

**URS**

March 14, 2003

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Alameda County  
MAR 27 2003  
Environmental Health

Ms. Eva Chu  
Alameda County Health Services Agency  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502

**Re: First 2003 Semi-Annual Groundwater Monitoring Report  
Former BP Service Station #11133  
2220 98<sup>th</sup> Avenue  
Oakland, California  
URS Project #38486249**

Dear Ms. Chu:

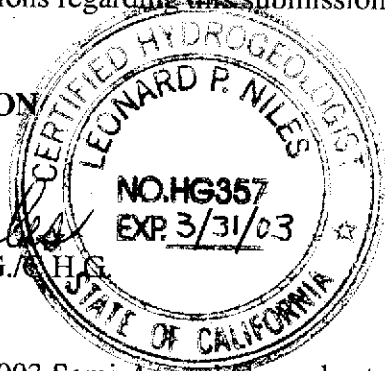
On behalf of the Group Environmental Management Company (a BP affiliated company), URS Corporation (URS) is submitting the *First 2003 Semi-Annual Groundwater Monitoring Report* for the Former BP Service Station #11133, located at 2220 98<sup>th</sup> Avenue, Oakland, California.

If you have any questions regarding this submission, please call (510) 893-1720.

Sincerely,

URS CORPORATION

*Leonard P. Niles*  
Leonard P. Niles, R.G./C.H.G.  
Senior Geologist



Enclosure: First 2003 Semi-Annual Groundwater Monitoring Report

cc: Mr. Scott Hooton, BP GEM, 295 SW 41<sup>st</sup> Street, Building 13, Suite N, Renton, Washington 98055-4931  
Ms. Liz Sewell, ConocoPhillips, 76 Broadway, Sacramento, California 95818

URS Corporation  
500 12th Street, Suite 200  
Oakland, CA 94607-4014  
Tel: 510.893.3600  
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**R E P O R T**

**FIRST 2003 SEMI-ANNUAL  
GROUNDWATER MONITORING**

**FORMER BP SERVICE STATION #11133  
2220 98<sup>TH</sup> AVENUE,  
OAKLAND, CALIFORNIA**

*Prepared for*  
**BP GEM**

March 14, 2003

**URS**

URS Corporation  
500 12th Street, Suite 200  
Oakland, California 94607

38486249

Date: March 14, 2003  
Quarter: 1Q 03

**BP GEM SEMI-ANNUAL GROUNDWATER MONITORING REPORT**

Facility No.: 11133 Address: 2220 98<sup>th</sup> Avenue, Oakland, CA  
BP Environmental Engineer: Scott Hooton  
Consulting Co./Contact Person: URS Corporation/ Leonard Niles  
Consultant Project No.: 38486249  
Primary Agency/Regulatory ID No.: Alameda Country Health Services Agency

**WORK PERFORMED THIS PERIOD (First – 2003):**

1. Performed first 2003 semi-annual groundwater monitoring event on January 16, 2003.
2. Prepared and submitted second 2002 semi-annual groundwater monitoring report.
3. Prepare and submit first 2003 semi-annual groundwater monitoring report.
4. Performed monthly free product measurement in well RW-1.

**WORK PROPOSED FOR NEXT PERIOD (Second – 2003):**

1. Perform second 2003 semi-annual groundwater monitoring event.
2. Perform monthly free product measurement in well RW-1.

Current Phase of Project: GW monitoring/sampling  
Frequency of Groundwater Sampling: Wells MW-1, MW-3, AW-1, AW-4, AW-5, RW-1 biannual (1<sup>st</sup> and 3<sup>rd</sup> quarters); AW-2, AW-6 annual; MW-2, AW-3, AW-7, AW-8 not sampled  
Frequency of Groundwater Monitoring: Biannual  
Is Free Product (FP) Present On-Site: No  
Current Remediation Techniques: None currently  
Approximate Depth to Groundwater: 8.49 (MW-2) to 17.30 (AW-5) feet  
Groundwater Gradient (direction): Variable; east-south-easterly at 0.06 feet/foot and westerly at 0.02 feet/foot

**DISCUSSION:**

TPH-g was detected in six of the eight wells sampled at concentrations ranging from 1,400 µg/L (AW-5) to 34,000 µg/L (RW-1). Benzene was detected in five wells at concentrations ranging from 140 µg/L (AW-5) to 2,500 µg/L (RW-1). MTBE was detected in five wells at concentrations ranging from 20 µg/L (MW-3) to 2,500 µg/L (AW-6). A potentiometric trough along the eastern site boundary divides groundwater flow direction into two components. Groundwater in the western and central portion of the site was found to be moving to the east-southeast at a gradient of 0.06 feet per foot. Groundwater along the eastern site margin was moving to the west at a gradient of 0.02 feet per foot.

Free product has not been detected in well RW-1 during the previous four semi-annual monitoring events. URS recommends reducing the monthly product measurement and bailing program in RW-1 to a semi-annual basis.

**ATTACHMENTS:**

- Table 1 – Groundwater Elevation and Analytical Data
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – January 16, 2003
- Attachment A – Concentration and Water Level Trends (AW-1)
- Attachment B – Field Procedures and Field Data Sheets
- Attachment C – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment D – EDCC Report and EDF/Geowell Submittal Confirmation

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB	
MW-1	4/5/1991	34.46	---	---	---	---	---	---	---	---	---	---	---	
MW-1	4/1/1992	34.46	11.25	0.01	23.22	---	---	---	---	---	---	---	---	
MW-1	7/6/1992	34.46	13.61	0.02	20.87	---	---	---	---	---	---	---	---	
MW-1	10/7/1992	34.46	15.15	0.09	19.38	---	---	---	---	---	---	---	---	
MW-1	1/14/1993	34.46	10.73	0.01	23.74	---	---	---	---	---	---	---	---	
MW-1	4/22/1993	34.46	11.64	0.16	22.94	---	---	---	---	---	---	---	---	
MW-1	7/15/1993	34.46	13.50	1.11	21.79	---	---	---	---	---	---	---	---	
MW-1	10/21/1993	34.46	15.21	1.00	20.00	---	---	---	---	---	---	---	---	
MW-1	1/27/1994	34.46	17.48	0.81	17.59	---	---	---	---	---	---	---	---	
MW-1	4/21/1994	34.46	10.94	---	23.52	110000	1400	9100	3400	30000	11000	(c)	1.6	PACE
MW-1	9/9/1994	34.46	13.80	---	20.66	---	---	---	---	---	---	---	---	---
MW-1	12/21/1994	34.46	12.60	0.02	21.88	---	---	---	---	---	---	---	---	---
MW-1	1/30/1995	34.46	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	4/10/1995	34.46	10.62	---	23.84	---	---	---	---	---	---	---	---	---
MW-1	6/29/1995	34.46	18.72	---	15.74	---	---	---	---	---	---	---	---	---
MW-1	9/18/1995	34.46	12.92	---	21.54	---	---	---	---	---	---	---	---	---
MW-1	12/7/1995	34.46	13.82	---	20.64	---	---	---	---	---	---	---	---	---
MW-1	3/28/1996	34.46	10.03	0.01	24.44	---	---	---	---	---	---	---	---	---
MW-1	6/20/1996	34.46	11.29	0.02	23.19	---	---	---	---	---	---	---	---	---
MW-1	10/11/1996	34.46	14.86	0.01	19.61	---	---	---	---	---	---	---	---	---
MW-1	1/2/1997	34.46	11.03	0.01	23.44	---	---	---	---	---	---	---	---	---
MW-1	4/14/1997	34.46	12.25	0.01	22.22	---	---	---	---	---	---	---	---	---
MW-1	4/15/1997	34.46	---	---	---	35000	130	650	1700	8200	4800	---	---	SPL
MW-1	7/2/1997	34.46	14.11	---	20.35	42000	ND<250	ND<500	2000	9600	ND<5000	5.5	---	SPL
MW-1	9/30/1997	34.46	14.40	---	20.06	61000	130	1100	2700	14600	2000	6.7	---	SPL
MW-1	1/21/1998	34.46	7.99	0.01	26.48	14000	11	60	310	1790	1300	4.5	---	SPL
MW-1	4/9/1998	34.46	7.89	---	26.57	---	---	---	---	---	---	---	---	---
MW-1	4/10/1998	34.46	---	---	---	45000	380	520	2100	6800	9300	5.3	---	SPL
MW-1	6/19/1998	34.46	10.31	---	24.15	35000	170	100	1100	3590	5000	4.9	---	SPL
MW-1	11/30/1998	34.46	11.16	---	23.30	10000	100	24	350	1040	1800/2800 (g)	---	---	SPL
MW-1	1/21/1999	34.46	10.76	---	23.70	18000	120	37	590	1800	2700	---	---	SPL
MW-1	4/30/1999	34.46	10.78	---	23.68	17000	240	89	1100	1900	1600	---	---	SPL
MW-1	7/9/1999	34.46	12.62	---	21.84	58000	140	100	1800	6900	1200	---	---	SPL
MW-1	11/3/1999	34.46	14.00	---	20.46	20000	62	42	620	2100	630	---	---	PACE
MW-1	1/12/2000	34.46	15.25	---	19.21	72000	110	120	2400	8200	630	---	---	PACE
MW-1	4/13/2000	34.46	15.57	---	18.89	37000	300	32	1000	1700	810	---	---	PACE
MW-1	5/24/2000	34.46	11.75	---	22.71	---	---	---	---	---	---	---	---	---

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
MW-1	6/1/2000	34.46	11.41	---	23.05	---	---	---	---	---	---	---	---
MW-1	6/8/2000	34.46	11.68	---	22.78	---	---	---	---	---	---	---	---
MW-1	6/15/2000	34.46	11.85	---	22.61	---	---	---	---	---	---	---	---
MW-1	7/26/2000	34.46	16.19	---	18.27	10000	480	210	470	710	1100	---	---
MW-1	10/24/2000	34.46	13.89	---	20.57	9900	31	7.2	550	1200	4400	---	PACE
MW-1	1/19/2001	34.46	12.90	---	21.56	57000	199	7.66	1170	3260	514	---	PACE
MW-1	7/24/2001	34.46	13.55	---	20.91	27000	96.7	ND<5.0	548	1460	285	---	PACE
MW-1	1/18/2002	34.46	10.91	---	23.55	25000	150	31.5	597	1040	138	---	PACE
MW-1	8/1/2002*	34.46	12.97	---	21.49	25000	80.2	17.7	714	1280	489	---	PACE
MW-1 (p)	1/16/2003	34.46	10.45	---	24.01	22000	170	110	630	670	ND<500	---	SEQ

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
MW-2	4/5/1991	35.50	16.62	--	18.88	ND<50	0.6	0.9	ND<0.3	ND<0.3	--	--	SUP
MW-2	4/1/1992	35.50	11.25	--	24.25	--	--	--	--	--	--	--	--
MW-2	4/2/1992	35.50	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	APP
MW-2	7/6/1992	35.50	12.72	--	22.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	ANA
MW-2	10/7/1992	35.50	15.08	--	20.42	ND<50	ND<0.5	1.8	ND<0.5	2.3	--	--	ANA
MW-2	1/14/1993	35.50	9.69	--	25.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	(m)	PACE
MW-2	4/22/1993	35.50	10.46	--	25.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30	(c)	PACE
MW-2	7/15/1993	35.50	12.02	--	23.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	21.7	c), (tr)	PACE
MW-2	10/21/1993	35.50	13.12	--	22.38	ND<50	0.7	0.9	ND<0.5	0.9	14.9	(m)	PACE
MW-2	1/27/1994	35.50	12.01	--	23.49	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	11.5	(m)	PACE
MW-2	4/21/1994	35.50	10.60	--	24.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11.4	(m)	1.1 PACE
MW-2	9/9/1994	35.50	12.42	--	23.08	ND<50	ND<0.5	ND<0.5	ND<0.5	0.6	--	(m)	2.2 PACE
MW-2	12/21/1994	35.50	10.85	--	24.65	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	1.2 PACE
MW-2	1/30/1995	35.50	8.38	--	27.12	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	1.7 ATI
MW-2	4/10/1995	35.50	9.00	--	26.50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	7.8 ATI
MW-2	6/29/1995	35.50	9.91	--	25.59	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	9.1 ATI
MW-2	9/18/1995	35.50	10.98	--	24.52	--	--	--	--	--	--	--	--
MW-2	9/19/1995	35.50	--	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	7.2 ATI
MW-2	12/7/1995	35.50	12.30	--	23.20	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	2.4 ATI
MW-2	3/28/1996	35.50	8.57	--	26.93	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	3.2 SPL
MW-2	6/20/1996	35.50	9.77	--	25.73	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	4.2 SPL
MW-2	10/11/1996	35.50	13.32	--	22.18	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	6.3 SPL
MW-2	1/2/1997	35.50	9.60	--	25.90	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	6.7 SPL
MW-2	4/14/1997	35.50	10.93	--	24.57	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	5.7 SPL
MW-2	7/2/1997	35.50	12.57	--	22.93	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	5.9 SPL
MW-2	9/30/1997	35.50	12.91	--	22.59	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	6.3 SPL
MW-2	1/21/1998	35.50	10.12	--	25.38	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	100	--	5.4 SPL
MW-2	4/9/1998	35.50	6.82	--	28.68	--	--	--	--	--	--	--	--
MW-2	4/10/1998	35.50	--	--	--	ND<50	1.0	ND<1.0	ND<1.0	ND<1.0	23	--	5.0 SPL
MW-2	6/19/1998	35.50	9.00	--	26.50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.9 SPL
MW-2	11/30/1998	35.50	9.44	--	26.06	--	--	--	--	--	--	--	--
MW-2	1/21/1999	35.50	8.96	--	26.54	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.9	--	SPL
MW-2	4/30/1999	35.50	9.15	--	26.35	--	--	--	--	--	--	--	--
MW-2	7/9/1999	35.50	10.82	--	24.68	--	--	--	--	--	--	--	--
MW-2	11/3/1999	35.50	11.86	--	23.64	--	--	--	--	--	--	--	--
MW-2	1/12/2000	35.50	12.35	--	23.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-2	4/13/2000	35.50	13.01	--	22.49	--	--	--	--	--	--	--	--

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	(a) DTW (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	(b) TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
MW-2	7/26/2000	35.50	13.01	---	22.49	---	---	---	---	---	---	---	---
MW-2	10/24/2000	35.50	11.57	---	23.93	---	---	---	---	---	---	---	---
MW-2	1/19/2001	35.50	10.52	---	24.98	---	---	---	---	---	---	---	---
MW-2	7/24/2001	35.50	11.13	---	24.37	---	---	---	---	---	---	---	---
MW-2	1/18/2002	35.50	8.85	---	26.65	---	---	---	---	---	---	---	---
MW-2	8/1/2002*	35.50	10.47	---	25.03	---	---	---	---	---	---	---	---
MW-2	1/14/2003	35.50	8.49	---	27.01	---	---	---	---	---	---	---	---



