

S. T. Hooton  
Team Leader  
Environmental Remediation Management



**BP OIL**

ENVIRONMENTAL  
PROTECTION

DEC 27 1999 PM 2:57

BP Exploration & Oil Inc.  
295 SW 41<sup>st</sup> Street, Bldg., 13, STE N  
Renton, WA 98055-4931  
Phone: 425-251-0689  
Fax: 425-251-0736

December 27, 1999

Alameda County Health Care Services Department  
Attention Mr. Scott Seery  
1131 Harbor Bay Parkway, Room 250  
Alameda, CA 94502-6577

RE: BP Oil Site No. 11117  
7210 Bancroft Avenue (at 73<sup>rd</sup>)  
Oakland, CA

Dear Mr. Seery:

This letter transmits the *Third Quarter 1999 Groundwater Monitoring* report dated 24 November 1999. A petroleum release was documented during 1991 when a site assessment was performed in support of the property owner's plans to refinance an adjacent shopping center property, which also includes the BP site. After BP performed several iterations of groundwater monitoring and site assessment, the business and related improvements were sold to the current operator (Tosco Corporation) in 1994. Tosco recently replaced the UST system at this site during 1998.

The enclosed groundwater monitoring and sampling report includes laboratory data for samples collected on 23 September 1999. The results show that aromatic petroleum hydrocarbons were detected in the samples obtained from MW-1, MW-2 and MW-4. Note that BP is implementing the work plan previously forwarded to the Alameda County Health Care Services Agency. The report will be available in the near future.

Please give me a call at (425) 251-0689 if you have any comments or questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott Hooton', is written over the typed name.

Scott Hooton

attachment

cc: site file  
D. Camille - Tosco (w/attachment)  
Bancroft Oakland Investment Company, c/o SB Management Corporation, Attention Ms.  
K. R. Stimson, 422 North Camden Drive, STE#1070, Beverly Hills, CA 90210  
(w/attachment)  
Khaled Rahman - Cambria (w/attachment)

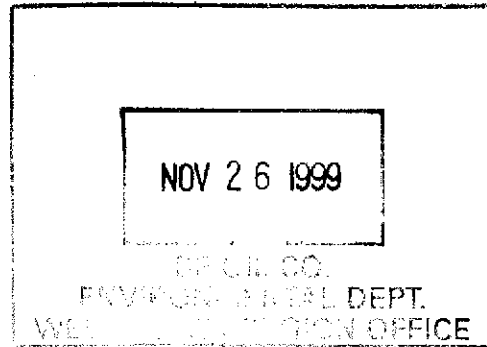
**BLAINE**  
TECH SERVICES INC.



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

November 24, 1999

Scott Hooton  
BP Oil Company  
295 SW 41st Street, Bldg. 13, Suite N  
Renton, WA 98055-4931



### 3rd Quarter 1999 Monitoring at 11117

Third Quarter 1999 Groundwater Monitoring  
BP Service Station Number 11117  
7210 Bancroft Avenue  
Oakland, CA

Monitoring Performed on September 23, 1999

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#### Groundwater Sampling Report 990823-P-4

This report covers the routine monitoring of groundwater wells at this BP facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling in accordance with standard procedures that conform to Regional Water Quality Control Board requirements.

Routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, the appropriate calculated purge volume, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater is, likewise, collected and transported to Seaport Petroleum Corporation for disposal.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The **Professional Engineering Appendix** contains a **Groundwater Elevation Map** and a **Dissolved Petroleum Hydrocarbon Concentration Map**.

At a minimum, Blaine Tech Services, Inc. field personnel are certified upon completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

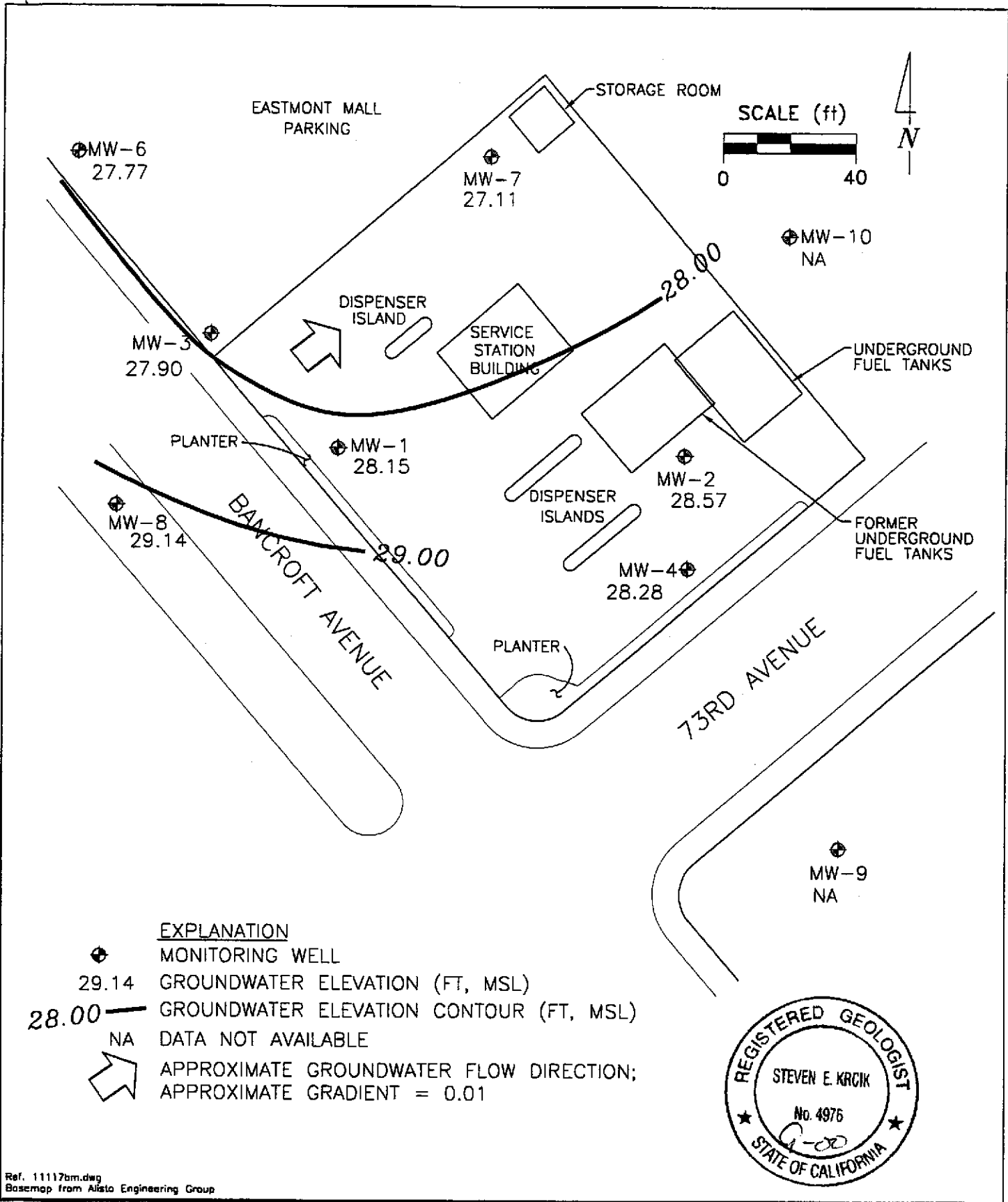


Francis Thie  
Vice President

FPT/cm

attachments: Professional Engineering Appendix  
Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets

