BP OIL

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

April 10, 1999

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

RE: Former BP Oil Site No. 11126
1700 Powell Street (at Christie)
Emeryville, CA

Dear Ms. Hugo:

Enclosed find the 30 March 1999 groundwater monitoring and sampling report prepared on behalf of BP by Blaine Tech Services.

Please note that the MTBE concentrations detected in the groundwater after Tosco's 1994 purchase of the facility represent a release which requires transfer of corrective action activities to Tosco. BP provided notice to Tosco previously, and I expect that future submittals to your department will be made by Tosco. BP has no plans for further activities at this site.

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

Sincerely,

Scott Hooton

attachment

cc: site file

9/22/99

BLAINE
TECH SERVICES inc

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

March 30, 1999

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

4th Quarter 1998 Monitoring at 11126

Fourth Quarter 1998 Groundwater Monitoring
BP Service Station Number 11126
1700 Powell St.
Emeryville, CA

Monitoring Performed on December 30, 1998

Groundwater Sampling Report **981230-Y-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

N

SCALE IN FEET
0 20

MW-6
1.54

FORMER
USED OIL UST

USED OIL UST

SERVICE
STATION
BUILDING

PLANTER

MW-8
NA

MW-3
1.57

MW-2
3.35

3.00

UNDERGROUND
FUEL TANKS

DISPENSER
ISLANDS

MW-9
3.13

MW-1
2.35

CHRISTIE AVENUE

MW-4
-0.09

MW-7
2.10

2.00

PLANTER

2.00

POWELL STREET

MW-5
1.56

EXPLANATION

MONITORING WELL

2.35 GROUNDWATER ELEVATION (FT, MSL)

3.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)

NA DATA NOT AVAILABLE

APPROXIMATE GROUNDWATER FLOW DIRECTION;
APPROXIMATE GRADIENT = 0.06

GROUNDWATER DEPRESSION

REGISTERED GEOLOGIST
STEVEN E. KRCIK
No 4975
09/00
STATE OF CALIFORNIA

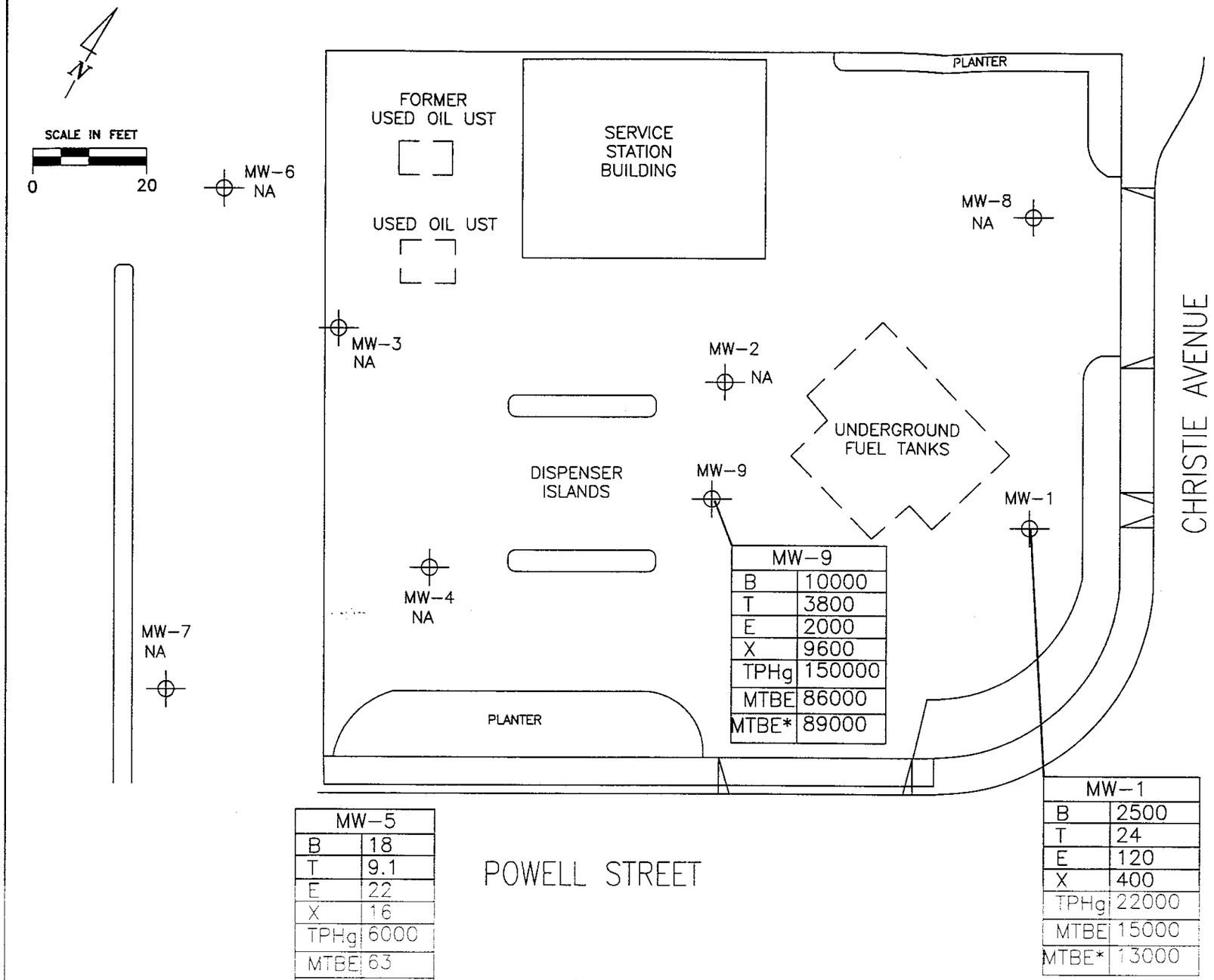
Ref: 11:26am
Basemap from Alisto Engineering Group