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MW-3	4/5/1991	36.53	17.84	---	18.69	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SUP	
MW-3	4/1/1992	36.53	15.64	---	20.89	---	---	---	---	---	---	---	---	
MW-3	4/2/1992	36.53	---	---	---	ND<50	1.4	ND<0.5	ND<0.5	ND<0.5	---	---	APP	
MW-3	7/6/1992	36.53	19.03	---	17.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA	
MW-3	10/7/1992	36.53	21.83	---	14.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA	
MW-3	1/14/1993	36.53	15.96	---	20.57	350	ND<0.5	ND<0.5	ND<0.5	ND<0.5	714	c), (tr	PACE	
MW-3	4/22/1993	36.53	16.20	---	20.33	2800	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3600	c), (tr	PACE	
MW-3	7/15/1993	36.53	16.82	---	19.71	1400	1.2	ND<0.5	2.0	3.5	2204	c), (tr	PACE	
MW-3	10/21/1993	36.53	18.84	---	17.69	370	2.1	2.3	2.3	6.0	847	c), (tr	PACE	
MW-3	1/27/1994	36.53	18.00	---	18.53	1300	6.3	ND<0.5	ND<0.5	ND<0.5	3892	c), (tr	PACE	
MW-3	4/21/1994	36.53	16.62	---	19.91	2000	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3864	c), (tr	PACE	
MW-3	9/9/1994	36.53	18.38	---	18.15	1300	ND<0.5	ND<0.5	0.5	1.2	---	(m)	3.0	PACE
MW-3	12/21/1994	36.53	15.28	---	21.25	420	16	0.7	3.5	5.9	800	(m)	1.9	PACE
MW-3	1/30/1995	36.53	12.62	---	23.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	2.5	ATI
MW-3	4/10/1995	36.53	12.41	---	24.12	150	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	6.9	ATI
MW-3	6/29/1995	36.53	14.95	---	21.58	100	d ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	6.4	ATI
MW-3	9/18/1995	36.53	15.82	---	20.71	---	---	---	---	---	---	---	---	---
MW-3	9/19/1995	36.53	---	---	---	82	ND<0.50	ND<0.50	ND<0.50	ND<1.0	260	---	7.0	ATI
MW-3	12/7/1995	36.53	17.09	---	19.44	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	91	---	4.5	ATI
MW-3	3/28/1996	36.53	11.90	---	24.63	ND<50	ND<0.5	ND<1	ND<1	ND<1	230	---	4.2	SPL
MW-3	6/20/1996	36.53	12.66	---	23.87	260	ND<0.5	ND<1	ND<1	ND<1	370	---	4.4	SPL
MW-3	10/11/1996	36.53	16.23	---	20.30	330	ND<0.5	ND<1.0	ND<1.0	ND<1.0	440	---	5.8	SPL
MW-3	1/2/1997	36.53	12.17	---	24.36	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	140	---	6.0	SPL
MW-3	4/14/1997	36.53	13.45	---	23.08	---	---	---	---	---	---	---	---	---
MW-3	4/15/1997	36.53	---	---	---	1500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1800	---	5.6	SPL
MW-3	7/2/1997	36.53	15.60	---	20.93	880	ND<0.5	ND<1.0	ND<1.0	ND<1.0	940	---	5.3	SPL
MW-3	9/30/1997	36.53	17.16	---	19.37	40000	13000	2400	870	3100	510	---	6.6	SPL
MW-3	1/21/1998	36.53	11.77	---	24.76	120	ND<0.5	ND<1.0	ND<1.0	ND<1.0	98	---	4.7	SPL
MW-3	4/9/1998	36.53	9.42	---	27.11	950	ND<0.5	ND<1.0	ND<1.0	ND<1.0	890	---	5.7	SPL
MW-3	6/19/1998	36.53	12.09	---	24.44	1800	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1900	---	4.7	SPL
MW-3	6/19/1998	36.53	15.28	---	21.25	1800	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1900	---	4.7	SPL
MW-3	1/21/1999	36.53	14.67	---	21.86	1100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1200	---	---	SPL
MW-3	4/30/1999	36.53	16.00	---	20.53	---	---	---	---	---	---	---	---	---
MW-3	7/9/1999	36.53	14.64	---	21.89	470	ND<1.0	ND<1.0	ND<1.0	ND<1.0	460/470	(g)	---	SPL
MW-3	11/3/1999	36.53	16.39	---	20.14	---	---	---	---	---	---	---	---	---
MW-3	1/12/2000	36.53	16.80	---	19.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	34	---	---	PACE
MW-3	4/13/2000	36.53	16.43	---	20.10	---	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
MW-3	07/26/2000	36.53	16.93	---	19.60	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	10/24/2000	36.53	15.69	---	20.84	---	---	---	---	---	---	---	---
MW-3	01/19/2001	36.53	14.84	---	21.69	ND<50	ND<0.5	ND<0.5	ND<0.5	0.996	25.9	---	---
MW-3	07/23/2001	36.53	15.11	---	21.42	62	ND<0.5	ND<0.5	ND<0.5	ND<1.5	28.7	---	PACE
MW-3	01/18/2002	36.53	12.37	---	24.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	17.8	---	PACE
MW-3	8/1/2002*	36.53	14.44	---	22.09	66	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	---	PACE
MW-3 (p)	01/16/2003	36.53	12.07	---	24.46	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	20	---	SEQ

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**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	(a) DTW (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	(b) TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-1	4/5/1991	38.11	25.44	---	12.67	4100	1500	69	100	83	---	---	SUP
AW-1	4/1/1992	38.11	23.22	---	14.89	---	---	---	---	---	---	---	---
AW-1	4/2/1992	38.11	---	---	---	11000	1800	210	210	490	---	---	APP
AW-1	7/6/1992	38.11	24.89	---	13.22	6500	4000	40	290	530	---	---	ANA
AW-1	10/7/1992	38.11	26.55	---	11.56	4700	1500	41	47	300	---	---	ANA
QC-1	(e) 10/7/1992	---	---	---	---	2900	1200	25	37	210	---	---	ANA
AW-1	1/14/1993	38.11	23.73	---	14.38	2800	830	31	140	240	---	(m)	PACE
QC-1	(e) 1/14/1993	---	---	---	---	4100	1700	28	130	230	---	(m)	PACE
AW-1	4/22/1993	38.11	---	---	38.11	39000	14000	530	1800	6100	987	c), (r)	PACE
AW-1	7/15/1993	38.11	22.50	---	15.61	6200	2200	28	210	540	838	c), (r)	PACE
AW-1	10/21/1993	38.11	24.32	---	13.79	2400	820	13	55	120	832	e), (r)	PACE
AW-1	1/27/1994	38.11	23.72	---	14.39	3500	1400	26	130	220	650	c), (n)	PACE
AW-1	4/21/1994	38.11	22.48	---	15.63	40000	12000	1900	1600	5000	1119	(m)	PACE
AW-1	9/9/1994	38.11	23.04	---	15.07	3500	1600	5.0	200	250	---	(m)	PACE
QC-1	(e) 9/9/1994	---	---	---	---	3900	1900	5.5	190	240	---	---	PACE
AW-1	12/21/1994	38.11	21.70	---	16.41	7600	3100	36	370	320	855	(m)	PACE
AW-1	1/30/1995	38.11	17.71	---	20.40	35000	23000	650	3200	4100	---	---	ATI
AW-1	4/10/1995	38.11	20.04	---	18.07	60000	18000	2000	4300	11000	---	---	ATI
QC-1	(e) 4/10/1995	---	---	---	---	56000	17000	2000	3900	10000	---	---	ATI
AW-1	6/29/1995	38.11	20.60	---	17.51	72000	10000	7300	4200	15000	---	---	ATI
QC-1	(e) 6/29/1995	---	---	---	---	86000	12000	8400	4800	18000	---	---	ATI
AW-1	9/18/1995	38.11	21.87	---	16.24	---	---	---	---	---	---	---	---
AW-1	9/19/1995	38.11	---	---	---	65000	12000	3100	4400	14000	1000	---	ATI
AW-1	12/7/1995	38.11	22.06	---	16.05	25000	8700	ND<50	2500	1300	1100	---	ATI
AW-1	3/28/1996	38.11	16.91	---	21.20	24000	11000	ND<100	3200	3390	ND<1000	---	SPL
AW-1	6/20/1996	38.11	20.82	---	17.29	38000	6900	1100	3200	7300	ND<100	---	SPL
AW-1	10/11/1996	38.11	23.20	---	14.91	33000	8500	69	3300	4230	580	---	SPL
AW-1	1/2/1997	38.11	20.41	---	17.70	32000	8000	ND<50	3100	2300	700	---	SPL
AW-1	4/14/1997	38.11	21.61	---	16.50	---	---	---	---	---	---	---	---
AW-1	4/15/1997	38.11	---	---	---	31000	5000	160	2400	4540	340	---	SPL
AW-1	7/2/1997	38.11	21.17	---	16.94	26000	5800	ND<100	2600	2200	ND<1000	---	SPL
AW-1	9/30/1997	38.11	21.48	---	16.63	29000	9200	17	1400	130	560	---	SPL
AW-1	1/21/1998	38.11	20.02	---	18.09	50000	6900	450	3200	4450	720	---	SPL
AW-1	4/9/1998	38.11	13.37	---	24.74	---	---	---	---	---	---	---	---
AW-1	4/10/1998	38.11	---	---	---	46000	5800	1900	3000	7400	1000	---	SPL
AW-1	6/19/1998	38.11	19.12	---	18.99	42000	6600	200	3000	3350	660	---	SPL
QC-1	(e) 6/19/1998	---	---	---	---	43000	6800	260	3100	3490	620	---	SPL

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Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-1	11/30/1998	38.11	21.13	---	16.98	23000	6700	ND<25	3100	130	710/820 (g)	---	SPL
AW-1	1/21/1999	38.11	20.77	---	17.34	25000	4800	54	2800	780	1000	---	SPL
AW-1	4/30/1999	38.11	20.80	---	17.31	21000	5300	67	2800	750	1500	---	SPL
AW-1	7/9/1999	38.11	20.41	---	17.70	11000	3000	ND<10	760	180	1300	---	SPL
AW-1	11/3/1999	38.11	20.82	---	17.29	---	---	---	---	---	---	---	---
AW-1	1/12/2000	38.11	19.99	---	18.12	330000	5300	10	2900	560	2200	---	PACE
AW-1	4/13/2000	38.11	20.14	---	17.97	---	---	---	---	---	---	---	---
AW-1	5/24/2000	38.11	20.17	---	17.94	---	---	---	---	---	---	---	---
AW-1	6/1/2000	38.11	23.05	---	15.06	---	---	---	---	---	---	---	---
AW-1	6/8/2000	38.11	17.08	---	21.03	---	---	---	---	---	---	---	---
AW-1	6/15/2000	38.11	16.93	---	21.18	---	---	---	---	---	---	---	---
AW-1	7/26/2000	38.11	20.07	---	18.04	15000	290	98	77	220	37000	---	PACE
AW-1	10/24/2000	38.11	20.10	---	18.01	---	---	---	---	---	---	---	---
AW-1	1/19/2001	38.11	19.82	---	18.29	7600	2220	10.9	415	58.4	1630	---	PACE
AW-1	7/24/2001	38.11	19.86	---	18.25	9600	2140	6.34	281	43	1440	---	PACE
AW-1	1/18/2002	38.11	15.60	---	22.51	20000	2170	75.2	1800	2080	1250	---	PACE
AW-1	8/1/2002*	38.11	19.55	---	18.56	14000	2150	ND<12.5	197	42.4	1120	---	PACE
AW-1 (p)	1/16/2003	38.11	16.32	---	21.79	15000	2300	75	1600	1800	1100	---	SEQ

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Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-2	4/5/1991	36.83	22.36	---	14.47	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SUP
AW-2	4/1/1992	36.83	20.81	---	16.02	---	---	---	---	---	---	---	---
AW-2	4/2/1992	36.83	---	---	---	130	25	2.3	0.7	2.1	---	---	APP
AW-2	7/6/1992	36.83	23.57	---	13.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-2	10/7/1992	36.83	25.24	---	11.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-2	1/14/1993	36.83	20.82	---	16.01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-2	4/22/1993	36.83	19.37	---	17.46	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-2	7/15/1993	36.83	21.29	---	15.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-2	10/21/1993	36.83	23.14	---	13.69	ND<50	1.3	1.1	0.9	2.1	ND<5.0	(m)	PACE
AW-2	1/27/1994	36.83	22.34	---	14.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-2	4/21/1994	36.83	21.15	---	15.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-2	9/9/1994	36.83	22.09	---	14.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-2	12/21/1994	36.83	20.12	---	16.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-2	1/30/1995	36.83	16.65	---	20.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	2.5 ATI
AW-2	4/10/1995	36.83	16.22	---	20.61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.4 ATI
AW-2	6/29/1995	36.83	17.55	---	19.28	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	7.8 ATI
AW-2	9/18/1995	36.83	19.87	---	16.96	---	---	---	---	---	---	---	---
AW-2	9/19/1995	36.83	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.5 ATI
QC-1 (e)	9/19/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-2	12/7/1995	36.83	21.31	---	15.52	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.9 ATI
AW-2	3/28/1996	36.83	15.61	---	21.22	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.1 SPL
AW-2	6/20/1996	36.83	16.30	---	20.53	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	5.2 SPL
AW-2	10/11/1996	36.83	19.60	---	17.23	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	6.0 SPL
AW-2	1/2/1997	36.83	15.97	---	20.86	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	6.1 SPL
AW-2	4/14/1997	36.83	17.19	---	19.64	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	5.3 SPL
AW-2	7/2/1997	36.83	18.11	---	18.72	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	5.7 SPL
AW-2	9/30/1997	36.83	18.52	---	18.31	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	860	---	5.4 SPL
AW-2	1/21/1998	36.83	14.46	---	22.37	160	13	ND<1.0	ND<1.0	ND<1.0	110	---	4.9 SPL
AW-2	4/9/1998	36.83	12.85	---	23.98	---	---	---	---	---	---	---	---
AW-2	4/10/1998	36.83	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9 SPL
AW-2	6/19/1998	36.83	14.37	---	22.46	60	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.6 SPL
AW-2	11/30/1998	36.83	16.90	---	19.93	---	---	---	---	---	---	---	---
AW-2	1/21/1999	36.83	16.87	---	19.96	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---	SPL
AW-2	4/30/1999	36.83	17.01	---	19.82	---	---	---	---	---	---	---	---
AW-2	7/9/1999	36.83	17.83	---	19.00	---	---	---	---	---	---	---	---
AW-2	11/3/1999	36.83	19.74	---	17.09	---	---	---	---	---	---	---	---
AW-2	1/12/2000	36.83	19.90	---	16.93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-2	4/13/2000	36.83	19.75	---	17.08	---	---	---	---	---	---	---	---
AW-2	7/26/2000	36.83	19.86	---	16.97	---	---	---	---	---	---	---	---
AW-2	10/24/2000	36.83	18.77	---	18.06	---	---	---	---	---	---	---	---
AW-2 (f)	1/19/2001	36.83	---	---	---	---	---	---	---	---	---	---	---
AW-2 (f)	7/24/2001	36.83	---	---	---	---	---	---	---	---	---	---	---
AW-2	1/18/2002	36.83	15.17	---	21.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	---	PACE
AW-2	8/1/2002*	36.83	17.17	---	19.66	---	---	---	---	---	---	---	---
AW-2 (p)	1/16/2003	36.83	14.81	---	22.02	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	---	SEQ