# **Professional Engineering Appendix**



Ref. 11117bm.dwg  
Basemap from Alisto Engineering Group

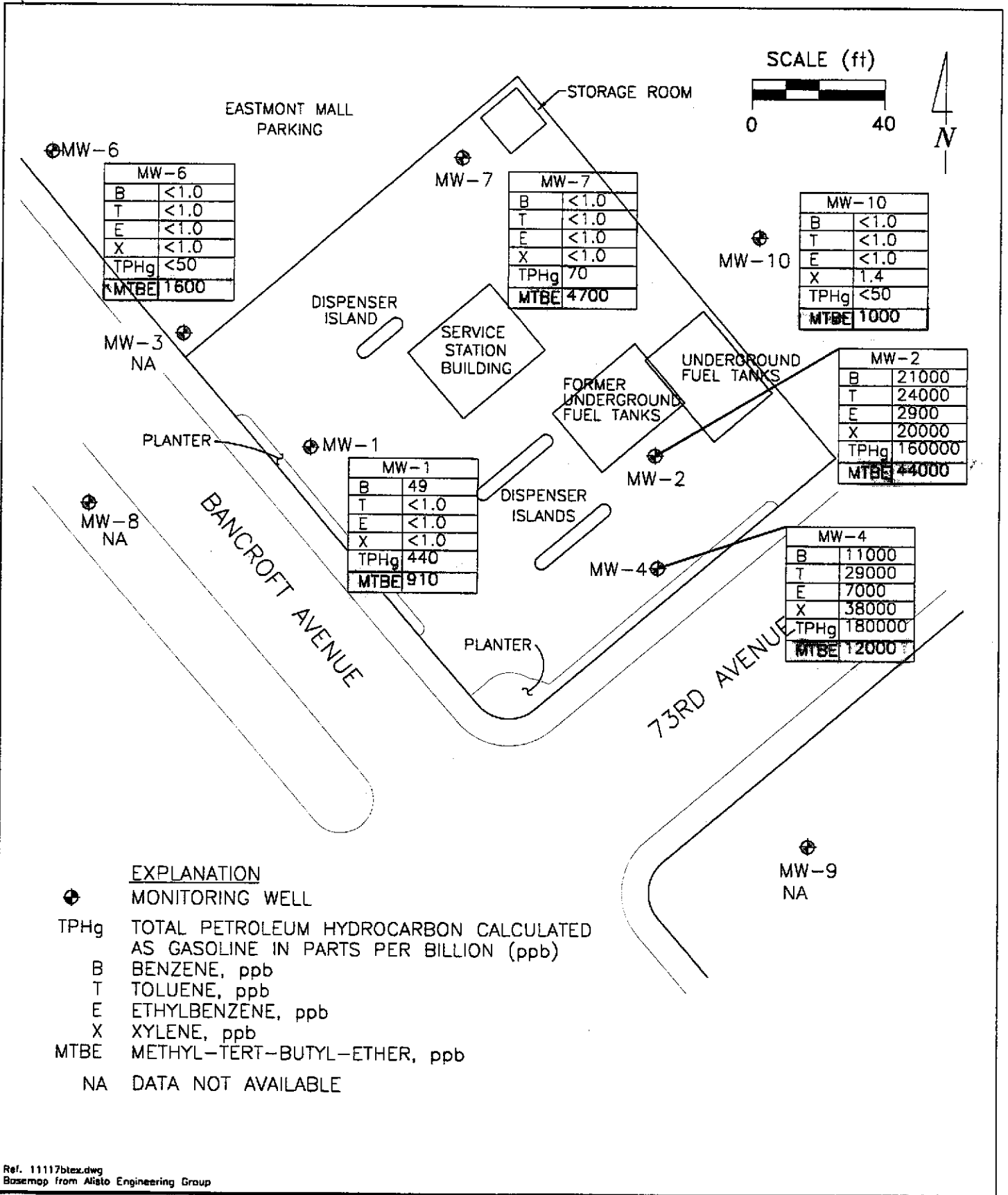
PREPARED BY

**RRM**  
engineering contracting firm

**BP Oil Service Station No. 1117**  
7210 Bancroft Avenue  
Oakland, California

**GROUNDWATER ELEVATION CONTOUR MAP,**  
**SEPTEMBER 23, 1999**

**FIGURE:**  
**1**  
**PROJECT:**  
**DAC04**



PREPARED BY

**RRM**  
engineering contracting firm

**BP Oil Service Station No. 1117**  
7210 Bancroft Avenue  
Oakland, California

**HYDROCARBON CONCENTRATION MAP,**  
SEPTEMBER 23, 1999

**FIGURE:**  
**2**

**PROJECT:**  
DAC04

# **Table of Well Data and Analytical Results**

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-1	01/05/92	49.80	33.16	---	16.64	57000	50000	2400	1000	1100	3100	---	ND	---	---
MW-1	01/10/92	49.80	33.16	---	16.64	---	---	---	---	---	---	---	---	---	---
MW-1	06/05/92	49.80	29.01	---	20.79	31000	---	2800	2100	800	2300	---	---	---	---
MW-1	07/24/92	49.80	29.45	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-1	07/27/92	49.80	29.45	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-1	09/15/92	49.80	30.53	---	19.27	40000	1200 (c)	3400	3000	1300	3400	---	---	---	ANA
QC-1 (d)	09/15/92	---	---	---	---	36000	---	3800	3400	1400	3800	---	---	---	ANA
MW-1	12/15/92	49.80	31.26	---	18.54	27000	1100 (c)	1700	580	700	1900	---	---	---	ANA
QC-1 (d)	12/15/92	---	---	---	---	22000	---	1500	440	510	1300	---	---	---	ANA
MW-1	03/15/93	49.80	24.80	---	25.00	17000	580	1700	1200	590	1800	---	---	---	PACE
QC-1 (d)	03/15/93	---	---	---	---	15000	---	1100	860	440	1400	---	---	---	PACE
MW-1	06/07/93	49.80	25.01	---	24.79	750	100	0.8	0.8	ND<0.5	ND<0.5	---	---	---	PACE
QC-1 (d)	06/07/93	---	---	---	---	720	---	0.7	0.7	ND<0.5	ND<0.5	---	---	---	PACE
MW-1	09/23/93	49.80	28.70	---	21.10	40000	770	4000	500	920	3000	6600	(e)	---	PACE
MW-1	12/27/93	49.80	28.66	---	21.14	27000	---	2000	400	940	2600	14000	(e)	---	PACE
QC-1 (d)	12/27/93	---	---	---	---	21000	---	1700	380	830	2400	9200	(e)	---	PACE
MW-1	04/05/94	49.80	26.37	---	23.43	27000	---	3400	930	950	2900	8600	(e)	---	PACE
QC-1 (d)	04/05/94	---	---	---	---	29000	---	3700	1000	1000	3100	9700	(e)	1.3	PACE
MW-1	07/22/94	49.80	26.54	---	23.26	1700	---	220	2.3	2.0	3.4	220	(e)	2.0	PACE
MW-1	10/13/94	49.80	27.46	---	22.34	1200	---	250	21	ND<0.5	3.2	320	(e)	2.6	PACE
MW-1	01/25/95	49.80	20.96	---	28.84	1000	---	420	8	13	4	---	---	---	ATI
MW-1	04/19/95	49.80	19.59	---	30.21	5200	---	420	51	230	340	---	---	6.0	ATI
MW-1	07/05/95	49.80	19.61	---	30.19	320	---	4.2	ND<0.50	ND<0.50	ND<1.0	---	---	4.6	ATI
MW-1	10/05/95	49.80	24.40	---	25.40	5800	---	1000	40	31	180	7800	---	2.3	ATI
MW-1	01/12/96	49.80	25.44	---	24.36	370	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	3.7	ATI
MW-1	04/22/96	49.80	18.02	---	31.78	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	3.9	SPL
MW-1	07/02/96	49.80	19.72	---	30.08	---	---	---	---	---	---	---	---	---	---
MW-1	07/03/96	49.80	---	---	---	ND<250	---	ND<2.5	ND<5	ND<5	ND<5	ND<50	---	3.6	SPL
MW-1	11/08/96	49.80	19.98	---	29.82	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	SPL
MW-1	01/03/97	49.80	19.49	---	30.31	ND<50	---	ND<0.5	14	ND<1.0	ND<1.0	ND<10	---	4.6	SPL
MW-1	04/28/97	49.80	20.20	---	29.60	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-1	07/01/97	49.80	22.53	---	27.27	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-1	10/02/97	49.80	24.27	---	25.53	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.6	SPL
MW-1	01/09/98	49.80	21.07	---	28.73	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	SPL
MW-1	05/06/98	49.80	14.94	---	34.86	60	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	SPL
MW-1	07/21/98	49.80	15.11	---	34.69	70	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	SPL
MW-1	12/30/98	49.80	19.95	---	29.85	---	---	---	---	---	---	---	---	---	---