PREPARED BY
RRM
engineering contracting firm

GROUNDWATER ELEVATION CONTOUR MAP,
DECEMBER 30, 1998

BP Oil Service Station No. 11126
1700 Powell Street
Emeryville, California

FIGURE:
1
PROJECT:
DAC04



MW-9	
B	10000
T	3800
E	2000
X	9600
TPHg	150000
MTBE	86000
MTBE*	89000

MW-1	
B	2500
T	24
E	120
X	400
TPHg	22000
MTBE	15000
MTBE*	13000

MW-5	
B	18
T	9.1
E	22
X	16
TPHg	6000
MTBE	63
MTBE*	44

EXPLANATION

⊕	MONITORING 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. 11126qm
Basemap from Alisto Engineering Group

PREPARED BY
RRM
engineering contracting firm

HYDROCARBON CONCENTRATION MAP,
DECEMBER 30, 1998

BP Oil Service Station No. 11126
1700 Powell Street
Emeryville, Californic

FIGURE:
2
PROJECT:
DAC04

Table of
Well Data and
Analytical Results

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-1	11/04/92	7 76	4 96	---	2 80	5300	---	1100	480	ND<0.5	1500	---	---	---	---	PACE
MW-1	10/12/93	7 76	5 26	---	2 50	3600	---	970	71	100	550	---	---	---	---	PACE
MW-1	02/15/94	7 76	4 98	---	2 78	17000	---	4200	510	360	1600	---	---	---	3 9	PACE
MW-1	05/11/94	7 76	4 55	---	3 21	5500	---	2900	37	56	64	---	---	---	8.0	PACE
MW-1	08/01/94	7 76	5 51	---	2 25	15000	---	3600	740	510	2800	9700 (d)	---	---	2.9	PACE
QC-1 (e)	08/01/94	---	---	---	---	16000	---	3600	750	510	2800	9800 (d)	---	---	---	PACE
MW-1	10/18/94	7 76	5 11	---	2 65	16000	---	1800	61	160	890	---	---	---	2 9	PACE
QC-1 (e)	10/18/94	---	---	---	---	16000	---	1900	64	170	950	---	---	---	---	PACE
MW-1	01/13/95	7 76	3 05	---	4 71	220	---	7	ND<0 5	1	23	---	---	---	6.6	ATI
QC-1 (e)	01/13/95	---	---	---	---	590	---	88	0 7	ND<0.5	55	---	---	---	---	ATI
MW-1	04/13/95	7 76	3 84	---	3 92	9300	---	4000	300	200	950	---	---	---	7.7	ATI
MW-1	07/11/95	7 76	3 60	---	4 16	15000	---	2200	84	ND<25	2500	---	---	---	8 8	ATI
MW-1	11/02/95	7 76	4 58	---	3 18	19000	---	920	ND<100	ND<100	430	52000	---	---	7 3	ATI
MW-1	02/05/96	7 76	4 43	---	3 33	4600	---	1400	330	54	247	8700	---	---	3 2	SPL
MW-1	04/24/96	7 76	4 00	---	3 76	2000	---	510	33	61	228	4500	---	---	7.5	SPL
MW-1	07/15/96	7 76	4 30	---	3 46	---	---	---	---	---	---	---	---	---	---	---
MW-1	07/16/96	7 76	---	---	---	12000	---	2800	170	390	1630	64000	---	---	7.9	SPL
QC-1 (e)	07/16/96	---	---	---	---	12000	---	2800	160	390	1610	63000	---	---	---	SPL
MW-1	07/30/96	7 76	4 64	---	3 12	---	---	---	---	---	---	---	---	---	---	---
