BP OIL

BP Oil Company
Environmental Remediation Management
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667
Fax No: (206) 251-0736

May 4, 1999

Alameda County Health Care Services Agency
Attention Ms. Susan Hugo
1131 Harbor Bay Parkway, Ste. 250
Alameda, CA 94502-6577

LOP 3878

RE: BP Oil Site No. 11132
3201 35th Street (at I-580)
Oakland, CA

Dear Ms. Hugo:

Enclosed please find a report titled Groundwater Monitoring and Sampling Report, dated 26 April 1999.

The report shows that aromatic petroleum constituents were detected in groundwater samples collected from six of the nine wells sampled this quarter (2 February 1999). The highest benzene concentration (3,500 ug/l) was reported in a sample obtained from well MW-2, located south of the underground storage tanks.

Plans for the coming quarter include product removal and groundwater monitoring.

Please give me a call if you have any questions, comments or concerns regarding this matter. I can be reached at (425) 251-0689.

Sincerely,

Scott Hooton

attachment

cc: Ade Fagorala- CRWQCB-SFBR
D. Camille - Tosco (w/attachment)

99 MAY -7 PM 3:05
ENVIRONMENTAL PROTECTION

BLAINE
TECH SERVICES INC

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

April 26, 1999

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

1st Quarter 1999 Monitoring at 11132

First Quarter 1999 Groundwater Monitoring
BP Service Station Number 11132
3201 35th Street
Oakland, CA

Monitoring Performed on February 2, 1999

Groundwater Sampling Report **990202-X-2**

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.

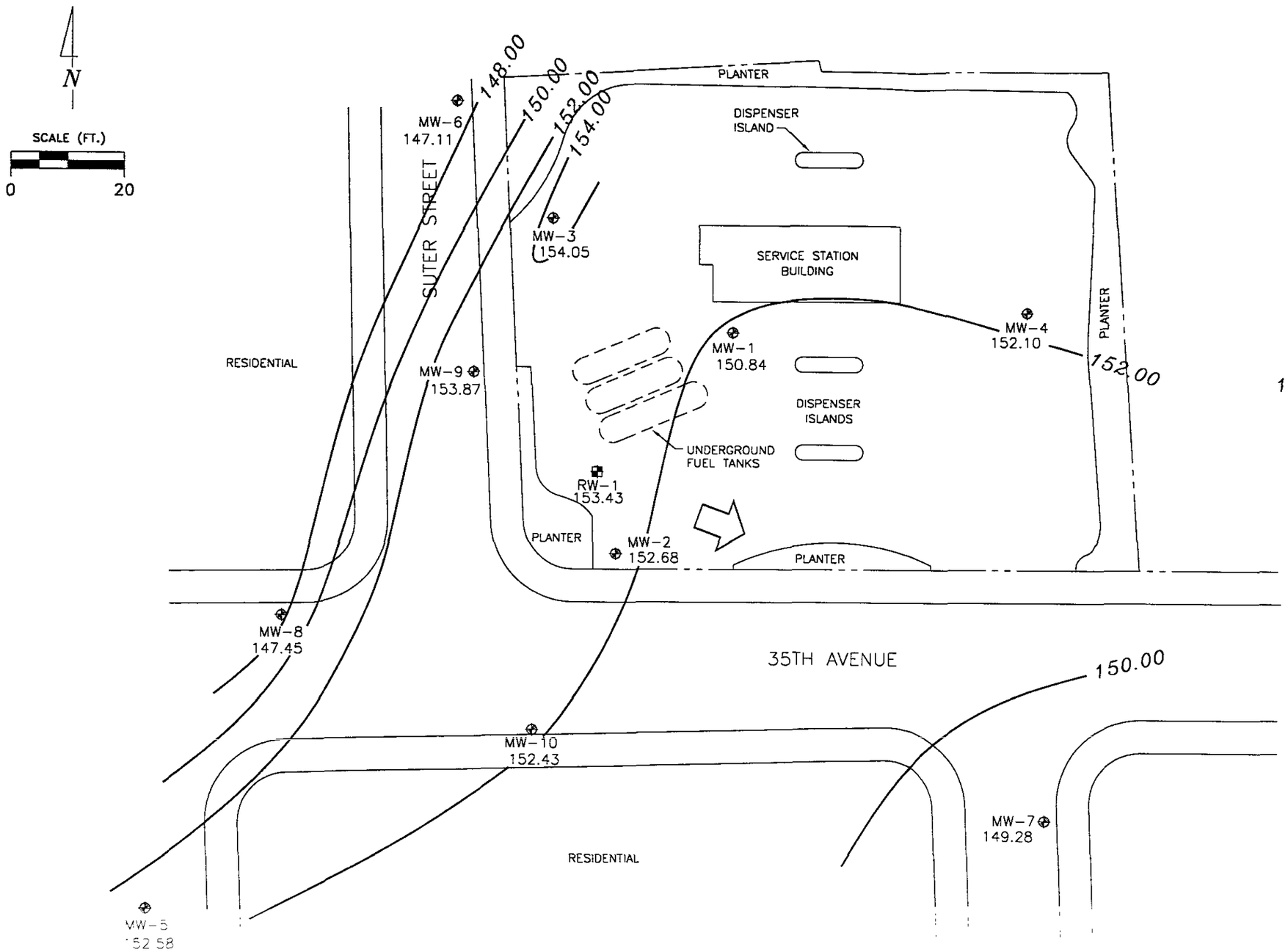
Yours truly,

Francis Thie
Vice President

FPT/ld

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

Professional Engineering Appendix



EXPLANATION

- GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- 149.28 GROUNDWATER ELEVATION (FT, MSL)
- 150.00 GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.3

REGISTERED GEOLOGIST
STEVEN E. KRCIK
No. 4976
09/00
STATE OF CALIFORNIA

Ref: 11328m.dwg
Basemap from Alisto Engineering Group

PREPARED BY
RRM
engineering contracting firm

GROUNDWATER ELEVATION CONTOUR MAP,
FEBRUARY 2, 1999

BP Oil Service Station No. 11132
3201 35th Street
Oakland, California

FIGURE:
1

PROJECT:
DAC04

N

SCALE (FT.)

0 20

MW-6
NA

SUTER STREET

PLANTER

MW-1	
B	480
T	3100
E	3500
X	21000
TPHg	79000
MTBE	3500

DISPENSER ISLAND

MW-3

MW-3	
B	<5.0
T	<5.0
E	<5.0
X	<5.0
TPHg	<250
MTBE	<5.0

SERVICE STATION BUILDING

MW-1

MW-4

MW-4	
B	<1.0
T	<1.0
E	<1.0
X	<1.0
TPHg	70
MTBE	130

PLANTER

RESIDENTIAL

MW-9

MW-9	
B	530
T	960
E	1900
X	17000
TPHg	75000
MTBE	<50

DISPENSER ISLANDS

UNDERGROUND FUEL TANKS

RW-1

RW-1	
B	2300
T	120
E	2000
X	3200
TPHg	82000
MTBE	51000
MTBE*	78000

PLANTER

MW-2

PLANTER

MW-2	
B	3500
T	1500
E	5200
X	34000
TPHg	170000
MTBE	<500

35TH AVENUE

MW-8

MW-8	
B	450
T	2200
E	3700
X	26000
TPHg	82000
MTBE	<500

MW-10

MW-10	
B	1000
T	2800
E	1000
X	26000
TPHg	74000
MTBE	860

RESIDENTIAL

MW-7
NA

MW-5

MW-5	
B	<1.0
T	<1.0
E	<1.0
X	<1.0
TPHg	100
MTBE	9

EXPLANATION

- GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL

TPHg TOTAL PETROLEUM HYDROCARBON CALCULATED AS GASOLINE IN PARTS PER BILLION (ppb)
B BENZENE, ppb
T TOLUENE, ppb
E ETHYLBENZENE, ppb
X XYLENE, ppb
MTBE METHYL-TERT-BUTYL-ETHER, ppb
MTBE* MTBE BY 8260