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-1	02/02/99	49.80	19.12	---	30.68	420	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	390	---	---	SPL
MW-1	05/10/99	49.80	15.51	---	34.29	---	---	---	---	---	---	---	---	---	---
MW-1	09/23/99	49.80	21.65	---	28.15	440	---	49	ND<1.0	ND<1.0	ND<1.0	910	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-2	01/05/92	51.07	DRY	---	DRY	---	---	---	---	---	---	---	---	---	---
MW-2	01/10/92	51.07	DRY	---	DRY	---	---	---	---	---	---	---	---	---	---
MW-2	06/05/92	51.07	30.05	---	21.02	11000	---	2000	180	490	1900	---	---	---	---
MW-2	07/24/92	51.07	30.72	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-2	07/27/92	51.07	30.52	---	20.55	---	---	---	---	---	---	---	---	---	---
MW-2	09/15/92	51.07	31.56	---	19.51	75000	3200 (c)	2000	6500	2300	13000	---	---	---	ANA
MW-2	12/15/92	51.07	32.40	---	18.67	34000	1600 (c)	6200	8900	2000	7900	---	---	---	ANA
MW-2	03/15/93	51.07	26.14	---	24.93	150000	8400	12000	18000	3200	22000	82000	(e)	---	PACE
MW-2 (f)	06/07/93	51.07	26.38	SHEEN	24.69	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	09/23/93	51.07	31.43	1.92	21.08	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	12/27/93	51.07	34.07	1.07	17.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	04/05/94	51.07	30.44	3.30	23.11	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	07/22/94	51.07	28.51	0.80	23.16	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	10/13/94	51.07	29.33	0.70	22.27	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	01/25/95	51.07	25.55	4.25	28.71	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	04/19/95	51.07	19.78	0.12	31.38	---	---	---	---	---	---	---	---	---	---
MW-2	07/05/95	51.07	20.88	0.09	30.26	140000	---	14000	30000	3500	26000	---	---	---	ATI
MW-2 (f)	10/05/95	51.07	24.68	0.10	26.47	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	01/12/96	51.07	25.72	0.06	25.40	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	04/22/96	51.07	19.33	0.08	31.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	07/02/96	51.07	20.01	0.04	31.09	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	11/08/96	51.07	20.28	0.01	30.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	01/03/97	51.07	19.87	0.02	31.22	---	---	---	---	---	---	---	---	---	---
MW-2	04/28/97	51.07	20.59	0.01	30.49	560000	---	1200	1300	290	2310	6100	---	3.9	SPL
MW-2	07/01/97	51.07	22.90	0.01	28.18	24000	---	15000	16000	4900	24400	63000	---	3.7	SPL
QC-1 (d)	07/01/97	---	---	---	---	150000	---	14000	13000	1800	14200	57000	---	---	SPL
MW-2	10/02/97	51.07	24.65	0.02	26.44	---	---	---	---	---	---	---	---	---	---
MW-2	10/03/97	51.07	---	---	---	250000	---	32000	39000	6000	42000	160000	---	4.5	SPL
MW-2	01/09/98	51.07	21.22	0.01	29.86	420000	---	23000	29000	5800	43000	75000	---	4.0	SPL
QC-1 (d)	01/09/98	---	---	---	---	300000	---	20000	25000	5200	37000	84000	---	---	SPL
MW-2	05/06/98	51.07	15.10	0.01	35.98	180000	---	25000	26000	3400	22900	35000	---	3.7	SPL
MW-2	07/21/98	51.07	15.31	0.01	35.77	270000	---	21000	20000	2700	18800	34000	---	3.8	SPL
MW-2	12/30/98	51.07	21.10	0.10	30.05	300000	---	22000	24000	4200	26000	89000/95000 (j)	---	---	SPL
MW-2	02/02/98	51.07	20.11	---	30.96	410000	---	27000	43000	6700	50000	20000	---	---	SPL
MW-2	05/10/99	51.07	16.68	---	34.39	220000	---	20000	20000	2800	20000	100000	---	---	SPL
MW-2	09/23/99	51.07	22.50	---	28.57	160000	---	21000	24000	2900	20000	44000	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT GROUNDWATER THICKNESS (Feet)	ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-3	01/05/92	49.95	33.69	---	16.26	7400	4000	790	23	210	40	---	ND	---	---
MW-3	01/10/92	49.95	33.74	---	16.21	---	---	---	---	---	---	---	---	---	---
MW-3	06/05/92	49.95	29.65	---	20.30	2000	---	130	5.3	93	20	---	---	---	---
MW-3	07/24/92	49.95	30.14	---	19.81	---	---	---	---	---	---	---	---	---	---
MW-3	07/27/92	49.95	30.14	---	19.81	---	---	---	---	---	---	---	---	---	---
MW-3	09/15/92	49.95	31.07	---	18.88	450	ND<50	55	3.1	34	7.1	---	---	---	ANA
MW-3	12/15/92	49.95	31.93	---	18.02	12000	710 (c)	940	ND<50	310	120	---	---	---	ANA
MW-3	03/15/93	49.95	25.71	---	24.24	ND<50	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-3	06/07/93	49.95	25.80	---	24.15	150	ND<50	3.6	ND<0.5	0.9	1.3	---	---	---	PACE
MW-3	09/23/93	49.95	29.18	---	20.77	---	---	---	---	---	---	---	---	---	---
MW-3	09/24/93	49.95	---	---	---	160	ND<50	8.4	ND<0.5	3.7	1.3	---	---	---	PACE
MW-3	12/27/93	49.95	29.25	---	20.70	9400	---	1100	48	530	120	2700	(e)	---	PACE
MW-3	04/05/94	49.95	26.84	---	23.11	7000	---	860	19	330	52	---	---	---	2.0 PACE
MW-3	07/22/94	49.95	26.90	---	23.11	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	2.1 PACE
MW-3	10/13/94	49.95	27.83	---	22.12	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	2.6 PACE
MW-3	01/25/95	49.95	21.65	---	28.30	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	ATI
MW-3	04/19/95	49.95	19.33	---	30.62	2400	---	170	8.0	130	27	---	---	---	5.0 ATI
MW-3	07/05/95	49.95	20.27	---	29.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	4.4 ATI
MW-3	10/05/95	49.95	23.73	---	26.22	2300	---	210	3.1	10	5.1	2400	---	---	4.2 ATI
MW-3	01/12/96	49.95	24.84	---	25.11	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	4.1 ATI
MW-3	04/22/96	49.95	18.60	---	31.35	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	4.4 SPL
MW-3	07/02/96	49.95	18.88	---	31.07	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	4.2 SPL
MW-3	11/08/96	49.95	19.14	---	30.81	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	4.4 SPL
MW-3	01/03/97	49.95	18.72	---	31.23	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	4.6 SPL
MW-3	04/28/97	49.95	19.38	---	30.57	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	4.2 SPL
MW-3	07/01/97	49.95	21.65	---	28.30	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	3.8 SPL
MW-3	10/02/97	49.95	23.45	---	26.50	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	4.5 SPL
MW-3	01/09/98	49.95	20.10	---	29.85	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	4.1 SPL
MW-3	05/06/98	49.95	15.57	---	34.38	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	3.8 SPL
MW-3	07/21/98	49.95	15.88	---	34.07	51	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	3.8 SPL
QC-1 (d)	07/21/98	---	---	---	---	60	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	SPL
MW-3	12/30/98	49.95	20.30	---	29.65	---	---	---	---	---	---	---	---	---	SPL
MW-3	02/02/99	49.95	19.75	---	30.20	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	SPL
MW-3	05/10/99	49.95	16.17	---	33.78	---	---	---	---	---	---	---	---	---	---
MW-3	09/23/99	49.95	22.05	---	27.90	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT GROUNDWATER THICKNESS (Feet)	ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-4	07/24/92	50.76	30.02	---	20.74	42000	---	3200	3600	1400	4100	---	---	---	---
MW-4	07/27/92	50.76	30.02	---	20.74	---	---	---	---	---	---	---	---	---	---
MW-4	09/15/92	50.76	31.14	---	19.62	55000	---	1700 (c)	7600	13000	2800	9500	---	---	ANA
MW-4	12/15/92	50.76	31.98	---	18.78	36000	---	2200 (c)	3700	4700	1200	4000	---	---	ANA
MW-4	03/15/93	50.76	25.34	---	25.42	69000	---	1200	7600	15000	2500	11000	---	---	PACE
MW-4	06/07/93	50.76	25.67	---	25.09	73000	---	2500	10000	19000	3400	14000	---	---	PACE
MW-4	09/23/93	50.76	29.37	---	21.39	---	---	---	---	---	---	---	---	---	---
MW-4	09/24/93	50.76	---	---	---	68000	---	5700	11000	2100	8600	990	---	---	PACE
QC-1 (d)	09/24/93	---	---	---	---	59000	---	5300	10000	2200	8400	---	---	---	PACE
MW-4	12/27/93	50.76	29.40	---	21.36	32000	---	2500	4400	1300	4400	---	---	---	PACE
MW-4	04/05/94	50.76	27.09	---	23.67	64000	---	6500	14000	1900	9600	---	---	1.4	PACE
MW-4	07/22/94	50.76	27.33	---	23.43	85000	---	10000	20000	3200	13000	---	---	0.8	PACE
QC-1 (d)	07/22/94	---	---	---	---	85000	---	11000	21000	3300	14000	---	---	---	PACE
MW-4	10/13/94	50.76	28.25	---	22.51	51000	---	7100	13000	2100	8900	790	(e)	2.9	PACE
QC-1 (d)	10/13/94	---	---	---	---	51000	---	7400	13000	2100	9100	---	---	---	PACE
MW-4	01/25/95	50.76	21.85	---	28.91	26000	---	3600	9600	1200	6400	---	---	---	ATI
QC-1 (d)	01/25/95	---	---	---	---	28000	---	4200	12000	1500	7800	---	---	---	ATI
MW-4	04/19/95	50.76	19.44	---	31.32	89000	---	12000	24000	3500	18000	---	---	5.1	ATI
QC-1 (d)	04/19/95	---	---	---	---	100000	---	12000	26000	3800	21000	---	---	---	ATI
MW-4	07/05/95	50.76	20.52	---	30.24	130000	---	13000	29000	3300	25000	---	---	4.9	ATI
MW-4	10/05/95	50.76	24.23	---	26.53	110000	---	10000	23000	3600	17000	34000	---	2.1	ATI
MW-4	01/12/96	50.76	25.34	---	25.42	46000	---	3500	8300	1100	8000	3000	---	3.3	ATI
QC-1 (d)	01/12/96	---	---	---	---	40000	---	3500	9000	1200	8700	4300	---	---	ATI