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-3	4/5/1991	39.13	23.90	---	15.23	5200	980	450	95	310	---	---	SUP
AW-3	4/1/1992	39.13	22.50	---	16.63	4700	890	47	43	110	---	---	APP
AW-3	7/6/1992	39.13	23.26	---	15.87	3900	3100	30	80	99	---	---	ANA
AW-3	10/7/1992	39.13	24.75	---	14.38	5000	2600	ND<0.5	ND<0.5	59	---	---	ANA
AW-3	1/14/1993	39.13	23.59	---	15.54	350	250	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-3	4/22/1993	39.13	19.42	---	19.71	240	71	2.4	0.6	4.0	---	(m)	PACE
AW-3	7/15/1993	39.13	20.09	---	19.04	650	71	2.8	1.5	1.1	37.3	c), (tr	PACE
AW-3	10/21/1993	39.13	21.88	---	17.25	160	4.8	1.7	1.6	3.6	8.95	(m)	PACE
QC-1 (e)	10/21/1993	---	---	---	---	170	6.1	2.0	1.7	4.4	---	---	PACE
AW-3	1/27/1994	39.13	22.33	---	16.80	92	2.1	ND<0.5	ND<0.5	ND<0.5	7.37	(m)	PACE
QC-1 (e)	1/27/1994	---	---	---	---	90	2.9	0.5	ND<0.5	ND<0.5	---	---	PACE
AW-3	4/21/1994	39.13	20.96	---	18.17	150	3.6	0.8	0.9	2.5	9.36	(m)	PACE
AW-3	9/9/1994	39.13	21.60	---	17.53	53	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-3 (f)	12/21/1994	39.13	---	---	---	---	---	---	---	---	---	---	---
AW-3 (f)	1/30/1995	39.13	---	---	---	---	---	---	---	---	---	---	---
AW-3 (f)	4/10/1995	39.13	---	---	---	---	---	---	---	---	---	---	---
AW-3	6/29/1995	39.13	15.41	---	23.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.0	ATI
AW-3	9/18/1995	39.13	17.83	---	21.30	---	---	---	---	---	---	---	---
AW-3	9/19/1995	39.13	---	---	---	61000	11000	2900	4100	13000	790	7.4	ATI
AW-3	12/7/1995	39.13	19.27	---	19.86	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	3.4	ATI
QC-1 (e)	12/7/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-3	3/28/1996	39.13	13.85	---	25.28	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.1	SPL
QC-1 (e)	3/28/1996	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
AW-3	6/20/1996	39.13	14.47	---	24.66	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.2	SPL
QC-1 (e)	6/20/1996	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
AW-3	10/11/1996	39.13	17.97	---	21.16	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.7	SPL
QC-1 (e)	10/11/1996	---	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-3	1/2/1997	39.13	13.00	---	26.13	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.6	SPL
AW-3	4/14/1997	39.13	14.36	---	24.77	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
QC-1 (e)	4/15/1997	---	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-3	7/2/1997	39.13	15.87	---	23.26	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.4	SPL
AW-3	9/30/1997	39.13	17.50	---	21.63	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	810	5.7	SPL
AW-3	1/21/1998	39.13	11.98	---	27.15	140	ND<0.5	ND<1.0	ND<1.0	ND<1.0	99	4.6	SPL
QC-1 (e)	1/21/1998	---	---	---	---	150	ND<0.5	ND<1.0	ND<1.0	1.2	110	---	SPL
AW-3	4/9/1998	39.13	9.45	---	29.68	---	---	---	---	---	---	---	---
AW-3	4/10/1998	39.13	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	1.6	ND<10	4.5	SPL
QC-1 (e)	4/10/1998	---	---	---	---	ND<50	ND<0.5	ND<1.0	1.4	1.7	ND<10	---	SPL

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-3	06/19/1998	39.13	12.13	---	27.00	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
AW-3	11/30/1998	39.13	15.91	---	23.22	---	---	---	---	---	---	---	---
AW-3	01/21/1999	39.13	15.93	---	23.20	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---	SPL
AW-3	04/30/1999	39.13	15.98	---	23.15	---	---	---	---	---	---	---	---
AW-3	07/09/1999	39.13	14.58	---	24.55	---	---	---	---	---	---	---	---
AW-3	11/03/1999	39.13	17.43	---	21.70	---	---	---	---	---	---	---	---
AW-3	01/12/2000	39.13	18.30	---	20.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
AW-3	04/13/2000	39.13	18.89	---	20.24	---	---	---	---	---	---	---	---
AW-3	07/26/2000	39.13	18.67	---	20.46	---	---	---	---	---	---	---	---
AW-3	10/24/2000	39.13	18.98	---	20.15	---	---	---	---	---	---	---	---
AW-3	01/19/2001	39.13	16.74	---	22.39	---	---	---	---	---	---	---	---
AW-3	07/24/2001	39.13	18.55	---	20.58	---	---	---	---	---	---	---	---
AW-3	01/18/2002	39.13	14.49	---	24.64	---	---	---	---	---	---	---	---
AW-3	8/1/2002*	39.13	14.27	---	24.86	---	---	---	---	---	---	---	---
AW-3	01/16/2003	39.13	14.25	---	24.88	---	---	---	---	---	---	---	---



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2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB	
AW-4	4/5/1991	39.08	25.12	---	13.96	110000	40000	13000	2000	5500	---	---	SUP	
AW-4	4/1/1992	39.08	23.56	---	15.52	230000	57000	31000	2900	7600	---	---	APP	
QC-1 (e)	4/1/1992	---	---	---	---	210000	55000	23000	2900	7000	---	---	APP	
AW-4	7/6/1992	39.08	25.87	---	13.21	38000	16000	5400	2000	6100	---	---	ANA	
AW-4	10/7/1992	39.08	27.53	---	11.55	120000	41000	26000	4700	13000	---	---	ANA	
AW-4	1/14/1993	39.08	24.12	---	14.96	62000	18000	14000	2700	7700	1400	c), (m)	PACE	
AW-4	4/22/1993	39.08	21.47	---	17.61	18000	1100	2100	320	3500	---	---	PACE	
AW-4	7/15/1993	39.08	23.30	---	15.78	21000	820	2300	590	3800	1978	c), (m)	PACE	
AW-4	10/21/1993	39.08	25.08	---	14.00	11000	570	83	630	2300	4600	c), (m)	PACE	
AW-4	1/27/1994	39.08	24.61	---	14.47	12000	420	460	600	2200	6400	c), (m)	PACE	
AW-4	4/21/1994	39.08	22.96	---	16.12	12000	110	250	150	1900	16010	c), (m)	1.5 PACE	
QC-1 (e)	4/21/1994	---	---	---	---	14000	71	160	29	1200	13000	(c)	---	PACE
AW-4	9/9/1994	39.08	23.85	---	15.23	9700	75	64	280	2000	---	(m)	2.1	PACE
AW-4 (f)	12/21/1994	39.08	---	---	---	---	---	---	---	---	---	---	---	---
AW-4 (f)	1/30/1995	39.08	---	---	---	---	---	---	---	---	---	---	---	---
AW-4	4/10/1995	39.08	18.07	---	21.01	3700	69	8.7	44	130	---	8.5	ATI	
AW-4	6/29/1995	39.08	19.25	---	19.83	8000	62	190	190	1100	---	7.5	ATI	
AW-4	9/18/1995	39.08	20.73	---	18.35	---	---	---	---	---	---	---	---	
AW-4	9/19/1995	39.08	---	---	---	12000	660	1600	200	1900	7100	8.3	ATI	
AW-4	12/7/1995	39.08	22.49	---	16.59	41000	8400	7200	710	6300	5200	3.6	ATI	
AW-4 (f)	3/28/1996	39.08	16.49	---	22.59	---	---	---	---	---	---	---	---	
AW-4	6/20/1996	39.08	16.00	---	23.08	ND<50	ND<0.5	ND<1	ND<1	ND<1	12	---	SPL	
AW-4	10/11/1996	39.08	19.52	---	19.56	36000	12000	5500	ND<25	3800	880/1000	(g)	6.2	SPL
AW-4	1/2/1997	39.08	15.80	---	23.28	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	22	6.4	SPL	
QC-1 (e)	1/2/1997	---	---	---	---	ND<50	61	3.8	3.5	8.1	110	---	SPL	
AW-4	4/14/1997	39.08	17.01	---	22.07	---	---	---	---	---	---	---	---	
AW-4	4/15/1997	39.08	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.4	SPL	
AW-4	7/2/1997	39.08	19.68	---	19.40	ND<50	21	ND<1.0	ND<1.0	ND<1.0	41	4.1	SPL	
AW-4 (f)	9/30/1997	39.08	22.71	---	16.37	---	---	---	---	---	---	---	---	
AW-4	1/21/1998	39.08	15.89	---	23.19	13000	2900	ND<10	230	314	3100	3.9	SPL	
AW-4	4/9/1998	39.08	13.50	---	25.58	---	---	---	---	---	---	---	---	
AW-4	4/10/1998	39.08	---	---	---	890	ND<0.5	ND<1	ND<1	ND<1	730	4.9	SPL	
AW-4	6/19/1998	39.08	14.75	---	24.33	60	ND<0.5	ND<1.0	ND<1.0	ND<1.0	34	4.3	SPL	
AW-4	11/30/1998	39.08	19.25	---	19.83	---	---	---	---	---	---	---	---	
AW-4	1/21/1999	39.08	18.94	---	20.14	3700	830	93	200	360	30	---	---	
AW-4	4/30/1999	39.08	19.10	---	19.98	---	---	---	---	---	---	---	---	
AW-4	7/9/1999	39.08	18.93	---	20.15	76000	12000	6600	2000	8700	320	---	SPL	

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2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-4	11/3/1999	39.08	20.65	---	18.43	---	---	---	---	---	---	---	---
AW-4	1/12/2000	39.08	21.21	---	17.87	67000	12000	3500	2900	15000	280	---	PACE
AW-4	4/13/2000	39.08	21.33	---	17.75	---	---	---	---	---	---	---	---
AW-4	5/24/2000	39.08	19.84	---	19.24	---	---	---	---	---	---	---	---
AW-4	6/1/2000	39.08	19.04	---	20.04	---	---	---	---	---	---	---	---
AW-4	6/8/2000	39.08	18.32	---	20.76	---	---	---	---	---	---	---	---
AW-4	6/15/2000	39.08	16.70	---	22.38	---	---	---	---	---	---	---	---
AW-4	7/26/2000	39.08	21.50	---	17.58	910	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3500	---	PACE
AW-4	10/24/2000	39.08	22.00	---	17.08	---	---	---	---	---	---	---	---
AW-4	1/19/2001	39.08	18.97	---	20.11	6600	2460	24	497	534	267	---	PACE
AW-4	7/24/2001	39.08	18.55	---	20.53	5100	1080	143	409	827	115	---	PACE
AW-4	1/18/2002	39.08	17.22	---	21.86	3900	442	241	157	681	85.3	---	PACE
AW-4 (f)	8/1/2002*	39.08	---	---	---	---	---	---	---	---	---	---	---
AW-4 (p)	1/16/2003	39.08	16.85	---	22.23	2900	260	160	120	590	ND<120	---	SEQ

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-5	4/5/1991	38.51	25.48	---	13.03	420	31	7.5	20	68	---	---	SUP
AW-5	4/1/1992	38.51	23.95	---	14.56	---	---	---	---	---	---	---	---
AW-5	4/2/1992	38.51	---	---	---	4000	270	63	190	290	---	---	APP
AW-5	7/6/1992	38.51	26.48	---	12.03	1400	160	ND<2.5	250	58	---	---	ANA
AW-5	10/7/1992	38.51	28.18	---	10.33	360	12	0.6	8.7	5	---	---	ANA
AW-5	1/14/1993	38.51	24.15	---	14.36	1700	270	7.5	130	62	(m)	---	PACE
AW-5	4/22/1993	38.51	22.43	---	16.08	2700	780	30	220	180	(m)	---	PACE
QC-1 (e)	4/22/1993	---	---	---	---	3500	780	29	240	210	(m)	---	PACE
AW-5	7/15/1993	38.51	24.31	---	14.20	1300	69	16	67	120	ND<50 (m)	---	PACE
QC-1 (e)	7/15/1993	---	---	---	---	1300	68	8.3	64	99	ND<50 (m)	---	PACE
AW-5	10/21/1993	38.51	26.05	---	12.46	510	9.6	1.5	17	45	75 c), (m)	---	PACE
AW-5	1/27/1994	38.51	26.42	---	12.09	420	3.3	ND<0.5	1.0	0.9	48.9 (m)	---	PACE
AW-5	4/21/1994	38.51	24.36	---	14.15	1000	110	25	56	27	75 c), (m)	1.3	PACE
AW-5	9/9/1994	38.51	24.55	---	13.96	210	ND<0.5	ND<0.5	0.5	0.9	(m)	2.7	PACE
AW-5	12/21/1994	38.51	22.30	---	16.21	410	ND<0.5	20	4.3	1.4	114 (m)	1.1	PACE
QC-1 (e)	12/21/1994	---	---	---	---	340	ND<0.5	15	3.3	1.4	104 (m)	---	PACE
AW-5	1/30/1995	38.51	18.88	---	19.63	210	0.6	11	8.8	2	---	1.5	ATI
AW-5	4/10/1995	38.51	18.44	---	20.07	500	1.4	0.59	6.5	4.3	---	8.3	ATI
AW-5	6/29/1995	38.51	19.92	---	18.59	490 d	1.2	0.58	7.3	2.2	---	6.9	ATI
AW-5	9/18/1995	38.51	22.15	---	16.36	---	---	---	---	---	---	---	---
AW-5	9/19/1995	38.51	---	---	---	260	0.62	ND<0.50	3.1	1.1	110	8.2	ATI
AW-5	12/7/1995	38.51	23.75	---	14.76	60	ND<0.50	ND<0.50	ND<0.50	ND<1.0	210	4.3	ATI
AW-5	3/28/1996	38.51	17.76	---	20.75	ND<50	ND<0.5	ND<1	ND<1	ND<1	63	3.0	SPL
AW-5	6/20/1996	38.51	18.46	---	20.05	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.6	SPL
AW-5	10/11/1996	38.51	21.84	---	16.67	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.5	SPL
AW-5	1/2/1997	38.51	18.01	---	20.50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL
AW-5	4/14/1997	38.51	19.35	---	19.16	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.1	SPL
AW-5	7/2/1997	38.51	20.29	---	18.22	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.0	SPL
AW-5	9/30/1997	38.51	23.15	---	15.36	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	1300	6.3	SPL
AW-5	1/21/1998	38.51	17.33	---	21.18	6100	ND<0.5	2.1	ND<1.0	ND<1.0	3700	4.5	SPL
AW-5	4/9/1998	38.51	15.25	---	23.26	---	---	---	---	---	---	---	---
AW-5	4/10/1998	38.51	---	---	---	3500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3000	5.4	SPL
AW-5	6/19/1998	38.51	17.39	---	21.12	3300	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2500	5.2	SPL
AW-5 (f)	11/30/1998	38.51	---	---	---	---	---	---	---	---	---	---	---
AW-5	1/21/1999	38.51	21.22	---	17.29	2800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1800	---	SPL
AW-5	4/30/1999	38.51	21.50	---	17.01	---	---	---	---	---	---	---	---
AW-5	7/9/1999	38.51	20.15	---	18.36	4000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	3400/3500 (g)	---	SPL