MW-1	08/12/96	7 76	---	---	---	11000	---	2500	160	ND<10	1740	440000	---	---	7 0	SPL
MW-1	11/04/96	7 76	5 98	---	1 78	---	---	---	---	---	---	---	---	---	---	---
MW-1	11/05/96	7 76	---	---	---	53000	---	1300	43	100	349	42000/190000 (f)	---	---	6 6	SPL
MW-1	05/17/97	7 76	4 65	---	3 11	52000	---	1958	55	305	1216	140198	---	---	5.7	SPL
MW-1	08/11/97	7 76	4 90	---	2.86	25000	---	540	6 7	ND<5 0	57	360000	---	---	7.9	SPL
MW-1	11/17/97	7 76	6 12	---	1 64	93000	---	1200	31	180	40	400000	---	---	7.6	SPL
MW-1	01/29/98	7 76	4 90	---	2 86	4800	---	320	24	52	19 9	ND<50	---	---	6 6	SPL
MW-1	06/22/98	7 76	4 62	---	3 14	63000	---	180	ND<5 0	15	69	57000	---	---	6.0	
MW-1	12/30/98	7 76	5 41	---	2 35	22000	---	2500	24	120	400	15000/13000 (f)	---	---	---	SPL
MW-2	11/04/92	8 56	5 88	---	2 68	12000	---	3900	1300	ND<0.5	2300	---	---	---	---	PACE
QC-1 (e)	11/04/92	---	---	---		12000	---	3200	980	ND<0 5	1900	---	---	---	---	PACE
MW-2	10/12/93	8 56	6 29	---	2 27	4500	---	3400	180	230	940	---	---	---	---	PACE
MW-2	02/15/94	8 56	5 56	---	3 00	2000	---	430	270	28	390	---	---	---	4 0	PACE
QC-1 (e)	02/15/94	---	---	---		1800	---	290	160	14	250	---	---	---	---	PACE
MW-2	05/11/94	8 56	5 17	---	3 39	14000	---	3900	1200	440	1900	---	---	---	8.9	PACE
QC-1 (e)	05/11/94	---	---	---	---	15000	---	5600	1500	470	2000	740 (d)	---	---	---	PACE
MW-2	08/01/94	8 56	5 43	---	3 13	8200	---	3000	420	230	680	---	---	---	2 6	PACE
MW-2	10/18/94	8 56	5 71	---	2 85	9000	---	2000	140	150	420	---	---	---	7 2	PACE
MW-2	01/13/95	8 56	4 67	---	3 89	7900	---	2200	42	ND<5	770	---	---	---	6.8	ATI
MW-2	04/13/95	8 56	4 37	---	4 19	33000	---	8000	2500	1100	6600	---	---	---	7.5	ATI
QC-1 (e)	04/13/95	---	---	---	---	25000	---	6500	1500	110	5300	---	---	---	---	ATI
MW-2	07/11/95	8 56	4 51	---	4 05	19000	---	3300	99	7 5	4600	---	---	---	7.8	ATI
QC-1 (e)	07/11/95	---	---	---	---	28000	---	6800	1000	900	4900	---	---	---	---	ATI
MW-2	11/02/95	8 56	5 55	---	3 01	20000	---	3800	1200	570	2700	15000	---	---	7.3	ATI
QC-1 (e)	11/02/95	---	---	---	---	22000	---	4000	1200	600	2700	19000	---	---	---	ATI
MW-2	02/05/96	8 56	5 10	---	3 46	1200	---	320	220	26	187	99	---	---	2.2	SPL
QC-1 (e)	02/05/96	---	---	---	---	910	---	290	180	19	137	93	---	---	---	SPL
MW-2	04/24/96	8 56	4 95	---	3 61	ND<500	---	70	22	ND<10	61	ND<50	---	---	7.0	SPL