MW-4	04/22/96	50.76	19.13	---	31.63	40000	---	5100	9600	980	11800	29000	---	3.2	SPL
QC-1 (d)	04/22/96	---	---	---	---	61000	---	8300	16000	1600	15200	36000	---	---	SPL
MW-4	07/02/96	50.76	20.67	---	30.09	74000	---	9800	21000	2100	16600	41000	---	3.4	SPL
QC-1 (d)	07/02/96	---	---	---	---	78000	---	9800	21000	1900	15300	42000	---	---	SPL
MW-4	11/08/96	50.76	20.95	---	29.81	100000	---	7900	16000	2500	13700	37000	---	3.7	SPL
QC-1 (d)	11/08/96	---	---	---	---	110000	---	9100	20000	3000	15400	39000	---	---	SPL
MW-4	01/03/97	50.76	20.54	---	30.22	99000	---	17000	30000	4300	22700	79000	---	4.2	SPL
QC-1 (d)	01/03/97	---	---	---	---	66000	---	12000	19000	2900	15000	69000	---	---	SPL
MW-4	04/28/97	50.76	21.28	---	29.48	130000	---	12000	28000	3800	21000	37000	---	3.9	SPL
QC-1 (d)	04/28/97	---	---	---	---	110000	---	11000	26000	3200	18200	34000	---	---	SPL
MW-4	07/01/97	50.76	23.61	---	27.15	110000	---	16000	25000	4900	24400	37000	---	3.6	SPL
MW-4	10/02/97	50.76	25.39	---	25.37	---	---	---	---	---	---	---	---	---	---
MW-4	10/03/97	50.76	---	---	---	66000	---	8200	8600	2700	13400	80000	---	4.4	SPL
QC-1 (d)	10/03/97	---	---	---	---	71000	---	8600	8700	2900	13500	84000	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-4	01/09/98	50.76	21.25	---	29.51	100000	---	9700	3200	1500	4700	92000	---	3.8	SPL
MW-4	05/06/98	50.76	15.96	---	34.80	430000	---	6900	31000	11000	56000	ND<5000	---	3.9	SPL
QC-1 (d)	05/06/98	---	---	---	---	440000	---	8000	39000	14000	70000	ND<5000	---	---	SPL
MW-4	07/21/98	50.76	16.1	---	34.66	250000	---	11000	26000	5500	26900	29000	---	3.7	SPL
QC-1 (d)	07/21/98	---	---	---	---	210000	---	11000	27000	5600	26800	29000	---	---	SPL
MW-4	12/30/98	50.76	20.91	---	29.85	370000	---	11000	22000	8500	40000	90000/92000 (j)	---	---	SPL
MW-4	02/02/99	50.76	20.13	---	30.63	190000	---	4100	19000	4800	32000	28000	---	---	SPL
MW-4	05/10/99	50.76	16.63	---	34.13	2700	---	23	7.1	8.1	25	120	---	---	SPL
MW-4	09/23/99	50.76	22.48	---	28.28	180000	---	11000	29000	7000	38000	12000	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-6	07/24/92	50.32	30.63	---	19.69	ND	---	1.6	ND	ND	ND	---	---	---	---
MW-6	07/27/92	50.32	30.63	---	19.69	---	---	---	---	---	---	---	---	---	---
MW-6	09/15/92	50.32	31.52	---	18.80	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
MW-6	12/15/92	50.32	32.42	---	17.90	58	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
MW-6	03/15/93	50.32	26.29	---	24.03	ND<50	ND<50	ND<0.5	0.6	ND<0.5	0.7	---	---	---	PACE
MW-6	06/07/93	50.32	26.33	---	23.99	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	---	---	---	PACE
MW-6	09/23/93	50.32	29.64	---	20.68	---	---	---	---	---	---	---	---	---	---
MW-6	09/24/93	50.32	---	---	---	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-6	12/27/93	50.32	29.75	---	20.57	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	55	(e)	---	PACE
MW-6	04/05/94	50.32	27.26	---	23.06	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	300	(e)	1.7	PACE
MW-6	07/22/94	50.32	27.34	---	22.98	350	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	800	(e)	4.5	PACE
MW-6 (g)	10/13/94	50.32	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	01/25/95	50.32	22.16	---	28.16	240	---	6	ND<0.5	ND<0.5	ND<1	---	---	---	ATI
MW-6 (g)	04/19/95	50.32	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	07/05/95	50.32	20.80	---	29.52	180	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.9	ATI
MW-6	10/05/95	50.32	24.20	---	26.12	860	---	ND<5.0	ND<5.0	ND<5.0	ND<10	3600	---	2.8	ATI
MW-6	01/12/96	50.32	25.30	---	25.02	860	---	ND<5.0	ND<5.0	ND<5.0	ND<10	2800	---	4.2	ATI
MW-6	04/22/96	50.32	19.13	---	31.19	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	470	---	4.3	SPL
MW-6	07/02/96	50.32	20.66	---	29.66	100	---	ND<0.5	ND<1	ND<1	ND<1	1100	---	4.2	SPL
MW-6	11/08/96	50.32	20.98	---	29.34	1100	---	ND<5	ND<10	ND<10	ND<10	1500	---	4.3	SPL
MW-6	01/03/97	50.32	20.53	---	29.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	450	---	4.5	SPL
MW-6	04/28/97	50.32	21.25	---	29.07	1400	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3500	---	4.4	SPL
MW-6	07/01/97	50.32	23.40	---	26.92	6100	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	9100	---	3.9	SPL
MW-6	10/02/97	50.32	25.16	---	25.16	---	---	---	---	---	---	---	---	---	---
MW-6	10/03/97	50.32	---	---	---	330	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2600	---	4.4	SPL
MW-6	01/09/98	50.32	21.13	---	29.19	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	SPL
MW-6	05/06/98	50.32	16.11	---	34.21	410	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	500	---	3.6	SPL
MW-6	07/21/98	50.32	16.33	---	33.99	4300	---	ND<5	ND<10	ND<10	ND<10	3800	---	4.0	SPL
MW-6	12/30/98	50.32	20.89	---	29.43	---	---	---	---	---	---	---	---	---	---
MW-6	02/02/99	50.32	20.20	---	30.12	---	---	---	---	---	---	---	---	---	---
MW-6	05/10/99	50.32	16.75	---	33.57	---	---	---	---	---	---	---	---	---	---
MW-6	09/23/99	50.32	22.55	---	27.77	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1600	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-7	01/25/95	51.40	21.67	---	29.73	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.0	ATI
MW-7	04/19/95	51.40	25.27	---	26.13	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.0	ATI
MW-7	07/05/95	51.40	24.63	---	26.77	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.2	ATI
MW-7	10/05/95	51.40	28.21	---	23.19	83	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	77	---	4.5	ATI
MW-7	01/12/96	51.40	29.29	---	22.11	63	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	120	---	4.8	ATI
MW-7	04/22/96	51.40	23.11	---	28.29	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	13	---	4.8	SPL
MW-7	07/02/96	51.40	23.56	---	27.84	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.8	SPL
MW-7	11/08/96	51.40	20.06	---	31.34	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	5.1	SPL
MW-7	01/03/97	51.40	23.42	---	27.98	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.7	SPL
MW-7	04/28/97	51.40	24.12	---	27.28	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-7	07/01/97	51.40	26.40	---	25.00	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	SPL
MW-7	10/02/97	51.40	28.14	---	23.26	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.7	SPL
MW-7	01/09/98	51.40	24.02	---	27.38	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.1	SPL
MW-7	05/06/98	51.40	21.00	---	30.40	1900	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1800	---	3.5	SPL
MW-7	07/21/98	51.40	21.17	---	30.23	50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	SPL
MW-7	12/30/98	51.40	22.13	---	29.27	---	---	---	---	---	---	---	---	---	---
MW-7	02/02/99	51.40	22.08	---	29.32	---	---	---	---	---	---	---	---	---	---
MW-7	05/10/99	51.40	18.58	---	32.82	---	---	---	---	---	---	---	---	---	---
MW-7	09/23/99	51.40	24.29	---	27.11	70	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	4700	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-8	01/25/95	50.88	31.59	---	19.29	54	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.1	ATI
MW-8	04/19/95	50.88	19.18	---	31.70	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.1	ATI
MW-8	07/05/95	50.88	19.03	---	31.85	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.5	ATI
MW-8	10/05/95	50.88	24.40	---	26.48	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.1	ATI
MW-8	01/12/96	50.88	25.51	---	25.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.6	ATI
MW-8	04/22/96	50.88	18.00	---	32.88	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.8	SPL
MW-8	07/02/96	50.88	19.83	---	31.05	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.5	SPL
MW-8	11/08/96	50.88	20.09	---	30.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.7	SPL
MW-8	01/03/97	50.88	19.72	---	31.16	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.4	SPL
MW-8	04/28/97	50.88	20.44	---	30.44	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.1	SPL
MW-8	07/01/97	50.88	22.72	---	28.16	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	SPL
MW-8	10/02/97	50.88	24.51	---	26.37	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	SPL
MW-8	01/09/98	50.88	21.17	---	29.71	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.5	SPL
MW-8	05/06/98	50.88	18.34	---	32.54	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.6	SPL
MW-8	07/21/98	50.88	18.55	---	32.33	90	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.3	SPL
MW-8	12/30/98	50.88	20.40	---	30.48	---	---	---	---	---	---	---	---	---	---
MW-8	02/02/99	50.88	19.28	---	31.60	---	---	---	---	---	---	---	---	---	---
MW-8	05/10/99	50.88	15.62	---	35.26	---	---	---	---	---	---	---	---	---	---
MW-8	09/23/99	50.88	21.74	---	29.14	---	---	---	---	---	---	---	---	---	---