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-5	11/3/1999	38.51	22.04	---	16.47	---	---	---	---	---	---	---	---
AW-5	1/12/2000	38.51	22.59	---	15.92	1000	j 7.3	30	6.7	40	4600	---	PACE
AW-5	4/13/2000	38.51	23.11	---	15.40	---	---	---	---	---	---	---	---
AW-5	7/26/2000	38.51	22.72	---	15.79	1800	94	35	5.9	27	16000	---	PACE
AW-5	10/24/2000	38.51	20.15	---	18.36	---	---	---	---	---	---	---	---
AW-5	1/19/2001	38.51	19.79	---	18.72	2600	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4580	---	PACE
AW-5	7/24/2001	38.51	20.17	---	18.34	5400	18.4	17.2	ND<12.5	40.8	5170	---	PACE
AW-5	1/18/2002	38.51	17.34	---	21.17	3800	343	0.738	ND<0.5	ND<1.0	3750	---	PACE
AW-5	8/1/2002*	38.51	19.49	---	19.02	5300	ND<12.5	ND<12.5	ND<12.5	ND<25	3470	---	PACE
<b>AW-5 (p)</b>	<b>1/16/2003</b>	<b>38.51</b>	<b>17.30</b>	---	<b>21.21</b>	<b>1400</b>	<b>140</b>	<b>ND&lt;10</b>	<b>ND&lt;10</b>	<b>ND&lt;10</b>	<b>1600</b>	---	<b>SEQ</b>

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-6	4/5/1991	37.08	22.48	---	14.60	1100	80	19	1.4	230	---	---	SUP
AW-6	4/1/1992	37.08	22.50	---	14.58	---	---	---	---	---	---	---	---
AW-6	4/2/1992	37.08	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	APP
AW-6	7/6/1992	37.08	22.74	---	14.34	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-6	10/7/1992	37.08	24.64	---	12.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-6	1/14/1993	37.08	22.36	---	14.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-6	4/22/1993	37.08	22.82	---	14.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-6	7/15/1993	37.08	20.49	---	16.59	ND<50	ND<0.5	ND<0.5	ND<0.5	0.8	ND<5.0	(m)	PACE
AW-6	10/21/1993	37.08	22.84	---	14.24	ND<50	0.5	0.6	ND<0.5	0.7	ND<5.0	(m)	PACE
AW-6	1/27/1994	37.08	22.33	---	14.75	ND<50	ND<0.5	0.9	3.1	12	ND<5.0	(m)	PACE
AW-6	4/21/1994	37.08	20.66	---	16.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-6	9/9/1994	37.08	21.57	---	15.51	ND<50	0.9	ND<0.5	ND<0.5	0.5	---	(m)	PACE
AW-6	12/21/1994	37.08	19.40	---	17.68	ND<50	1.8	0.8	0.8	3.2	5.19	(m)	PACE
AW-6	1/30/1995	37.08	16.74	---	20.34	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-1 (e)	1/30/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-6	4/10/1995	37.08	16.01	---	21.07	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.6	ATI
AW-6	6/29/1995	37.08	17.54	---	19.54	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.3	ATI
AW-6	9/18/1995	37.08	19.65	---	17.43	---	---	---	---	---	---	---	---
AW-6	9/19/1995	37.08	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	25	8.3	ATI
AW-6	12/7/1995	37.08	20.35	---	16.73	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	16	4.7	ATI
AW-6	3/28/1996	37.08	14.99	---	22.09	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.0	SPL
AW-6	6/20/1996	37.08	15.59	---	21.49	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.6	SPL
AW-6	10/11/1996	37.08	19.09	---	17.99	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.3	SPL
AW-6	1/2/1997	37.08	15.11	---	21.97	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.5	SPL
AW-6	4/14/1997	37.08	16.25	---	20.83	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.9	SPL
AW-6	7/2/1997	37.08	17.99	---	19.09	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL
AW-6	9/30/1997	37.08	20.50	---	16.58	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.0	SPL
AW-6	1/21/1998	37.08	15.72	---	21.36	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	110	5.0	SPL
AW-6	4/9/1998	37.08	13.31	---	23.77	---	---	---	---	---	---	---	---
AW-6	4/10/1998	37.08	---	---	---	370	ND<0.5	ND<1.0	ND<1.0	ND<1.0	300	4.3	SPL
AW-6	6/19/1998	37.08	15.18	---	21.90	830	2.0	ND<1.0	ND<1.0	ND<1.0	690	4.0	SPL
AW-6 (f)	11/30/1998	37.08	---	---	---	---	---	---	---	---	---	---	---
AW-6	1/21/1999	37.08	15.78	---	21.30	2300	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1900	---	SPL
AW-6	4/30/1999	37.08	16.01	---	21.07	---	---	---	---	---	---	---	---
AW-6	7/9/1999	37.08	17.63	---	19.45	---	---	---	---	---	---	---	---
AW-6	11/3/1999	37.08	18.42	---	18.66	---	---	---	---	---	---	---	---
AW-6	1/12/2000	37.08	19.92	---	17.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2700	---	PACE

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2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-6	4/13/2000	37.08	19.87	---	17.21	---	---	---	---	---	---	---	---
AW-6	7/26/2000	37.08	19.99	---	17.09	---	---	---	---	---	---	---	---
AW-6	10/24/2000	37.08	18.12	---	18.96	---	---	---	---	---	---	---	---
AW-6	1/19/2001	37.08	17.04	---	20.04	2700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4850	---	PACE
AW-6	7/24/2001	37.08	17.83	---	19.25	---	---	---	---	---	---	---	---
AW-6	1/18/2002	37.08	15.54	---	21.54	5500	614	ND<0.5	ND<0.5	ND<1.0	5390	---	PACE
AW-6	8/1/2002*	37.08	16.98	---	20.10	---	---	---	---	---	---	---	---
AW-6 (p)	1/16/2003	37.08	15.05	---	22.03	2900	ND<20	ND<20	ND<20	63	2500	---	SEQ

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**Groundwater Elevation and Analytical Data**  
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2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-7	4/5/1991	37.60	23.38	---	14.22	ND<50	0.4	0.7	ND<0.3	ND<0.3	---	---	SUP
AW-7	4/1/1992	37.60	21.92	---	15.68	---	---	---	---	---	---	---	---
AW-7	4/2/1992	37.60	---	---	---	ND<50	ND<0.5	3.2	1.0	5.4	---	---	APP
AW-7	7/6/1992	37.60	24.50	---	13.10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-7	10/7/1992	37.60	26.18	---	11.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-7	1/14/1993	37.60	22.03	---	15.57	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-7	4/22/1993	37.60	21.18	---	16.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-7	7/15/1993	37.60	22.09	---	15.51	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-7	10/21/1993	37.60	24.05	---	13.55	51	5.0	4.2	3.5	8.2	ND<5.0	(m)	PACE
AW-7	1/27/1994	37.60	23.40	---	14.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-7	4/21/1994	37.60	22.24	---	15.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-7	9/9/1994	37.60	22.94	---	14.66	ND<50	ND<0.5	ND<0.5	ND<0.5	0.5	---	(m)	PACE
AW-7	12/21/1994	37.60	20.86	---	16.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-7	1/30/1995	37.60	17.51	---	20.09	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-7	4/10/1995	37.60	16.69	---	20.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-7	6/29/1995	37.60	18.33	---	19.27	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-7	9/18/1995	37.60	20.68	---	16.92	---	---	---	---	---	---	---	---
AW-7	9/19/1995	37.60	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-7	12/7/1995	37.60	22.15	---	15.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-7	3/28/1996	37.60	16.38	---	21.22	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
AW-7	6/20/1996	37.60	17.02	---	20.58	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
AW-7	10/11/1996	37.60	20.47	---	17.13	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-7	1/2/1997	37.60	16.70	---	20.90	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-7	4/14/1997	37.60	17.96	---	19.64	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-7	7/2/1997	37.60	19.11	---	18.49	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-7	9/30/1997	37.60	22.97	---	14.63	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	1100	---	SPL
AW-7	1/21/1998	37.60	16.50	---	21.10	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-7	4/9/1998	37.60	13.56	---	24.04	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-7	6/19/1998	37.60	15.41	---	22.19	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-7	11/30/1998	37.60	18.90	---	18.70	---	---	---	---	---	---	---	---
AW-7	1/21/1999	37.60	18.39	---	19.21	---	---	---	---	---	---	---	---
AW-7	4/30/1999	37.60	18.54	---	19.06	---	---	---	---	---	---	---	---
AW-7	7/9/1999	37.60	17.98	---	19.62	---	---	---	---	---	---	---	---
AW-7	11/3/1999	37.60	20.22	---	17.38	---	---	---	---	---	---	---	---
AW-7	1/12/2000	37.60	19.46	---	18.14	---	---	---	---	---	---	---	---
AW-7	4/13/2000	37.60	19.59	---	18.01	---	---	---	---	---	---	---	---
AW-7	7/26/2000	37.60	19.69	---	17.91	---	---	---	---	---	---	---	---

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-7	10/24/2000	37.60	18.78	--	18.82	--	--	--	--	--	--	--	--
AW-7 (f)	1/19/2001	37.60	--	--	--	--	--	--	--	--	--	--	--
AW-7 (f)	7/25/2001	37.60	--	--	--	--	--	--	--	--	--	--	--
AW-7 (o)	1/18/2002	37.60	--	--	--	--	--	--	--	--	--	--	--
AW-7 (o)	8/1/2002*	37.60	--	--	--	--	--	--	--	--	--	--	--
AW-7 (o)	1/16/2003	37.60	--	--	--	--	--	--	--	--	--	--	--



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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-8	4/5/1991	40.86	26.68	---	14.18	80	1.9	2.2	0.5	1.3	---	---	SUP
AW-8	4/1/1992	40.86	25.11	---	15.75	73	ND<0.5	0.7	ND<0.5	0.6	---	---	APP
AW-8	7/6/1992	40.86	26.43	---	14.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-8	10/7/1992	40.86	28.59	---	12.27	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-8	1/14/1993	40.86	25.55	---	15.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-8	4/22/1993	40.86	22.29	---	18.57	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-8	7/15/1993	40.86	23.42	---	17.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-8	10/21/1993	40.86	25.15	---	15.71	ND<50	1.9	1.8	1.3	3.3	ND<5.0	(m)	PACE
AW-8	1/27/1994	40.86	25.42	---	15.44	ND<50	ND<0.5	0.5	0.6	8.5	ND<5.0	(m)	PACE
AW-8	4/21/1994	40.86	24.14	---	16.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-8	9/9/1994	40.86	24.55	---	16.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
AW-8	12/21/1994	40.86	22.72	---	18.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
AW-8	1/30/1995	40.86	19.75	---	21.11	ND<50	ND<0.50	1	ND<0.50	1	---	---	ATI
AW-8	4/10/1995	40.86	17.78	---	23.08	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-8	6/29/1995	40.86	18.18	---	22.68	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-8	9/18/1995	40.86	20.20	---	20.66	---	---	---	---	---	---	---	---
AW-8	9/19/1995	40.86	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-8	12/7/1995	40.86	21.54	---	19.32	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-8	3/28/1996	40.86	15.77	---	25.09	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
AW-8	6/20/1996	40.86	16.41	---	24.45	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
AW-8	10/11/1996	40.86	19.90	---	20.96	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-8	1/2/1997	40.86	15.89	---	24.97	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-8	4/14/1997	40.86	17.07	---	23.79	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-8	7/2/1997	40.86	18.67	---	22.19	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-8	9/30/1997	40.86	22.52	---	18.34	ND<50	ND<5	ND<10	ND<10	ND<10	820	---	SPL
AW-8	1/21/1998	40.86	16.01	---	24.85	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-8	4/9/1998	40.86	11.18	---	29.68	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-8	6/19/1998	40.86	13.01	---	27.85	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-8	11/30/1998	40.86	17.46	---	23.40	---	---	---	---	---	---	---	---
AW-8	1/21/1999	40.86	17.47	---	23.39	---	---	---	---	---	---	---	---
AW-8	4/30/1999	40.86	17.60	---	23.26	---	---	---	---	---	---	---	---
AW-8	7/9/1999	40.86	16.50	---	24.36	---	---	---	---	---	---	---	---
AW-8	11/3/1999	40.86	19.29	---	21.57	---	---	---	---	---	---	---	---
AW-8	1/12/2000	40.86	21.49	---	19.37	---	---	---	---	---	---	---	---
AW-8	4/13/2000	40.86	21.60	---	19.26	---	---	---	---	---	---	---	---
AW-8	7/26/2000	40.86	21.53	---	19.33	---	---	---	---	---	---	---	---
AW-8	10/24/2000	40.86	19.37	---	21.49	---	---	---	---	---	---	---	---

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-8	1/19/2001	40.86	18.60	---	22.26	---	---	---	---	---	---	---	---
AW-8	7/24/2001	40.86	18.22	---	22.64	---	---	---	---	---	---	---	---
AW-8	1/18/2002	40.86	16.29	---	24.57	---	---	---	---	---	---	---	---
AW-8	8/1/2002*	40.86	17.25	---	23.61	---	---	---	---	---	---	---	---
AW-8	1/16/2003	40.86	15.82	---	25.04	---	---	---	---	---	---	---	---