NA DATA NOT AVAILABLE

Ref: 1329ex.dwg
Basemap from Alisto Engineering Group

PREPARED BY
RRM
engineering contracting firm

HYDROCARBON CONCENTRATION MAP,
FEBRUARY 2, 1999

BP Oil Service Station No 11132
3201 35th Street
Oakland, California

FIGURE:
2
PROJECT:
DAC04

Table of
Well Data and
Analytical Results

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-1	07/09/90	169.75	---	0.22	---	---	---	---	---	---	---	---	---
MW-1	12/21/90	169.75	---	0.58	---	---	---	---	---	---	---	---	---
MW-1	03/07/91	169.75	20.59	---	---	---	---	---	---	---	---	---	---
MW-1	06/27/91	169.75	---	0.18	---	---	---	---	---	---	---	---	---
MW-1	09/27/91	169.75	---	0.27	---	---	---	---	---	---	---	---	---
MW-1	12/18/91	169.75	---	0.28	---	---	---	---	---	---	---	---	---
MW-1	04/01/91	169.75	16 51	0.15	153.35	---	---	---	---	---	---	---	---
MW-1	07/03/92	169.75	22.30	0.27	147.65	---	---	---	---	---	---	---	---
MW-1	10/05/92	169.75	23.98	0.24	145 95	---	---	---	---	---	---	---	---
MW-1	01/13/93	169.75	17.03	0.24	152.90	---	---	---	---	---	---	---	---
MW-1	04/23/93	169 75	18.10	0 42	151.97	---	---	---	---	---	---	---	---
MW-1	07/12/93	169.75	22.02	0.49	148 10	---	---	---	---	---	---	---	---
MW-1	10/21/93	169 75	25.12	1 09	145.45	---	---	---	---	---	---	---	---
MW-1	01/21/94	169 75	23.02	0.76	147 30	---	---	---	---	---	---	---	---
MW-1	04/20/94	169.75	24.54	1.8	146.56	---	---	---	---	---	---	---	---
MW-1	08/01/94	169.75	24.11	0.35	145 90	---	---	---	---	---	---	---	---
MW-1	12/23/94	169.75	18.19	0.29	151 78	---	---	---	---	---	---	---	---
MW-1	01/26/95	169 75	16.25	1 1	154.33	---	---	---	---	---	---	---	---
MW-1	06/08/95	169.75	22.92	1.2	147 73	---	---	---	---	---	---	---	---
MW-1	08/22/95	169.75	24.45	0.85	145.94	---	---	---	---	---	---	---	---
MW-1	10/27/95	169.75	25.41	0.69	144.86	---	---	---	---	---	---	---	---
MW-1	01/25/96	169.75	18.20	1 4	152.60	---	---	---	---	---	---	---	---
MW-1	04/19/96	169.75	19 06	1.22	151.61	---	---	---	---	---	---	---	---
MW-1	07/23/96	169 75	22 98	0.89	147.44	---	---	---	---	---	---	---	---
MW-1	11/11/96	169 75	23.99	0.98	146.50	---	---	---	---	---	---	---	---
MW-1	01/21/97	169.75	16 80	0.9	153.63	---	---	---	---	---	---	---	---
MW-1	04/29/97	169 75	21.90	0.85	148.49	---	---	---	---	---	---	---	---
MW-1	04/30/97	169.75	---	---	---	100000	3600	8000	4000	21300	7700	5.2	SPL
QC-1 (c)	04/30/97	---	---	---	---	92000	3500	8100	4400	23800	6900	---	SPL
MW-1	08/21/97	169 75	23.40	0.87	147.00	140000	3000	8500	3900	22100	5700	5.3	SPL
QC-1 (c)	08/21/97	---	---	---	---	120000	3200	8100	3800	19600	5200	---	SPL
MW-1	11/05/97	169 75	23.70	0 54	146.46	68000	6200	4400	3300	14300	8000	4.7	SPL
QC-1 (c)	11/05/97	---	---	---	---	88000	7300	4800	3600	16900	8200	---	SPL
MW-1	02/03/98	169 75	13.63	0.32	156.36	---	---	---	---	---	---	---	---
MW-1	02/04/98	---	---	---	---	190000	2200	10000	5600	32000	ND<10000	5.3	SPL
QC-1 (c)	02/04/98	---	---	---	---	160000	2300	8400	5000	29400	ND<10000	---	SPL
MW-1	05/28/98	169.75	18 03	0.17	151.85	87000	980	3900	3600	19000	2900	3.8	SPL
MW-1	12/30/98	169.75	19 50	0.08	150.31	70000	530	3200	2900	16000	3600	---	SPL
MW-1	02/02/99	169 75	18 93	0.03	150.84	79000	480	3100	3500	21000	3500	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-2	07/09/90	168.14	---	0.1	---	---	---	---	---	---	---	---	---
MW-2	12/21/90	168.14	---	0.48	---	---	---	---	---	---	---	---	---
MW-2	03/07/91	168.14	19.18	---	---	---	---	---	---	---	---	---	---
MW-2	06/27/91	168 14	---	0.19	---	---	---	---	---	---	---	---	---
MW-2	09/27/91	168 14	---	0.15	---	---	---	---	---	---	---	---	---
MW-2	12/18/91	168.14	---	0.36	---	---	---	---	---	---	---	---	---
MW-2	04/01/91	168 14	15.21	0.1	153.01	---	---	---	---	---	---	---	---
MW-2	07/03/92	168.14	20.93	0.03	147.23	---	---	---	---	---	---	---	---
MW-2	10/05/92	168.14	22.74	0.21	145.56	---	---	---	---	---	---	---	---
MW-2	01/13/93	168 14	15 55	0.02	152 61	---	---	---	---	---	---	---	---
MW-2	04/23/93	168 14	16.54	0.21	151.76	---	---	---	---	---	---	---	---
MW-2	07/12/93	168 14	20.46	0.06	147.73	---	---	---	---	---	---	---	---
MW-2	10/21/93	168 14	24.91	0.31	143 46	---	---	---	---	---	---	---	---
MW-2	01/21/94	168 14	21 20	---	146.94	---	---	---	---	---	---	---	---
MW-2	04/20/94	168.14	22.44	---	145 70	1800	140	370	54	290	1.7	1.7	PACE
MW-2	08/01/94	168.14	22.24	0.04	145.93	---	---	---	---	---	---	---	---
MW-2	12/23/94	168.14	16.25	0.03	151 91	---	---	---	---	---	---	---	---
MW-2	01/26/95	168 14	14.55	0.39	153.88	---	---	---	---	---	---	---	---
MW-2	06/08/95	168.14	21.18	0.43	147.28	---	---	---	---	---	---	---	---
MW-2	08/22/95	168.14	22.76	0.36	145.65	---	---	---	---	---	---	---	---
MW-2	10/27/95	168.14	23.61	0.3	144.76	---	---	---	---	---	---	---	---
MW-2	01/25/96	168.14	15.95	0.15	152.30	---	---	---	---	---	---	---	---
MW-2	04/19/96	168.14	17.33	0.07	150.86	---	---	---	---	---	---	---	---
MW-2	07/23/96	168.14	21.25	0.05	146.93	---	---	---	---	---	---	---	---
MW-2	11/11/96	168.14	22.27	0.01	145.88	---	---	---	---	---	---	---	---
MW-2	01/21/97	168.14	15.19	0.01	152.96	---	---	---	---	---	---	---	---
MW-2	04/29/97	168 14	20.22	0.01	147.93	---	---	---	---	---	---	---	---
MW-2	04/30/97	168 14	---	---	---	130000	4600	15000	6000	37000	ND<5000	5.0	SPL
MW-2	08/21/97	168 14	21 74	0 01	146.41	110000	6000	16000	4700	28000	ND<500	4.6	SPL
MW-2	11/05/97	168 14	21 61	0 01	146.54	120000	7800	18000	4900	28100	ND<2500	4.6	SPL
MW-2	02/03/98	168 14	11.51	---	156.63	75000	590	1500	1800	12800	ND<2500	4.5	SPL
MW-2	05/28/98	168 14	16.51	---	151.63	79000	3900	3100	3100	18000	900	4.3	SPL
MW-2	12/30/98	168 14	17.70	---	150.44	95000	4700	3500	3700	21000	ND<250	---	SPL
MW-2	02/02/99	168 14	15.46	---	152.68	170000	3500	1500	5200	34000	ND<500	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-3	07/09/90	167.17	---	---	---	140	5.3	4.6	2.0	3.8	---	---	---
MW-3	12/21/90	167.17	---	---	---	0.19	100	6.0	0.9	27	---	---	---
MW-3	03/07/91	167.17	17.40	---	149.77	0.4	69	22	6.1	57	---	---	---
MW-3	06/27/91	167.17	---	---	---	380	28	26	13	46	---	---	---
MW-3	09/27/91	167.17	---	---	---	0.07	7.9	ND	0.4	1.1	---	---	---
MW-3	12/18/91	167.17	---	---	---	0.26	34	24	0.8	28	---	---	---
MW-3	04/01/91	167 17	13.69	---	153.48	ND	ND	ND	ND	ND	---	---	---
MW-3	07/03/92	167.17	19.59	---	147.58	71	9.4	0.9	5.0	13	---	---	ANA
MW-3	10/05/92	167.17	21.22	---	145.95	67	5.1	1.1	6.1	8.1	---	---	ANA
QC-1 (c)	10/05/92	---	---	---	---	ND<50	2.2	ND<0.5	1.5	2.8	---	---	ANA
MW-3	01/13/93	167.17	13.63	---	153.54	830	50	34	42	89	---	---	PACE
MW-3	04/23/93	167.17	15.02	---	152.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-1 (c)	04/23/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-3	07/12/93	167.17	19.16	---	148.01	250	12	4.2	12	16	---	---	PACE
MW-3	10/21/93	167 17	21.81	---	145.36	52	4.4	1.4	4.7	3.3	---	---	PACE
QC-1 (c)	10/21/93	---	---	---	---	65	7.4	1.0	6.9	4.2	---	---	PACE
MW-3	01/21/94	167 17	19.94	---	147.23	57	3.0	3.4	3.6	9.0	---	---	PACE
MW-3	04/20/94	167 17	20.24	---	146.93	600	26	23	33	88	---	1.8	PACE
MW-3	08/01/94	167 17	20.74	---	146.43	99	6.2	1.1	4.5	5.2	---	1.4	PACE
QC-1 (c)	08/01/94	---	---	---	---	120	7.7	1.6	5.9	6.7	---	---	PACE
MW-3	12/23/94	167 17	14.70	---	152.47	ND<50	ND<0.5	0.78	ND<0.5	ND<0.5	---	1.7	PACE
QC-1 (c)	12/23/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-3	01/26/95	167 17	12.89	---	154.28	190	16	0.5	35	24	---	6.6	ATI
MW-3	06/08/95	167.17	19 95	---	147.22	330	21	4.0	34	32	---	7.0	ATI
MW-3	08/22/95	167.17	21 41	---	145.76	150	14	ND<0.50	ND<0.50	1.6	ND<5.0 (d)	6.6	ATI
MW-3	10/27/95	167.17	22.43	---	144.74	---	---	---	---	---	---	---	---
MW-3	10/30/95	167.17	---	---	---	51	2.4	ND<0.50	ND<0.50	ND<1.0	ND<5.0	6.9	ATI
MW-3	01/25/96	167.17	14.03	---	153.14	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	5.1	---	CEI
MW-3	04/19/96	167.17	15.26	---	151.91	460	55	4	33	63	ND<10	9.4	SPL
