BP OIL

BP Oil Company
Environmental Remediation Management
295 SW 41st Street
Renton, Washington 98055-4931
(425) 251-0667
Fax No: (425) 251-0736

February 12, 1999

2/23/99 - Mailed to DeWitt for UST closure rpt.
Semi annual of MW-1, 3,
AW-1, 4, 5
Annual sampling of AW-2 for MTBE
- System is down for now.

Alameda County Health Care Services Agency
Attention Ms. Eva Chu
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

RE: Former BP Oil Site No. 11133
2220 98th Avenue (at Bancroft)
Oakland, CA

Dear Ms. Chu:

This letter transmits the groundwater monitoring and sampling report dated 22 January 1999 prepared on behalf of BP by Blaine Tech Services, Inc.

A petroleum release was documented during the replacement of underground storage tanks by Mobil Oil Corporation during 1987. BP purchased the site from Mobil in 1989, and Mobil later transferred management of the cleanup to BP. BP subsequently sold the site to the current operator (Tosco Corporation) during 1994. I understand that Tosco removed the underground storage tanks shortly before the samples obtained for this report were collected. The closure report will be completed by others on behalf of Tosco.

The 22 January 1999 groundwater monitoring and sampling report includes laboratory data for samples collected on 30 November 1998. You will note that aromatic petroleum hydrocarbons were detected in samples obtained from wells MW-1 and AW-1. The highest benzene concentration this quarter (6,700 µg/l) was detected in a sample obtained from well AW-1. You will also note that MTBE concentrations reported by US EPA Method 8020 were supported by US EPA Method 8260 testing results.

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

Sincerely,

Scott Hooton

attachment

cc: site file
David Camille - Tosco (w/attachment)

BLAINE
TECH SERVICES INC.

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

January 22, 1999

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

4th Quarter 1998 Monitoring at 11133

Fourth Quarter 1998 Groundwater Monitoring at
BP Service Station Number 11133
2220 98th Avenue
Oakland, CA

Monitoring Performed on November 30, 1998

Groundwater Sampling Report **981130-G-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.