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WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
QC-2	(i) 10/7/1992	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2	(i) 1/14/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
QC-2	(i) 4/22/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
QC-2	(i) 7/15/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
QC-2	(i) 10/21/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 1/27/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 4/21/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 9/9/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 12/21/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 1/30/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2	(i) 4/10/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2	(i) 6/27/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2	(i) 9/19/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2	(i) 12/7/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2	(i) 3/28/1996	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2	(i) 6/20/1996	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
AW-9	1/2/1997	37.78	10.00	---	27.78	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.7	SPL
AW-9 (f)	4/14/1997	37.78	---	---	---	---	---	---	---	---	---	---	---
AW-9	7/2/1997	37.78	12.71	---	25.07	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.0	SPL
AW-9	9/30/1997	37.78	21.22	---	16.56	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.8	SPL
AW-9	1/21/1998	37.78	10.26	---	27.52	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.3	SPL
AW-9	4/9/1998	37.78	6.77	---	31.01	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.6	SPL
AW-9	6/19/1998	37.78	8.96	---	28.82	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
RW-1	4/5/1991	37.73	---	---	---	---	---	---	---	---	---	---	---
RW-1	4/1/1992	37.73	22.81	0.30	15.15	---	---	---	---	---	---	---	---
RW-1	7/6/1992	37.73	26.92	0.41	11.12	---	---	---	---	---	---	---	---
RW-1	10/7/1992	37.73	28.51	1.26	10.17	---	---	---	---	---	---	---	---
RW-1	1/14/1993	37.73	23.75	0.25	14.17	---	---	---	---	---	---	---	---
RW-1	4/22/1993	37.73	22.70	1.38	16.07	---	---	---	---	---	---	---	---
RW-1	7/15/1993	37.73	26.10	0.81	12.24	---	---	---	---	---	---	---	---
RW-1	10/21/1993	37.73	25.40	0.49	12.70	---	---	---	---	---	---	---	---
RW-1	10/21/1993	37.73	25.40	0.49	12.70	---	---	---	---	---	---	---	---
RW-1	1/27/1994	37.73	28.02	0.37	9.99	---	---	---	---	---	---	---	---
RW-1	4/21/1994	37.73	23.10	0.91	15.31	---	---	---	---	---	---	---	---
RW-1	9/9/1994	37.73	24.39	1.04	14.12	---	---	---	---	---	---	---	---
RW-1	(h) 12/21/1994	37.73	---	---	---	---	---	---	---	---	---	---	---
RW-1	12/7/1995	37.73	25.71	1.04	12.80	150000	34000	35000	4300	21000	2700	---	ATI
RW-1	3/28/1996	37.73	16.75	0.18	21.12	---	---	---	---	---	---	---	---
RW-1	(h) 6/20/1996	37.73	25.10	0.02	12.65	---	---	---	---	---	---	---	---
RW-1	10/11/1996	37.73	25.51	0.00	12.22	130000	20000	32000	2800	20700	1400/1200 (g)	7.4	SPL
RW-1	1/2/1997	37.73	24.49	0.01	13.25	---	---	---	---	---	---	---	---
RW-1	4/14/1997	37.73	23.99	0.04	13.77	---	---	---	---	---	---	---	---
RW-1	4/15/1997	37.73	---	---	---	1800000	38000	190000	48000	281000	ND<25000	---	SPL
RW-1	7/2/1997	37.73	16.40	0.20	21.48	140000	19000	55000	4400	32400	ND<10000	5.7	SPL
QC-1	(e) 7/2/1997	---	---	---	---	130000	19000	54000	4700	33400	ND<10000	---	SPL
RW-1	9/30/1997	37.73	27.97	0.02	9.78	110000	13000	22000	2000	12500	1100	7.0	SPL
QC-1	(e) 9/30/1997	---	---	---	---	140000	17000	29000	2500	15900	1200	---	SPL
RW-1	1/21/1998	37.73	14.14	0.44	23.92	270000	21000	48000	3500	25000	1100	4.8	SPL
RW-1	4/9/1998	37.73	25.01	0.05	12.76	---	---	---	---	---	---	---	---
RW-1	4/10/1998	37.73	---	---	---	220000	26000	46000	4400	24500	ND<2500	5.1	SPL
RW-1	6/19/1998	37.73	11.43	---	26.30	180000	19000	32000	3000	17400	ND<2500	4.6	SPL
RW-1	11/30/1998	37.73	7.87	---	29.86	---	---	---	---	---	---	---	---
RW-1	1/21/1999	37.73	18.90	0.03	18.85	260000	24000	46000	5100	30000	1700	---	SPL
RW-1	7/9/1999	37.73	18.58	0.26	19.36	---	---	---	---	---	---	---	---
RW-1	11/3/1999	37.73	20.85	0.60	17.36	160000	19000	37000	3800	25000	1500	---	PACE
RW-1	1/12/2000	37.73	21.20	0.23	16.71	240000	18000	46000	5800	26000	2100	---	PACE
RW-1	4/13/2000	37.73	21.71	0.11	16.11	120000	2100	33000	2800	28000	1500	---	PACE
RW-1	5/24/2000	37.73	21.89	0.24	16.03	---	---	---	---	---	---	---	---
RW-1	6/1/2000	37.73	16.30	0.01	21.44	---	---	---	---	---	---	---	---
RW-1	6/8/2000	37.73	17.88	0.20	20.01	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	(a) DTW (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	(b) TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
RW-1	6/15/2000	37.73	16.72	0.04	21.04	---	---	---	---	---	---	---	---
RW-1	6/20/2000	37.73	21.04	0.20	16.85	---	---	---	---	---	---	---	---
RW-1	7/7/2000	37.73	17.21	0.01	20.53	---	---	---	---	---	---	---	---
RW-1	7/20/2000	37.73	21.87	0.18	16.00	---	---	---	---	---	---	---	---
RW-1	7/26/2000	37.73	21.45	0.13	16.38	67000	160	5300	2100	18000	1100	---	PACE
RW-1	7/31/2000	37.73	22.11	---	15.62	---	---	---	---	---	---	---	---
RW-1	8/8/2000	37.73	17.80	0.01	19.94	---	---	---	---	---	---	---	---
RW-1	8/16/2000	37.73	17.92	---	19.81	---	---	---	---	---	---	---	---
RW-1	8/23/2000	37.73	18.11	0.02	19.64	---	---	---	---	---	---	---	---
RW-1	10/24/2000	37.73	18.93	---	18.80	---	---	---	---	---	---	---	---
RW-1 (k)	10/25/2000	37.73	19.04	---	18.69	360000	18000	78000	34000	180000	2100	---	PACE
RW-1	1/19/2001	37.73	18.19	0.05	19.58	110000	9450	19600	3510	21100	1270	---	PACE
RW-1 (l)	7/24/2001	37.73	17.93	---	19.80	---	---	---	---	---	---	---	---
RW-1	1/18/2002	37.73	14.87	---	22.86	63000	2060	4370	1770	13900	491	---	PACE
RW-1	8/1/2002*	37.73	16.84	---	20.89	60000	1210	2200	1520	10600	390	---	PACE
RW-1 (p)	1/16/2003	37.73	14.42	---	23.31	34000	2500	2700	780	5300	680	---	SEQ

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

WELL ID	DATE OF MONITORING/ SAMPLING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DO (ppm)	LAB
QC-2 (i)	10/7/1992	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (i)	1/14/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
QC-2 (i)	4/22/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(m)	PACE
QC-2 (i)	7/15/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(m)	PACE
QC-2 (i)	10/21/1993	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	1/27/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	4/21/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	9/9/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	12/21/1994	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	1/30/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	4/10/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	6/27/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	9/19/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (i)	12/7/1995	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (i)	3/28/1996	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2 (i)	6/20/1996	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11133  
2220 98th Avenue, Oakland, CA

ABBREVIATIONS:

TOC	Top of Casing
DTW	Depth to Water
GWE	Groundwater Elevation
TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
DO	Dissolved oxygen
ug/L	Micrograms per liter
ppm	Parts per million
---	Not available/applicable/measurable
ND	Not detected above reported detection limit
PACE	Pace, Inc.
SUP	Superior Analytical Laboratories, Inc.
APP	Applied Analytical Laboratory
ANA	Anamatrix, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

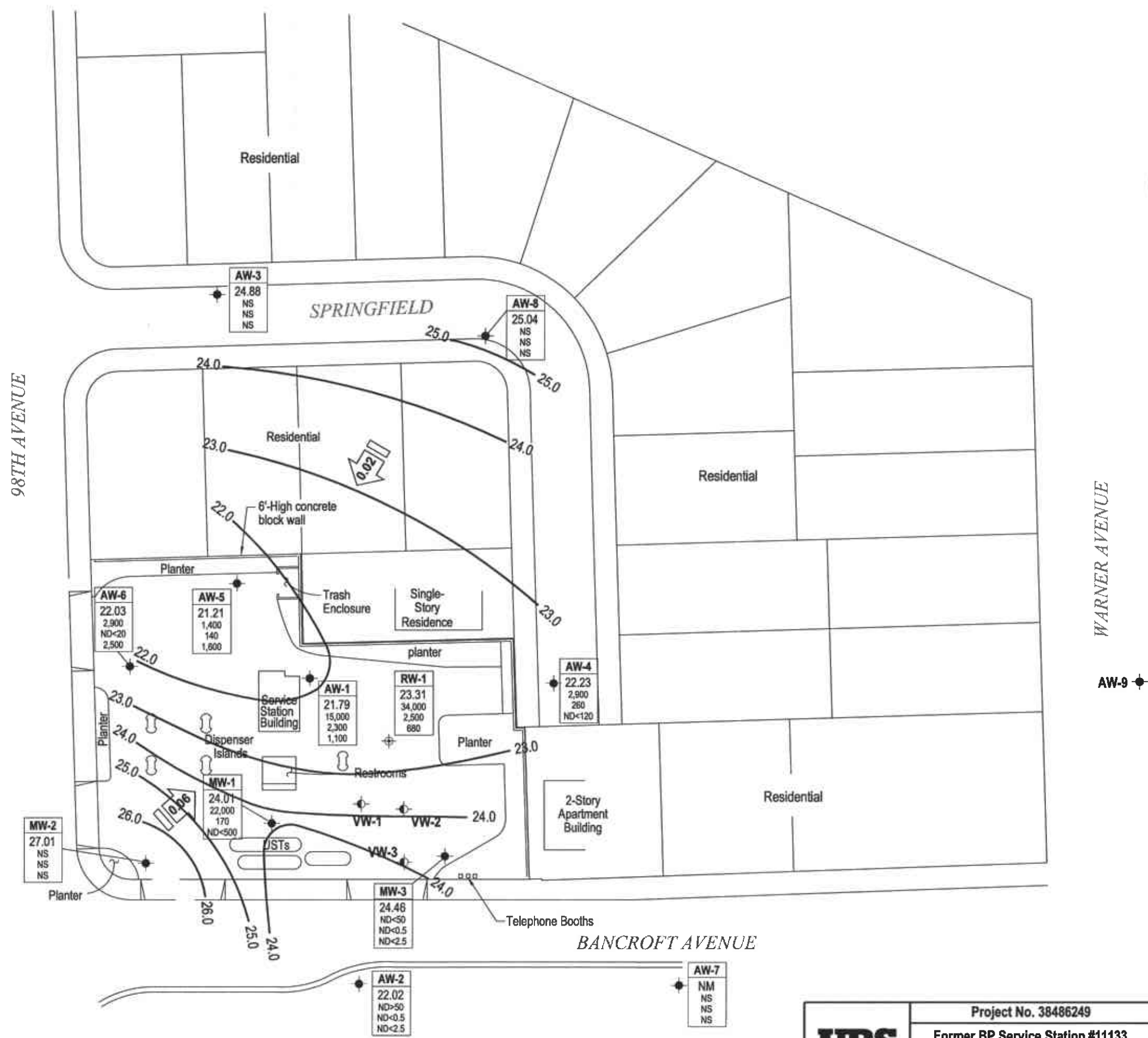
NOTES:

- (a) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level.
- (b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.
- (c) A copy of the documentation for this data is included in Appendix C of Alisto report 10-025-13-003.
- (d) MTBE peak. See documentation in Appendix C of Alisto report 10-025-13-003.
- (e) Blind duplicate.
- (f) Well inaccessible.
- (g) EPA Methods 8020/8260 used.
- (h) Well not monitored and/or sampled due to vapor extraction system.
- (i) Travel blank.
- (j) This gasoline does not include MTBE.
- (k) Well was sampled on a different date from the other wells due to lack of proper equipment.
- (l) Unable to sample due to nature of product.
- (m) A copy of the documentation for this data is included in Blaine Tech Services, Inc., Report 010724-B-2. The data for sampling events January 14, 1993 and April 22, 1993 has been destroyed. No chromatograms could be located for samples AW-2 on January 27, 1994, and for samples AW-1, AW-2, AW-3, AW-4, AW-5, AW-6, AW-7, AW-8, MW-2 and MW-3 on September 9, 1994.
- (n) On June 1, 2001, after reviewing chromatograms, Sequoia reported the value as <5.0.
- (o) Unable to locate well.
- (p) TPH-g data analyzed by EPA Method 8015B modified; BTEX and MTBE by EPA Method 8021B
- \* During the second quarter of 2002, URS Corporation assumed groundwater monitoring activities for BP.

Source : The data within this table collected prior to June 2002 was provided to URS by BP Group Environmental Management Company and their previous consultants. URS has not verified the accuracy of this information.



X:\env1\_waste\BP\_GEM\Site\Niles\_Sites\11133\Reports\Monitoring\Chr. 1, 2003\Drawings\GWEC-AS\_1-16.dwg

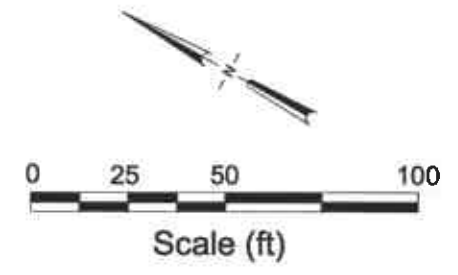


### EXPLANATION

- Monitoring Well
- Vapor Extraction Well
- ⊕ Combined Groundwater Recovery/Vapor Extraction Well
- 0.061 Groundwater Flow Gradient and Direction (Feet/Foot)
- 23.0 Groundwater Elevation Contour Dashed Where Inferred (Feet above MSL)

Well	Well Designation
ELEV	Groundwater Elevation (Ft above MSL)
TPH-g	TPH-g, Benzene and MTBE Concentrations in Micrograms Per Liter (µg/L)
Benzene	
MTBE	
NM	Not Measured
NS	Not Sampled

NOTES: WELL AW-4 WAS NOT INACCESSIBLE AND WELL AW-7 COULD NOT BE LOCATED.  
 SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES.  
 SITE DIMESIONS AND FACILITY LOCATIONS NOT VERIFIED.