MW-3	07/23/96	167.17	19.19	---	147.98	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	ND<10	9.2	SPL
MW-3	11/11/96	167.17	20.24	---	146.93	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	8.4	SPL
MW-3	01/21/97	167.17	13.09	---	154.08	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.4	SPL
MW-3	04/29/97	167.17	18.14	---	149.03	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.3	SPL
MW-3	08/21/97	167 17	19 64	---	147.53	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.9	SPL
MW-3	11/05/97	167 17	19.95	---	147.22	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.5	SPL
MW-3	02/03/98	167 17	10 57	---	156.60	ND<50	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<10	4.7	SPL
MW-3	05/28/98	167 17	14.65	---	152.52	330	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.2	SPL
MW-3	12/30/98	167 17	16.63	---	150.54	---	---	---	---	---	---	---	---
MW-3	02/02/99	167 17	13.12	---	154.05	<250	<5.0	<5.0	<5.0	<5.0	<5.0	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		DO (ppm)	LAB
MW-4	07/09/90	170.36	---	---	---	ND	ND	ND	ND	ND	---		---	---
MW-4	12/21/90	170.36	---	---	---	ND	ND	ND	ND	0.8	---		---	---
MW-4	03/07/91	170.36	20 72	---	149.64	ND	2.2	3.8	1.5	2.8	---		---	---
MW-4	06/27/91	170.36	---	---	---	ND	6.3	1.8	0.4	1.0	---		---	---
MW-4	09/27/91	170 36	---	---	---	ND	ND	ND	ND	ND	---		---	---
MW-4	12/18/91	170 36	---	---	---	ND	ND	ND	ND	ND	---		---	---
MW-4	04/01/91	170.36	17.49	---	152.87	ND	ND	ND	ND	ND	---		---	---
MW-4	07/03/92	170.36	22.16	---	148.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	ANA
MW-4	10/05/92	170 36	23.38	---	146.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	ANA
MW-4	01/13/93	170 36	17.58	---	152.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
MW-4	04/23/93	170 36	15.72	---	154.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
MW-4	07/12/93	170.36	21.74	---	148.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
MW-4	10/21/93	170.36	23.84	---	146.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
MW-4	01/21/94	170.36	22.42	---	147.94	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<0.5	---		---	PACE
MW-4	04/20/94	170.36	22 66	---	147.70	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	---		2.2	PACE
MW-4	08/01/94	170.36	23.01	---	147 35	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		1.9	PACE
MW-4	12/23/94	170.36	17 03	---	153.33	---	---	---	---	---	---		---	---
MW-4	01/26/95	170 36	17.42	---	152.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---		7.5	ATI
MW-4	06/08/95	170 36	21 55	---	148.81	---	---	---	---	---	---		---	---
MW-4	08/22/95	170.36	23.47	---	146.89	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	(d)	6.4	ATI
MW-4	10/27/95	170 36	24.50	---	145.86	---	---	---	---	---	---		---	---
MW-4	01/25/96	170.36	18.74	---	151.62	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	58		---	CEI
MW-4	04/19/96	170.36	18.63	---	151.73	---	---	---	---	---	---		---	---
MW-4	07/23/96	170.36	22.56	---	147.80	---	---	---	---	---	---		---	---
MW-4	11/11/96	170.36	23 63	---	146.73	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	34		8.2	SPL
MW-4	01/21/97	170.36	16 59	---	153.77	---	---	---	---	---	---		---	---
MW-4	04/29/97	170.36	21 43	---	148.93	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		4.7	SPL
MW-4	08/21/97	170 36	22.91	---	147.45	---	---	---	---	---	---		---	---
MW-4	11/05/97	170 36	22.34	---	148.02	60	ND<0.5	ND<1.0	ND<1.0	ND<1.0	76		4.9	SPL
MW-4	02/03/98	170.36	12.26	---	158.10	---	---	---	---	---	---		---	SPL
MW-4	05/28/98	170.36	18.50	---	151.86	70	ND<0.5	ND<1.0	ND<1.0	ND<1.0	160		4.2	SPL
MW-4	12/30/98	170.36	19.69	---	150.67	---	---	---	---	---	---		---	---
MW-4	02/02/99	170.36	18.26	---	152.10	70	<1.0	<1.0	<1.0	<1.0	130		---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-5	07/09/90	165.14	---	---	---	280	200	210	46	290	---	---	---
MW-5	12/21/90	165.14	---	---	---	0.69	300	34	8.4	39	---	---	---
MW-5	03/07/91	165.14	16.60	---	148.54	ND	17	0.9	0.7	1.6	---	---	---
MW-5	06/27/91	165.14	---	---	---	330	120	10	12	8	---	---	---
MW-5	09/27/91	165.14	---	---	---	0.73	230	16	20	22	---	---	---
MW-5	12/18/91	165.14	---	---	---	ND	ND	ND	ND	ND	---	---	---
MW-5	04/01/91	165.14	11.99	---	153.15	800	250	54	11	60	---	---	---
MW-5	07/03/92	165.14	18.65	---	146.49	150	36	ND<0.5	ND<0.5	1.1	---	---	ANA
MW-5	10/05/92	165.14	20.32	---	144.82	270	79	4	1.7	2.9	---	---	ANA
MW-5	01/13/93	165.14	13.03	---	152.11	180	59	6.0	1.8	7.6	---	---	PACE
MW-5	04/23/93	165.14	13 51	---	151.63	8700	440	96	35	136	---	---	PACE
MW-5	07/12/93	165.14	18 06	---	147.08	250	57	2.9	2.1	6.0	---	---	PACE
MW-5	10/21/93	165 14	20.41	---	144.73	210	82	1.5	ND<0.5	1.4	---	---	PACE
MW-5	01/21/94	165.14	18.86	---	146.28	110	36	1.2	ND<0.5	0.7	---	---	PACE
MW-5	04/20/94	165 14	17.30	---	147.84	690	230	4.5	1.6	11	---	1.3	PACE
MW-5	08/01/94	165.14	17 53	---	147.61	170	44	1.6	0.9	2.7	---	0.9	PACE
MW-5	12/23/94	165.14	11.63	---	153.51	630	180	1.9	0.66	1.9	---	1.4	PACE
MW-5	01/26/95	165.14	11.25	---	153.89	160	68	ND<0.5	ND<0.5	22	---	5.9	ATI
MW-5	06/08/95	165.14	16.80	---	148.34	2000	630	58	61	180	---	6.5	ATI
QC-1 (c)	06/08/95	---	---	---	---	1700	560	51	55	170	---	---	ATI
MW-5	08/22/95	165.14	19.02	---	146.12	3700	1100	18	27	59	ND<130 (d)	7.3	ATI
MW-5	10/27/95	165.14	20 94	---	144.20	---	---	---	---	---	---	---	---
MW-5	10/30/95	165.14	---	---	---	6500	2200	55	180	270	ND<250	7.5	ATI
MW-5	01/25/96	165.14	13.30	---	151.84	590	37	0.70	ND<0.50	ND<1.0	ND<5.0	---	CEI
QC-1 (c)	01/25/96	---	---	---	---	540	37	0.66	ND<0.50	ND<1.0	ND<5.0	---	CEI
MW-5	04/19/96	165.14	13.63	---	151.51	1500	470	38	49	210	ND<50	8.1	SPL
MW-5	07/23/96	165.14	17 61	---	147.53	140	4.6	ND<0.5	ND<0.5	ND<0.5	ND<10	8.0	SPL
MW-5	11/11/96	165.14	18.70	---	146.44	140	40	ND<1.0	ND<1.0	ND<1.0	ND<10	7.9	SPL
MW-5	01/21/97	165.14	11.63	---	153.51	730	300	ND<5.0	7.8	26	ND<50	5.0	SPL
MW-5	04/29/97	165.14	16.74	---	148.40	340	530	ND<5.0	ND<5.0	ND<5.0	ND<50	4.8	SPL
MW-5	08/21/97	165.14	18.26	---	146.88	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.9	SPL
MW-5	11/05/97	165.14	18.84	---	146.30	120	13	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
MW-5	02/03/98	165.14	9.49	---	155.65	ND<50	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<10	4.3	SPL
MW-5	05/28/98	165.14	13.57	---	151.57	4900	1500	34	180	311	ND<10	4.1	SPL
MW-5	12/30/98	165.14	14.65	---	150.49	---	---	---	---	---	---	---	---
MW-5	02/02/99	165 14	12.56	---	152.58	100	<1.0	<1 0	<1.0	<1.0	9.1	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-6	07/09/90	165.4	---	---	---	ND	ND	ND	ND	ND	---	---	---
MW-6	12/21/90	165.4	---	---	---	0.17	2.6	7.0	4.9	26	---	---	---
MW-6 (e)	03/07/91	165.4	---	---	---	---	---	---	---	---	---	---	---
MW-6 (e)	06/27/91	165.4	---	---	---	---	---	---	---	---	---	---	---
MW-6 (e)	09/27/91	165.4	---	---	---	---	---	---	---	---	---	---	---
MW-6	12/18/91	165 4	---	---	---	ND	1.3	22	ND	2.7	---	---	---
MW-6	04/01/91	165 4	11 79	---	153.61	ND	ND	ND	ND	ND	---	---	---
MW-6	07/03/92	165 4	17.77	---	147.63	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-6	10/05/92	165 4	19.46	---	145.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-6	01/13/93	165 4	11 34	---	154.06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	04/23/93	165 4	12 92	---	152.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	07/12/93	165 4	17.36	---	148.04	ND<50	ND<0.5	ND<0.5	ND<0.5	0.7	---	---	PACE
MW-6	10/21/93	165.4	19 98	---	145.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	01/21/94	165 4	18 10	---	147.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	04/20/94	165 4	18.68	---	146.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.0	PACE
MW-6	08/01/94	165 4	18 90	---	146.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.5	PACE
MW-6	12/23/94	165 4	12.94	---	152.46	---	---	---	---	---	---	---	---
MW-6	01/26/95	165 4	10.46	---	154.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	7.3	ATI
