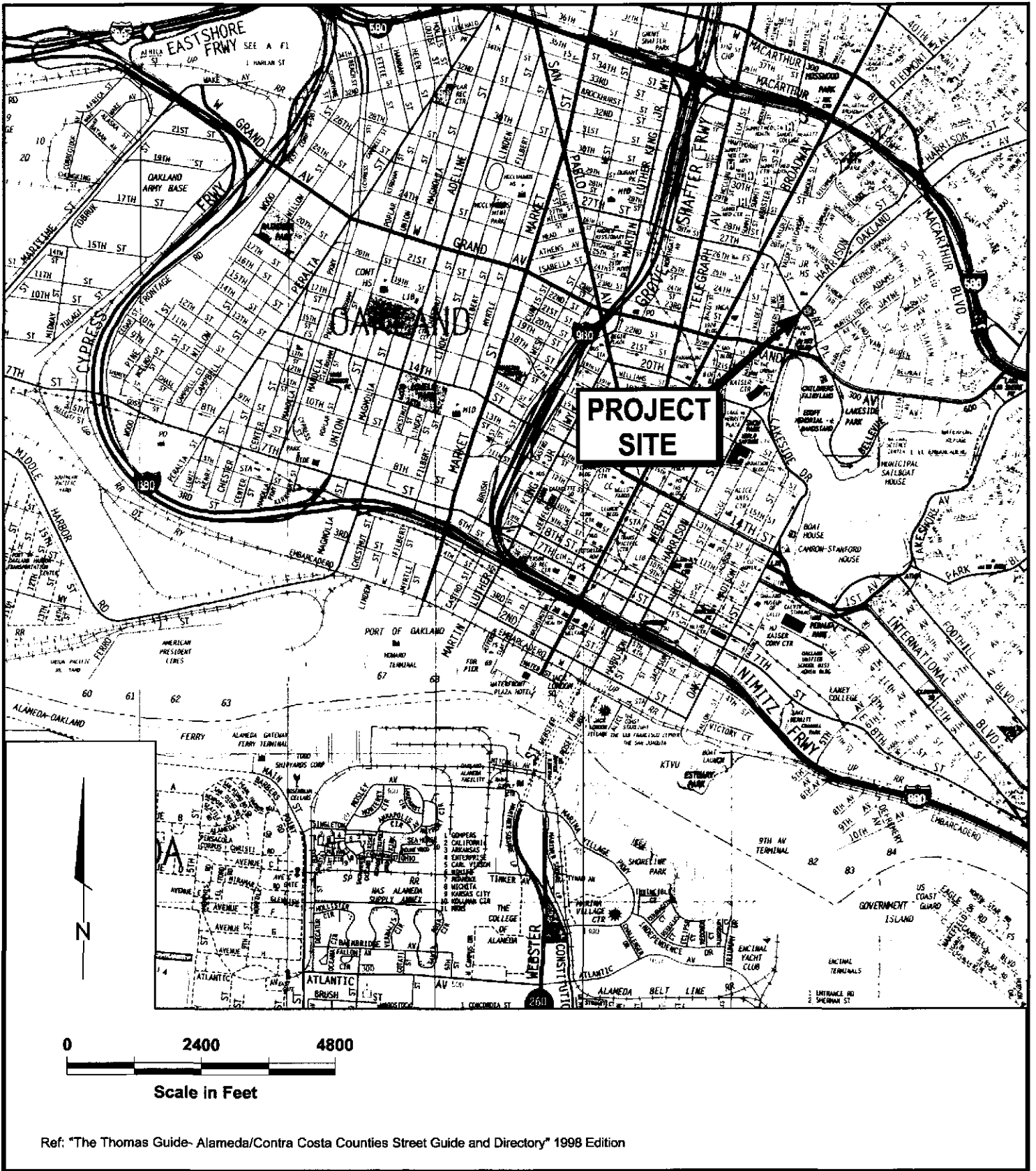
(3) = Measured after enriched water introduction