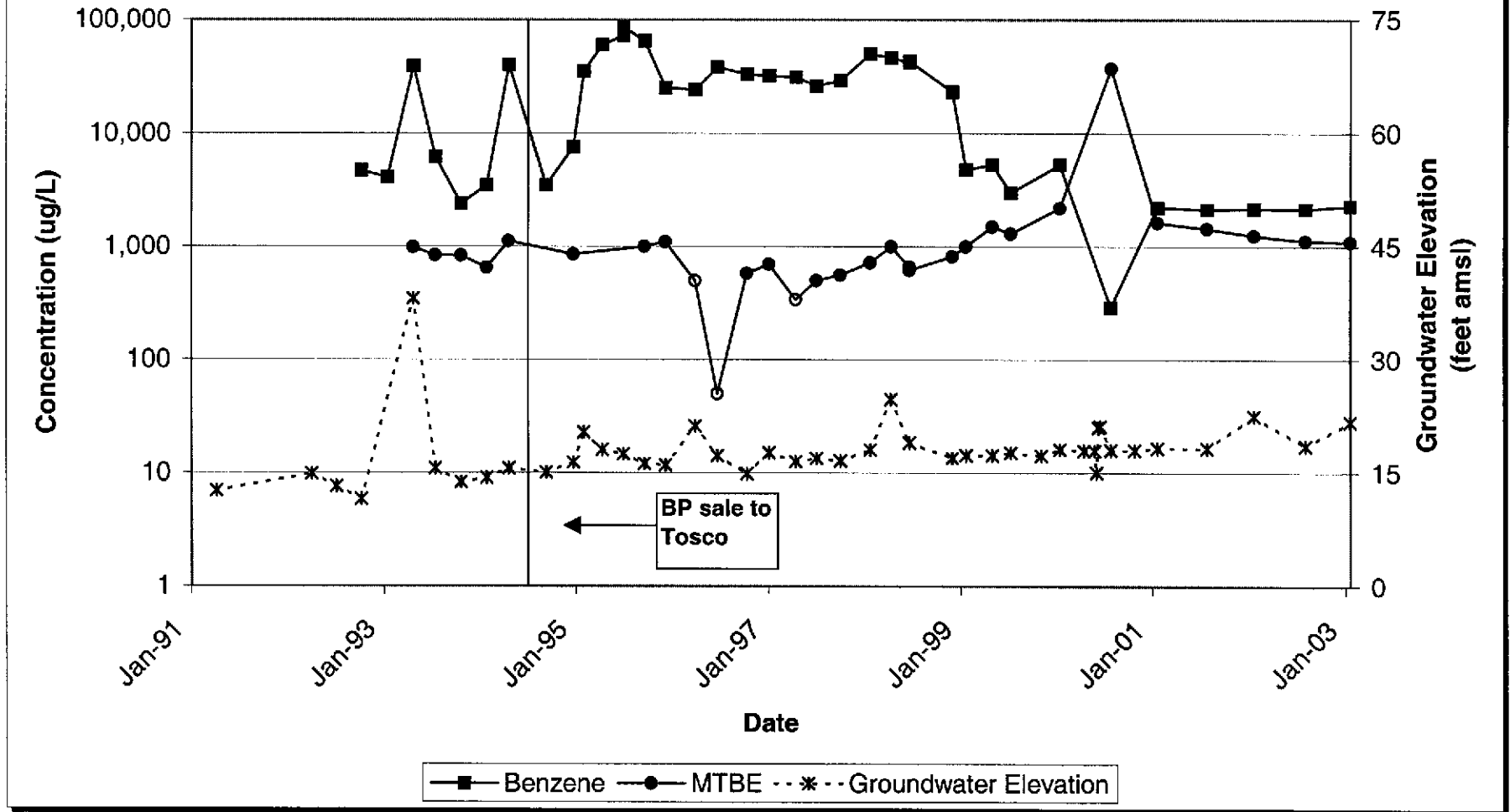


<b>URS</b>	Project No. 38486249	<b>GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP</b>	FIGURE <b>1</b>
	Former BP Service Station #11133 2220 98th Avenue Oakland, California		

**ATTACHMENT A**

**CONCENTRATION AND WATER LEVEL TRENDS**

# Concentration and Water Level Trends Well AW-1



**ATTACHMENT B**  
**FIELD PROCEDURES AND FIELD DATA SHEETS**

## FIELD PROCEDURES

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### Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

## WELL GAUGING DATA

Project # 030116-BA2 Date 1/16/03 Client BP# 11133

Site 2220 98th AVE, OAKLAND

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	
MW-1	2					10.45	28.35	TOC	
60 MW-2	2					8.49	31.30		
MW-3	2					12.07	34.06		
AW-1	2					16.32	34.20		
AW-2	2					14.81	34.05		
60 AW-3	2					14.25	35.60 ✓ 35.50		
AW-4	2					16.85	32.65		
AW-5	4					17.30	42.60		
AW-6	4					15.05	34.25		
60 AW-7		Need metal detector Landscaping over well - unable to locate							
60 AW-8	2					15.82	37.45 ✓ 37.35		
RW-1	6	No SPH Detected				14.42	37.70	✓SPH	

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>030116-BA2</b>	Station # <b>11133</b>
Sampler: <b>Brian Alcorn</b>	Date: <b>1/16/03</b>
Well I.D.: <b>MW-1</b>	Well Diameter: <b>(2)</b> 3 4 6 8
Total Well Depth: <b>28.35</b>	Depth to Water: <b>10.45</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: <b>Bailer</b> Disposable Bailer <b>(Middleburg)</b> Electric Submersible Extraction Pump Other: _____	Sampling Method: <b>Bailer</b> Disposable Bailer Extraction Port Other: _____
--	--

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<b>2.9</b>	X	<b>3</b>	=	<b>8.7</b>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <b>(µS)</b> )	Gals. Removed	Observations
1412	68.5	7.0	684	3.0	clear / strong odor / light sheen
1416	68.4	6.7	681	6.0	"
1420	68.4	6.7	679	9.0	"

Did well dewater? Yes <b>(No)</b>	Gallons actually evacuated: <b>9</b>
Sampling Time: <b>1425</b>	Sampling Date: <b>1/16/03</b>
Sample I.D.: <b>MW-1</b>	Laboratory: Pace <b>(Sequoia)</b> Other _____
Analyzed for: <b>(TPH-G BTEX MTBE)</b> TPH-D Other:	
D.O. (if req'd):	Pre-purge: <input type="text"/> mg/L Post-purge: <input type="text"/> mg/L
O.R.P. (if req'd):	Pre-purge: <input type="text"/> mV Post-purge: <input type="text"/> mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>030116-BA2</b>	Station # <b>11133</b>
Sampler: <b>BRAND ALCON</b>	Date: <b>1/16/03</b>
Well I.D.: <b>MW-3</b>	Well Diameter: <b>(2)</b> 3 4 6 8 _____
Total Well Depth: <b>34.06</b>	Depth to Water: <b>12.07</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:  Bailer      Sampling Method:  Bailer  
 Disposable Bailer       Disposable Bailer  
 Middleburg       Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump  
Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<b>3.5</b>	X	<b>3</b>	=	<b>10.5</b>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1252	67.7	7.5	395	3.5	clear
1256	67.7	6.8	400	7.0	"
1300	67.6	6.7	398	10.5	semi-cloudy brown

Did well dewater? Yes  No  Gallons actually evacuated: **11**

Sampling Time: **1305**      Sampling Date: **1/16/03**

Sample I.D.: **MW-3**      Laboratory: Pace **(Sequoia)** Other \_\_\_\_\_

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

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



## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>030116-BA21</b>	Station # <b>11133</b>
Sampler: <b>Brian Alcorn</b>	Date: <b>1/16/03</b>
Well I.D.: <b>AW-1</b>	Well Diameter: <b>(2)</b> 3 4 6 8 _____
Total Well Depth: <b>34.20</b>	Depth to Water: <b>16.32</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: <b>Bailer</b> Disposable Bailer <b>(Middleburg)</b> Electric Submersible Extraction Pump Other: _____	Sampling Method: <b>Bailer</b> Disposable Bailer <b>(Extraction Port)</b> Other: _____
--	---

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>2.9</u>	X	<u>3</u>	=	<u>8.7</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <b>(uS)</b> )	Gals. Removed	Observations
1349	67.8	6.8	783	3.0	clear / mild odor / debris
1352	67.2	6.8	810	6.0	"
1355	66.9	6.7	793	9.0	"

Did well dewater? Yes <b>(No)</b>	Gallons actually evacuated: <b>9</b>
Sampling Time: <b>1400</b>	Sampling Date: <b>1/16/03</b>
Sample I.D.: <b>AW-1</b>	Laboratory: Pace <b>(Sequoia)</b> Other _____
Analyzed for: <b>(TII-G)</b> BTEX <b>(MTBE)</b> TPH-D Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L      Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV      Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>030116-BA2</b>	Station # <b>11133</b>
Sampler: <b>Brimm Alcoru</b>	Date: <b>1/16/03</b>
Well I.D.: <b>AW-2</b>	Well Diameter: <b>(2)</b> 3 4 6 8 _____
Total Well Depth: <b>34.05</b>	Depth to Water: <b>14.81</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: **Bailer**      Sampling Method: **Bailer**  
    **Disposable Bailer**      **(Disposable Bailer)**  
    **(Middleburg)**      **Extraction Port**  
    **Electric Submersible**      Other: \_\_\_\_\_  
    **Extraction Pump**  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>3.1</u>	x	<u>3</u>	=	<u>9.3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1144	69.1	6.8	430	3.0	cloudy gray
1146	67.5	6.6	450	6.0	"
1148	67.3	6.5	456	9.0	clear

Did well dewater? Yes  No  Gallons actually evacuated: **9**

Sampling Time: **1150** **TRAFFIC WELL** Sampling Date: **1/16/03**

Sample I.D.: **AW-2** Laboratory: Pace **(Sequoia)** Other \_\_\_\_\_

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

D.O. (if req'd):	Pre-purge:	$\text{mg/L}$	Post-purge:	$\text{mg/L}$
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>030116-BA2</b>	Station # <b>11133</b>
Sampler: <b>Brian Alcorn</b>	Date: <b>1/16/03</b>
Well I.D.: <b>AW-4</b>	Well Diameter: <b>(2)</b> 3 4 6 8 _____
Total Well Depth: <b>32.65</b>	Depth to Water: <b>16.85</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: <b>Bailer</b> <b>Disposable Bailer</b> <b>(Middleburg)</b> Electric Submersible Extraction Pump Other: _____	Sampling Method: <b>Bailer</b> <b>(Disposable Bailer)</b> Extraction Port Other: _____
---	---

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<b>2.5</b>	X	<b>3</b>	=	<b>7.5</b>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <b>(µS)</b> )	Gals. Removed	Observations
1225	67.9	6.7	1009	2.5	cloudy black / odor
1228	66.8	6.7	967	5.0	clear / odor
1231	67.2	6.6	1023	7.5	"

Did well dewater? Yes <b>(No)</b>	Gallons actually evacuated: <b>8</b>			
Sampling Time: <b>1235</b>	Sampling Date: <b>1/16/03</b>			
Sample I.D.: <b>AW-4</b>	Laboratory: Pace <b>(Sequoia)</b> Other: _____			
Analyzed for: <b>(TPH-G BTEX MTBE)</b> TPH-D Other: _____				
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>030116-BAZ</b>	Station # <b>11133</b>
Sampler: <b>BRIAN ALCONO</b>	Date: <b>1/16/03</b>
Well I.D.: <b>AW-5</b>	Well Diameter: 2 3 <b>(4)</b> 6 8
Total Well Depth: <b>42.60</b>	Depth to Water: <b>17.30</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:  Bailer      Sampling Method:  Bailer

Disposable Bailer       Disposable Bailer

Middleburg       Extraction Port

Electric Submersible      Other: \_\_\_\_\_

Extraction Pump

Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>16.4</u>	X	<u>3</u>	=	<u>49.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <b>(uS)</b> )	Gals. Removed	Observations
1315	69.7	6.8	502	16.5	cloudy gray/mild odor
1318	68.7	6.6	609	33.0	"
1321	68.5	6.6	536	49.5	very cloudy gray/odor

Did well dewater? Yes  No  Gallons actually evacuated: **50**

Sampling Time: **1325** Sampling Date: **1/16/03**

Sample I.D.: **AW-5** Laboratory: Pace **(Saguia)** Other \_\_\_\_\_

Analyzed for: **(TPH-G)** **(BTEX)** **(MTEB)** TPH-D Other:

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

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <b>030116-BA2</b>	Station # <b>11133</b>
Sampler: <b>Brian Alcorn</b>	Date: <b>1/16/03</b>
Well I.D.: <b>AW-6</b>	Well Diameter: 2 3 <b>(4)</b> 6 8
Total Well Depth: <b>34.25</b>	Depth to Water: <b>15.05</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: <b>Bailer</b> Disposable Bailer Middleburg <b>Electric Submersible</b> Extraction Pump Other: _____	Sampling Method: <b>Bailer</b> <b>Disposable Bailer</b> Extraction Port Other: _____
--	---

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>12.5</u>	X	<u>3</u>	=	<u>37.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1334	70.2	6.9	426	12.5	cloudy gray / very mild odor
1336	69.5	6.5	464	25.0	"
<b>Dewatered</b>				<b>@ 25.0</b>	<b>DTW 31.66</b>
1450	67.1	6.7	437	—	clear / very mild odor DTW 23.26

Did well dewater? <b>(Yes)</b> No	Gallons actually evacuated: <b>25</b>
Sampling Time: <b>1450 @ departure</b>	Sampling Date: <b>1/16/03</b>
Sample I.D.: <b>AW-6</b>	Laboratory: Pace <b>(Sequoia)</b> Other _____
Analyzed for: <b>TPH-G BTEX MTBE</b> TPH-D Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030116-BA2</u>	Station # <u>11133</u>
Sampler: <u>Brian Alcorn</u>	Date: <u>1/16/03</u>
Well I.D.: <u>RW-1</u>	Well Diameter: 2 3 4 <u>(6)</u> 8
Total Well Depth: <u>37.70</u>	Depth to Water: <u>14.42</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> <u>Grade</u>	D.O. Meter (if req'd): <u>YSI</u> <u>HACH</u>

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

Purge Method: Bailer      Sampling Method: Bailer  
Disposable Bailer      Disposable Bailer  
Middleburg      Extraction Port  
Electric Submersible      Other: \_\_\_\_\_  
Extraction Pump  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>34.2</u>	X	<u>3</u>	=	<u>102.6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1440	69.9	6.9	698	34.0	clear / odor
1444	<u>Dewatered</u>			<u>@ 55.0</u>	<u>DTW 35.63</u>
1510	69.1	6.8	653	—	<u>DTW 30.50</u>

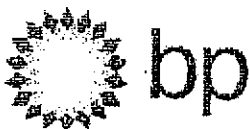
Did well dewater? Yes No      Gallons actually evacuated: 55