MW-6	06/08/95	165 4	16.84	---	148.56	---	---	---	---	---	---	---	---
MW-6	08/22/95	165.4	19 48	---	145 92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0 (d)	6.7	ATI
MW-6	10/27/95	165.4	20 39	---	145.01	---	---	---	---	---	---	---	---
MW-6	01/25/96	165 4	12 24	---	153.16	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	9 9	---	CEI
MW-6	04/19/96	165 4	13 90	---	151.50	---	---	---	---	---	---	---	---
MW-6	07/23/96	165 4	17 83	---	147.57	---	---	---	---	---	---	---	---
MW-6	11/11/96	165 4	18 90	---	146.50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	7.7	SPL
MW-6	01/21/97	165 4	11 97	---	153.43	---	---	---	---	---	---	---	---
MW-6	04/29/97	165 4	17 04	---	148.36	ND<50	ND<0.5	ND<1 0	ND<1.0	ND<1.0	ND<10	4 5	SPL
MW-6	08/21/97	165 4	18.58	---	146.82	---	---	---	---	---	---	---	---
MW-6	11/05/97	165 4	19.17	---	146.23	70	ND<0.5	ND<1.0	ND<1.0	ND<1.0	85	4.3	SPL
MW-6	02/03/98	165 4	9.87	---	155.53	---	---	---	---	---	---	---	---
MW-6	05/28/98	165.4	13 38	---	152.02	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1 0	ND<10	3.7	SPL
MW-6	12/30/98	165 4	14.45	---	150.95	---	---	---	---	---	---	---	---
MW-6	02/02/99	165.4	18 29	---	147.11	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-7	07/09/90	167 61	---	---	---	ND	ND	ND	ND	ND	---	---	---
MW-7	12/21/90	167 61	---	---	---	ND	ND	ND	ND	ND	---	---	---
MW-7	03/07/91	167 61	19.04	---	148.57	ND	ND	0.4	0.3	2.4	---	---	---
MW-7	06/27/91	167 61	---	---	---	70	17	4	0.8	2.2	---	---	---
MW-7	09/27/91	167.61	---	---	---	ND	0.4	ND	ND	0.4	---	---	---
MW-7	12/18/91	167.61	---	---	---	ND	0.7	2.9	0.8	3.3	---	---	---
MW-7	04/01/91	167.61	15.18	---	152.43	ND	ND	ND	ND	ND	---	---	---
MW-7	07/03/92	167.61	20.28	---	147.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-7	10/05/92	167.61	21.56	---	146.05	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	---	---	ANA
MW-7	01/13/93	167.61	15.41	---	152.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	04/23/93	167.61	15.84	---	151.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	07/12/93	167.61	19.84	---	147.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	10/21/93	167.61	21.61	---	146.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	01/21/94	167 61	20.49	---	147.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-1 (c)	01/21/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	04/20/94	167 61	20.54	---	147.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.5	PACE
MW-7	08/01/94	167.61	20.99	---	146.62	ND<50	0.7	ND<0.5	ND<0.5	ND<0.5	---	1.9	PACE
MW-7	12/23/94	167.61	15.00	---	152.61	---	---	---	---	---	---	---	---
MW-7	01/26/95	167.61	14.69	---	152.92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	7.0	ATI
MW-7	06/08/95	167.61	19.87	---	147.74	---	---	---	---	---	---	---	---
MW-7	08/22/95	167.61	21.49	---	146.12	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0 (d)	6.4	ATI
MW-7	10/27/95	167.61	22.53	---	145.08	---	---	---	---	---	---	---	---
MW-7	01/25/96	167.61	17.21	---	150.40	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	CEI
MW-7	04/19/96	167 61	17.09	---	150.52	---	---	---	---	---	---	---	---
MW-7	07/23/96	167.61	21.02	---	146.59	---	---	---	---	---	---	---	---
MW-7	11/11/96	167.61	22 03	---	145.58	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	7.8	SPL
MW-7	01/21/97	167.61	15.06	---	152.55	---	---	---	---	---	---	---	---
MW-7	04/29/97	167.61	20.11	---	147.50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
MW-7	08/21/97	167 61	21.59	---	146.02	---	---	---	---	---	---	---	---
MW-7	11/05/97	167 61	20.05	---	147.56	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
MW-7	02/03/98	167.61	9.97	---	157.64	---	---	---	---	---	---	---	SPL
MW-7	05/28/98	167.61	13.52	---	154.09	ND<50	ND<0.5	ND<1 0	ND<1.0	ND<1.0	ND<10	4.3	SPL
MW-7	12/30/98	167.61	18 33	---	149.28	---	---	---	---	---	---	---	---
MW-7	02/02/99	167.61	12.33	---	149.28	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-8	03/07/91	165.74	16 72	---	149.02	2.7	780	450	64	310	---	---	---
MW-8	06/27/91	165.74	---	---	---	12000	3400	1100	240	750	---	---	---
MW-8	09/27/91	165 74	---	---	---	41	5700	5200	1100	4300	---	---	---
MW-8	12/18/91	165 74	---	---	---	3.2	990	150	120	250	---	---	---
MW-8	04/01/91	165.74	12.54	---	153.20	15000	3600	2600	410	1900	---	---	---
MW-8	07/03/92	165.74	18.78	---	146.96	72000	19000	32000	3000	15000	---	---	ANA
MW-8	10/05/92	165.74	20 48	0.01	145.27	---	---	---	---	---	---	---	---
MW-8	01/13/93	165.74	12.87	0.01	152 88	---	---	---	---	---	---	---	---
MW-8	04/23/93	165 74	13.90	SHEEN	151.84	---	---	---	---	---	---	---	---
MW-8	07/12/93	165 74	18.30	SHEEN	147.44	---	---	---	---	---	---	---	---
MW-8	10/21/93	165.74	21.91	0.95	144.54	---	---	---	---	---	---	---	---
MW-8	01/21/94	165.74	19.12	0.03	146.64	---	---	---	---	---	---	---	---
MW-8	04/20/94	165.74	19 28	0.03	146.48	26000	1700	4100	960	4000	---	1.1	PACE
MW-8	08/01/94	165.74	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/23/94	165 74	13.81	0.03	151 95	---	---	---	---	---	---	---	---
MW-8	01/26/95	165 74	---	---	---	---	---	---	---	---	---	---	---
MW-8	06/08/95	165.74	17.82	0.29	148.14	---	---	---	---	---	---	---	---
MW-8	08/22/95	165 74	19.41	0.2	146.48	---	---	---	---	---	---	---	---
MW-8	10/27/95	165.74	20.47	0.14	145.38	---	---	---	---	---	---	---	---
MW-8	01/25/96	165.74	13.35	0.22	152.56	---	---	---	---	---	---	---	---
MW-8	04/19/96	165.74	14 40	0.2	151.49	---	---	---	---	---	---	---	---
MW-8	07/23/96	165.74	18.35	0.14	147.50	---	---	---	---	---	---	---	---
MW-8	11/11/96	165.74	19 41	0 02	146.35	---	---	---	---	---	---	---	---
MW-8	01/21/97	165.74	12 29	0.01	153.46	---	---	---	---	---	---	---	---
MW-8 (e)	04/29/97	165 74	---	---	---	---	---	---	---	---	---	---	---
MW-8	08/21/97	165.74	19 61	---	146.13	240000	1100	9300	4100	31100	ND<1000	5.2	SPL
MW-8	11/05/97	165 74	19 45	0.1	146.37	57000	790	2700	2300	15200	ND<1000	5.0	SPL
MW-8	02/03/98	165 74	9 33	0 03	156.43	---	---	---	---	---	---	---	---
MW-8	02/04/98	---	---	---	---	94000	570	1500	2100	15200	ND<2500	5.5	SPL
MW-8 (e)	05/28/98	165.74	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/30/98	165.74	15 48	0 05	150.30	120000	460	2300	2200	15000	150	---	SPL
MW-8	02/02/99	165.74	18.29	--	147 45	82000	450	2200	3700	26000	ND<500	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-9	03/07/91	166.20	16.79	---	149.41	7.1	220	4	2.4	2400	---	---	---
MW-9	06/27/91	166.20	---	---	---	3600	520	400	85	310	---	---	---
MW-9	09/27/91	166.20	---	---	---	3.2	720	150	50	180	---	---	---
MW-9	12/18/91	166.20	---	---	---	ND	2.5	1.1	0.3	5.8	---	---	---
MW-9	04/01/91	166.20	12.89	---	153.31	12000	2000	2600	360	1600	---	---	---
MW-9	07/03/92	166.20	18.89	---	147.31	5700	17000	840	230	800	---	---	ANA
MW-9	10/05/92	166.20	20.52	---	145.68	1400	440	17	14	100	---	---	ANA
MW-9	01/13/93	166 20	12.92	---	153.28	11000	1200	1700	340	1400	---	---	PACE
QC-1 (c)	01/13/93	---	---	---		11000	1200	1600	330	1300	---	---	PACE
MW-9	04/23/93	166.20	14 08	---	152.12	24000	2800	4500	730	3400	---	---	PACE
MW-9	07/12/93	166 20	18 44	---	147.76	13000	1400	1100	360	1400	---	---	PACE
QC-1 (c)	07/12/93	---	---	---	---	10000	1200	900	310	1200	---	---	PACE
MW-9	10/21/93	166.20	21.81	0.89	145.06	---	---	---	---	---	---	---	---
MW-9	01/21/94	166.20	19.28	---	146.92	---	---	---	---	---	---	---	---
MW-9	04/20/94	166.20	19.72	---	146 48	43000	2800	6800	1300	7900	---	1.7	PACE
QC-1 (c)	04/20/94	---	---	---	---	45000	2700	6800	1200	8200	740 (d)	---	PACE
MW-9	08/01/94	166.20	20.18	0.05	146.06	---	---	---	---	---	---	---	---
MW-9	12/23/94	166.20	14.22	0 02	152 00	---	---	---	---	---	---	---	---
MW-9	01/26/95	166.20	11.85	0 13	154 45	---	---	---	---	---	---	---	---
MW-9	06/08/95	166.20	18.33	0.8	148 47	---	---	---	---	---	---	---	---
MW-9	08/22/95	166.20	19.95	0.01	146.26	---	---	---	---	---	---	---	---