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-9	01/25/95	51.05	22.32	---	28.73	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.4	ATI
MW-9	04/19/95	51.05	19.86	---	31.19	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.2	ATI
MW-9	07/05/95	51.05	20.78	---	30.27	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.4	ATI
MW-9	10/05/95	51.05	24.33	---	26.72	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	2.3	ATI
QC-1 (d)	10/05/95	---	---	---	---	52	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	160	---	---	ATI
MW-9	01/12/96	51.05	25.44	---	25.61	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	3.2	ATI
MW-9	04/22/96	51.05	18.01	---	33.04	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	11	---	3.5	SPL
MW-9	07/02/96	51.05	19.70	---	31.35	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	3.3	SPL
MW-9	11/08/96	51.05	19.96	---	31.09	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	SPL
MW-9	01/03/97	51.05	19.52	---	31.53	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	---	4.4	SPL
MW-9	04/28/97	51.05	20.22	---	30.83	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	SPL
MW-9	07/01/97	51.05	22.59	---	28.46	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-9	10/02/97	51.05	24.33	---	26.72	---	---	---	---	---	---	---	---	---	---
MW-9	10/03/97	51.05	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.4	SPL
MW-9	01/09/98	51.05	21.11	---	29.94	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-9	05/06/98	51.05	18.26	---	32.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	SPL
MW-9	07/21/98	51.05	18.46	---	32.59	70	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	SPL
MW-9 (g)	12/30/98	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	02/02/99	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	05/10/99	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	09/23/99	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	01/09/98	---	(h) 20.97	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	SPL
MW-10	05/06/98	---	(h) 18.07	---	---	800	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	980	---	3.9	SPL
MW-10	07/21/98	---	(h) 18.28	---	---	80	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	SPL
MW-10	12/30/98	---	(h) 22.22	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	02/02/99	---	(h) 21.83	---	---	940	---	ND<10	ND<10	ND<10	ND<10	690	---	---	SPL
MW-10	05/10/99	---	(h) 17.99	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	09/23/99	---	(h) 22.61	---	---	ND<50	---	ND<1.0	ND<1.0	ND<1.0	1.4	1000	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT GROUNDWATER THICKNESS (Feet)	ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
QC-2 (I)	09/15/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
QC-2 (I)	12/15/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
QC-2 (I)	03/15/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (I)	06/07/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (I)	09/24/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (I)	12/27/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (I)	04/05/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (I)	07/22/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (I)	10/13/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (I)	01/25/95	---	---	---	---	ND<50	---	ND<0.5	2	0.6	1	---	---	---	ATI
QC-2 (I)	04/19/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ATI
QC-2 (I)	07/05/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2 (I)	10/05/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI
QC-2 (I)	01/12/96	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI
QC-2 (I)	04/22/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	SPL
QC-2 (I)	07/02/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
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
ND	Not detected above reported detection limit
---	Not analyzed/applicable/measurable
ANA	Anametrix, Inc.
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level.
- (b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.
- (c) Concentrations reported as diesel from MW-1, MW-2 and MW-4 are primarily due to the presence of a lighter petroleum product, possibly gasoline or kerosene.
- (d) Blind duplicate.
- (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-018-05-004.
- (f) Well not sampled due to presence of free product.
- (g) Well inaccessible.
- (h) Top of casing not surveyed.
- (i) Travel blank.
- (j) EPA method by 8020/8260