(4) = Measured prior to water-level measurement and well purging

mg/L = milligrams per liter

NA = information not available

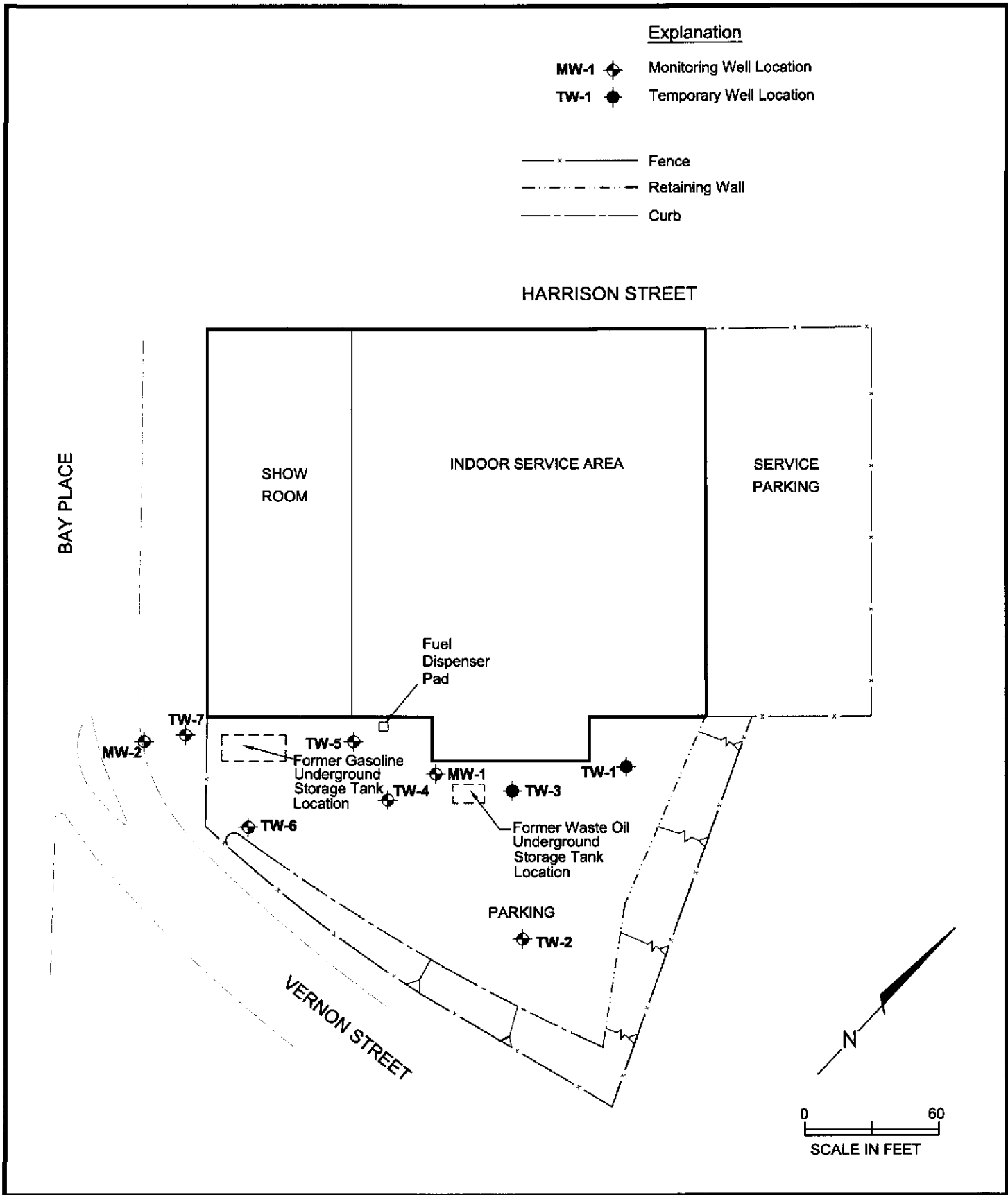
\* Concentration exceeds DO saturation concentration.



**PES Environmental, Inc.**  
Engineering & Environmental Services

**Site Location Map**  
Quarterly Groundwater Monitoring  
Former Cox Cadillac-230 Bay Place  
Oakland, California

PLATE  
**1**







**PES Environmental, Inc.**  
Engineering & Environmental Services

**Site Plan and Well Location Map**  
Quarterly Groundwater Monitoring  
Former Cox Cadillac-230 Bay Place  
Oakland, California