Sampling Time: 1510 @ departure      Sampling Date: 1/16/03

Sample I.D.: RW-1      Laboratory: Pace Sequöia Other \_\_\_\_\_

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

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



# Chain of Custody Record

Project Name \_\_\_\_\_  
 BP BU/GEM CO Portfolio: \_\_\_\_\_  
 BP Laboratory Contract Number: \_\_\_\_\_

Date: 1/16/03 Requested Due Date (mm/dd/yy) Standard

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 2220 98TH AVE., OAKLAND, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. 11133	Oakland, CA 94609-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: T0600100210	Consultant/Contractor Project No.:
Lab PM: Latonya Pelt	BP/GEM PM Contact: Scott Hooton	Consultant Tele/Fax: 510-874-3101 / 510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Robert Horwath
Report Type & QC Level: Send EDF Reports		Invoice to: Consultant/Contractor or <u>BP/GEM</u> (circle one)
BP/GEM Account No.: 400-6-21124	Tele/Fax:	BP/GEM Work Release No:

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis						Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G/BTEX (8015/8021)	TPH-D (8015)	MTBE (8021)	MTBE, TAME, ETBE DIPE, TBA (8260)	1,2-DCA & EDB (8260)		
1	MW-1	1425		X			3				X								
2	MW-3	1305		X			3				X								
3	AW-1	1400		X			3				X								
4	AW-2	1150		X			3				X								
5	AW-4	1235		X			3				X								
6	AW-5	1325		X			3				X								
7	AW-6	1450		X			3				X								
8	RW-1	1510		X			3				X								
9																			
10																			

Sampler's Name: <u>BRUNN ALCOAN</u>	Relinquished By / Affiliation: <u>[Signature]</u>	Date: <u>1/17/03</u>	Time: <u>08:40</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>1/17/03</u>	Time: <u>8:30</u>
Sampler's Company: <u>BLAINE TECH SERVICES</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						
Special Instructions: Address Invoice to BP/GEM but send to URS for approval						

Custody Seals In Place Yes No Temperature Blank Yes No Cooler Temperature on Receipt 0F/C Trip Blank Yes No

# WELLHEAD INSPECTION CHECKLIST

Client BP 11133 Date 1/16/03

Site Address 2220 98th AVE, OAKLAND

Job Number 030116-BAZ Technician BRIAN ALCOCK

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1	<del>NO</del>			X				X
MW-2	X							
MW-3	X							X
AW-1		X						X
AW-2	X							
AW-3		X		X	X			
AW-4		X		X				
AW-5	X							X
AW-6	<del>NO</del>	X		X	X			X
AW-7							X	
AW-8				X				
RW-1	X							X

NOTES: AW-7 landscaped over - unable to locate




**BP GEM OIL COMPANY TYPE A BILL OF LADING**

SOURCE RECORD BILL OF LADING FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This Source Record BILL OF LADING was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

11133		
Station #		
2220 98th Ave, Oakland		
Station Address		
Total Gallons Collected From Groundwater Monitoring Wells:		
176		
added equip.	any other	
rinse water 24	adjustments	
TOTAL GALS.	loaded onto	
RECOVERED 200	BTS vehicle # 14	
BTS event #	time	date
030116-BA2	1530	1 / 16 / 03
signature		
*****		
REC'D AT	time	date
		1 / 1
unloaded by		
signature		

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030214-MTZ</u>	Station # <u>11133</u>
Sampler: <u>MTD11</u>	Date: <u>02-14-03</u>
Well I.D.: <u>RW-1</u>	Well Diameter: 2 3 4 <u>(6)</u> 8
Total Well Depth: <u>37.70</u>	Depth to Water: <u>15.55</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: <u>Bailer</u> <del>Disposable Bailer</del> <del>Middleburg</del> <del>Electric Submersible</del> <del>Extraction Pump</del> Other: _____	Sampling Method: <u>Bailer</u> <del>Disposable Bailer</del> <del>Extraction Port</del> Other: _____
---	--

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
					<u>NO SPH Detected</u>

Did well dewater?	Yes	No	Gallons actually evacuated: _____
Sampling Time: _____	Sampling Date: _____		
Sample I.D.: _____	Laboratory: Pace Sequoia Other _____		
Analyzed for: TPH-G BTEX MTBE TPH-D Other:			
D.O. (if req'd):	Pre-purge: _____	mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____	mV	Post-purge: _____ mV

**ATTACHMENT C**  
**LABORATORY PROCEDURES,**  
**CERTIFIED ANALYTICAL REPORTS,**  
**AND CHAIN-OF-CUSTODY RECORDS**

## **LABORATORY PROCEDURES**

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### **Laboratory Procedures**

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by Group Environmental Management Company have been reviewed and verified by that laboratory.



19 February, 2003

Robert Horwath  
URS Corporation  
500 12th Street, Suite 100  
Oakland, CA 94607

RE: BP Heritage Site #11133, Oakland, CA  
Sequoia Work Order: MMA0419

Enclosed are the results of analyses for samples received by the laboratory on 01/17/03  
09:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt  
Project Manager  
CA ELAP Certificate #1210



URS Corporation  
500 12th Street, Suite 100  
Oakland CA, 94607

Project: BP Heritage Site #11133, Oakland, CA  
Project Number: BP Heritage Site #11133, Oakland, CA  
Project Manager: Robert Horwath

MMA0419  
**Reported:**  
02/19/03 08:10

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMA0419-01	Water	01/16/03 14:25	01/17/03 09:10
MW-3	MMA0419-02	Water	01/16/03 13:05	01/17/03 09:10
AW-1	MMA0419-03	Water	01/16/03 14:00	01/17/03 09:10
AW-2	MMA0419-04	Water	01/16/03 11:50	01/17/03 09:10
AW-4	MMA0419-05	Water	01/16/03 12:35	01/17/03 09:10
AW-5	MMA0419-06	Water	01/16/03 13:25	01/17/03 09:10
AW-6	MMA0419-07	Water	01/16/03 14:50	01/17/03 09:10
RW-1	MMA0419-08	Water	01/16/03 15:10	01/17/03 09:10

There were no custody seals that were received with this project.

URS Corporation  
 500 12th Street, Suite 100  
 Oakland CA, 94607

 Project: BP Heritage Site #11133, Oakland, CA  
 Project Number: BP Heritage Site #11133, Oakland, CA  
 Project Manager: Robert Horwath

 MMA0419  
**Reported:**  
 02/19/03 08:10

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MMA0419-01) Water Sampled: 01/16/03 14:25 Received: 01/17/03 09:10</b>									
<b>Gasoline Range Organics (C6-C10)</b>	<b>22000</b>	<b>10000</b>	ug/l	200	3A30004	01/30/03	01/30/03	8015Bm/8021B	HC-21
<b>Benzene</b>	<b>170</b>	<b>100</b>	"	"	"	"	"	"	
<b>Toluene</b>	<b>110</b>	<b>100</b>	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>630</b>	<b>100</b>	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>670</b>	<b>100</b>	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>ND</b>	<b>500</b>	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>106 %</i>	<i>55-142</i>		"	"	"	"	
<b>MW-3 (MMA0419-02) Water Sampled: 01/16/03 13:05 Received: 01/17/03 09:10</b>									
<b>Gasoline Range Organics (C6-C10)</b>	<b>ND</b>	<b>50</b>	ug/l	1	3A30004	01/30/03	01/30/03	8015Bm/8021B	
<b>Benzene</b>	<b>ND</b>	<b>0.50</b>	"	"	"	"	"	"	
<b>Toluene</b>	<b>ND</b>	<b>0.50</b>	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>ND</b>	<b>0.50</b>	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>ND</b>	<b>0.50</b>	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>20</b>	<b>2.5</b>	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>109 %</i>	<i>55-142</i>		"	"	"	"	
<b>AW-1 (MMA0419-03) Water Sampled: 01/16/03 14:00 Received: 01/17/03 09:10</b>									
<b>Gasoline Range Organics (C6-C10)</b>	<b>15000</b>	<b>5000</b>	ug/l	100	3A30002	01/30/03	01/30/03	8015Bm/8021B	HC-21
<b>Benzene</b>	<b>2300</b>	<b>50</b>	"	"	"	"	"	"	
<b>Toluene</b>	<b>75</b>	<b>50</b>	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>1600</b>	<b>50</b>	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>1800</b>	<b>50</b>	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>1100</b>	<b>250</b>	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>102 %</i>	<i>55-142</i>		"	"	"	"	

URS Corporation  
 500 12th Street, Suite 100  
 Oakland CA, 94607

 Project: BP Heritage Site #11133, Oakland, CA  
 Project Number: BP Heritage Site #11133, Oakland, CA  
 Project Manager: Robert Horwath

 MMA0419  
**Reported:**  
 02/19/03 08:10

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>AW-2 (MMA0419-04) Water Sampled: 01/16/03 11:50 Received: 01/17/03 09:10</b>									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	3A30004	01/30/03	01/30/03	8015Bm/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %	55-142		"	"	"	"	
<b>AW-4 (MMA0419-05) Water Sampled: 01/16/03 12:35 Received: 01/17/03 09:10</b>									
Gasoline Range Organics (C6-C10)	2900	2500	ug/l	50	3A30002	01/30/03	01/30/03	8015Bm/8021B	HC-21
Benzene	260	25	"	"	"	"	"	"	
Toluene	160	25	"	"	"	"	"	"	
Ethylbenzene	120	25	"	"	"	"	"	"	
Xylenes (total)	590	25	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	120	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	55-142		"	"	"	"	
<b>AW-5 (MMA0419-06) Water Sampled: 01/16/03 13:25 Received: 01/17/03 09:10</b>									
Gasoline Range Organics (C6-C10)	1400	1000	ug/l	20	3A30002	01/30/03	01/30/03	8015Bm/8021B	HC-21
Benzene	140	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	1600	50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.2 %	55-142		"	"	"	"	

Sequoia Analytical - Morgan Hill

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500 12th Street, Suite 100  
Oakland CA, 94607

Project: BP Heritage Site #11133, Oakland, CA  
Project Number: BP Heritage Site #11133, Oakland, CA  
Project Manager: Robert Horwath

MMA0419  
**Reported:**  
02/19/03 08:10

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>AW-6 (MMA0419-07) Water Sampled: 01/16/03 14:50 Received: 01/17/03 09:10</b>									
<b>Gasoline Range Organics (C6-C10)</b>	<b>2900</b>	<b>2000</b>	ug/l	40	3B05002	02/05/03	02/05/03	8015Bm/8021B HC-12,HT-04	
Benzene	ND	20	"	"	"	"	"	"	HT-04
Toluene	ND	20	"	"	"	"	"	"	HT-04
Ethylbenzene	ND	20	"	"	"	"	"	"	HT-04
Xylenes (total)	63	20	"	"	"	"	"	"	HT-04
Methyl tert-butyl ether	2500	100	"	"	"	"	"	"	HT-04
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.7 %		55-142	"	"	"	"	HT-04
<b>RW-1 (MMA0419-08) Water Sampled: 01/16/03 15:10 Received: 01/17/03 09:10</b>									
<b>Gasoline Range Organics (C6-C10)</b>	<b>34000</b>	<b>10000</b>	ug/l	200	3A30002	01/30/03	01/30/03	8015Bm/8021B	HC-21
Benzene	2500	100	"	"	"	"	"	"	
Toluene	2700	100	"	"	"	"	"	"	
Ethylbenzene	780	100	"	"	"	"	"	"	
Xylenes (total)	5300	100	"	"	"	"	"	"	
Methyl tert-butyl ether	680	500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		100 %		55-142	"	"	"	"	

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 Project Manager: Robert Horwath

 MMA0419  
**Reported:**  
 02/19/03 08:10

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 3A30002 - EPA 5030B [P/T]</b>										
<b>Blank (3A30002-BLK1)</b> Prepared & Analyzed: 01/30/03										
Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.3		"	10.0		103	55-142			
<b>Laboratory Control Sample (3A30002-BS1)</b> Prepared & Analyzed: 01/30/03										
Benzene	8.31	0.50	ug/l	10.0		83.1	68-140			
Toluene	8.44	0.50	"	10.0		84.4	76-127			
Ethylbenzene	8.87	0.50	"	10.0		88.7	77-130			
Xylenes (total)	27.0	0.50	"	30.0		90.0	78-128			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.6		"	10.0		106	55-142			
<b>Laboratory Control Sample (3A30002-BS2)</b> Prepared & Analyzed: 01/30/03										
Gasoline Range Organics (C6-C10)	241	50	ug/l	250		96.4	62-134			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.4		"	10.0		104	55-142			
<b>Laboratory Control Sample Dup (3A30002-BSD1)</b> Prepared & Analyzed: 01/30/03										
Benzene	8.44	0.50	ug/l	10.0		84.4	68-140	1.55	30	
Toluene	8.47	0.50	"	10.0		84.7	76-127	0.355	30	
Ethylbenzene	9.53	0.50	"	10.0		95.3	77-130	7.17	21	
Xylenes (total)	27.7	0.50	"	30.0		92.3	78-128	2.56	21	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.4		"	10.0		104	55-142			
<b>Laboratory Control Sample Dup (3A30002-BSD2)</b> Prepared & Analyzed: 01/30/03										
Gasoline Range Organics (C6-C10)	256	50	ug/l	250		102	62-134	6.04	41	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.7		"	10.0		107	55-142			

Sequoia Analytical - Morgan Hill

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 Project: BP Heritage Site #11133, Oakland, CA  
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 Project Manager: Robert Horwath

 MMA0419  
**Reported:**  
 02/19/03 08:10

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control  
 Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3A30002 - EPA 5030B [P/T]**
**Laboratory Control Sample Dup (3A30002-BSD2)**

Prepared &amp; Analyzed: 01/30/03

**Batch 3A30004 - EPA 5030B [P/T]**
**Blank (3A30004-BLK1)**

Prepared &amp; Analyzed: 01/30/03

Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							

*Surrogate: a,a,a-Trifluorotoluene*      10.3      "      10.0      103      55-142

**Laboratory Control Sample (3A30004-BS1)**

Prepared &amp; Analyzed: 01/30/03

Benzene	9.04	0.50	ug/l	10.0		90.4	68-140			
Toluene	9.08	0.50	"	10.0		90.8	76-127			
Ethylbenzene	9.40	0.50	"	10.0		94.0	77-130			
Xylenes (total)	28.5	0.50	"	30.0		95.0	78-128			

*Surrogate: a,a,a-Trifluorotoluene*      10.2      "      10.0      102      55-142

**Laboratory Control Sample (3A30004-BS2)**

Prepared &amp; Analyzed: 01/30/03

Gasoline Range Organics (C6-C10)	283	50	ug/l	250		113	62-134			
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*Surrogate: a,a,a-Trifluorotoluene*      15.6      "      10.0      156      55-142      S-02