MW-9	10/27/95	166 20	20.88	0.01	145 33	---	---	---	---	---	---	---	---
MW-9	01/25/96	166.20	13.84	0.07	152.41	---	---	---	---	---	---	---	---
MW-9 (e)	04/19/96	166 20	---	---	---	---	---	---	---	---	---	---	---
MW-9	07/23/96	166 20	18 84	0 03	147.38	---	---	---	---	---	---	---	---
MW-9	11/11/96	166.20	19.91	0.01	146.30	---	---	---	---	---	---	---	---
MW-9	01/21/97	166 20	12.93	0.01	153.28	---	---	---	---	---	---	---	---
MW-9	04/29/97	166.20	18 03	SHEEN	148.17	---	---	---	---	---	---	---	---
MW-9	04/30/97	166 20	---	---	---	78000	1900	3600	3100	20600	ND<5000	5.5	SPL
MW-9	08/21/97	166 20	19.56	0.01	146.65	110000	2100	3400	2300	18800	ND<500	5.1	SPL
MW-9	11/05/97	166 20	20.59	0.01	145.62	59000	1400	1700	2200	17000	ND<500	4.5	SPL
MW-9	02/03/98	166 20	10 56	---	155.64	55000	490	1200	1400	10200	ND<1000	4.9	SPL
MW-9	05/28/98	166.20	14.21	0.01	152.00	41000	250	1200	1500	11400	ND<250	3.8	SPL
QC-1 (c)	05/28/98	---	---	---	---	53000	290	830	1400	10500	ND<500	---	SPL
MW-9	12/30/98	166.20	15 61	---	150.59	83000	860	1300	2400	21000	180	---	SPL
MW-9	02/02/99	166.20	12.33	---	153.87	75000	530	960	1900	17000	ND<50	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		DO (ppm)	LAB
MW-10	03/07/91	167.01	18 09	---	148.92	1.6	120	190	32	230	---		---	---
MW-10	06/27/91	167.01	---	---	---	12000	7300	500	150	300	---		---	---
MW-10	09/27/91	167 01	---	---	---	57	12000	7200	1400	4600	---		---	---
MW-10	12/18/91	167 01	---	---	---	5.3	2500	120	36	79	---		---	---
MW-10	04/01/91	167.01	13.92	---	153.09	ND	ND	ND	ND	ND	---		---	---
MW-10	07/03/92	167 01	19.92	---	147.09	8600	5100	1300	180	690	---		---	ANA
MW-10	10/05/92	167 01	21.92	0.19	145.23	---	---	---	---	---	---		---	---
MW-10	01/13/93	167 01	14.43	0.03	152.60	---	---	---	---	---	---		---	---
MW-10	04/23/93	167.01	15.26	0.06	151.80	---	---	---	---	---	---		---	---
MW-10	07/12/93	167.01	19.78	0.45	147.57	---	---	---	---	---	---		---	---
MW-10	10/21/93	167.01	22.90	0.69	144.63	---	---	---	---	---	---		---	---
MW-10	01/21/94	167 01	20.25	0.06	146.81	---	---	---	---	---	---		---	---
MW-10	04/20/94	167.01	20.74	---	146.27	100000	12000	24000	2400	14000	1600	(d)	1.0	PACE
MW-10	08/01/94	167.01	22.00	0.28	145.22	---	---	---	---	---	---		---	---
MW-10	12/23/94	167 01	16 08	0.25	151.12	---	---	---	---	---	---		---	---
MW-10	01/26/95	167 01	13.68	0.8	153.93	---	---	---	---	---	---		---	---
MW-10	06/08/95	167 01	19.08	0.75	148.49	---	---	---	---	---	---		---	---
MW-10	08/22/95	167 01	20.73	0.7	146.81	---	---	---	---	---	---		---	---
MW-10	10/27/95	167 01	21.69	0.63	145.79	---	---	---	---	---	---		---	---
MW-10	01/25/96	167.01	15.05	0.81	152.57	---	---	---	---	---	---		---	---
MW-10	04/19/96	167.01	16.26	0.58	151.19	---	---	---	---	---	---		---	---
MW-10	07/23/96	167.01	20.18	0 62	147 30	---	---	---	---	---	---		---	---
MW-10	11/11/96	167.01	21.20	0.2	145.96	---	---	---	---	---	---		---	---
MW-10	01/21/97	167.01	13 66	0.14	153.46	---	---	---	---	---	---		---	---
MW-10	04/29/97	167.01	18.71	0.21	148.46	---	---	---	---	---	---		---	---
MW-10	04/30/97	167.01	---	---	---	170000	9700	38000	4700	30500	ND<5000		5.6	SPL
MW-10	08/21/97	167.01	20.19	0.14	146.93	170000	9500	35000	4300	27100	ND<5000		5.3	SPL
MW-10	11/05/97	167 01	20.52	0.02	146.51	80000	3800	12000	2700	15700	ND<500		4.4	SPL
MW-10	02/03/98	167 01	10.62	0 01	156.40	---	---	---	---	---	---		---	---
MW-10	02/04/98	---	---	---	---	72000	500	1300	1700	12000	ND<1000		5.1	SPL
MW-10	05/28/98	167.01	15.46	---	151.55	220000	3200	24000	5200	43000	ND<1000		4.8	SPL
MW-10	12/30/98	167.01	16 65	---	150.36	110000	3500	14000	5800	50000	ND<50		---	SPL
MW-10	02/02/99	167 01	14 58	---	152.43	74000	1000	2800	1000	26000	860		---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
RW-1	07/09/90	168.01	---	1.21	---	---	---	---	---	---	---	---	---
RW-1	12/21/90	168.01	---	0.01	---	---	---	---	---	---	---	---	---
RW-1	03/07/91	168.01	17.62	SHEEN	150.39	---	---	---	---	---	---	---	---
RW-1	06/27/91	168 01	---	0.04	---	---	---	---	---	---	---	---	---
RW-1	09/27/91	168 01	---	0.02	---	---	---	---	---	---	---	---	---
RW-1	12/18/91	168 01	---	0.02	---	---	---	---	---	---	---	---	---
RW-1	04/01/91	168.01	14.40	0.11	153.69	---	---	---	---	---	---	---	---
RW-1	07/03/92	168.01	20.66	SHEEN	147.35	---	---	---	---	---	---	---	---
RW-1	10/05/92	168.01	23.34	0 08	144.73	---	---	---	---	---	---	---	---
RW-1	01/13/93	168.01	16.59	0.05	151.46	---	---	---	---	---	---	---	---
RW-1	04/23/93	168.01	16.17	0.18	151.98	---	---	---	---	---	---	---	---
RW-1	07/12/93	168 01	20 18	0.06	147.88	---	---	---	---	---	---	---	---
RW-1	10/21/93	168 01	25.70	0.56	142.73	---	---	---	---	---	---	---	---
RW-1	01/21/94	168 01	21.24	0 4	147 07	---	---	---	---	---	---	---	---
RW-1	04/20/94	168 01	32.20	---	135.81	---	---	---	---	---	---	---	---
RW-1	08/01/94	168 01	21.70	---	146.31	29000	580	950	300	7800	1200 (d)	1.1	PACE
RW-1	12/23/94	168.01	16.02	---	151.99	1300	25	8.6	1.4	69	---	1.8	PACE
RW-1	01/26/95	168 01	13.78	---	154.23	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
QC-1 (c)	01/26/95	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
RW-1	06/08/95	168 01	20.05	---	147.96	1300	130	ND<1.0	ND<1.0	36	---	---	ATI
RW-1	08/22/95	168 01	21.74	---	146.27	3300	230	13	4 9	280	ND<25 (d)	6.6	ATI
QC-1 (c)	08/22/95	---	---	---	---	2800	210	9.3	4.3	250	ND<25 (d)	---	ATI
RW-1	10/27/95	168.01	32.00	---	136.01	---	---	---	---	---	---	---	---
RW-1	10/30/95	168 01	---	---	---	230	1.4	ND<1.0	ND<1.0	ND<2.0	650	6.9	ATI
QC-1 (c)	10/30/95	---	---	---	---	240	1.6	ND<1.0	ND<1.0	ND<2.0	630	---	ATI
RW-1	01/25/96	168.01	15.41	---	152.60	15000	3400	930	330	2500	5300	---	CEI
RW-1	04/19/96	168.01	16.83	---	151.18	35000	5500	3300	1700	9400	14000	7.6	SPL
QC-1 (c)	04/19/96	---	---	---	---	33000	5600	3200	1700	8800	15000	---	SPL
RW-1	07/23/96	168.01	20.76	---	147.25	46000	3600	2300	900	5100	36000	7.4	SPL
QC-1 (c)	07/23/96	---	---	---	---	47000	3700	2500	930	5300	35000	---	SPL
RW-1	11/11/96	168.01	21.73	---	146.28	34000	3000	1200	880	4600	22000	8.3	SPL
QC-1 (c)	11/11/96	---	---	---	---	31000	2900	1000	860	4600	22000	---	SPL
RW-1	01/21/97	168.01	14.20	---	153.81	260	40	16	2.7	34	1500	6.1	SPL
QC-1 (c)	01/21/97	---	---	---	---	270	42	17	2.7	36	1500	---	SPL
RW-1	04/29/97	168.01	19.15	---	148.86	32000	3100	590	1300	6000	46000	5.3	SPL
RW-1	08/21/97	168.01	20.67	---	147.34	7600	730	58	370	1780	9500	4.7	SPL
RW-1	11/05/97	168 01	21.01	---	147.00	39000	2300	86	1300	3840	56000	4.5	SPL
RW-1	02/03/98	168 01	10.68	---	157.33	3400	31	11	29	161	3200	5.1	SPL
RW-1	05/28/98	168 01	15 55	---	152.46	2000	90	15	60	305	2700	4.3	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
RW-1	12/30/98	168.01	17 35	---	150.66	---	---	---	---	---	---	---	---
RW-1	02/02/99	168 01	14.58	---	153.43	82000	2300	120	2000	3200	51000/78000 (g)	---	SPL
QC-2 (f)	10/05/92	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (f)	01/13/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	04/23/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	07/12/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	10/21/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	01/21/94	---	---	---	---	ND<50	ND<0 5	2.1	ND<0.5	2.1	---	---	PACE
QC-2 (f)	04/20/94	---	---	---	---	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	04/20/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	12/23/94	---	---	---	---	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<0 5	---	---	ATI
QC-2 (f)	01/26/95	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
QC-2 (f)	06/08/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0 50	ND<1.0	---	---	ATI
QC-2 (f)	08/22/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0 (d)	---	ATI
QC-2 (f)	10/30/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (f)	01/25/96	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	CEI
QC-2 (f)	04/19/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITERING

ABBREVIATIONS:

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 analyzed/available/applicable/measurable
ND	Not detected above reported detection limit
PACE	Pace, Inc.
ANA	Anametrix, Inc.
ATI	Analytical Technologies, Inc.
CEI	Ceimic Corporation
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) Blind duplicate.

(d) A copy of the documentation for this data is included in Appendix C of Alisto report 10-024-10-001.

(e) Well inaccessible.

(f) Travel blank

(g) EPA Methods 8020/8260 used.

TABLE 2 - PRODUCT REMOVAL STATUS

WELL ID	DATE	PRODUCT THICKNESS (Feet)	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-1	01/26/95	1.1	3.00	3.00
	06/08/95	1.2	0.60	3.60
	06/28/95	---	0.10	3.70
	08/22/95	0.85	0.15	3.85
	10/30/95	0.69	0.11	3.96
	01/25/96	1.4	1.00	4.96
	02/16/95	---	0.08	5.04
	04/19/96	1.22	0.75	5.79
	07/23/96	0.89	0.00	5.79
	11/11/96	0.98	0.98	6.77
	01/21/97	0.9	0.20	6.97
	04/29/97	0.85	0.25	7.22
	08/21/97	0.87	0.15	7.37
	11/05/97	0.54	0.25	7.62
	02/03/98	0.32	0.25	7.87
	05/06/98	0.47	0.25	8.12
	05/13/98	0.1	<0 1	8.12
	05/24/98	0.19	<0.1	8.12
	05/27/98	0.15	<0.1	8.12
	05/28/98	0.17	0.20	8.32
	06/09/98	0.2	0.25	8.57
	06/17/98	0.21	0.10	8.67
	06/22/98	0.15	0.25	8.92
	07/02/98	0.15	0.10	8.42
	07/09/98	0.2	0.10	8.67
	07/14/98	0.11	<0.1	8.67
	07/30/98	0.1	<0.1	8.67
	12/30/98	0.08	0.02	8.69
	02/02/99	0.03	0.01	8.70

TABLE 2 - PRODUCT REMOVAL STATUS

WELL ID	DATE	PRODUCT THICKNESS (Feet)	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-2	09/29/93	---	0.10	0.10
	10/05/93	---	0.10	0.20
	10/14/93	---	0.10	0.30
	10/20/93	0.31	0.25	0.55
	11/02/93	---	0.10	0.65
	12/07/93	---	0.05	0.70
	12/17/93	---	<0.01	0.70
	12/23/93	---	0.30	1.00
	01/12/94	---	0.05	1.05
	02/02/94	---	0.01	1.06
	02/11/94	---	0.01	1.07
	03/18/94	---	<0.01	1.07
	08/01/94	0.04	---	1.07
	10/26/94	---	0.10	1.17
	11/12/94	---	0.10	1.27
	12/12/94	---	0.03	1.30
	12/23/94	0.03	---	1.30
	01/26/95	0.39	0.20	1.50
	06/08/95	0.43	<0.10	1.50
	06/28/95	---	0.05	1.55
	08/22/95	0.36	0.10	1.65
	10/30/95	0.3	0.05	1.70
	01/25/96	0.15	<0.10	1.70
	02/16/95	---	<0.10	1.70
	04/19/96	0.07	<0.10	1.70
	07/23/96	0.05	<0.10	1.70
	11/11/96	0.01	<0.10	1.70
	01/21/97	0.01	<0.10	1.70
	04/29/97	0.01	<0.10	1.70
	08/21/98	0.01	<0.10	1.70
	11/05/97	0.01	<0.10	1.70
	02/03/98	0.00	<0.10	1.70
	05/28/98	Globules	<0.10	1.70
	12/30/98	---	---	1.70
	02/02/99	---	---	1.70

TABLE 2 - PRODUCT REMOVAL STATUS

WELL ID	DATE	PRODUCT THICKNESS (Feet)	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-8				
	07/12/93	Iridescence	---	---
	10/21/93	0.95	---	---
	11/02/93	---	0.25	0.25
	11/10/93	---	0.10	0.35
	11/16/93	---	0.10	0.45
	11/23/93	---	0.10	0.55
	11/30/93	---	0.10	0.65
	12/17/93	---	<0.10	0.65
	12/23/93	---	<0.10	0.65
	01/12/94	---	<0.10	0.65
	01/21/94	0.03	---	0.65
	02/02/94	---	0.05	0.70
	02/11/94	---	0.08	0.78
	02/18/94	---	0.10	0.88
	03/18/94	---	<0.10	0.88
	04/20/94	0.03	---	0.88
	04/27/94	---	0.10	0.98
	05/27/94	---	0.10	1.08
	10/26/94	---	0.10	1.18
	11/12/94	---	<0.10	1.18
	12/12/94	---	<0.10	1.18
	12/23/94	0.03	<0.10	1 18
	06/08/95	0.29	0.10	1.28
	08/22/95	0.2	0.05	1.33
	10/27/95	0.14	<0.10	1.33
	10/30/95	---	0.02	1.35
	01/25/96	0.22	0.05	1.4
	02/16/95	---	0.1	1.5
	04/19/96	0.2	0.25	1.75
	07/23/96	0.14	<0.10	1.75
	11/11/96	0.02	<0.10	1.75
	01/21/97	0.01	<0 10	1.75
	08/21/97	Iridescence	---	1.75
	11/05/97	0.1	0.10	1.85
	02/03/98	0.03	<0.10	1.85
	05/06/98	0.05	<0.10	1.85
	05/28/98	(a)	---	1.85
	12/30/98	0.05	0.01	1.86
	02/02/99	---	---	1.86

TABLE 2 - PRODUCT REMOVAL STATUS

WELL ID	DATE	PRODUCT THICKNESS (Feet)	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-9	10/21/93	0.89	---	---
	11/02/93	---	0.10	0.10
	11/10/93	---	0.10	0.20
	11/16/93	---	0.10	0.30
	12/23/93	---	0.10	0.40
	01/12/94	---	<0.10	0.40
	01/20/93	---	0.05	0.45
	02/02/94	---	0.05	0.50
	02/11/94	---	<0.10	0.50
	02/18/94	---	0.10	0.60
	03/18/94	---	0.10	0.70
	08/01/94	0.05	---	0.70
	10/26/94	---	0.15	0.85
	11/12/94	---	0.10	0.95
	12/12/94	---	0.10	1.05
	12/23/94	0.02	---	1.05
	01/26/95	---	0.10	1.05
	06/28/95	---	0.10	1.15
	08/22/95	---	0.10	1.25
	10/30/95	---	0.10	1.35
	01/25/96	0.13	0.10	1.45
	02/16/95	---	0.10	1.55
	06/08/95	0.8	---	1.55
	08/22/95	0.01	---	1.55
	10/27/95	0.01	---	1.55
	01/25/96	0.07	---	1.55
	04/19/96	(a)	---	1.55
	07/23/96	0.03	<0.10	1.55
	11/11/96	0.01	<0.10	1.55
	01/21/97	0.01	<0.10	1.55
	04/29/97	Iridescence	<0.10	1.55
	08/27/97	0.01	---	1.55
	11/05/97	0.01	0.10	1.65
	02/03/98	---	<0.10	1 65
	05/13/98	0.02	<0.10	1.65
	05/24/98	0.01	<0.10	1 65
	05/27/98	0.01	<0 10	1.65
	05/28/98	0.01	<0.10	1 65
	06/09/98	0.01	<0 10	1.65
	06/17/98	0.01	<0.10	1.65
	06/22/98	0.01	<0.10	1.65
	07/02/98	0.01	<0.10	1 65
	07/09/98	0.01	<0.10	1 65
	07/14/98	0.01	<0.10	1.65
	12/30/98	---	---	1.65
	02/02/99	---	---	1.65