PLATE

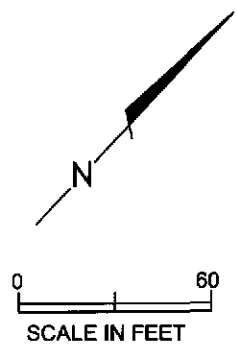
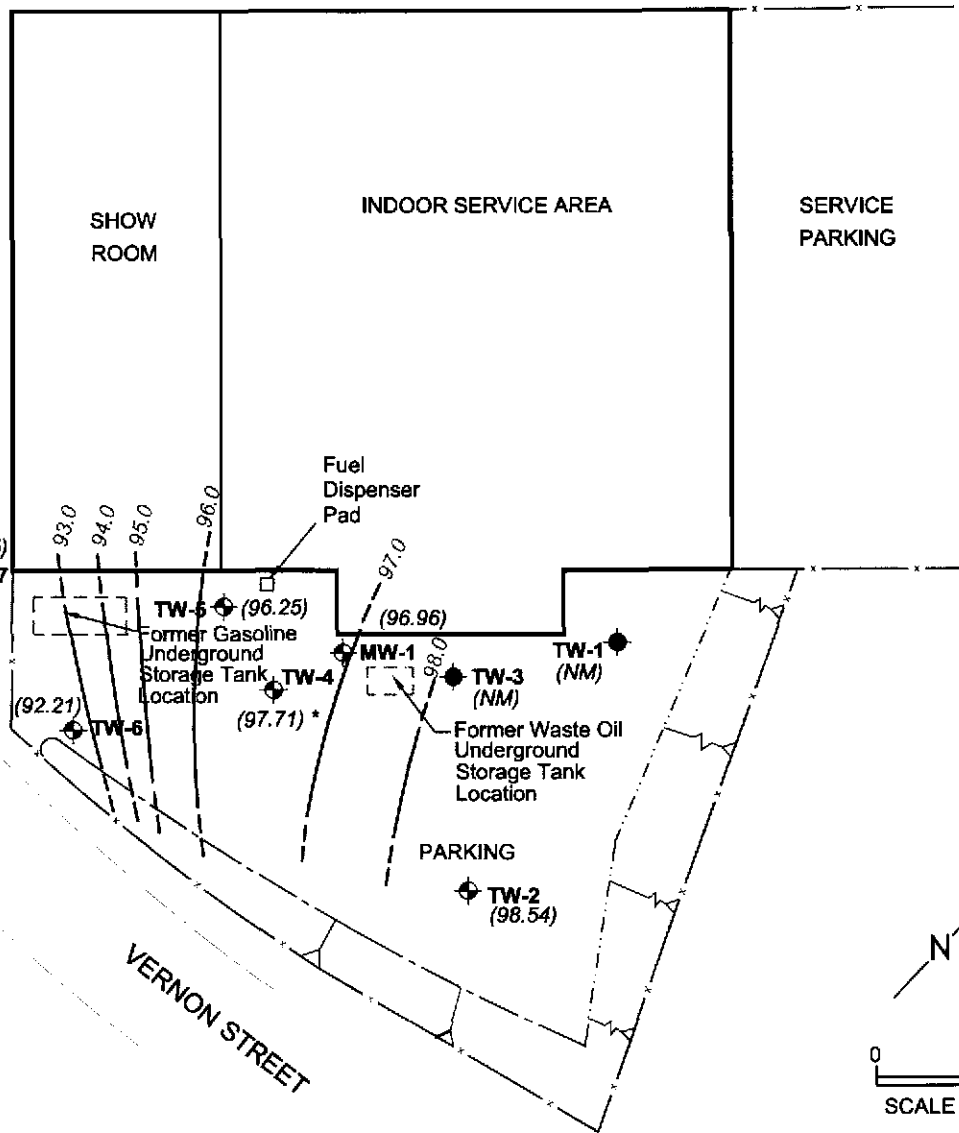
**2**

**Explanation**

- MW-1  Monitoring Well Location
- TW-1  Temporary Well Location
-  Former UST Location
- (97.15) Groundwater Elevation (Referenced to Site Datum) measured July 25, 2002
- 94.0  Groundwater Elevation Contour, Dashed where Inferred (Contour Interval is 1.0 feet)
- (NM) Water-level not measured
- \* TW-4 not included in groundwater elevation contours

HARRISON STREET

BAY PLACE



**PES Environmental, Inc.**  
Engineering & Environmental Services

**Groundwater Elevation Contours on July 25, 2002**  
Quarterly Groundwater Monitoring  
Former Cox Cadillac-230 Bay Place  
Oakland, California