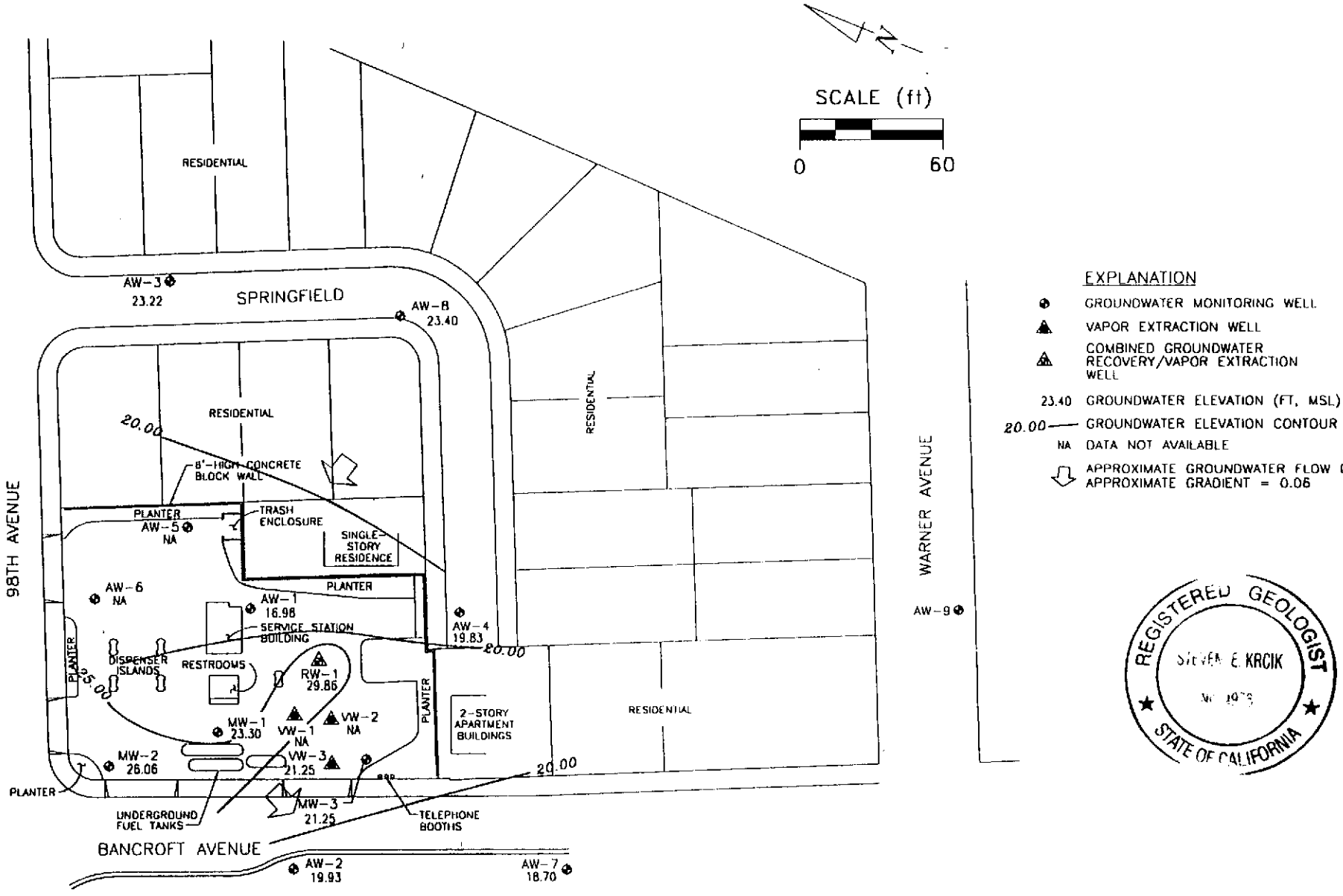
Yours truly,

Francis Thie
Vice President

FPT/ck

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

Professional Engineering Appendix



Ref. 11133bm.dwg
Basemap from Alisto Engineering Group

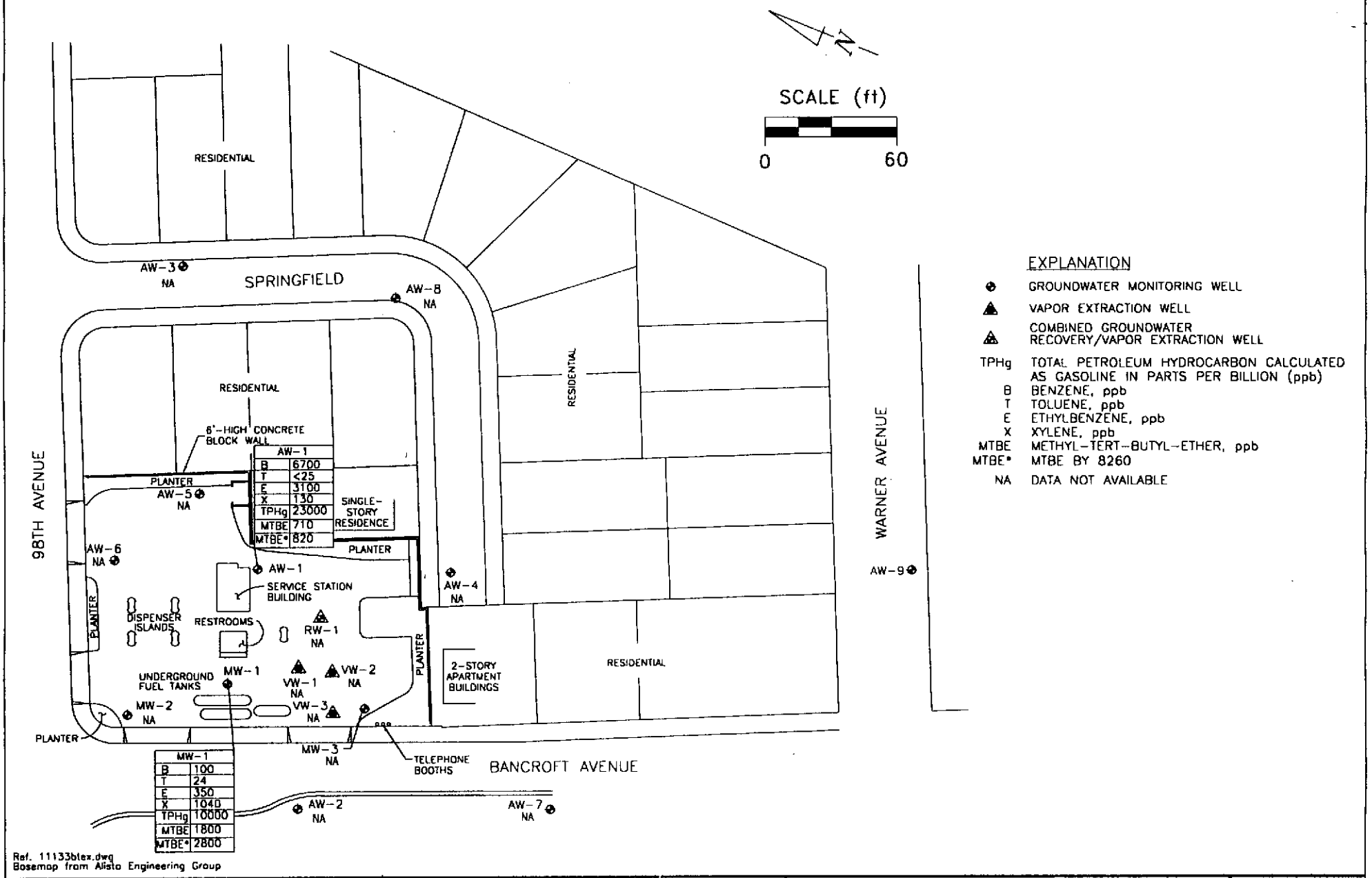
PREPARED BY

RRM
engineering contracting firm

BP Service Station 11133
2220 98th Avenue
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP, NOVEMBER 30, 1998