**Matrix Spike (3A30004-MS1)**
**Source: MMA0419-04**

Prepared &amp; Analyzed: 01/30/03

Gasoline Range Organics (C6-C10)	525	50	ug/l	550	ND	95.5	62-134			
Benzene	8.02	0.50	"	6.80	ND	118	68-140			
Toluene	36.3	0.50	"	41.0	ND	88.5	76-127			
Ethylbenzene	8.76	0.50	"	9.80	ND	89.4	77-130			
Xylenes (total)	43.8	0.50	"	47.9	ND	90.5	78-128			

*Surrogate: a,a,a-Trifluorotoluene*      20.4      "      10.0      204      55-142      QM-07

Sequoia Analytical - Morgan Hill

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 Oakland CA, 94607

 Project: BP Heritage Site #11133, Oakland, CA  
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 Project Manager: Robert Horwath

 MMA0419  
**Reported:**  
 02/19/03 08:10

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control  
 Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3A30004 - EPA 5030B [P/T]**
**Matrix Spike Dup (3A30004-MSD1)**

Source: MMA0419-04

Prepared &amp; Analyzed: 01/30/03

Gasoline Range Organics (C6-C10)	1020	50	ug/l	550	ND	185	62-134	64.1	41	QM-07
Benzene	16.0	0.50	"	6.80	ND	235	68-140	66.4	30	QM-07
Toluene	72.3	0.50	"	41.0	ND	176	76-127	66.3	30	QM-07
Ethylbenzene	18.1	0.50	"	9.80	ND	185	77-130	69.5	21	QM-07
Xylenes (total)	88.3	0.50	"	47.9	ND	183	78-128	67.4	21	QM-07

<i>Surrogate: a,a,a-Trifluorotoluene</i>	15.0		"	10.0		150	55-142			QM-07
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**Batch 3B05002 - EPA 5030B [P/T]**
**Blank (3B05002-BLK1)**

Prepared &amp; Analyzed: 02/05/03

Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							

<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.5		"	10.0		105	55-142			
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**Laboratory Control Sample (3B05002-BS1)**

Prepared &amp; Analyzed: 02/05/03

Benzene	8.51	0.50	ug/l	10.0		85.1	68-140			
Toluene	8.64	0.50	"	10.0		86.4	76-127			
Ethylbenzene	9.62	0.50	"	10.0		96.2	77-130			
Xylenes (total)	28.0	0.50	"	30.0		93.3	78-128			

<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.2		"	10.0		102	55-142			
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**Laboratory Control Sample (3B05002-BS2)**

Prepared &amp; Analyzed: 02/05/03

Gasoline Range Organics (C6-C10)	237	50	ug/l	250		94.8	62-134			
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<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.3		"	10.0		103	55-142			
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Sequoia Analytical - Morgan Hill

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 Oakland CA, 94607

 Project: BP Heritage Site #11133, Oakland, CA  
 Project Number: BP Heritage Site #11133, Oakland, CA  
 Project Manager: Robert Horwath

 MMA0419  
**Reported:**  
 02/19/03 08:10

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3B05002 - EPA 5030B [P/T]**
**Laboratory Control Sample Dup (3B05002-BSD1)**

Prepared &amp; Analyzed: 02/05/03

Benzene	9.17	0.50	ug/l	10.0		91.7 68-140	7.47	30	
Toluene	9.28	0.50	"	10.0		92.8 76-127	7.14	30	
Ethylbenzene	10.4	0.50	"	10.0		104 77-130	7.79	21	
Xylenes (total)	30.1	0.50	"	30.0		100 78-128	7.23	21	

<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.3		"	10.0		113 55-142			
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**Laboratory Control Sample Dup (3B05002-BSD2)**

Prepared: 02/05/03 Analyzed: 02/06/03

Gasoline Range Organics (C6-C10)	218	50	ug/l	250		87.2 62-134	8.35	41	
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<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.3		"	10.0		113 55-142			
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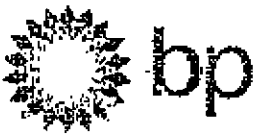
URS Corporation  
500 12th Street, Suite 100  
Oakland CA, 94607

Project: BP Heritage Site #11133, Oakland, CA  
Project Number: BP Heritage Site #11133, Oakland, CA  
Project Manager: Robert Horwath

MMA0419  
**Reported:**  
02/19/03 08:10

### Notes and Definitions

- HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- HC-21 Chromatogram Pattern: Gasoline C6-C10
- HT-04 This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



# Chain of Custody Record

*mMA0419*

Project Name \_\_\_\_\_  
 BP BU/GEM CO Portfolio: \_\_\_\_\_  
 BP Laboratory Contract Number: \_\_\_\_\_

Date: 1/16/03 Requested Due Date (mm/dd/yy) Standard

On-site Time:	Temp:
Off-site Time:	Temp:
Site Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 2220 98TH AVE., OAKLAND, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. 11133	Oakland, CA 94608-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: T0600100210	Consultant/Contractor Project No.:
Lab PM: Latonya Pelt	BP/GEM PM Contact: Scott Hootan	Consultant Tele/Fax: 510-874-3101 / 510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Robert Horwath
Report Type & QC Level: Send EDP Reports		Invoice to: Consultant/Contractor or <u>BP/GEM</u> (circle one)
BP/GEM Account No.: 400-6-21124	Tele/Fax:	BP/GEM Work Release No:

Item No.	Sample Description	Time	Matrix			Laboratory No.	No. of containers	Preservatives			Requested Analysis					Sample Point Lat/Long and Comments	
			Soil/Solid	Water/Liquid	Sediments			Air	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G/TEX (8015/8021)	TPH-D (8015)	MTBE (8021)		MTBE, TAME, ETBE
1 /	MW-1	1425	X			01	3					X	X				
2 /	MW-3	1305	X			02	3					X	X				
3 /	AW-1	1400	X			03	3					X	X				
4 /	AW-2	1150	X			04	3					X	X				
5 /	AW-4	1235	X			05	3					X	X				
6 \	AW-5	1325	X			06	3					X	X				
7 \	AW-6	1450	X			07	3					X	X				
8 /	RW-1	1510	X			08	3					X	X				
9																	
10																	

Sampler's Name: <u>Bruce Ancora</u>	Relinquished By / Affiliation: _____	Date: <u>1/17/03</u>	Time: <u>08:30</u>	Accepted By / Affiliation: _____	Date: <u>1/17/03</u>	Time: <u>8:30</u>
Sampler's Company: <u>BLAINE TECH SERVICES</u>	_____	Date: <u>1/17/03</u>	Time: <u>9:10</u>	_____	Date: <u>1-17-03</u>	Time: <u>09:10</u>
Signature: _____	_____	_____	_____	_____	_____	_____
Signature: _____	_____	_____	_____	_____	_____	_____

Instructions: Address Invoice to BP/GEM but send to URS for approval

Place Yes No  Temperature Blank Yes No  Cooler Temperature on Receipt 3.8°C Trip Blank Yes No

# SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS  
 REC. BY (PRINT): AS  
 WORKORDER: mma0419

DATE Received at Lab: 1-17-03  
 TIME Received at Lab: 0910  
 LOG IN DATE: 1-20-03

Drinking water for regulatory purposes: YES/NO  
 Wastewater for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	#	CLIENT ID	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / <u>Absent</u> Intact / Broken*	1		MW-1	(3) Vials HCl	L	1-16-03	LAB 2218050
2. Chain-of-Custody	<u>Present</u> / Absent*	2		MW-3				
3. Traffic Reports or Packing List:	Present / <u>Absent</u>	3		AW-1				
4. Airbill:	Airbill / Sticker Present / <u>Absent</u>	4		AW-2				
5. Airbill #:		5		AW-4				
6. Sample Labels:	<u>Present</u> / Absent	6		AW-5				
7. Sample IDs:	<u>Listed</u> / Not Listed on Chain-of-Custody	7		AW-6				
8. Sample Condition:	<u>Intact</u> / Broken* / Leaking**	8		MW-1				
9. Does information on custody reports, traffic reports and sample labels agree?	<u>Yes</u> / No*							
10. Sample received within hold time:	<u>Yes</u> / No*							
11. Proper Preservatives used:	<u>Yes</u> / No*							
12. Temp Rec. at Lab: Is temp 4 +/- 2°C?	<u>3.8°C</u> <u>Yes</u> / No**							

1-17-03 AS

**\*If Circled, contact Project Manager and attach record of resolution.**

N-18



**ATTACHMENT D**

**EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION**

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## Error Summary Log

03/04/03

EDF 1.2i All files present in deliverable.

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Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	BP Heritage Site #11133,
Work Order Number:	MMA0419
Global ID:	T0600100210
Lab Report Number:	MMA0419021920030810

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MMA04190219200	AW-1 30810	MMA041903	W	CS	SW8021F	SW5030B	01/16/03	01/30/03	01/30/03	3A30002	1	
MMA04190219200	AW-2 30810	MMA041904	W	CS	SW8021F	SW5030B	01/16/03	01/30/03	01/30/03	3A30004	1	
MMA04190219200	AW-4 30810	MMA041905	W	CS	SW8021F	SW5030B	01/16/03	01/30/03	01/30/03	3A30002	1	
MMA04190219200	AW-5 30810	MMA041906	W	CS	SW8021F	SW5030B	01/16/03	01/30/03	01/30/03	3A30002	1	
MMA04190219200	AW-6 30810	MMA041907	W	CS	SW8021F	SW5030B	01/16/03	02/05/03	02/05/03	3B05002	1	
MMA04190219200	MW-1 30810	MMA041901	W	CS	SW8021F	SW5030B	01/16/03	01/30/03	01/30/03	3A30004	1	
MMA04190219200	MW-3 30810	MMA041902	W	CS	SW8021F	SW5030B	01/16/03	01/30/03	01/30/03	3A30004	1	
MMA04190219200	RW-1 30810	MMA041908	W	CS	SW8021F	SW5030B	01/16/03	01/30/03	01/30/03	3A30002	1	
		3A30002BSD1	WQ	BD1	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30002	1	
		3A30002BSD2	WQ	BD2	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30002	1	
		3A30002BS1	WQ	BS1	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30002	1	
		3A30002BS2	WQ	BS2	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30002	1	
		3A30002BLK1	WQ	LB1	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30002	1	
		3A30004BS1	WQ	BS1	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30004	1	
		3A30004BS2	WQ	BS2	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30004	1	
		3A30004BLK1	WQ	LB1	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30004	1	
		3A30004MS1	W	MS1	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30004	1	
		3A30004MSD1	W	SD1	SW8021F	SW5030B	//	01/30/03	01/30/03	3A30004	1	
		3B05002BSD1	WQ	BD1	SW8021F	SW5030B	//	02/05/03	02/05/03	3B05002	1	
		3B05002BSD2	WQ	BD2	SW8021F	SW5030B	//	02/05/03	02/06/03	3B05002	1	
		3B05002BS1	WQ	BS1	SW8021F	SW5030B	//	02/05/03	02/05/03	3B05002	1	
		3B05002BS2	WQ	BS2	SW8021F	SW5030B	//	02/05/03	02/05/03	3B05002	1	
		3B05002BLK1	WQ	LB1	SW8021F	SW5030B	//	02/05/03	02/05/03	3B05002	1	

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## EDFSAMP: Error Summary Log

03/04/03

Error type	Logcode	Projname	Npdlwo	Sampid	Matrix
There are no errors in this data file					

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## EDFTEST: Error Summary Log

03/04/03

Error type	Labsampid	Qccode	Anmcode	Exmcode	Anadate	Run number
There are no errors in this data file					//	0

# EDFRES: Error Summary Log

03/04/03

Error type	Labsampid	Qcocode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3A30004MS1	MS1	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30004MS1	MS1	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	3A30004MSD1	SD1	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30004MSD1	SD1	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041901	CS	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	MMA041901	CS	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041901	CS	W	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	MMA041902	CS	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	MMA041902	CS	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041902	CS	W	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	MMA041903	CS	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	MMA041903	CS	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041903	CS	W	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	MMA041904	CS	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	MMA041904	CS	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041904	CS	W	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	MMA041905	CS	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	MMA041905	CS	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041905	CS	W	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	MMA041906	CS	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	MMA041906	CS	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041906	CS	W	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	MMA041907	CS	W	SW8021F	PR	02/05/03	1	AAATFBZME
Warning: extra parameter	MMA041907	CS	W	SW8021F	PR	02/05/03	1	GROC6C10
Warning: extra parameter	MMA041907	CS	W	SW8021F	PR	02/05/03	1	MTBE

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	MMA041908	CS	W	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	MMA041908	CS	W	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	MMA041908	CS	W	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	3A30002BLK1	LB1	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30002BLK1	LB1	WQ	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	3A30002BLK1	LB1	WQ	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	3A30002BS1	BS1	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30002BS2	BS2	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30002BS2	BS2	WQ	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	3A30002BSD1	BD1	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30002BSD2	BD2	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30002BSD2	BD2	WQ	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	3A30004BLK1	LB1	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30004BLK1	LB1	WQ	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	3A30004BLK1	LB1	WQ	SW8021F	PR	01/30/03	1	MTBE
Warning: extra parameter	3A30004BS1	BS1	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30004BS2	BS2	WQ	SW8021F	PR	01/30/03	1	AAATFBZME
Warning: extra parameter	3A30004BS2	BS2	WQ	SW8021F	PR	01/30/03	1	GROC6C10
Warning: extra parameter	3B05002BLK1	LB1	WQ	SW8021F	PR	02/05/03	1	AAATFBZME
Warning: extra parameter	3B05002BLK1	LB1	WQ	SW8021F	PR	02/05/03	1	GROC6C10
Warning: extra parameter	3B05002BLK1	LB1	WQ	SW8021F	PR	02/05/03	1	MTBE
Warning: extra parameter	3B05002BS1	BS1	WQ	SW8021F	PR	02/05/03	1	AAATFBZME
Warning: extra parameter	3B05002BS2	BS2	WQ	SW8021F	PR	02/05/03	1	AAATFBZME
Warning: extra parameter	3B05002BS2	BS2	WQ	SW8021F	PR	02/05/03	1	GROC6C10
Warning: extra parameter	3B05002BSD1	BD1	WQ	SW8021F	PR	02/05/03	1	AAATFBZME
Warning: extra parameter	3B05002BSD2	BD2	WQ	SW8021F	PR	02/06/03	1	AAATFBZME
Warning: extra parameter	3B05002BSD2	BD2	WQ	SW8021F	PR	02/06/03	1	GROC6C10

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## EDFQC: Error Summary Log

03/04/03

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Error type	Labiocfl	Anmcode	Parlabel	Qccode	Labqid
There are no errors in this data files					



# EDFCL: Error Summary Log

03/04/03

Error type	Clevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	//				

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**Submittal Type:** GW Monitoring Report

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