PLATE

**3**

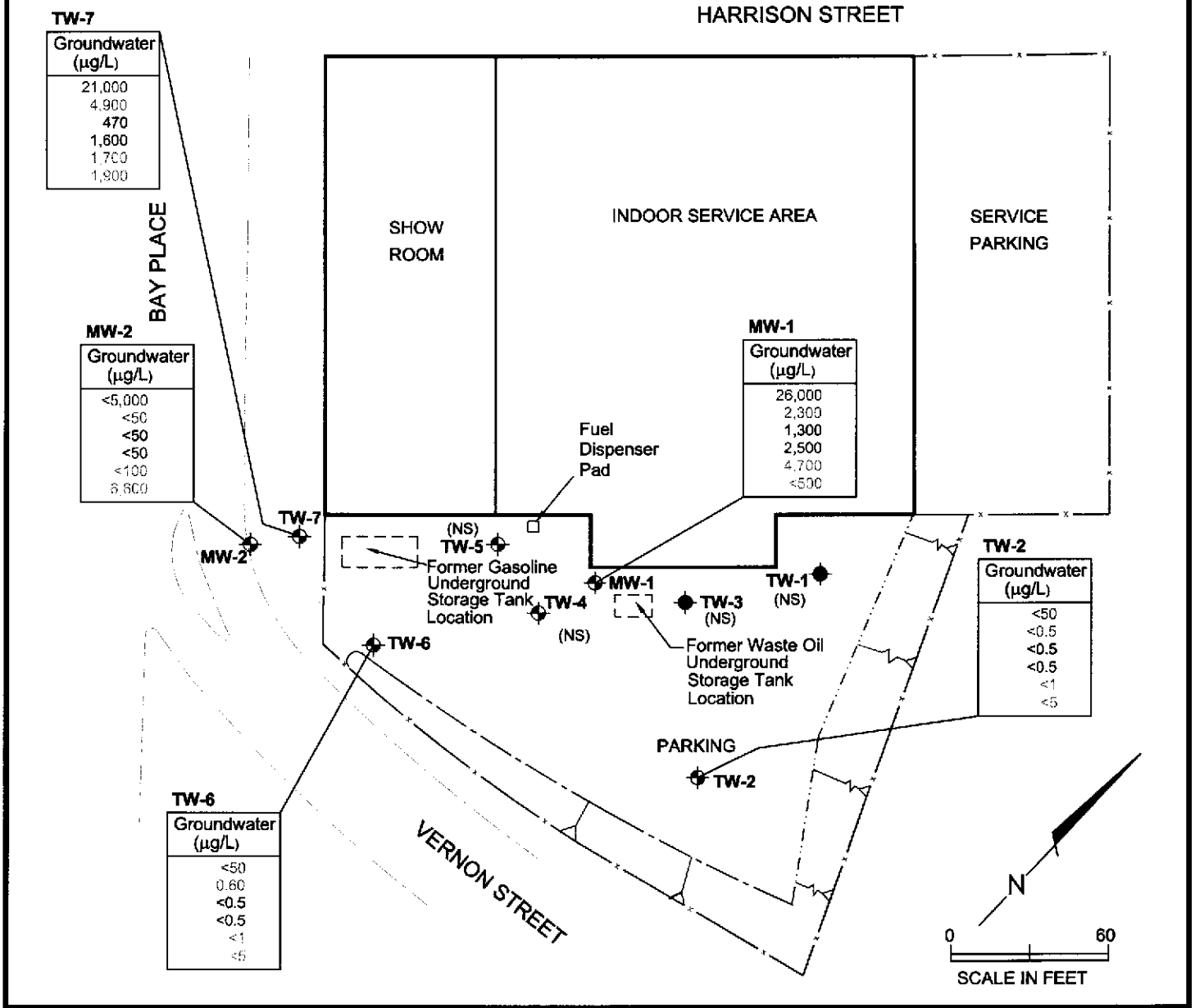
**Explanation**

- MW-1 Monitoring Well Location
- TW-1 Temporary Well Location
- Former UST Location
- (NS) Not Sampled

**Concentrations of Dissolved Hydrocarbons in Micrograms per liter (µg/l) in Groundwater**

Groundwater (µg/L)	
Total Petroleum Hydrocarbons as Gasoline	
Benzene	
Toluene	
Ethylbenzene	
Total Xylenes	
Methyl Tert-Butyl Ether	

<0.50 Not detected at or above indicated laboratory reporting limit



**PES Environmental, Inc.**  
Engineering & Environmental Services

**Distribution of Dissolved Hydrocarbons in Groundwater - July 25, 2002**  
Quarterly Groundwater Monitoring  
Former Cox Cadillac-230 Bay Place  
Oakland, California