FIGURE:
1
PROJECT:
DAC04



Ref. 11133btex.dwg
Basemap from Alisto Engineering Group

PREPARED BY

RRM
engineering contracting firm

BP Service Station 11133
2220 98th Avenue
Oakland, California

HYDROCARBON CONCENTRATION MAP, NOVEMBER 30, 1998

FIGURE:
2
PROJECT:
DAC04

Table of
Well Data and
Analytical Results

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-1	04/05/91	34.46	---	---	---	---	---	---	---	---	---	---	---
MW-1	04/01/92	34.46	11.25	0.01	23.22	---	---	---	---	---	---	---	---
MW-1	07/06/92	34.46	13.61	0.02	20.87	---	---	---	---	---	---	---	---
MW-1	10/07/92	34.46	15.15	0.09	19.38	---	---	---	---	---	---	---	---
MW-1	01/14/93	34.46	10.73	0.01	23.74	---	---	---	---	---	---	---	---
MW-1	04/22/93	34.46	11.64	0.16	22.94	---	---	---	---	---	---	---	---
MW-1	07/15/93	34.46	13.50	1.11	21.79	---	---	---	---	---	---	---	---
MW-1	10/21/93	34.46	15.21	1.00	20.00	---	---	---	---	---	---	---	---
MW-1	01/27/94	34.46	17.48	0.81	17.59	---	---	---	---	---	---	---	---
MW-1	04/21/94	34.46	10.94	---	23.52	110000	1400	9100	3400	30000	11000 (c)	1.6	PACE
MW-1	09/09/94	34.46	13.80	---	20.66	---	---	---	---	---	---	---	---
MW-1	12/21/94	34.46	12.60	0.02	21.88	---	---	---	---	---	---	---	---
MW-1	01/30/95	34.46	---	---	---	---	---	---	---	---	---	---	---
MW-1	04/10/95	34.46	10.62	---	23.84	---	---	---	---	---	---	---	---
MW-1	06/29/95	34.46	18.72	---	15.74	---	---	---	---	---	---	---	---
MW-1	09/18/95	34.46	12.92	---	21.54	---	---	---	---	---	---	---	---
MW-1	12/07/95	34.46	13.82	---	20.64	---	---	---	---	---	---	---	---
MW-1	03/28/96	34.46	10.03	0.01	24.44	---	---	---	---	---	---	---	---
MW-1	06/20/96	34.46	11.29	0.02	23.19	---	---	---	---	---	---	---	---
MW-1	10/11/96	34.46	14.86	0.01	19.61	---	---	---	---	---	---	---	---
MW-1	01/02/97	34.46	11.03	0.01	23.44	---	---	---	---	---	---	---	---
MW-1	04/14/97	34.46	12.25	0.01	22.22	---	---	---	---	---	---	---	---
MW-1	04/15/97	34.46	---	---	---	35000	130	650	1700	8200	4800	---	SPL
MW-1	07/02/97	34.46	14.11	---	20.35	42000	ND<250	ND<500	2000	9600	ND<5000	5.5	SPL
MW-1	09/30/97	34.46	14.40	---	20.06	61000	130	1100	2700	14600	2000	6.7	SPL
MW-1	01/21/98	34.46	7.99	0.01	26.48	14000	11	60	310	1790	1300	4.5	SPL
MW-1	04/09/98	34.46	7.89	---	26.57	---	---	---	---	---	---	---	---
MW-1	04/10/98	34.46	---	---	---	45000	380	520	2100	6800	9300	5.3	SPL
MW-1	06/19/98	34.46	10.31	---	24.15	35000	170	100	1100	3590	5000	4.9	SPL
MW-1	11/30/98	34.46	11.16	---	23.30	10000	100	24	350	1040	1800/2800 (g)	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		DO (ppm)	LAB
MW-2	04/05/91	35.50	16.62	---	18.88	ND<50	0.6	0.9	ND<0.3	ND<0.3	---		---	SUP
MW-2	04/01/92	35.50	11.25	---	24.25	---	---	---	---	---	---		---	---
MW-2	04/02/92	35.50	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	APP
MW-2	07/06/92	35.50	12.72	---	22.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	ANA
MW-2	10/07/92	35.50	15.08	---	20.42	ND<50	ND<0.5	1.8	ND<0.5	2.3	---		---	ANA
MW-2	01/14/93	35.50	9.69	---	25.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
MW-2	04/22/93	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	07/15/93	35.50	12.02	---	23.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22	(c)	---	PACE
MW-2	10/21/93	35.50	13.12	---	22.38	ND<50	0.7	0.9	ND<0.5	0.9	---		---	PACE
MW-2	01/27/94	35.50	12.01	---	23.49	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
MW-2	04/21/94	35.50	10.60	---	24.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		1.1	PACE
MW-2	09/09/94	35.50	12.42	---	23.08	ND<50	ND<0.5	ND<0.5	ND<0.5	0.6	---		2.2	PACE
MW-2	12/21/94	35.50	10.85	---	24.65	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		1.2	PACE
MW-2	01/30/95	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	04/10/95	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	06/29/95	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	09/18/95	35.50	10.98	---	24.52	---	---	---	---	---	---		---	---
MW-2	09/19/95	35.50	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		7.2	ATI
MW-2	12/07/95	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	03/28/96	35.50	8.57	---	26.93	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10		3.2	SPL
MW-2	06/20/96	35.50	9.77	---	25.73	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10		4.2	SPL
MW-2	10/11/96	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	01/02/97	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	04/14/97	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	07/02/97	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	09/30/97	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	01/21/98	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	04/09/98	35.50	6.82	---	28.68	---	---	---	---	---	---		---	---
MW-2	04/10/98	35.50	---	---	---	ND<50	1.0	ND<1.0	ND<1.0	ND<1.0	23		5.0	SPL
MW-2	06/19/98	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	11/30/98	35.50	9.44	---	26.06	---	---	---	---	---	---		---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-3	04/05/91	36.53	17.84	---	18.69	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SUP
MW-3	04/01/92	36.53	15.64	---	20.89	---	---	---	---	---	---	---	---
MW-3	04/02/92	36.53	---	---	---	ND<50	1.4	ND<0.5	ND<0.5	ND<0.5	---	---	APP
MW-3	07/06/92	36.53	19.03	---	17.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-3	10/07/92	36.53	21.83	---	14.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-3	01/14/93	36.53	15.96	---	20.57	350	ND<0.5	ND<0.5	ND<0.5	ND<0.5	714 (c)	---	PACE
MW-3	04/22/93	36.53	16.20	---	20.33	2800	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3600 (c)	---	PACE
MW-3	07/15/93	36.53	16.82	---	19.71	1400	1.2	ND<0.5	2.0	3.5	2200 (c)	---	PACE
MW-3	10/21/93	36.53	18.84	---	17.69	370	2.1	2.3	2.3	6.0	850 (c)	---	PACE
MW-3	01/27/94	36.53	18.00	---	18.53	1300	6.3	ND<0.5	ND<0.5	ND<0.5	4000 (c)	---	PACE
MW-3	04/21/94	36.53	16.62	---	19.91	2000	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4300 (c)	1.4	PACE
MW-3	09/09/94	36.53	18.38	---	18.15	1300	ND<0.5	ND<0.5	0.5	1.2	---	3.0	PACE
MW-3	12/21/94	36.53	15.28	---	21.25	420	16	0.7	3.5	5.9	---	1.9	PACE
MW-3	01/30/95	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	04/10/95	36.53	12.41	---	24.12	150	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.9	ATI
MW-3	06/29/95	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	09/18/95	36.53	15.82	---	20.71	---	---	---	---	---	---	---	---
MW-3	09/19/95	36.53	---	---	---	82	ND<0.50	ND<0.50	ND<0.50	ND<1.0	260	7.0	ATI
MW-3	12/07/95	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	03/28/96	36.53	11.90	---	24.63	ND<50	ND<0.5	ND<1	ND<1	ND<1	230	4.2	SPL
MW-3	06/20/96	36.53	12.66	---	23.87	260	ND<0.5	ND<1	ND<1	ND<1	370	4.4	SPL
MW-3	10/11/96	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	01/02/97	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	04/14/97	36.53	13.45	---	23.08	---	---	---	---	---	---	---	---
MW-3	04/15/97	36.53	---	---	---	1500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1800	5.6	SPL
MW-3	07/02/97	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	09/30/97	36.53	17.16	---	19.37	40000	13000	2400	870	3100	510	6.6	SPL
MW-3	01/21/98	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	04/09/98	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	06/19/98	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	06/19/98	36.53	15.28	---	21.25	1800	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1900	4.7	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID		DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		DO (ppm)	LAB
AW-1		04/05/91	38.11	25.44	---	12.67	4100	1500	69	100	83	---		---	SUP
AW-1		04/01/92	38.11	23.22	---	14.89	---	---	---	---	---	---		---	---
AW-1		04/02/92	38.11	---	---	---	11000	1800	210	210	490	---		---	APP
AW-1		07/06/92	38.11	24.89	---	13.22	6500	4000	40	290	530	---		---	ANA
AW-1		10/07/92	38.11	26.55	---	11.56	4700	1500	41	47	300	---		---	ANA
QC-1	(e)	10/07/92	---	---	---	---	2900	1200	25	37	210	---		---	ANA
AW-1		01/14/93	38.11	23.73	---	14.38	2800	830	31	140	240	---		---	PACE
QC-1	(e)	01/14/93	---	---	---	---	4100	1700	28	130	230	---		---	PACE