# Analytical Appendix



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

October 6, 1999

Mr. Scott Hooton  
BP OIL COMPANY  
295 SW 41 Street Bldg. 13, Ste N  
Renton, WA 98055


The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on September 28, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9909882 and analyzed for all parameters as listed on the chain of custody.

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

  
\_\_\_\_\_  
Sonia West  
Senior Project Manager



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 99-09-882

Approved for Release by:

*Sonia West*  
Sonia West, Senior Project Manager

10-6-99  
Date

Joel Grice  
Laboratory Director

Ted Yen  
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.  
The results relate only to the samples tested.  
Results reported on a Wet Weight Basis unless otherwise noted.



Certificate of Analysis No. H9-9909882-01

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

BP Oil Company  
295 SW 41 Street Bldg.13, Ste N  
Renton, WA 98055  
ATTN: Scott Hooton

P.O.#  
N/A, COC#118682  
DATE: 10/05/99

PROJECT: #11117, 7210 Bancroft  
SITE: Oakland  
SAMPLED BY: Blaine Tech Services  
SAMPLE ID: A

PROJECT NO: 990923-P4  
MATRIX: WATER  
DATE SAMPLED: 09/23/99 13:53:00  
DATE RECEIVED: 09/28/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	4700	25 P	ug/L
BENZENE	ND	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L

<b>Surrogate</b>	<b>% Recovery</b>
1,4-Difluorobenzene	95
4-Bromofluorobenzene	85

Method 8020A \*\*\*  
Analyzed by: WLR  
Date: 10/04/99

Gasoline Range Organics	0.070	0.05 P	mg/L
-------------------------	-------	--------	------

<b>Surrogate</b>	<b>% Recovery</b>
1,4-Difluorobenzene	93
4-Bromofluorobenzene	93

California LUFT Manual for Gasoline  
Analyzed by: WLR  
Date: 09/30/99 20:54:00

(P) - Practical Quantitation Limit      ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903



Certificate of Analysis No. H9-9909882-02

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

BP Oil Company
295 SW 41 Street Bldg.13,SteN
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
N/A, COC#118682
DATE: 10/05/99

PROJECT: #11117, 7210 Bancroft
SITE: Oakland
SAMPLED BY: Blaine Tech Services
SAMPLE ID: B

PROJECT NO: 990923-P4
MATRIX: WATER
DATE SAMPLED: 09/23/99 14:16:00
DATE RECEIVED: 09/28/99

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENE, and TOTAL VOLATILE AROMATIC HYDROCARBONS.

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene and 4-Bromofluorobenzene.

Method 8020A \*\*\*
Analyzed by: WLR
Date: 10/02/99

Gasoline Range Organics ND 0.05 P mg/L

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene and 4-Bromofluorobenzene.

California LUFT Manual for Gasoline
Analyzed by: WLR
Date: 10/01/99 05:29:00

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
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Certificate of Analysis No. H9-9909882-03

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

BP Oil Company
295 SW 41 Street Bldg.13,SteN
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
N/A, COC#118682
DATE: 10/05/99

PROJECT: #11117, 7210 Bancroft
SITE: Oakland
SAMPLED BY: Blaine Tech Services
SAMPLE ID: C

PROJECT NO: 990923-P4
MATRIX: WATER
DATE SAMPLED: 09/23/99 14:42:00
DATE RECEIVED: 09/28/99

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENE, TOTAL VOLATILE AROMATIC HYDROCARBONS.

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene, 4-Bromofluorobenzene.

Method 8020A \*\*\*
Analyzed by: WLR
Date: 10/04/99

Gasoline Range Organics 0.44 0.05 P mg/L

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene, 4-Bromofluorobenzene.

California LUFT Manual for Gasoline
Analyzed by: WLR
Date: 09/30/99 20:26:00

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



Certificate of Analysis No. H9-9909882-04

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

BP Oil Company
295 SW 41 Street Bldg.13, SteN
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
N/A, COC#118682
DATE: 10/05/99

PROJECT: #11117, 7210 Bancroft
SITE: Oakland
SAMPLED BY: Blaine Tech Services
SAMPLE ID: D

PROJECT NO: 990923-P4
MATRIX: WATER
DATE SAMPLED: 09/23/99 15:10:00
DATE RECEIVED: 09/28/99

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENE, and TOTAL VOLATILE AROMATIC HYDROCARBONS.

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene and 4-Bromofluorobenzene.

Method 8020A \*\*\*
Analyzed by: WLR
Date: 10/01/99

Gasoline Range Organics ND 0.05 P mg/L

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene and 4-Bromofluorobenzene.

California LUFT Manual for Gasoline
Analyzed by: WLR
Date: 10/01/99 06:01:00

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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with EPA guidelines for quality assurance.
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Certificate of Analysis No. H9-9909882-05

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

BP Oil Company
295 SW 41 Street Bldg.13, SteN
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
N/A, COC#118682
DATE: 10/05/99

PROJECT: #11117, 7210 Bancroft
SITE: Oakland
SAMPLED BY: Blaine Tech Services
SAMPLE ID: E

PROJECT NO: 990923-P4
MATRIX: WATER
DATE SAMPLED: 09/23/99 15:37:00
DATE RECEIVED: 09/28/99

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENE, and TOTAL VOLATILE AROMATIC HYDROCARBONS.