PLATE

**4**

**APPENDIX A**

**BLAINE TECH SERVICES  
FIELD DATA SHEETS**



WELL GAUGING DATA

Project # C20725-177M1 Date 7/25/02 Client PES

Site 230 Bay Place Oakland CA

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	PrePurge D.O.
mw-1	2	odor	gauged w/ OTC removed		from well	3.04	19.80	}	1.0
mw-2	2					6.15	19.97		0.8
TW-2	2					1.89	7.80		1.8
TW-4	2		gauged w/ OTC in well			2.24	8.65		5.0
TW-5	2		gauged w/ OTC removed			3.15	7.60		0.2
TW-6	2		OTC removed to gauge			6.54	7.60		1.1
TW-7	2		OTC removed to gauge			5.61	9.85		0.8

## WELL MONITORING DATA SHEET

Project #: <u>020725-mm1</u>	Client: <u>PES @ 230 Bay Place</u>
Sampler: <u>MJM</u>	Start Date: <u>7/25/02</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>19.80</u>	Depth to Water: <u>3.04</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>(PVC)</u> Grade _____	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible  
 Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method:

- Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

2.7 (Gals.) X 3 = 8.1  
 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
1003	68.9	7.02	3467	>1000	2.7	etc
1007	67.7	6.94	3370	>1000	5.4	"
1012	66.9	6.92	3353	>1000	8.1	"

Did well dewater? Yes  No  Gallons actually evacuated: 8.1

Sampling Time: 1015 Sampling Date: 7/25/02

Sample I.D.: MW-1 Laboratory: ENTECH

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: \_\_\_\_\_

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
ORP (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

## WELL MONITORING DATA SHEET

Project #: 020725-MM1	Client: PES @ 230 Bay Place
Sampler: MJM	Start Date: 7/25/02
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8
Total Well Depth: 19.97	Depth to Water: 6.15
Before:                      After:	Before:                      After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd):                      YSI                      HACH

Purge Method:

- Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible  
 Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method:

- Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

2.2 (Gals.) X 3 = 6.6  
Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or μS)	Turbidity (NTU)	Gals. Removed	Observations
1054	72.5	6.67	2352	>1000	2.2	brown
1101	71.5	6.64	2461	>1000	4.4	"
1105	72.3	6.65	2448	>1000	6.6	"

Did well dewater?    Yes     No                      Gallons actually evacuated: 6.6

Sampling Time: 11010                      Sampling Date: 7/25/02

Sample I.D.: MW-2                      Laboratory: ENTECH

Analyzed for: (TPH-G BTEX MTBE) TPH-D    Other:

Equipment Blank I.D.:                      @                      Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D    Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

## WELL MONITORING DATA SHEET

Project #: <u>020725-mm1</u>	Client: <u>PES @ 230 Bay Place</u>
Sampler: <u>MJM</u>	Start Date: <u>7/25/02</u>
Well I.D.: <u>TW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>7.80</u>	Depth to Water: <u>1.89</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- |   |  |
|---|--|
| <input type="checkbox"/> Bailer<br><input checked="" type="checkbox"/> <u>Disposable Bailer</u><br><input type="checkbox"/> Middleburg<br><input type="checkbox"/> Electric Submersible | <input type="checkbox"/> Waterra<br><input type="checkbox"/> Peristaltic<br><input type="checkbox"/> Extraction Pump<br><input type="checkbox"/> Other _____ |
|---|--|

Sampling Method:

- |  |
|--|
| <input checked="" type="checkbox"/> <u>Disposable Bailer</u><br><input type="checkbox"/> Extraction Port<br><input type="checkbox"/> Dedicated Tubing<br><input type="checkbox"/> Other: _____ |
|--|

1 (Gals.) X 3 = 3  
Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
947	70.7	7.70	5430	181	1	cloudy
948	70.8	7.05	5616	656	2	"
950	70.7	6.94	5522	>1000	3	"

Did well dewater? Yes  No  Gallons actually evacuated: 3

Sampling Time: 955 Sampling Date: 7/25/02

Sample I.D.: TW-2 Laboratory: ENTECH

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: \_\_\_\_\_

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: _____	mg/L	Post-purge: _____	mg/L
ORP (if req'd):	Pre-purge: _____	mV	Post-purge: _____	mV