QC-1 (e)	04/24/96	---	---	---	---	ND<500	---	100	30	ND<10	71	ND<100	---	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-2	07/15/96	8 56	5 40	---	3 16	---	---	---	---	---	---	---		---	---	---	---
MW-2	07/16/96	8 56	---	---	---	12000	---	3300	1400	250	2610	1400		---	---	7.8	SPL
MW-2	07/30/96	8 56	5 44	---	3 12	---	---	---	---	---	---	---		---	---	---	---
MW-2	11/04/96	8 56	7 06	---	1 50	---	---	---	---	---	---	---		---	---	---	---
MW-2	11/05/96	8 56	---	---	---	7200	---	1400	230	38	2110	1100		---	---	7.4	SPL
QC-1 (e)	11/05/96	---	---	---	---	9200	---	1300	170	ND<25	2240	1100		---	---	---	SPL
MW-2	05/17/97	8 56	5 77	---	2 79	570	---	42	ND<5 0	5 0	60	210		---	---	6.9	SPL
MW-2	08/11/97	8 56	5 71	---	2 85	6300	---	1800	130	86	397	2400		---	---	8.5	SPL
MW-2	11/17/97	8 56	6 91	---	1 65	2400	---	220	30	33	259	130		---	---	7 9	SPL
MW-2	01/29/98	8 56	4 61	---	3 95	ND<50	---	ND<0 5	ND<1 0	ND<1 0	ND<1 0	ND<10		---	---	6 2	SPL
MW-2	06/22/98	8 56	4 80	---	3 76	4200	---	640	150	120	650	560		---	---	5 4	SPL
MW-2	12/30/98	8 56	5 21	---	3 35	---	---	---	---	---	---	---		---	---	---	---
MW-3	11/04/92	8 25	6 38	---	1 87	200	690	1.6	ND<0 5	ND<0 5	1 1	---		ND<5000	ND	---	PACE
MW-3	10/12/93	8 25	5 84	---	2 41	270	2100	5 0	0 7	ND<0 5	2 6	---		ND<5000	ND	---	PACE
QC-1 (e)	10/12/93	---	---	---		150	---	5 6	0 6	ND<0 5	1 6	---		---	---	---	PACE
MW-3	02/15/94	8 25	6 60	---	1 65	140	2 3	5 7	ND<0.5	ND<0 5	ND<0 5	---		90	ND	3.9	PACE
MW-3	05/11/94	8 25	5 86	---	2 39	190	2500	2 7	1 9	ND<0 5	1 9	51	(d)	ND<5000	ND	9.2	PACE
MW-3	08/01/94	8 25	6 13	---	2 12	120	1300	1 3	ND<0 5	0.5	1 1	---		ND<5000	ND	2 9	PACE
MW-3	10/18/94	8 25	6 39	---	1 86	100	2200	2 3	ND<0 5	ND<0.5	ND<0 5	---		ND<5000	ND	3 6	PACE
MW-3	01/13/95	8 25	5 47	---	2 78	ND<50	970	0 8	ND<0 5	ND<0 5	ND<1	---		---	ND	7.7	ATI
MW-3	04/13/95	8 25	5 17	---	3 08	530	ND<500	8 7	1 9	ND<0 5	3 9	---		2100	ND	8.4	ATI
MW-3	07/11/95	8 25	5 37	---	2 88	78	2100	0 57	ND<0.50	ND<0 50	ND<1 0	---		1900	ND	8.3	ATI
MW-3	11/02/95	8 25	6 29	---	1 96	250	2000	0 73	ND<0 50	ND<0 50	1 8	270		1400	ND	8.3	ATI
MW-3	02/05/96	8 25	5 80	---	2 45	ND<50	1600	ND<0 5	ND<1	ND<1	2.7	11		9000	ND	3.5	SPL
MW-3	04/24/96	8 25	5 69	---	2 56	ND<50	2800	ND<5	ND<10	ND<10	ND<10	150		6000	ND	8 6	SPL
MW-3	07/15/96	8 25	6 18	---	2 07	ND<250	3700	ND<2 5	ND<5	ND<5	ND<5	ND<50		1000	ND	7.7	SPL