Surrogate % Recovery
1,4-Difluorobenzene 110
4-Bromofluorobenzene 110

Method 8020A \*\*\*
Analyzed by: WLR
Date: 10/01/99

Gasoline Range Organics 180 5 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 90
4-Bromofluorobenzene 93

California LUFT Manual for Gasoline
Analyzed by: WLR
Date: 10/01/99 22:15:00

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



**HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9909882-06

BP Oil Company  
295 SW 41 Street Bldg.13, SteN  
Renton, WA 98055  
ATTN: Scott Hooton

P.O.#  
N/A, COC#118682  
DATE: 10/05/99

PROJECT: #11117, 7210 Bancroft  
SITE: Oakland  
SAMPLED BY: Blaine Tech Services  
SAMPLE ID: F

PROJECT NO: 990923-P4  
MATRIX: WATER  
DATE SAMPLED: 09/23/99 16:00:00  
DATE RECEIVED: 09/28/99

**ANALYTICAL DATA**

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	44000	250 P	ug/L
BENZENE	21000	250 P	ug/L
TOLUENE	24000	250 P	ug/L
ETHYLBENZENE	2900	250 P	ug/L
TOTAL XYLENE	20000	250 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	67900		ug/L

<b>Surrogate</b>	<b>% Recovery</b>
1,4-Difluorobenzene	108
4-Bromofluorobenzene	89

Method 8020A \*\*\*  
Analyzed by: WLR  
Date: 10/04/99

Gasoline Range Organics 160 1.2 P mg/L

<b>Surrogate</b>	<b>% Recovery</b>
1,4-Difluorobenzene	92
4-Bromofluorobenzene	97

California LUFT Manual for Gasoline  
Analyzed by: WLR  
Date: 10/01/99 22:44:00

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

**QUALITY ASSURANCE:** These analyses are performed in accordance with EPA guidelines for quality assurance.  
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*QUALITY CONTROL*

*DOCUMENTATION*



SPL BATCH QUALITY CONTROL REPORT \*\*  
METHOD 8020

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 680-0901

Matrix: Aqueous  
Units: ug/L

Batch Id: HP\_N991004095700

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	55	110	72 - 128
Benzene	ND	50	53	106	61 - 119
Toluene	ND	50	53	106	65 - 125
EthylBenzene	ND	50	53	106	70 - 118
O Xylene	ND	50	53	106	72 - 117
M & P Xylene	ND	100	110	110	72 - 116

MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	1455	20	1899	NC	1926	NC	NC	20	39 - 150
BENZENE	ND	20	21	105	20	100	4.88	21	32 - 164
TOLUENE	ND	20	22	110	21	105	4.65	20	38 - 159
ETHYLBENZENE	ND	20	21	105	21	105	0	19	52 - 142
O XYLENE	ND	20	21	105	21	105	0	18	53 - 143
M & P XYLENE	ND	40	42	105	41	102	2.90	17	53 - 144

\* = Values outside QC Range due to Matrix Interference (except RPD)

\* = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery =  $[( <1> - <2> ) / <3> ] \times 100$

LCS % Recovery =  $( <1> / <3> ) \times 100$

Relative Percent Difference =  $| ( <4> - <5> ) | / [ ( <4> + <5> ) \times 0.5 ] \times 100$

(\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: WLR

Sequence Date: 10/04/99

SPL ID of sample spiked: 9909790-02A

Sample File ID: N\_J1022.TX0

Method Blank File ID:

Blank Spike File ID: N\_J1003.TX0

Matrix Spike File ID: N\_J1016.TX0

Matrix Spike Duplicate File ID: N\_J1017.TX0

SAMPLES IN BATCH(SPL ID): 9909882-03A 9909883-04A 9909882-06A 9909959-01A  
9909882-01A



MATRIX: Aqueous  
Units: ug/L

Batch Id: HP\_S991001093600

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits (**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	51	102	72 - 128
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	52	104	65 - 125
EthylBenzene	ND	50	51	102	70 - 118
O Xylene	ND	50	51	102	72 - 117
M & P Xylene	ND	100	100	100	72 - 116

MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits (***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	2.6	20	23	102	23	102	0	20	39 - 150
BENZENE	ND	20	21	105	21	105	0	21	32 - 164
TOLUENE	7.9	20	28	100	26	90.5	9.97	20	38 - 159
ETHYLBENZENE	2.7	20	23	102	22	96.5	5.54	19	52 - 142
O XYLENE	2.8	20	23	101	22	96.0	5.08	18	53 - 143
M & P XYLENE	9.3	40	50	102	47	94.2	7.95	17	53 - 144

\* = Values outside QC Range due to Matrix Interference (except RPD)

< = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery =  $[( <1> - <2> ) / <3> ] \times 100$

LCS % Recovery =  $( <1> / <3> ) \times 100$

Relative Percent Difference =  $|( <4> - <5> | / [( <4> + <5> ) \times 0.5] \times 100$

(\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: WLR

Sequence Date: 10/01/99

SPL ID of sample spiked: 9909885-01A

Sample File ID: S\_I4201.TX0

Method Blank File ID:

Blank Spike File ID: S\_I4184.TX0

Matrix Spike File ID: S\_I4196.TX0

Matrix Spike Duplicate File ID: S\_I4197.TX0

SAMPLES IN BATCH(SPL ID):

9909882-04A	9909882-05A	9909885-03A	9909885-05A
9909885-06A	9909885-07A	9909885-08A	9909883-05A
9909883-02A	9909885-02A	9909882-02A	9909883-01A
9909883-03A	9909885-01A	9909885-04A	9909881-01A



\*\* SPL BATCH QUALITY CONTROL REPORT \*\*

California LUFT Manual for Gasoline

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Matrix: Aqueous

Batch Id: HP\_S990930102100

Units: mg/L

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	0.96	96.0	64 - 131

MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	0.07	0.90	0.97	100	0.92	94.4	5.76	36	36 - 160

\* = Values outside QC Range due to Matrix Interference (except RPD)

« = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery =  $[( <1> - <2> ) / <3> ] \times 100$

LCS % Recovery =  $( <1> / <3> ) \times 100$

Relative Percent Difference =  $| ( <4> - <5> ) | / [ ( <4> + <5> ) \times 0.5 ] \times 100$

(\*\*) = Source: SPL-Houston Historical data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: WLR

Sequence Date: 09/30/99

SPL ID of sample spiked: 9909882-01A

Sample File ID: SSI4158.TX0

Method Blank File ID:

Blank Spike File ID: SSI4138.TX0

Matrix Spike File ID: SSI4154.TX0

Matrix Spike Duplicate File ID: SSI4155.TX0

SAMPLES IN BATCH (SPL ID):

9909819-03A 9909819-04A 9909880-01A 9909880-02A  
 9909880-03A 9909880-04A 9909881-01A 9909881-02A  
 9909881-03A 9909882-02A 9909882-04A 9909883-03A  
 9909882-03A 9909882-01A 9909819-02A





\*\* SPL BATCH QUALITY CONTROL REPORT \*\*  
California LUFT Manual for Gasoline

**HOUSTON LABORATORY**  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous  
Units: mg/L

Batch Id: HP\_S991001144200

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	1.0	100	64 - 131

M A T R I X S P I K E S

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
			GASOLINE RANGE ORGANICS	ND	0.90	1.0		111	1.0

Analyst: WLR

Sequence Date: 10/01/99

SPL ID of sample spiked: 9909885-04A

Sample File ID: SSI4202.TX0

Method Blank File ID:

Blank Spike File ID: SSI4194.TX0

Matrix Spike File ID: SSI4198.TX0

Matrix Spike Duplicate File ID: SSI4199.TX0

\* = Values outside QC Range due to Matrix Interference (except RPD)

◀ = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery =  $[( <1> - <2> ) / <3> ] \times 100$

LCS % Recovery =  $( <1> / <3> ) \times 100$

Relative Percent Difference =  $| ( <4> - <5> ) | / [ ( <4> + <5> ) \times 0.5 ] \times 100$

(\*\*) = Source: SPL-Houston Historical data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH(SPL ID):

9909883-01A 9909885-02A 9909885-03A 9909885-05A  
 9909885-06A 9909885-07A 9909885-08A 9909883-05A  
 9909883-02A 9909883-04A 9909885-01A 9909885-04A  
 9909882-05A 9909882-06A