AW-1		04/22/93	38.11		---	38.11	39000	14000	530	1800	6100	987	(c)	---	PACE
AW-1		07/15/93	38.11	22.50	---	15.61	6200	2200	28	210	540	840	(c)	---	PACE
AW-1		10/21/93	38.11	24.32	---	13.79	2400	820	13	55	120	830	(c)	---	PACE
AW-1		01/27/94	38.11	23.72	---	14.39	3500	1400	26	130	220	650	(c)	---	PACE
AW-1		04/21/94	38.11	22.48	---	15.63	40000	12000	1900	1600	5000	---		1.4	PACE
AW-1		09/09/94	38.11	23.04	---	15.07	3500	1600	5.0	200	250	---		2.1	PACE
QC-1	(e)	09/09/94	---	---	---	---	3900	1900	5.5	190	240	---		---	PACE
AW-1		12/21/94	38.11	21.70	---	16.41	7600	3100	36	370	320	---		1.6	PACE
AW-1		01/30/95	38.11	17.71	---	20.4	35000	23000	650	3200	4100	---		1.7	ATI
AW-1		04/10/95	38.11	20.04	---	18.07	60000	18000	2000	4300	11000	---		7.9	ATI
QC-1	(e)	04/10/95	---	---	---	---	56000	17000	2000	3900	10000	---		---	ATI
AW-1		06/29/95	38.11	20.60	---	17.51	72000	10000	7300	4200	15000	---		6.2	ATI
QC-1	(e)	06/29/95	---	---	---	---	86000	12000	8400	4800	18000	---		---	ATI
AW-1		09/18/95	38.11	21.87	---	16.24	---	---	---	---	---	---		---	---
AW-1		09/19/95	38.11	---	---	---	65000	12000	3100	4400	14000	1000		8.5	ATI
AW-1		12/07/95	38.11	22.06	---	16.05	25000	8700	ND<50	2500	1300	1100		2.9	ATI
AW-1		03/28/96	38.11	16.91	---	21.20	24000	11000	ND<100	3200	3390	ND<1000		6.6	SPL
AW-1		06/20/96	38.11	20.82	---	17.29	38000	6900	1100	3200	7300	ND<100		6.4	SPL
AW-1		10/11/96	38.11	23.20	---	14.91	33000	8500	69	3300	4230	580		6.3	SPL
AW-1		01/02/97	38.11	20.41	---	17.70	32000	8000	ND<50	3100	2300	700		6.7	SPL
AW-1		04/14/97	38.11	21.61	---	16.50	---	---	---	---	---	---		---	---
AW-1		04/15/97	38.11	---	---	---	31000	5000	160	2400	4540	340		5.4	SPL
AW-1		07/02/97	38.11	21.17	---	16.94	26000	5800	ND<100	2600	2200	ND<1000		6.2	SPL
AW-1		09/30/97	38.11	21.48	---	16.63	29000	9200	17	1400	130	560		6.9	SPL
AW-1		01/21/98	38.11	20.02	---	18.09	50000	6900	450	3200	4450	720		5.8	SPL
AW-1		04/09/98	38.11	13.37	---	24.74	---	---	---	---	---	---		---	---
AW-1		04/10/98	38.11	---	---	---	46000	5800	1900	3000	7400	1000		4.3	SPL
AW-1		06/19/98	38.11	19.12	---	18.99	42000	6600	200	3000	3350	660		4.9	SPL
QC-1	(e)	06/19/98	---	---	---	---	43000	6800	260	3100	3490	620		---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-1	11/30/98	38.11	21.13	---	16.98	23000	6700	ND<25	3100	130	710/820 (g)	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-2	04/05/91	36.83	22.36	---	14.47	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SUP
AW-2	04/01/92	36.83	20.81	---	16.02	---	---	---	---	---	---	---	---
AW-2	04/02/92	36.83	---	---	---	130	25	2.3	0.7	2.1	---	---	APP
AW-2	07/06/92	36.83	23.57	---	13.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-2	10/07/92	36.83	25.24	---	11.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-2	01/14/93	36.83	20.82	---	16.01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	04/22/93	36.83	19.37	---	17.46	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	07/15/93	36.83	21.29	---	15.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	10/21/93	36.83	23.14	---	13.69	ND<50	1.3	1.1	0.9	2.1	---	---	PACE
AW-2	01/27/94	36.83	22.34	---	14.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	04/21/94	36.83	21.15	---	15.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.0	PACE
AW-2	09/09/94	36.83	22.09	---	14.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.1	PACE
AW-2	12/21/94	36.83	20.12	---	16.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.0	PACE
AW-2	01/30/95	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	04/10/95	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	06/29/95	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	09/18/95	36.83	19.87	---	16.96	---	---	---	---	---	---	---	---
AW-2	09/19/95	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)	09/19/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-2	12/07/95	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	03/28/96	36.83	15.61	---	21.22	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.1	SPL
AW-2	06/20/96	36.83	16.30	---	20.53	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	5.2	SPL
AW-2	10/11/96	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	01/02/97	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	04/14/97	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	07/02/97	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	09/30/97	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	01/21/98	36.83	14.46	---	22.37	160	13	ND<1.0	ND<1.0	ND<1.0	110	4.9	SPL
AW-2	04/09/98	36.83	12.85	---	23.98	---	---	---	---	---	---	---	---
AW-2	04/10/98	36.83	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.9	SPL
AW-2	06/19/98	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	11/30/98	36.83	16.90	---	19.93	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID		DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		DO (ppm)	LAB
AW-3		04/05/91	39.13	23.90	---	15.23	5200	980	450	95	310	---		---	SUP
AW-3		04/01/92	39.13	22.50	---	16.63	4700	890	47	43	110	---		---	APP
AW-3		07/06/92	39.13	23.26	---	15.87	3900	3100	30	80	99	---		---	ANA
AW-3		10/07/92	39.13	24.75	---	14.38	5000	2600	ND<0.5	ND<0.5	59	---		---	ANA
AW-3		01/14/93	39.13	23.59	---	15.54	350	250	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
AW-3		04/22/93	39.13	19.42	---	19.71	240	71	2.4	0.6	4.0	---		---	PACE
AW-3		07/15/93	39.13	20.09	---	19.04	650	71	2.8	1.5	1.1	38	(c)	---	PACE
AW-3		10/21/93	39.13	21.88	---	17.25	160	4.8	1.7	1.6	3.6	---		---	PACE
QC-1	(e)	10/21/93	---	---	---	---	170	6.1	2.0	1.7	4.4	---		---	PACE
AW-3		01/27/94	39.13	22.33	---	16.80	92	2.1	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
QC-1	(e)	01/27/94	---	---	---	---	90	2.9	0.5	ND<0.5	ND<0.5	---		---	PACE
AW-3		04/21/94	39.13	20.96	---	18.17	150	3.6	0.8	0.9	2.5	---		1.3	PACE
AW-3		09/09/94	39.13	21.60	---	17.53	53	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		1.9	PACE
AW-3	(f)	12/21/94	39.13	---	---	---	---	---	---	---	---	---		---	---
AW-3	(f)	01/30/95	39.13	---	---	---	---	---	---	---	---	---		---	---
AW-3	(f)	04/10/95	39.13	---	---	---	---	---	---	---	---	---		---	---
AW-3		06/29/95	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		09/18/95	39.13	17.83	---	21.30	---	---	---	---	---	---		---	---
AW-3		09/19/95	39.13	---	---	---	61000	11000	2900	4100	13000	790		7.4	ATI
AW-3		12/07/95	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)	12/07/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		---	ATI
AW-3		03/28/96	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)	03/28/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10		---	SPL
AW-3		06/20/96	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)	06/20/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10		---	SPL
AW-3		10/11/96	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)	10/11/96	---	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	SPL
AW-3		01/02/97	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		04/14/97	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)	04/15/97	---	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	SPL
AW-3		07/02/97	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		09/30/97	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		01/21/98	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)	01/21/98	---	---	---	---	150	ND<0.5	ND<1.0	ND<1.0	1.2	110		---	SPL
AW-3		04/09/98	39.13	9.45	---	29.68	---	---	---	---	---	---		---	---
AW-3		04/10/98	39.13	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	1.6	ND<10		4.5	SPL
QC-1	(e)	04/10/98	---	---	---	---	ND<50	ND<0.5	ND<1.0	1.4	1.7	ND<10		---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-3	06/19/98	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	11/30/98	39.13	15.91	---	23.22	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID		DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		DO (ppm)	LAB
AW-4		04/05/91	39.08	25.12	---	13.96	110000	40000	13000	2000	5500	---		---	SUP
AW-4		04/01/92	39.08	23.56	---	15.52	230000	57000	31000	2900	7600	---		---	APP