TABLE 2 - PRODUCT REMOVAL STATUS

WELL ID	DATE	PRODUCT THICKNESS (Feet)	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-10	09/07/93	—	0.10	0.10
	09/14/93	—	0.10	0.20
	09/29/93	—	0.10	0.30
	10/05/93	—	1.60	1.90
	10/14/93	—	2.10	4.00
	10/20/93	—	1.00	5.00
	10/21/93	0.69	—	5.00
	10/27/93	—	1.00	6.00
	11/02/93	—	0.30	6.30
	11/10/93	—	0.20	6.50
	11/16/93	—	0.10	6.60
	11/23/93	—	0.10	6.70
	11/30/93	—	0.30	7 00
	12/07/93	—	0.20	7.20
	12/17/93	—	0.30	7.50
	12/23/93	—	<0.10	7 50
	01/04/94	—	<0.10	7.50
	01/12/94	—	0.10	7.60
	01/20/94	—	0.20	7 80
	01/21/94	0.06	—	7.80
	02/02/94	—	0.10	7.90
	02/11/94	—	0.10	8.00
	02/18/94	—	0.20	8.20
	05/27/94	—	<0.10	8.20
	08/01/94	0.28	—	8.20
	10/26/94	—	0.60	8.80
	11/12/94	—	0.40	9.20
	12/12/94	—	0.20	9.40
	12/23/94	0.25	—	9.40
	01/26/95	0.8	0.10	9.50
	06/08/95	0.75	—	9.50
	06/28/95	—	0.10	9.60
	08/22/95	0.7	0.15	9.75
	10/27/95	0.63	—	9.75
	10/30/95	—	0.10	9.85
	01/25/96	0.81	0.25	10.10
	02/16/95	—	0.10	10.20
	04/19/96	—	0.50	10.70
	07/23/96	0.62	<0.10	10.70
	11/11/96	0.2	0.20	10.90
	01/21/97	0 14	<0 03	10 90
	04/29/97	0.21	0.04	10.94
	08/21/97	0 14	—	10 94
	11/05/97	0.02	<0.10	10.94
	02/03/98	0.1	<0.10	10 94
	05/06/98	0 02	<0.10	10.94
	05/13/98	Sheen	<0.10	10.94
	05/28/98	Globules	<0.10	10 94
	12/30/98	—	<0 10	10.94
	02/02/99	—	—	10.94

TABLE 2 - PRODUCT REMOVAL STATUS

NOTE:
(a) Well inaccessible.

Analytical Appendix

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

February 18, 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 February 9, 1999 The sample(s) was assigned to Certificate of Analysis No. (s) 9902394 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: 99-02-394

Approved for Release by:

Sonia West
Sonia West, Senior Project Manager

2-18-99
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. H9-9902394-01

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: A

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 13:13:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	5.0 P	ug/L
BENZENE	ND	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	100		
Method 8020A ***			
Analyzed by: WR			
Date: 02/11/99			
Gasoline Range Organics	ND	0.250 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	113		
4-Bromofluorobenzene	87		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/11/99 23:38:00			

ND - Not detected. (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. H9-9902394-02

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: B

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 13:37:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	130	1.0 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
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	90		
Method 8020A ***			
Analyzed by: WR			
Date: 02/11/99			
Gasoline Range Organics	0.070	0.050 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	97		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/11/99 22:25:00			

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

Certificate of Analysis No. H9-9902394-03

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: C

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 14:17:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	51000	250 P	ug/L
BENZENE	2300	50 P	ug/L
TOLUENE	120	50 P	ug/L
ETHYLBENZENE	2000	50 P	ug/L
TOTAL XYLENE	3200	50 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	7620		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	101		
4-Bromofluorobenzene	97		
Method 8020A ***			
Analyzed by: WR			
Date: 02/12/99			
Gasoline Range Organics	82	2.50 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	160MI		
4-Bromofluorobenzene	113		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/12/99 00:16:00			
MTBE	78000	4000 P	ug/L
Surrogate	**% Recovery**		
1,2-Dichloroethane-d4	92		
Toluene-d8	108		

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

Certificate of Analysis No. H9-9902394-03

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: C

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 14:17:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
4-Bromofluorobenzene	100		
Method 8260B ***			
Analyzed by: GT			
Date: 02/12/99			

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

Certificate of Analysis No. H9-9902394-04

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: D

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 14:40:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	9.1	1.0 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
Surrogate	**% Recovery**		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	97		
Method 8020A ***			
Analyzed by: WR			
Date: 02/11/99			
Gasoline Range Organics	0.10	0.050 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/11/99 23:02:00			

(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

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

Certificate of Analysis No. H9-9902394-05

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: E

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 15:04:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	50 P	ug/L
BENZENE	530	50 P	ug/L
TOLUENE	960	50 P	ug/L
ETHYLBENZENE	1900	50 P	ug/L
TOTAL XYLENE	17000	50 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	20390		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	120		
4-Bromofluorobenzene	113		
Method 8020A ***			
Analyzed by: WR			
Date: 02/12/99			
Gasoline Range Organics	75	2.50 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	133		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/12/99 00:53:00			

ND - Not detected. (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. H9-9902394-06

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

P.O.#
N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: F

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 15:30:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	500 P	ug/L
BENZENE	3500	500 P	ug/L
TOLUENE	1500	500 P	ug/L
ETHYLBENZENE	5200	500 P	ug/L
TOTAL XYLENE	34000	500 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	44200		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	107		
Method 8020A ***			
Analyzed by: WR			
Date: 02/12/99			
Gasoline Range Organics	170	25.0 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	100		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/12/99 01:29:00			

ND - Not detected. (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. H9-9902394-07

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: G

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 15:58:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	3500	500 P	ug/L
BENZENE	480	250 P	ug/L
TOLUENE	3100	500 P	ug/L
ETHYLBENZENE	3500	500 P	ug/L
TOTAL XYLENE	21000	500 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	28080		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	100		
Method 8020A ***			
Analyzed by: WR			
Date: 02/12/99			
Gasoline Range Organics	79	25.0 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	120		
4-Bromofluorobenzene	93		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/12/99 02:05:00			

(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. H9-9902394-08

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: H

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 16:26:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	500 P	ug/L
BENZENE	450	250 P	ug/L
TOLUENE	2200	500 P	ug/L
ETHYLBENZENE	3700	500 P	ug/L
TOTAL XYLENE	26000	500 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	32350		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	113		
4-Bromofluorobenzene	100		
Method 8020A ***			
Analyzed by: WR			
Date: 02/12/99			
Gasoline Range Organics	82	25.0 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	93		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/12/99 02:43:00			

ND - Not detected. (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. H9-9902394-09

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

P.O.# N/A, COC#100594
DATE: 02/17/99

PROJECT: #11132, 3201 35th St
SITE: Oakland, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: I

PROJECT NO: 990202-X2
MATRIX: WATER
DATE SAMPLED: 02/02/99 16:55:00
DATE RECEIVED: 02/09/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	860	50 P	ug/L
BENZENE	1000	50 P	ug/L
TOLUENE	2800	50 P	ug/L
ETHYLBENZENE	1000	50 P	ug/L
TOTAL XYLENE	26000	50 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	30800		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	113		
4-Bromofluorobenzene	107		
Method 8020A ***			
Analyzed by: WR			
Date: 02/12/99			
Gasoline Range Organics	74	2.50 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	120		
California LUFT Manual for Gasoline			
Analyzed by: WR			
Date: 02/12/99 03:22:00			

(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

QUALITY CONTROL

DOCUMENTATION

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Contract:

Lab Code: Case No: 9902277 SAS No: SDG No:

Matrix Spike - EPA Sample No: GWTS-AC2-115W 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	50	0	58	116	61-145
Trichloroethene	50	0	51	102	71-120
Benzene	50	0	54	108	76-127
Toluene	50	0	54	108	76-125
Chlorobenzene	50	0	54	108	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	50	49	98	17 *	14	61-145
Trichloroethene	50	51	102	0	14	71-120
Benzene	50	54	108	0	11	76-127
Toluene	50	55	110	2	13	76-125
Chlorobenzene	50	51	102	6	13	75-130

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

* Values outside of QC limits due to matrix interference

RPD:	1	out of 5 outside limits
Spike Recovery:	0	out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name: Client SDG: m990212
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/m990212.b/m8260aw.m
Misc Info: M043W1//M043CW1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 1,1-Dichloroethene	50	61	122.00	61-145
26 Trichloroethene	50	60	120.00	71-120
22 Benzene	50	61	122.00	76-127
33 Toluene	50	57	114.00	76-125
39 Chlorobenzene	50	55	110.00	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 19 1,2-Dichloroethane	50	50	100.00	80-120
$ 32 Toluene-d8	50	53	106.00	88-110
$ 47 Bromofluorobenzene	50	51	102.00	86-115

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

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VBLK
Batch: M990212113701

Reported on: 02/16/99 11:44
Analyzed on: 02/12/99 15:48
Analyst: GT

METHOD 8260 M043B01

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

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	106	80-120	% Recovery
Toluene-d8	106	88-110	% Recovery
Bromofluorobenzene	92	86-115	% Recovery

Samples in Batch 9902394-03

Notes

ND - Not detected.