## WELL MONITORING DATA SHEET

Project #: <u>020725-mm1</u>	Client: <u>PES @ 230 Bay Place</u>
Sampler: <u>MJM</u>	Start Date: <u>7/25/02</u>
Well I.D.: <u>TW-6</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>7.60</u>	Depth to Water: <u>6.54</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible
- Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method:

- Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

$0.2 \text{ (Gals.)} \times 3 = 0.6$   
 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
1023	70.7	7.30	507	>1000	0.2	brown
1025	71.2	7.16	429	>1000	0.4	"
1027	71.1	7.18	424	>1000	0.6	"

Did well dewater? Yes  No  Gallons actually evacuated: 0.6

Sampling Time: 1030 Sampling Date: 7/25/02

Sample I.D.: TW-6 Laboratory: ENTECH

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: \_\_\_\_\_

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: _____	mg/L	Post-purge: _____	mg/L
ORP (if req'd):	Pre-purge: _____	mV	Post-purge: _____	mV

## WELL MONITORING DATA SHEET

Project #: <u>020725-MM1</u>	Client: <u>PES @ 230 Bay Place</u>
Sampler: <u>MJM</u>	Start Date: <u>7/25/02</u>
Well I.D.: <u>TW-7</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>9.85</u>	Depth to Water: <u>5.61</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other \_\_\_\_\_

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: \_\_\_\_\_

0.7 (Gals.) X 3 = 2.1  
Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or <u>µS</u> )	Turbidity (NTU)	Gals. Removed	Observations
1036	72.5	6.68	911	381	0.75	sdcc
1038	72.1	6.73	938	71000	1.5	" cloudy gray
1040	71.5	6.75	944	71000	2.25	

Did well dewater? Yes  No  Gallons actually evacuated: 2.25

Sampling Time: 1045 Sampling Date: 7/25/02

Sample I.D.: TW-7 Laboratory: ENTECH

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	<u>Pre-purge:</u>	mg/L	Post-purge:	mg/L
ORP (if req'd):	<u>Pre-purge:</u>	mV	Post-purge:	mV

WELLHEAD INSPECTION CHECKLIST AND REPAIR ORDER

Client PFS Inspection Date 7/25/02  
 Site Address 230 Bay Place Oakland Inspected By MTM

1. Lid on box?	6. Casing secure?	12. Water standing in wellbox?	15. Well cap functional?
2. Lid broken?	7. Casing cut level?	12a. Standing above the top of casing?	16. Can cap be pulled loose?
3. Lid bolts missing?	8. Debris in wellbox?	12b. Standing below the top of casing?	17. Can cap seal out water?
4. Lid bolts stripped?	9. Wellbox is too far above grade?	12c. Water even with the top of casing?	18. Padlock present?
5. Lid seal intact?	10. Wellbox is too far below grade?	13. Well cap present?	19. Padlock functional?
	11. Wellbox is crushed/damaged?	14. Well cap found secure?	

Check box if no deficiencies were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken

Note below all deficiencies that could not be corrected and still need to be corrected.

Well I.D.	Persisting Deficiency	BTS Office assigns or defers Correction to:	Date assigned	Date corrected
TW-2	no wellbox lid needs new box	BTS ABLE TO		
	No locks on site	make repairs @		
mn-1	no bolts needs 2 9/16"	Authorized		
mn-2	needs 1 1/2" bolt			

**APPENDIX B**

**ENTECH ANALYTICAL LABS, INC.  
ANALYTICAL LABORATORY REPORT**



# Entech Analytical Labs, Inc.

RECEIVED AUG - 8 2002

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

August 02, 2002

Francois Bush  
PES Environmental, Inc.  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

**Order:** 30712

**Date Collected:** 7/25/2002

**Project Name:**

**Date Received:** 7/26/2002

**Project Number:** BTS # 020725-MM1

**P.O. Number:** BTS # 020725-MM1

**Project Notes:**

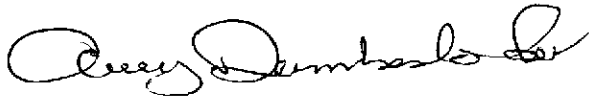
On July 26, 2002, samples were received under documented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>	<u>Test</u>	<u>Method</u>
Liquid	Gas/BTEX/MTBE	EPA 8015 MOD. (Purgeable) EPA 8020

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,



Patti Sandrock  
QA/QC Manager

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

PES Environmental, Inc.