MW-3	07/30/96	8 25	6 04	---	2 21	---	---	---	---	---	---	---		---	---	---	---
MW-3	11/04/96	8 25	7 84	---	0 41	---	---	---	---	---	---	---		---	---	---	---
MW-3	11/05/96	8 25	---	---	---	90	890	ND<0 5	ND<1 0	ND<1 0	ND<1 0	30		2000	ND	6 8	SPL
MW-3	05/17/97	8 25	6 49	---	1 76	ND<50	2100	ND<0 5	ND<1 0	ND<1 0	ND<1 0	52		700	ND	6 3	SPL
MW-3	08/11/97	8 25	6 15	---	2 10	490	1900	ND<2.5	ND<5 0	ND<5 0	ND<5 0	170		ND<5000	ND	7 4	SPL
MW-3	11/17/97	8 25	7 15	---	1 10	120	2500	ND<0.5	ND<1 0	ND<1 0	ND<1 0	46		ND<5000	ND	7.0	SPL
MW-3	01/29/98	8 25	5 10	---	3 15	270	1700	0 53	ND<1 0	ND<1 0	ND<1 0	330		2000	ND	6 4	SPL
MW-3	06/22/98	8 25	5 50	---	2 75	200	2200	ND<0 5	ND<1 0	ND<1 0	ND<1 0	130		ND<5	ND	5 5	SPL
MW-3	12/30/98	8 25	6 68	---	1 57	---	---	---	---	---	---	---		---	---	---	---
MW-4	11/04/92	8 12	6 66	---	1 46	340	---	4 5	ND<0 5	4 3	ND<0 5	---		---	---	---	PACE
MW-4	10/12/93	8 12	6 87	---	1 25	160	---	5 8	1 4	0 8	2 7	---		---	---	---	PACE
MW-4	02/15/94	8 12	6 61	---	1 51	110	---	4 4	0 7	ND<0 5	2 5	120	(d)	---	---	4.3	PACE
MW-4	05/11/94	8 12	5 89	---	2 23	120	---	0 5	0 8	ND<0 5	ND<0 5	140	(d)	---	---	9.3	PACE
MW-4	08/01/94	8 12	6 87	---	1 25	140	---	0.7	2 0	5 2	15	---		---	---	3 3	PACE
MW-4	10/18/94	8 12	6 62	---	1 50	140	---	3 5	ND<0 5	0 5	ND<0 5	---		---	---	3 0	PACE
MW-4	01/13/95	8 12	7 27	---	0 85	ND<50	---	ND<0 5	ND<0 5	ND<0 5	ND<1	---		---	---	7 9	ATI
MW-4	04/13/95	8 12	6 51	---	1 61	73	---	1 2	ND<0 5	ND<0.5	ND<1	---		---	---	9 9	ATI
MW-4	07/11/95	8 12	6 21	---	1 91	82	---	0.57	ND<0.50	ND<0.50	ND<1.0	---		---	---	7.2	ATI
MW-4	11/02/95	8 12	6 78	---	1 34	71	---	1 4	0 96	0 99	2 8	140		---	---	8 6	ATI
MW-4	02/05/96	8 12	6 41	---	1 71	ND<50	---	ND<5	ND<10	ND<10	ND<10	200		---	---	4.4	SPL
MW-4	04/24/96	8 12	6 18	---	1 94	ND<250	---	ND<2 5	ND<5	ND<5	ND<5	510		---	---	8.3	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-4	07/15/96	8 12	6 63	---	1 49	ND<50	---	5 7	ND<1	ND<1	ND<1	550		---	---	7.4	SPL
MW-4	07/30/96	8 12	6 34	---	1 78	---	---	---	---	---	---	---		---	---	---	---
MW-4	11/04/96	8 12	8 27	---	-0 15	---	---	---	---	---	---	---		---	---	---	---
MW-4	11/05/96	8 12	---	---	---	460	---	ND<2 5	11	ND<5 0	ND<5 0	620/610	(f)	---	---	7 3	SPL
MW-4	05/17/97	8 12	7 00	---	1 12	---	---	---	---	---	---	---		---	---	---	---
MW-4	08/11/97	8 12	6 81	---	1 31	---	---	---	---	---	---	---		---	---	---	---