QC-1	(e)	04/01/92	---	---	---	---	210000	55000	23000	2900	7000	---		---	APP
AW-4		07/06/92	39.08	25.87	---	13.21	38000	16000	5400	2000	6100	---		---	ANA
AW-4		10/07/92	39.08	27.53	---	11.55	120000	41000	26000	4700	13000	---		---	ANA
AW-4		01/14/93	39.08	24.12	---	14.96	62000	18000	14000	2700	7700	1400	(c)	---	PACE
AW-4		04/22/93	39.08	21.47	---	17.61	18000	1100	2100	320	3500	---		---	PACE
AW-4		07/15/93	39.08	23.30	---	15.78	21000	820	2300	590	3800	2000	(c)	---	PACE
AW-4		10/21/93	39.08	25.08	---	14.00	11000	570	83	630	2300	4600	(c)	---	PACE
AW-4		01/27/94	39.08	24.61	---	14.47	12000	420	460	600	2200	6400	(c)	---	PACE
AW-4		04/21/94	39.08	22.96	---	16.12	12000	110	250	150	1900	16	(c)	1.5	PACE
QC-1	(e)	04/21/94	---	---	---	---	14000	71	160	29	1200	13000	(c)	---	PACE
AW-4		09/09/94	39.08	23.85	---	15.23	9700	75	64	280	2000	---		2.1	PACE
AW-4	(f)	12/21/94	39.08	---	---	---	---	---	---	---	---	---		---	---
AW-4	(f)	01/30/95	39.08	---	---	---	---	---	---	---	---	---		---	---
AW-4		04/10/95	39.08	18.07	---	21.01	3700	69	8.7	44	130	---		8.5	ATI
AW-4		06/29/95	39.08	19.25	---	19.83	8000	62	190	190	1100	---		7.5	ATI
AW-4		09/18/95	39.08	20.73	---	18.35	---	---	---	---	---	---		---	---
AW-4		09/19/95	39.08	---	---	---	12000	660	1600	200	1900	7100		8.3	ATI
AW-4		12/07/95	39.08	22.49	---	16.59	41000	8400	7200	710	6300	5200		3.6	ATI
AW-4	(f)	03/28/96	39.08	16.49	---	22.59	---	---	---	---	---	---		---	---
AW-4		06/20/96	39.08	16.00	---	23.08	ND<50	ND<0.5	ND<1	ND<1	ND<1	12		---	SPL
AW-4		10/11/96	39.08	19.52	---	19.56	36000	12000	5500	ND<25	3800	880/1000	(g)	6.2	SPL
AW-4		01/02/97	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)	01/02/97	---	---	---	---	ND<50	61	3.8	3.5	8.1	110		---	SPL
AW-4		04/14/97	39.08	17.01	---	22.07	---	---	---	---	---	---		---	---
AW-4		04/15/97	39.08	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		5.4	SPL
AW-4		07/02/97	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)	09/30/97	39.08	22.71	---	16.37	---	---	---	---	---	---		---	---
AW-4		01/21/98	39.08	15.89	---	23.19	13000	2900	ND<10	230	314	3100		3.9	SPL
AW-4		04/09/98	39.08	13.50	---	25.58	---	---	---	---	---	---		---	---
AW-4		04/10/98	39.08	---	---	---	890	ND<0.5	ND<1	ND<1	ND<1	730		4.9	SPL
AW-4		06/19/98	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		11/30/98	39.08	19.25	---	19.83	---	---	---	---	---	---		---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-5	04/05/91	38.51	25.48	---	13.03	420	31	7.5	20	68	---	---	SUP
AW-5	04/01/92	38.51	23.95	---	14.56	---	---	---	---	---	---	---	---
AW-5	04/02/92	38.51	---	---	---	4000	270	63	190	290	---	---	APP
AW-5	07/06/92	38.51	26.48	---	12.03	1400	160	ND<2.5	250	58	---	---	ANA
AW-5	10/07/92	38.51	28.18	---	10.33	360	12	0.6	8.7	5	---	---	ANA
AW-5	01/14/93	38.51	24.15	---	14.36	1700	270	7.5	130	62	---	---	PACE
AW-5	04/22/93	38.51	22.43	---	16.08	2700	780	30	220	180	---	---	PACE
QC-1 (e)	04/22/93	---	---	---	---	3500	780	29	240	210	---	---	PACE
AW-5	07/15/93	38.51	24.31	---	14.20	1300	69	16	67	120	---	---	PACE
QC-1 (e)	07/15/93	---	---	---	---	1300	68	8.3	64	99	---	---	PACE
AW-5	10/21/93	38.51	26.05	---	12.46	510	9.6	1.5	17	45	75 (c)	---	PACE
AW-5	01/27/94	38.51	26.42	---	12.09	420	3.3	ND<0.5	1.0	0.9	---	---	PACE
AW-5	04/21/94	38.51	24.36	---	14.15	1000	110	25	56	27	75 (c)	1.3	PACE
AW-5	09/09/94	38.51	24.55	---	13.96	210	ND<0.5	ND<0.5	0.5	0.9	---	2.7	PACE
AW-5	12/21/94	38.51	22.30	---	16.21	410	ND<0.5	20	4.3	1.4	---	1.1	PACE
QC-1 (e)	12/21/94	---	---	---	---	340	ND<0.5	15	3.3	1.4	---	---	PACE
AW-5	01/30/95	38.51	18.88	---	19.63	210	0.6	11	8.8	2	---	1.5	ATI
AW-5	04/10/95	38.51	18.44	---	20.07	500	1.4	0.59	6.5	4.3	---	8.3	ATI
AW-5	06/29/95	38.51	19.92	---	18.59	490 (d)	1.2	0.58	7.3	2.2	---	6.9	ATI
AW-5	09/18/95	38.51	22.15	---	16.36	---	---	---	---	---	---	---	---
AW-5	09/19/95	38.51	---	---	---	260	0.62	ND<0.50	3.1	1.1	110	8.2	ATI
AW-5	12/07/95	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	03/28/96	38.51	17.76	---	20.75	ND<50	ND<0.5	ND<1	ND<1	ND<1	63	3.0	SPL
AW-5	06/20/96	38.51	18.46	---	20.05	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.6	SPL
AW-5	10/11/96	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	01/02/97	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	04/14/97	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	07/02/97	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	09/30/97	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	01/21/98	38.51	17.33	---	21.18	6100	ND<0.5	2.1	ND<1.0	ND<1.0	3700	4.5	SPL
AW-5	04/09/98	38.51	15.25	---	23.26	---	---	---	---	---	---	---	---
AW-5	04/10/98	38.51	---	---	---	3500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3000	5.4	SPL
AW-5	06/19/98	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)	11/30/98	38.51	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-6	04/05/91	37.08	22.48	---	14.60	1100	80	19	1.4	230	---	---	SUP
AW-6	04/01/92	37.08	22.50	---	14.58	---	---	---	---	---	---	---	---
AW-6	04/02/92	37.08	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	APP
AW-6	07/06/92	37.08	22.74	---	14.34	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-6	10/07/92	37.08	24.64	---	12.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-6	01/14/93	37.08	22.36	---	14.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-6	04/22/93	37.08	22.82	---	14.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-6	07/15/93	37.08	20.49	---	16.59	ND<50	ND<0.5	ND<0.5	ND<0.5	0.8	---	---	PACE
AW-6	10/21/93	37.08	22.84	---	14.24	ND<50	0.5	0.6	ND<0.5	0.7	---	---	PACE
AW-6	01/27/94	37.08	22.33	---	14.75	ND<50	ND<0.5	0.9	3.1	12	---	---	PACE
AW-6	04/21/94	37.08	20.66	---	16.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.7	PACE
AW-6	09/09/94	37.08	21.57	---	15.51	ND<50	0.9	ND<0.5	ND<0.5	0.5	---	2.9	PACE
AW-6	12/21/94	37.08	19.40	---	17.68	ND<50	1.8	0.8	0.8	3.2	---	1.1	PACE
AW-6	01/30/95	37.08	16.74	---	20.34	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	2.2	ATI
QC-1 (e)	01/30/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-6	04/10/95	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	06/29/95	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	09/18/95	37.08	19.65	---	17.43	---	---	---	---	---	---	---	---
AW-6	09/19/95	37.08	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	25	8.3	ATI
AW-6	12/07/95	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	03/28/96	37.08	14.99	---	22.09	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.0	SPL
AW-6	06/20/96	37.08	15.59	---	21.49	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.6	SPL
AW-6	10/11/96	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	01/02/97	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	04/14/97	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	07/02/97	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	09/30/97	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	01/21/98	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	04/09/98	37.08	13.31	---	23.77	---	---	---	---	---	---	---	---
AW-6	04/10/98	37.08	---	---	---	370	ND<0.5	ND<1.0	ND<1.0	ND<1.0	300	4.3	SPL
AW-6	06/19/98	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)	11/30/98	37.08	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-7	04/05/91	37.60	23.38	---	14.22	ND<50	0.4	0.7	ND<0.3	ND<0.3	---	---	SUP
AW-7	04/01/92	37.60	21.92	---	15.68	---	---	---	---	---	---	---	---
AW-7	04/02/92	37.60	---	---	---	ND<50	ND<0.5	3.2	1.0	5.4	---	---	APP
AW-7	07/06/92	37.60	24.50	---	13.10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-7	10/07/92	37.60	26.18	---	11.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-7	01/14/93	37.60	22.03	---	15.57	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	04/22/93	37.60	21.18	---	16.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	07/15/93	37.60	22.09	---	15.51	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	10/21/93	37.60	24.05	---	13.55	51	5.0	4.2	3.5	8.2	---	---	PACE
AW-7	01/27/94	37.60	23.40	---	14.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	04/21/94	37.60	22.24	---	15.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.5	PACE