1682 Novato Boulevard, Suite 100

Novato, CA 94947

Attn: Francois Bush

Date: 8/2/02

Date Received: 7/26/2002

Project Name:

Project Number: BTS # 020725-MM1

P.O. Number: BTS # 020725-MM1

Sampled By: Blaine Tech

## Certified Analytical Report

Order ID: 30712

Lab Sample ID: 30712-001

Client Sample ID: MW-1

Sample Time: 10:15 AM

Sample Date: 7/25/2002

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	2300		100	0.5	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Toluene	1300		100	0.5	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Ethyl Benzene	2500		100	0.5	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Xylenes, Total	4700		100	1	100	µg/L	N/A	7/30/2002	WGC62523	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.3	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		100	5	500	µg/L	N/A	7/30/2002	WGC62523	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.3	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	26000		100	50	5000	µg/L	N/A	7/30/2002	WGC62523	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101.7	65 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)



Patti Sakdrock, QA/QC Manager

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

PES Environmental, Inc.

1682 Novato Boulevard, Suite 100

Novato, CA 94947

Attn: Francois Bush

Date: 8/2/02

Date Received: 7/26/2002

Project Name:

Project Number: BTS # 020725-MM1

P.O. Number: BTS # 020725-MM1

Sampled By: Blaine Tech

## Certified Analytical Report

Order ID: 30712

Lab Sample ID: 30712-002

Client Sample ID: MW-2

Sample Time: 11:10 AM

Sample Date: 7/25/2002

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		100	0.5	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Toluene	ND		100	0.5	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Ethyl Benzene	ND		100	0.5	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Xylenes, Total	ND		100	1	100	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			4-Bromofluorobenzene			96.2			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	6600		100	5	500	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			4-Bromofluorobenzene			96.2			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		100	50	5000	µg/L	N/A	7/30/2002	WGC62523	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			4-Bromofluorobenzene			97.3			65 - 135	

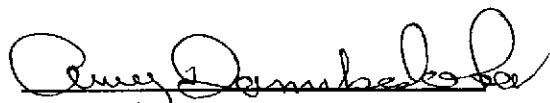
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

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PES Environmental, Inc.  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947  
Attn: Francois Bush

Date: 8/2/02  
Date Received: 7/26/2002  
Project Name:  
Project Number: BTS # 020725-MM1  
P.O. Number: BTS # 020725-MM1  
Sampled By: Blaine Tech

## Certified Analytical Report

Order ID: 30712

Lab Sample ID: 30712-003

Client Sample ID: TW-2

Sample Time: 9:55 AM

Sample Date: 7/25/2002

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Xylenes, Total	ND		1	1	1	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			4-Bromofluorobenzene			95.5			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			4-Bromofluorobenzene			95.5			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			4-Bromofluorobenzene			85.4			65 - 135	

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

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PES Environmental, Inc.  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947  
Attn: Francois Bush

Date: 8/2/02  
Date Received: 7/26/2002  
Project Name:  
Project Number: BTS # 020725-MM1  
P.O. Number: BTS # 020725-MM1  
Sampled By: Blaine Tech

## Certified Analytical Report

Order ID: 30712

Lab Sample ID: 30712-004

Client Sample ID: TW-6

Sample Time: 10:30 AM

Sample Date: 7/25/2002

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	0.60		1	0.5	0.5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Xylenes, Total	ND		1	1	1	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
4-Bromofluorobenzene							94.3		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	7/30/2002	WGC62523	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
4-Bromofluorobenzene							94.3		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	7/30/2002	WGC62523	EPA 8015 MOD. (Purgeable)
Surrogate							Surrogate Recovery		Control Limits (%)	
4-Bromofluorobenzene							84.4		65 - 135	

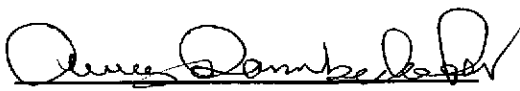
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

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PES Environmental, Inc.  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947  
Attn: Francois Bush

Date: 8/2/02  
Date Received: 7/26/2002  
Project Name:  
Project Number: BTS # 020725-MM1  
P.O. Number: BTS # 020725-MM1  
Sampled By: Blaine Tech