MW-4	11/17/97	8 12	9 19	---	-1 07	840	---	ND<0 5	ND<1 0	ND<1.0	ND<1 0	880		---	---	7.3	SPL
MW-4	01/29/98	8 12	7 94	---	0 18	---	---	---	---	---	---	---		---	---	---	---
MW-4	06/22/98	8 12	7 49	---	0 63	---	---	---	---	---	---	---		---	---	---	---
MW-4	12/30/98	8 12	8 21	---	-0 09	---	---	---	---	---	---	---		---	---	---	---
MW-5	10/12/93	7 69	6 01	---	1 68	---	---	---	---	---	---	---		---	---	---	---
MW-5	10/13/93	7 69	---	---	---	2300	---	160	10	ND<0.5	26	---		---	---	---	PACE
MW-5	02/15/94	7 69	5 74	---	1 95	5100	---	710	16	33	35	100	(d)	---	---	4 0	PACE
MW-5	05/11/94	7 69	5 28	---	2 41	11000	---	1100	39	110	57	160	(d)	---	---	8 0	PACE
MW-5	08/01/94	7 69	5 84	---	1 85	9000	---	730	35	61	41	200	(d)	---	---	2 6	PACE
MW-5	10/18/94	7 69	6 01	---	1 68	7800	---	330	30	27	27	---		---	---	5 6	PACE
MW-5	01/13/95	7 69	4 74	---	2.95	ND<500	---	290	6	ND<5	18	---		---	---	6 8	ATI
MW-5	04/13/95	7 69	5 50	---	2 19	9100	---	400	15	52	27	---		---	---	7 4	ATI
MW-5	07/11/95	7 69	5 75	---	1 94	7300	---	390	13	28	23	---		---	---	7.2	ATI
MW-5	11/03/95	7 69	6 65	---	1 04	7200	---	270	15	38	23	200		---	---	8.4	ATI
MW-5	02/05/96	7 69	4 83	---	2 86	4600	---	370	15	53	28	ND<50		---	---	1.9	SPL
MW-5	04/24/96	7 69	6 09	---	1 60	3000	---	180	ND<10	32	14	ND<100		---	---	8 1	SPL
MW-5	07/15/96	7 69	6 57	---	1 12	---	---	---	---	---	---	---		---	---	---	---
MW-5	07/16/96	7 69	---	---	---	ND<50	---	190	ND<10	31	16	ND<100		---	---	8.3	SPL
MW-5	07/30/96	7 69	5 61	---	2 08	---	---	---	---	---	---	---		---	---	---	---
MW-5	08/12/96	7 69	---	---	---	2000	---	150	12	25	18 2	ND<50		---	---	7.6	SPL
MW-5	11/04/96	7 69	8 25	---	-0 56	---	---	---	---	---	---	---		---	---	---	---
MW-5	11/05/96	7 69	---	---	---	5200	---	42	5 5	13	ND<5 0	1700		---	---	7 4	SPL
MW-5	05/17/97	7 69	6 95	---	0 74	80	---	0 56	ND<1 0	ND<1 0	ND<1.0	46		---	---	6 7	SPL
MW-5	08/11/97	7 69	6 72	---	0 97	2700	---	20	12	6 7	9.7	1900		---	---	8 5	SPL
MW-5	11/17/97	7 69	9 49	---	-1 80	8400	---	25	12	8 7	5 4	13000		---	---	7 9	SPL
MW-5	01/29/98	7 69	7 88	---	-0 19	110000	---	2500	110	180	589	180000		---	---	6 8	SPL
MW-5	06/22/98	7 69	7 40	---	0 29	4400	---	47	10	29	20 5	47		---	---	6 6	SPL
MW-5	12/30/98	7 69	6 13	---	1 56	6000	---	18	9 1	22	16	63/44	(f)	---	---	6 6	SPL
MW-6	10/12/93	8 52	6 59	---	1 93	63	---	ND<0 5	ND<0 5	ND<0 5	ND<0.5	---		---	---	---	PACE