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020

Matrix: Aqueous **Batch Id:** VARD990211115600
Units: ug/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
MTBE	ND	50	45	90.0	72 - 128
Benzene	ND	50	43	86.0	61 - 119
Toluene	ND	50	43	86.0	65 - 125
EthylBenzene	ND	50	45	90.0	70 - 118
O Xylene	ND	50	45	90.0	72 - 117
M & P Xylene	ND	100	92	92.0	72 - 116

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
MTBE	130	20	150	NC	140	NC	NC	20	39 - 150
BENZENE	ND	20	19	95.0	18	90.0	5.41	21	32 - 164
TOLUENE	ND	20	19	95.0	18	90.0	5.41	20	38 - 159
ETHYLBENZENE	ND	20	19	95.0	19	95.0	0	19	52 - 142
O XYLENE	ND	20	19	95.0	19	95.0	0	18	53 - 143
M & P XYLENE	ND	40	38	95.0	37	92.5	2.67	17	53 - 144

Analyst: WR
Sequence Date: 02/11/99
SPL ID of sample spiked: 9902394-02A
Sample File ID: D_B2049.TXO
Method Blank File ID:
Blank Spike File ID: D_B2038.TXO
Matrix Spike File ID: D_B2044.TXO
Matrix Spike Duplicate File ID: D_B2045.TXO

* = 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):

9902394-05A	9902394-06A	9902394-07A	9902394-08A
9902394-09A	9902357-01A	9902357-05A	9902357-06A
9902357-07A	9902357-08A	9902416-08A	9902416-21A
9902416-28A	9902394-03A	9902357-09A	9902357-10A
9902394-02A	9902394-04A	9902394-01A	9902394-03A

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

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

Matrix: Aqueous
Units: mg/L
Batch Id: VARD990211160700

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	0.92	92.0	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	0.10	0.90	0.89	87.8	0.84	82.2	6.59	36	36 - 160

Analyst: WR
Sequence Date: 02/11/99
SPL ID of sample spiked: 9902394-04A
Sample File ID: DDB2050.TX0
Method Blank File ID:
Blank Spike File ID: DDB2043.TX0
Matrix Spike File ID: DDB2046.TX0
Matrix Spike Duplicate File ID: DDB2047.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): 9902394-05A 9902394-06A 9902394-07A 9902394-08A 9902394-09A 9902394-02A 9902394-04A 9902394-01A 9902394-03A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

9902394

CHAIN OF CUSTODY

No. 100594

Page 1 of 1

CONSULTANT'S NAME	CONSULTANT'S ADDRESS
Blaine Tech Services	1680 Rodgers Ave, San Jose, CA 95112

BP SITE NUMBER	BP SITE / FACILITY ADDRESS	CONSULTANT PROJECT NUMBER
11132	3201 35th st Oakland, CA	990202-X2

CONSULTANT PROJECT MANGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.

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 804039488588

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL)	PRESERVATIVE LAB SAMPLE #	TPH-G	BTEX	MTBE	MTBE (8260)						COMMENTS
A	2-2-99	13:03	W	3			X	X	X							
B	2-2-99	13:37	W	3			X	X	X							
C	2-2-99	14:17	W	5			X	X	X	X						
D	2-2-99	14:40	W	3			X	X	X							
E	2-2-99	15:04	W	3			X	X	X							
F	2-2-99	15:30	W	3			X	X	X							
G	2-2-99	15:55	W	3			X	X	X							
H	2-2-99	16:26	W	3			X	X	X							
I	2-2-99	16:55	W	3			X	X	X							
				3												

SAMPLED BY (Please Print Name) KEVIN CARLIN

SAMPLED BY (Signature)

ADDITIONAL COMMENTS
C = Conf. MTBE by 8260

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY /AFFILIATION (Print Name / Signature)	DATE	TIME
	2/8/99	1605			
				2/9/99	1000

CI V-16722-A (2/97)
PKG.50

DISTRIBUTION WHITE - ORIGINAL (WITH DATA) YELLOW - BP PINK - LAB BLUE - CONSULTANT FIELD STAFF

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 2/9/99	Time: 1000

SPL Sample ID: 9902394

			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:		6° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #): 804039488588		
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name: Lockrum	Date: 2/9/99

Field
Data
Sheets

WELL GAUGING DATA

Project # 990202-XL Date 2-2-99 Client BP

Site 3201 35th st. 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	odor/sh	18.90	.03	15ml	18.93	44.29	TOC	
mw-2	2					15.46	34.38		
mw-3	2					13.12	34.42		
mw-4	2					18.21	39.45		
mw-5	2					12.56	29.98		
mw-6	2					18.29	39.27		
mw-7	2					12.33	29.28		
mw-8	2					~~14.55~~	~~34.60~~		
mw-9	2					~~14.58~~	~~38.27~~		
mw-10	2					14.58	34.00		
RW-1	6					14.58	38.37		

BP WELL MONITORING DATA SHEET

Project #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 44.29	Depth to Water: 18.93
Depth to Free Product: 18.90	Thickness of Free Product (feet): .03
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	radius² * 0.163

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

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

4.0 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 3 (Calculated Volume) Gals

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
15:40	68.4	7.2	1200	115	4.0	
15:46	68.8	7.0	1000	120	8.0	
15:51	68.8	7.1	1000	129	12.0	
*	Bailed	15 ml	of	Product.		

Did well dewater? Yes (No)		Gallons actually evacuated:	12.0
Sampling Time: 15:58		Sampling Date: 2-2-99	
Sample I.D.: MW-1-G		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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-2	Well Diameter: ② 3 4 6 8 ____
Total Well Depth: 34.38	Depth to Water: 15.46
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	radius² * 0.163

Purge Method: Bailer / Disposable Bailer ✓ / Middleburg / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / Disposable Bailer ✗ / Extraction Port / Other: _____

1 Case Volume (Gals.)	X Specified Volumes	= Calculated Volume
3.0	3	~~12.0~~ 9.0 Gals

Time	Temp (°F)	pH	Cond.	Turbidity	Gals Removed	Observations
15:15	68.2	7.5	1500	7200	3	
15:19	69.4	7.3	1200	7200	6	
15:23	69.6	7.4	1200	7200	9	

Did well dewater? Yes (No)		Gallons actually evacuated:	~~12.0~~ 9.0
Sampling Time: 1530		Sampling Date: 2-2-99	
Sample I.D.: MW-2		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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 34.42	Depth to Water: 13.12
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	radius² * 0.163

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

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

3.4 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 10.2 (Calculated Volume) Gals

Time	Temp (°F)	pH	Cond	Turbidity	Gals Removed	Observations
13:00	67.4	6.9	740	>200	3.5	
13:04	68.0	7.1	720	>200	6.5	
13:08	68.8	7.0	720	>200	10.5	

Did well dewater? Yes (No)	Gallons actually evacuated: 10.5
Sampling Time: 1313	Sampling Date: 2-2-99
Sample I.D.: MW-3A	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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 39.45	Depth to Water: 18.26
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	radius² * 0.163

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

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Other ____

1 Case Volume (Gals.)	X	Specified Volumes	=	Calculated Volume
3.3	X	3	=	9.9 Gals

Time	Temp (°F)	pH	Cond	Turbidity	Gals Removed	Observations
13:20	67.8	7.8	960	7200	3	
13:24	68.4	7.4	890	7200	6	
13:29	68.8	7.2	870	7200	10	

Did well dewater? Yes (No)	Gallons actually evacuated: 10
Sampling Time: 13:37	Sampling Date: 2-2-99
Sample I.D.: MW-4	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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 29.90	Depth to Water: 12.56
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	radius² * 0.163

Purge Method: Bailer / Disposable Bailer (X) / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer / Disposable Bailer (X) / Extraction Port / Other: ___

1 Case Volume (Gals.)	X	Specified Volumes	=	Calculated Volume
2.7	X	3	=	8.1 Gals

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
14:26	64.0	7.6	860	82	2.5	
14:29	64.8	7.4	830	52	5.0	
14:33	65.6	7.4	810	37	8.5	

Did well dewater? Yes (No)		Gallons actually evacuated:	8.5
Sampling Time: 14:40		Sampling Date: 2-2-99	
Sample I.D.: ~~other~~ 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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-8	Well Diameter: ② 3 4 6 8 ____
Total Well Depth: 39.27	Depth to Water: 18.29
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	radius² * 0.163

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

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Other: _____

33	X	3	=	9.9 Gals
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals Removed	Observations
16:10	68.2	7.6	1200	118	3	
16:14	69.0	7.4	1100	74	6	
16:18	69.8	7.4	1000	56	10	

Did well dewater? Yes (No)		Gallons actually evacuated: 9 10	
Sampling Time: 16:26		Sampling Date: 2-2-99	
Sample I.D.: MW-8-H		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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-9	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 29.28	Depth to Water: 12.33
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	radius² * 0.163

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

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

2.7 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 8.1 (Calculated Volume) Gals

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
14:49	65.8	7.4	1100	>200	2.5	
14:53	66.4	7.2	1000	>200	5.0	
14:57	67.0	7.0	1000	>200	8.0	

Did well dewater? Yes (No)		Gallons actually evacuated: 8.5	
Sampling Time: 15:04		Sampling Date: 2-2-99	
Sample I.D.: MW-9 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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 34.00	Depth to Water: 14.55
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	radius² * 0.163

Purge Method: Bailer / Disposable Bailer (X) / Middleburg / Electric Submersible / Extraction Pump / Other: ____

Sampling Method: Bailer / Disposable Bailer (X) / Extraction Port / Other: ____

3.1 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 9.3 Gals (Calculated Volume)

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
16:39	65.4	7.0	1000	72	3.0	
16.43	66.8	6.9	900	57	6.0	
16.47	67.2	6.9	9.00	35	9.5	

Did well dewater? Yes (No)	Gallons actually evacuated: 9.5
Sampling Time: 16.55	Sampling Date: 2-2-99
Sample I.D.: ~~MW-10~~ - I	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 #: 990202-X	Job # 11132
Sampler: K.C	Date: 2-2-99
Well I.D.: ~~MW~~ RW-1	Well Diameter: 2 3 4 (6) 8 ___
Total Well Depth: 38.37	Depth to Water: 14.58
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	radius² * 0.163

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

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

34.9 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 104.7 Gals (Calculated Volume)

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
13:58	68.2	7.3	860	179	35	
14:02	68.8	7.0	800	>200	70	
14:06	69.4	6.9	790	>200	105	

Did well dewater? Yes (NO)		Gallons actually evacuated: 105.0		
Sampling Time: 14:17		Sampling Date: 2-2-99		
Sample I.D.: ~~RW-1~~ C		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