## Certified Analytical Report

Order ID: 30712

Lab Sample ID: 30712-005

Client Sample ID: TW-7

Sample Time: 10:45 AM

Sample Date: 7/25/2002

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	4900		200	0.5	100	µg/L	N/A	8/2/2002	WGC62526	EPA 8020
Toluene	470		200	0.5	100	µg/L	N/A	8/2/2002	WGC62526	EPA 8020
Ethyl Benzene	1600		200	0.5	100	µg/L	N/A	8/2/2002	WGC62526	EPA 8020
Xylenes, Total	1700		200	1	200	µg/L	N/A	8/2/2002	WGC62526	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
4-Bromofluorobenzene							91.0		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	1900		200	5	1000	µg/L	N/A	8/2/2002	WGC62526	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
4-Bromofluorobenzene							91.0		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	21000		200	50	10000	µg/L	N/A	8/2/2002	WGC62526	EPA 8015 MOD. (Purgeable)
Surrogate							Surrogate Recovery		Control Limits (%)	
4-Bromofluorobenzene							117.8		65 - 135	


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)



Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

## Quality Control Results Summary

QC Batch #: WGC62523  
Matrix: Liquid

Units: µg/L  
Date Analyzed: 7/30/2002

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		100		93.	LCS	93.0			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			101.4		65	- 135				
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		8		8.08	LCS	101.0			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.24	LCS	103.0			65.0 - 135.0
Toluene	EPA 8020	ND		8		8.24	LCS	103.0			65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		25.	LCS	104.2			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			98.7		65	- 135				
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.99	LCS	99.9			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			98.7		65	- 135				
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		100		91.8	LCSD	91.8	1.30	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			98.3		65	- 135				
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		8		7.94	LCSD	99.3	1.75	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.2	LCSD	102.5	0.49	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		8		7.98	LCSD	99.8	3.21	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		24.6	LCSD	102.5	1.61	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			96.4		65	- 135				
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.87	LCSD	98.4	1.51	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			96.4		65	- 135				

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

## Quality Control Results Summary

QC Batch #: WGC62526  
Matrix: Liquid

Units: µg/L  
Date Analyzed: 8/1/2002

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		100		89.2	LCS	89.2			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			100.6				65 - 135			
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		8		7.85	LCS	98.1			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.13	LCS	101.6			65.0 - 135.0
Toluene	EPA 8020	ND		8		7.94	LCS	99.3			65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		24.8	LCS	103.3			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			96.8				65 - 135			
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.83	LCS	97.9			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			96.8				65 - 135			
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		100		95.	LCSD	95.0	6.30	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			98.8				65 - 135			
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		8		8.55	LCSD	106.9	8.54	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.9	LCSD	111.3	9.04	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		8		8.6	LCSD	107.5	7.98	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		26.6	LCSD	110.8	7.00	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			98.5				65 - 135			
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		8		8.93	LCSD	111.6	13.13	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			98.5				65 - 135			



# BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE  
 SAN JOSE, CALIFORNIA 95112-1105  
 FAX (408) 573-7771  
 PHONE (408) 573-0555

## CONDUCT ANALYSIS TO DETECT

LAB

Entech

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION \_\_\_\_\_

CHAIN OF CUSTODY

BTS # 020725-mm1

CLIENT PES

SITE 230 Bay Place

Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH - Gas (8015)

BTEX (8020)

MTBE (8020)

SPECIAL INSTRUCTIONS

Invoice and Report to : PES

Attn: Francois Bush

SAMPLE I.D.	DATE	TIME	MATRIX		CONTAINERS		C = COMPOSITE ALL CONTAINERS	TPH - Gas (8015)	BTEX (8020)	MTBE (8020)							ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #		
			S=SOIL W=H <sub>2</sub> O		TOTAL																	
MW-1	7/25	1015	W		3		X	X	X												30712-001	
MW-2		1110	W		3		X	X	X													002
TW-2		955	W		3		X	X	X													003
TW-6		1030	W		3		X	X	X													004
TW-7		1045	W		3		X	X	X													005

SAMPLING COMPLETED DATE 7/25/02 TIME 1110 SAMPLING PERFORMED BY Matthew Miller RESULTS NEEDED NO LATER THAN As Contracted

RELEASED BY *Matthew Bush* DATE 7-26-02 TIME 10:00 RECEIVED BY *Matthew Miller* DATE 7-26-02 TIME 10:05

RELEASED BY *Matthew Miller* DATE 7-26-02 TIME 10:55 RECEIVED BY *Joe Lay* DATE 7/26/02 TIME 12:05

RELEASED BY \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_ RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_

SHIPPED VIA \_\_\_\_\_ DATE SENT \_\_\_\_\_ TIME SENT \_\_\_\_\_ COOLER # \_\_\_\_\_