AW-7	09/09/94	37.60	22.94	---	14.66	ND<50	ND<0.5	ND<0.5	ND<0.5	0.5	---	4.3	PACE
AW-7	12/21/94	37.60	20.86	---	16.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.2	PACE
AW-7	01/30/95	37.60	17.51	---	20.09	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	2.7	ATI
AW-7	04/10/95	37.60	16.69	---	20.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	4.8	ATI
AW-7	06/29/95	37.60	18.33	---	19.27	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.6	ATI
AW-7	09/18/95	37.60	20.68	---	16.92	---	---	---	---	---	---	---	---
AW-7	09/19/95	37.60	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	5.1	ATI
AW-7	12/07/95	37.60	22.15	---	15.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	5.2	ATI
AW-7	03/28/96	37.60	16.38	---	21.22	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.9	SPL
AW-7	06/20/96	37.60	17.02	---	20.58	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	5.0	SPL
AW-7	10/11/96	37.60	20.47	---	17.13	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.3	SPL
AW-7	01/02/97	37.60	16.70	---	20.90	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.2	SPL
AW-7	04/14/97	37.60	17.96	---	19.64	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
AW-7	07/02/97	37.60	19.11	---	18.49	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.4	SPL
AW-7	09/30/97	37.60	22.97	---	14.63	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	1100	6.5	SPL
AW-7	01/21/98	37.60	16.50	---	21.10	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.9	SPL
AW-7	04/09/98	37.60	13.56	---	24.04	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.9	SPL
AW-7	06/19/98	37.60	15.41	---	22.19	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
AW-7	11/30/98	37.60	18.90	---	18.70	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-8	04/05/91	40.86	26.68	---	14.18	80	1.9	2.2	0.5	1.3	---	---	SUP
AW-8	04/01/92	40.86	25.11	---	15.75	73	ND<0.5	0.7	ND<0.5	0.6	---	---	APP
AW-8	07/06/92	40.86	26.43	---	14.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-8	10/07/92	40.86	28.59	---	12.27	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-8	01/14/93	40.86	25.55	---	15.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-8	04/22/93	40.86	22.29	---	18.57	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-8	07/15/93	40.86	23.42	---	17.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-8	10/21/93	40.86	25.15	---	15.71	ND<50	1.9	1.8	1.3	3.3	---	---	PACE
AW-8	01/27/94	40.86	25.42	---	15.44	ND<50	ND<0.5	0.5	0.6	8.5	---	---	PACE
AW-8	04/21/94	40.86	24.14	---	16.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.5	PACE
AW-8	09/09/94	40.86	24.55	---	16.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.4	PACE
AW-8	12/21/94	40.86	22.72	---	18.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.1	PACE
AW-8	01/30/95	40.86	19.75	---	21.11	ND<50	ND<0.50	1	ND<0.50	1	---	0.8	ATI
AW-8	04/10/95	40.86	17.78	---	23.08	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.3	ATI
AW-8	06/29/95	40.86	18.18	---	22.68	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.3	ATI
AW-8	09/18/95	40.86	20.20	---	20.66	---	---	---	---	---	---	---	---
AW-8	09/19/95	40.86	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.7	ATI
AW-8	12/07/95	40.86	21.54	---	19.32	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	4.4	ATI
AW-8	03/28/96	40.86	15.77	---	25.09	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.8	SPL
AW-8	06/20/96	40.86	16.41	---	24.45	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.6	SPL
AW-8	10/11/96	40.86	19.90	---	20.96	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.4	SPL
AW-8	01/02/97	40.86	15.89	---	24.97	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.9	SPL
AW-8	04/14/97	40.86	17.07	---	23.79	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL
AW-8	07/02/97	40.86	18.67	---	22.19	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.6	SPL
AW-8	09/30/97	40.86	22.52	---	18.34	ND<50	ND<5	ND<10	ND<10	ND<10	820	6.7	SPL
AW-8	01/21/98	40.86	16.01	---	24.85	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL
AW-8	04/09/98	40.86	11.18	---	29.68	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
AW-8	06/19/98	40.86	13.01	---	27.85	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.1	SPL
AW-8	11/30/98	40.86	17.46	---	23.40	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-9	01/02/97	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)	04/14/97	37.78	---	---	---	---	---	---	---	---	---	---	---
AW-9	07/02/97	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	09/30/97	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	01/21/98	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	04/09/98	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	06/19/98	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 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
RW-1	04/05/91	37.73	---	---	---	---	---	---	---	---	---	---	---
RW-1	04/01/92	37.73	22.81	0.30	15.14	---	---	---	---	---	---	---	---
RW-1	07/06/92	37.73	26.92	0.41	11.12	---	---	---	---	---	---	---	---
RW-1	10/07/92	37.73	28.51	1.26	10.16	---	---	---	---	---	---	---	---
RW-1	01/14/93	37.73	23.75	0.25	14.17	---	---	---	---	---	---	---	---
RW-1	04/22/93	37.73	22.70	1.38	16.07	---	---	---	---	---	---	---	---
RW-1	07/15/93	37.73	26.10	0.81	12.24	---	---	---	---	---	---	---	---
RW-1	10/21/93	37.73	25.40	0.49	12.70	---	---	---	---	---	---	---	---
RW-1	10/21/93	37.73	25.40	0.49	12.70	---	---	---	---	---	---	---	---
RW-1	01/27/94	37.73	28.02	0.37	9.99	---	---	---	---	---	---	---	---
RW-1	04/21/94	37.73	23.10	0.91	15.31	---	---	---	---	---	---	---	---
RW-1	09/09/94	37.73	24.39	1.04	14.12	---	---	---	---	---	---	---	---
RW-1 (h)	12/21/94	37.73	---	---	---	---	---	---	---	---	---	---	---
RW-1	12/07/95	37.73	25.71	1.04	12.80	150000	34000	35000	4300	21000	2700	---	ATI
RW-1	03/28/96	37.73	16.75	0.18	21.12	---	---	---	---	---	---	---	---
RW-1 (h)	06/20/96	37.73	25.10	0.02	12.64	---	---	---	---	---	---	---	---
RW-1	10/11/96	37.73	25.51	0.00	12.22	130000	20000	32000	2800	20700	1400/1200 (g)	7.4	SPL
RW-1	01/02/97	37.73	24.49	0.01	13.25	---	---	---	---	---	---	---	---
RW-1	04/14/97	37.73	23.99	0.04	13.77	---	---	---	---	---	---	---	---
RW-1	04/15/97	37.73	---	---	---	1800000	38000	190000	48000	281000	ND<25000	---	SPL
RW-1	07/02/97	37.73	16.40	0.20	21.48	140000	19000	55000	4400	32400	ND<10000	5.7	SPL
QC-1 (e)	07/02/97	---	---	---	---	130000	19000	54000	4700	33400	ND<10000	---	SPL
RW-1	09/30/97	37.73	27.97	0.02	9.78	110000	13000	22000	2000	12500	1100	7.0	SPL
QC-1 (e)	09/30/97	---	---	---	---	140000	17000	29000	2500	15900	1200	---	SPL
RW-1	01/21/98	37.73	14.14	0.44	23.92	270000	21000	48000	3500	25000	1100	4.8	SPL
RW-1	04/09/98	37.73	25.01	0.05	12.76	---	---	---	---	---	---	---	---
RW-1	04/10/98	37.73	---	---	---	220000	26000	46000	4400	24500	ND<2500	5.1	SPL
RW-1	06/19/98	37.73	11.43	---	26.30	180000	19000	32000	3000	17400	ND<2500	4.6	SPL
RW-1	11/30/98	37.73	7.87	---	29.86	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
QC-2 (i)	10/07/92	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (i)	01/14/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	04/22/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	07/15/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	10/21/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	01/27/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	04/21/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	09/09/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	12/21/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	01/30/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	04/10/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	06/27/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	09/19/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (i)	12/07/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (i)	03/28/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2 (i)	06/20/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL

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	Anametrix, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

(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.

A:\981130g4.wb3

TABLE 2 - PRODUCT REMOVAL STATUS

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
RW-1	10/06/93	1.00	1.00
	10/14/94	1.00	2.00
	10/20/94	18.00	20.00
	10/26/94	3.00	23.00
	11/02/93	5.00	28.00
	11/10/94	6.00	34.00
	11/16/94	2.50	36.50
	11/23/94	5.00	41.50
	11/30/93	2.00	43.50
	12/07/93	4.00	47.50
	12/17/93	1.50	49.00
	01/04/94	5.00	54.00
	01/12/94	3.50	57.50
	01/20/94	2.50	60.00
	02/11/94	4.00	64.00
	02/18/93	3.50	67.50
	02/25/94	3.00	70.50
	03/04/94	3.50	74.00
	03/18/94	5.50	79.50
	03/30/94	4.00	83.50
	04/13/94	4.60	88.10
	04/21/94	4.20	92.30
	04/29/94	4.50	96.80
	05/06/94	5.50	102.30
	05/13/94	3.50	105.80
	05/20/94	3.50	109.30
	05/26/94	4.50	113.80
	06/02/94	3.50	117.30
	06/09/94	2.50	119.80
	06/16/94	3.50	123.30
	06/23/94	4.00	127.30
	06/29/94	2.50	129.80
	07/07/94	2.00	131.80
	07/12/94	3.00	134.80
	07/20/94	1.50	136.30
	07/29/94	3.50	139.80
	08/05/94	1.50	141.30
	08/12/94	2.00	143.30
	08/18/94	2.50	145.80
	09/09/94	3.50	149.30
	09/16/94	4.00	153.30
	09/23/94	2.00	155.30
	12/07/95	0.00	155.30
	03/28/96	0.01	155.31
	06/20/96	0.00	155.31
	04/14/97	<0.05	155.31
	07/02/97	0.25	155.56
	09/30/97	<0.01	155.56
	01/21/98	0.5	156.06
	04/10/98	0.09	156.15
	06/19/98	<0.01	156.15
	11/30/98	0.00	156.15

TABLE 2 - PRODUCT REMOVAL STATUS

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-1	10/20/93	0.10	0.10
	11/10/93	0.10	0.20
	09/09/94	SHEEN	0.20
	10/26/94	SHEEN	0.20
	11/16/94	SHEEN	0.20
	12/21/94	0.25	0.45
	02/08/95	0.00	0.45
	04/10/95	0.25	0.70
	06/29/95	SHEEN	0.70
	09/18/95	SHEEN	0.70
	12/07/95	SHEEN	0.70
	03/28/96	<.001	0.70
	06/20/96	0.002	0.70
	10/11/96	<0.001	0.70
	01/02/97	<0.01	0.70
	04/14/97	<0.01	0.70
	07/02/97	<0.01	0.70
	01/21/98	<0.01	0.70
	06/19/98	<0.01	0.70
	11/30/98	0.00	0.70

NOTE: Groundwater and soil vapor extraction equipment installed in RW-1 in October 1994.

Analytical Appendix

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

December 14, 1998

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

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on December 4, 1998. The sample(s) was assigned to Certificate Analysis No.(s) 9812226 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 results 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: 98-12-226

Approved for Release by:

Sonia West
Sonia West, Senior Project Manager

12-15-98
Date

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

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

Certificate of Analysis No. H9-9812226-01

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

P.O.#
N/A, COC#099955
DATE: 12/14/98

PROJECT: #11133, 2220 98th Ave.
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: A

PROJECT NO: 981130-G4
MATRIX: WATER
DATE SAMPLED: 11/30/98 16:56:00
DATE RECEIVED: 12/04/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	1800	100 P	ug/L
Benzene	100	5 P	ug/L
Toluene	24	10 P	ug/L
Ethylbenzene	350	10 P	ug/L
Total Xylene	1040	10 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	223MI		
4-Bromofluorobenzene	117		
Method 8020A***			
Analyzed by: TB			
Date: 12/08/98			
Gasoline Range Organics	10	0.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	230MI		
4-Bromofluorobenzene	133		
California LUFT Manual for Gasoline			
Analyzed by: TB			
Date: 12/08/98 02:37:00			
MTBE	2800	500 P	ug/L
Surrogate	**% Recovery**		
1,2-Dichloroethane-d4	84		
Toluene-d8	98		
4-Bromofluorobenzene	86		
Method 8260B ***			
Analyzed by: GT			
Date: 12/10/98			

(P) - Practical Quantitation Limit MI - Matrix interference.

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. H9-9812226-02

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

P.O.#
N/A, COC#099955
DATE: 12/14/98

PROJECT: #11133, 2220 98th Ave.
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: B

PROJECT NO: 981130-G4
MATRIX: WATER
DATE SAMPLED: 11/30/98 17:15:00
DATE RECEIVED: 12/04/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	710	250 P	ug/L
Benzene	6700	12 P	ug/L
Toluene	ND	25 P	ug/L
Ethylbenzene	3100	25 P	ug/L
Total Xylene	130	25 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	147MI		
4-Bromofluorobenzene	117		
Method 8020A***			
Analyzed by: TB			
Date: 12/08/98			
Gasoline Range Organics	23	1.2 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	120		
4-Bromofluorobenzene	119		
California LUFT Manual for Gasoline			
Analyzed by: TB			
Date: 12/08/98 02:11:00			
MTBE	820	500 P	ug/L
Surrogate	**% Recovery**		
1,2-Dichloroethane-d4	92		
Toluene-d8	100		

(P) - Practical Quantitation Limit ND - Not detected.
MI - Matrix interference.