*CHAIN OF CUSTODY*  
*AND*  
*SAMPLE RECEIPT CHECKLIST*



9909882

# CHAIN OF CUSTODY

No. 118682

Page 1 of 1

CONSULTANT'S NAME <b>Blain Tech Services, Inc.</b>		CONSULTANT'S ADDRESS <b>1680 Rogers Ave., San Jose, CA 95112</b>	
BP SITE NUMBER <b>11117</b>	BP SITE / FACILITY ADDRESS <b>7210 Bancroft, Oakland</b>		CONSULTANT PROJECT NUMBER <b>990923-P4</b>
CONSULTANT PROJECT MANGER <b>Doug Sanders</b>		PHONE NUMBER <b>(408)573-0555 X218</b>	FAX NUMBER <b>(408)573-7771</b>
BP CONTACT <b>Scott Hooton</b>	BP ADDRESS <b>295 SW 41st St., Renton, WA</b>	PHONE NUMBER <b>(425)251-0689</b>	FAX NO. <b>(425)251-0736</b>
LAB CONTACT <b>SPL - Sonia West</b>	LABORATORY ADDRESS <b>P.O. Box 20807, Houston, TX</b>	PHONE NUMBER <b>(800)969-6775</b>	FAX NO. <b>(713)660-8975</b>
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)		RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME
			SHIPMENT DATE
			SHIPMENT METHOD

TAT:  24 Hours  48 Hours  72 Hours  Standard 7 or 14 Days

ANALYSIS REQUIRED

AIRBILL NUMBER **806949005983**

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	TPHC	BTEX	MDE								COMMENTS	
				NO.	TYPE (VOL.)	LAB SAMPLE #												
Y.A	9/23	13:53	W															
X.B		17:16		3			X	X	X									
Y.C		14:42																
X.O		15:10																
X.E		15:37																
X.F		16:00																

SAMPLED BY (Please Print Name) <b>Toni Swann</b>		SAMPLED BY (Signature) 		ADDITIONAL COMMENTS <b>3c</b>	
RELINQUISHED BY / AFFILIATION (Print Name / Signature) 	DATE <b>9/27/99</b>	TIME <b>11:45am</b>	ACCEPTED BY / AFFILIATION (Print Name / Signature) <b>Paul C</b>	DATE <b>9/28/99</b>	TIME <b>1000</b>

# SPL Houston Environmental Laboratory

## Sample Login Checklist

Date: <u>9/28/99</u>	Time: <u>1000</u>
----------------------	-------------------

SPL Sample ID:  <u>9909882</u>
--------------------------------------

		<u>Yes</u>	<u>No</u>
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:	3°	C
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	806949045983
		Other:	
11	Method of sample disposal:	SPL Disposal	✓
		HOLD	
		Return to Client	

Name: <u>[Signature]</u>	Date: <u>9/28/99</u>
--------------------------	----------------------

# **Field Data Sheets**



## BP WELL MONITORING DATA SHEET

Project #: <u>090923-P4</u>	Station #: <u>1117</u>
Sampler: <u>PAC1</u>	Date: <u>9-23-99</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>36.20</u>	Depth to Water: <u>21.65</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
<u>(2)</u> "	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer Disposable Bailer Middleburg <input checked="" type="checkbox"/> Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____
--	---

<u>2.3</u>	x	<u>3</u>	=	<u>6.9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>14:28</u>	<u>72.4</u>	<u>6.9</u>	<u>1276</u>	<u>2.5</u>	
<u>14:31</u>	<u>72.2</u>	<u>6.9</u>	<u>1242</u>	<u>5.0</u>	
<u>14:34</u>	<u>72.0</u>	<u>7.0</u>	<u>1211</u>	<u>7.0</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>7.0</u>
Sampling Time: <u>14:42</u>	Sampling Date: <u>9-23-99</u>
Sample I.D. (Blind): <u>C</u>	Laboratory: <u>(SPL)</u> Other _____

Analyzed for: <u>(TPH-G BTEX MTBE)</u> 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

## BP WELL MONITORING DATA SHEET

Project #: <u>990923-P4</u>	Station # <u>11117</u>
Sampler: <u>PAUL</u>	Date: <u>9-23-99</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>39.54</u>	Depth to Water: <u>22.50</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
<u>2"</u>	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	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: \_\_\_\_\_

<u>2.7</u>	x	<u>3</u>	=	<u>8.1</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>15:48</u>	<u>74.4</u>	<u>7.4</u>	<u>926.</u>	<u>3</u>	
<u>15:51</u>	<u>74.2</u>	<u>7.3</u>	<u>887.</u>	<u>6</u>	
<u>15:54</u>	<u>73.8</u>	<u>7.3</u>	<u>884.</u>	<u>9</u>	

Did well dewater? Yes (No)                      Gallons actually evacuated: 9

Sampling Time: 16:00    Sampling Date: 9-23-99

Sample I.D. (Blind): F    Laboratory: (SPL)                      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



## BP WELL MONITORING DATA SHEET

Project #: <u>990923-PA</u>	Station # <u>11117</u>
Sampler: <u>PAU1</u>	Date: <u>9-23-99</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u>   </u>
Total Well Depth: <u>39.70</u>	Depth to Water: <u>22.48</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
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	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: \_\_\_\_\_

<u>2.7</u>	x	<u>3</u>	=	<u>8.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>15:26</u>	<u>74.2</u>	<u>7.4</u>	<u>874</u>	<u>3</u>	
<u>15:29</u>	<u>73.6</u>	<u>7.3</u>	<u>859</u>	<u>6</u>	
<u>15:32</u>	<u>73.4</u>	<u>7.3</u>	<u>826</u>	<u>9</u>	

Did well dewater? Yes (No)                                      Gallons actually evacuated: 9

Sampling Time: 15:37                                      Sampling Date: 9-23-99

Sample I.D. (Blind): E                                      Laboratory: (SPL)                                      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

## BP WELL MONITORING DATA SHEET

Project #: <u>990923-P4</u>	Station # <u>1117</u>
Sampler: <u>PAL</u>	Date: <u>9-23-99</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>40.00</u>	Depth to Water: <u>22.55</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
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	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: \_\_\_\_\_

<u>2.7</u>	x	<u>3</u>	=	<u>8.3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>14:56</u>	<u>73.6</u>	<u>7.4</u>	<u>697.</u>	<u>3</u>	
<u>14:59</u>	<u>73.4</u>	<u>7.3</u>	<u>689.</u>	<u>6</u>	
<u>15:03</u>	<u>72.8</u>	<u>7.3</u>	<u>676.</u>	<u>9</u>	

Did well dewater? Yes  No

Gallons actually evacuated: 9

Sampling Time: 15:10      Sampling Date: 9-23-99

Sample I.D. (Blind): D      Laboratory: SPL      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

## BP WELL MONITORING DATA SHEET

Project #: 990923-04	Station # 11117
Sampler: Paul	Date: 9-23-99
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8
Total Well Depth: 44.73	Depth to Water: 24.29
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer

Disposable Bailer

Middleburg

Electric Submersible

Extraction Pump

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

Disposable Bailer

Extraction Port

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

3.2	x	3	=	9.8	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
13:36	72.4	7.3	673.	3	
13:40	71.8	7.2	641.	6	
13:44	71.6	7.2	620.	10	

Did well dewater? Yes  No       Gallons actually evacuated: 10

Sampling Time: 13:53      Sampling Date: 9-23-99

Sample I.D. (Blind): A      Laboratory: SPL      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

## BP WELL MONITORING DATA SHEET

Project #: 990923-P4	Station # 11117
Sampler: Paul	Date: 9-23-99
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8
Total Well Depth: 35.84	Depth to Water: 22.61
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	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: \_\_\_\_\_

2.1	x	3	=	6.3	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
14:04	74.2	6.7	1014	2	
14:06	73.6	6.8	987.	4	
14:09	72.8	6.8	943.	6.5	

Did well dewater? Yes  No       Gallons actually evacuated: 6.5

Sampling Time: 14:16      Sampling Date: 9-23-99

Sample I.D. (Blind): B      Laboratory: (SPL)      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