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. H9-9812226-02

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

P.O.# N/A, COC#099955
DATE: 12/14/98

PROJECT: #11133, 2220 98th Ave.
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: B

PROJECT NO: 981130-G4
MATRIX: WATER
DATE SAMPLED: 11/30/98 17:15:00
DATE RECEIVED: 12/04/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
4-Bromofluorobenzene	88		
Method 8260B ***			
Analyzed by: GT			
Date: 12/10/98			

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

QUALITY CONTROL

DOCUMENTATION

3B

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Contract:

Lab Code: Case No: 9812226 SAS No: SDG No:

Matrix Spike - EPA Sample No: A Level(low/med) Low

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC. #	QC LIMITS REC.
1,1-Dichloroethene	2500	0	2800	112	61-145
Trichloroethene	2500	0	2600	104	71-120
Benzene	2500	0	2900	116	76-127
Toluene	2500	0	2900	116	76-125
Chlorobenzene	2500	0	2600	104	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	2500	2900	116	4	22	61-145
Trichloroethene	2500	2700	108	4	24	71-120
Benzene	2500	3000	120	3	21	76-127
Toluene	2500	2800	112	4	21	76-125
Chlorobenzene	2500	2800	112	7	21	75-130

Column to be used to flag recovery and RPD values with an asterisk

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name: Client SDG: m981210
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: LCS
Level: LOW Operator: GT
Data Type: MS DATA SampleType: METHSPIKE
SpikeList File: 8240water.spk Quant Type: ISTD
Sublist File: LCS.sub
Method File: /var/chem/m.i/m981210.b/m8260aw.m
Misc Info: M343W1//M343CW1

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7	1,1-Dichloroethene	50	51	102.00	61-145
26	Trichloroethene	50	55	110.00	71-120
22	Benzene	50	54	108.00	76-127
33	Toluene	50	52	104.00	76-125
39	Chlorobenzene	50	53	106.00	75-130

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 19	1,2-Dichloroethane	50	46	92.00	80-120
$ 32	Toluene-d8	50	48	96.00	88-110
$ 47	Bromofluorobenzene	50	48	96.00	86-115

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

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VBLK
Batch: M981209113701

Reported on: 12/14/98 15:26
Analyzed on: 12/10/98 14:28
Analyst: GT

METHOD 8260/624 M343B01

Compound	Result	Detection Limit	Units
Methyl t-butyl ether	ND	10	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	88	80-120	% Recovery
Toluene-d8	96	88-110	% Recovery
Bromofluorobenzene	92	86-115	% Recovery

Samples in Batch 9812226-01 9812226-02

Notes
ND - Not detected.

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020

Batch Id: HP_U981208042200

Matrix: Aqueous
Units: ug/L

L A B O R A T O R Y C O N T R O L S A M P L E

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	46	92.0	72 - 128
Benzene	ND	50	43	86.0	61 - 119
Toluene	ND	50	44	88.0	65 - 125
EthylBenzene	ND	50	43	86.0	70 - 118
O Xylene	ND	50	44	88.0	72 - 117
M & P Xylene	ND	100	84	84.0	72 - 116

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 Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	19	95.0	20	100	5.13	20	39 - 150
BENZENE	ND	20	21	105	21	105	0	21	32 - 164
TOLUENE	ND	20	20	100	21	105	4.88	20	38 - 159
ETHYLBENZENE	ND	20	20	100	21	105	4.88	19	52 - 142
O XYLENE	ND	20	20	100	21	105	4.88	18	53 - 143
M & P XYLENE	ND	40	39	97.5	40	100	2.53	17	53 - 144

Analyst: TB
Sequence Date: 12/08/98
SPL ID of sample spiked: 9812116-01A
Sample File ID: U_L1056.TX0
Method Blank File ID:
Blank Spike File ID: U_L1044.TX0
Matrix Spike File ID: U_L1050.TX0
Matrix Spike Duplicate File ID: U_L1051.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>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (1st Q '97)
(***) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH(SPL ID):

9812291-02A 9812291-01A 9812088-01A 9812226-01A
9812375-01A 9812226-02A 9812033-01A 9812033-02A
9812227-01A 9812227-03A 9812245-02A 9812249-04A
9812245-01A 9812232-02A 9812090-02A 9812127-02A
9812291-01A

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

** SPL BATCH QUALITY CONTROL REPORT **

California LUFT Manual for Gasoline

Batch Id: HP_U981207074400

Units: mg/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Range Organics	ND	1.0	0.77	77.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.57	63.3	0.59	65.6	3.57	36	36 - 160

Analyst: TB
Sequence Date: 12/07/98
SPL ID of sample spiked: 9812232-02A
Sample File ID: UUL1032.TX0
Method Blank File ID:
Blank Spike File ID: UUL1005.TX0
Matrix Spike File ID: UUL1027.TX0
Matrix Spike Duplicate File ID: UUL1028.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>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical data (1st Q '97)
(***) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH(SPL ID): 9812232-02A 9812249-04A 9812227-01A 9812226-02A 9812226-01A 9812245-01A 9812245-02A 9812090-02A 9812232-03A 9812232-01A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 12-4-98	Time: 1000

SPL Sample ID: 9812226

			Yes	No
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 #) 804039445129		
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name: Tina Cockrum	Date: 12-4-98

Field
Data
Sheets

WELL GAUGING DATA

Project # 981130-64 Date 11/30/98 Client BP 11133

Site 2220 98th Ave., Oakland, CA

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	2	Skimmer present				11.16	28.36	TOC	
MW-2	2					9.44	31.57	"	
MW-3	2					15.28	34.20	"	
AW-1	2					21.13	38.45	"	
AW-2	2					16.90	34.95	"	
AW-3	2					15.91	35.55	"	
AW-4	2					19.25	32.80	"	
AW-5		Inaccessible - covered by large pile of dirt.							
AW-6		Inaccessible -			"	"	"	"	"
AW-7	2					18.90	32.53	"	
AW-8	2					17.46	37.50	"	
RW-1	6					7.87	—	✓	

WELL MONITORING DATA SHEET

Project #: 981130-64	Client: BP 11133
Sampler: MG	Start Date: 11/30/98
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 28.36	Depth to Water: 11.16
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer / ~~Disposable Bailer~~ / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: ~~Bailer~~ / ~~Disposable Bailer~~ / Extraction Port / Other: ___

2.8 (Gals.) X 3 = 8.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1645	66.4	7.0	470	>200	3	Odor/Sheen
1648	65.7	7.1	480	>200	6	↓ ↓
1651	66.2	7.1	480	>200	9	

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

Sampling Time: 1656 Sampling Date: 11/30/98

Sample I.D.: A Laboratory: SPL

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 981130-64	Client: BP 11133
Sampler: MC	Start Date: 11/30/98
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 38.45	Depth to Water: 21.13
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer; X Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: ~~Bailer~~; X Disposable Bailer; Extraction Port; Other: ___

2.8 (Gals.) X 3 = 8.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1704	65.7	6.5	770	>200	3	Odor
1707	66.0	6.5	790	>200	6	↓
1710	66.3	6.6	800	>200	9	↓

Did well dewater? Yes (No)	Gallons actually evacuated: 9
Sampling Time: 1715	Sampling Date: 11/30/98
Sample I.D.: B	Laboratory: SPL
Analyzed for: ~~TPH-G~~ BTEX ~~MTBE~~ TPH-D	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:

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

WELL MONITORING DATA SHEET

Project #: 981130-G4	Client: BP # 11133
Sampler: MG	Start Date: 11/30/98
Well I.D.: RW-1	Well Diameter: 2 3 4 6 8 ___
Total Well Depth:	Depth to Water:
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer, Disposable Bailer, Middleburg, Electric Submersible, X Extraction Pump, Other: _____

Sampling Method: Bailer, Disposable Bailer, X Extraction Port, Other: _____

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

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
	No Sample - Nothing from port					
	Per Brady Nagle at Alisto Pump is not functiong					

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