MW-6	02/15/94	8 52	6 31	---	2 21	68	---	ND<0 5	ND<0 5	ND<0 5	ND<0 5	38	(d)	---	---	3.1	PACE
MW-6	05/11/94	8 52	6 15	---	2 37	68	---	ND<0 5	ND<0 5	ND<0 5	ND<0 5	48	(d)	---	---	8.7	PACE
MW-6	08/01/94	8 52	6 46	---	2 06	91	---	ND<0 5	ND<0 5	ND<0 5	0 6	---		---	---	2.4	PACE
MW-6	10/18/94	8 52	6 72	---	1 80	ND<50	---	ND<0 5	ND<0 5	ND<0.5	ND<0 5	---		---	---	6.0	PACE
MW-6	01/13/95	8 52	5 95	---	2 57	ND<50	---	ND<0 5	ND<0 5	ND<0.5	ND<1	---		---	---	7.0	ATI
MW-6	04/13/95	8 52	5 44	---	3 08	ND<50	---	ND<0 5	ND<0 5	ND<0.5	ND<1	---		---	---	8.5	ATI
MW-6	07/11/95	8 52	5 68	---	2 84	ND<50	---	ND<0 50	ND<0 50	ND<0 50	ND<1.0	---		---	---	8 4	ATI
MW-6	11/02/95	8 52	6 57	---	1 95	ND<50	---	ND<0 50	ND<0 50	ND<0.50	ND<1 0	35		---	---	8.3	ATI
MW-6	02/05/96	8 52	6 27	---	2.25	ND<50	---	ND<5	ND<10	ND<10	ND<10	ND<100		---	---	2.2	SPL
MW-6	04/24/96	8 52	5 95	---	2 57	ND<250	---	ND<2 5	ND<5	ND<5	ND<5	62		---	---	8.0	SPL
MW-6	07/15/96	8 52	6 39	---	2 13	ND<250	---	ND<2 5	ND<5	ND<5	ND<5	ND<50		---	---	8 0	SPL
MW-6	07/30/96	8 52	6 44	---	2 08	---	---	---	---	---	---	---		---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-6	11/04/96	8 52	8 05	---	0 47	---	---	---	---	---	---	---	---	---	---	---
MW-6	11/05/96	8 52	---	---	---	ND<50	---	ND<0 5	ND<1 0	ND<1 0	ND<1 0	ND<10	---	---	7.3	SPL
MW-6	05/17/97	8 52	6 75	---	1 77	---	---	---	---	---	---	---	---	---	---	---
MW-6	08/11/97	8 52	6 48	---	2 04	---	---	---	---	---	---	---	---	---	---	---
MW-6	11/17/97	8 52	9 27	---	-0 75	ND<50	---	ND<0 5	ND<1 0	ND<1 0	ND<1 0	ND<10	---	---	7.7	SPL
MW-6	01/29/98	8 52	7 98	---	0.54	---	---	---	---	---	---	---	---	---	---	---
MW-6	06/22/98	8 52	7 68	---	0 84	---	---	---	---	---	---	---	---	---	---	---
MW-6	12/30/98	8 52	6 98	---	1 54	---	---	---	---	---	---	---	---	---	---	---
MW-7	10/12/93	7 61	6 14	---	1 47	ND<50	---	ND<0 5	ND<0 5	ND<0 5	0 7	---	---	---	---	PACE
MW-7	02/15/94	7 61	5 88	---	1 73	78	---	ND<0 5	ND<0 5	ND<0 5	0 6	---	---	---	4 0	PACE
MW-7	05/11/94	7 61	5 76	---	1 85	70	---	ND<0 5	ND<0 5	ND<0 5	0 9	---	---	---	9 1	PACE
MW-7	08/01/94	7 61	5 97	---	1 64	77	---	ND<0 5	ND<0 5	ND<0.5	0 5	---	---	---	2.5	PACE
MW-7	10/18/94	7 61	6 24	---	1 37	ND<50	---	ND<0 5	ND<0 5	ND<0 5	ND<0 5	---	---	---	6 3	PACE
MW-7	01/13/95	7 61	5 39	---	2 22	ND<50	---	ND<0 5	ND<0 5	ND<0 5	ND<1	---	---	---	8.2	ATI
MW-7	04/13/95	7 61	5 17	---	2 44	63	---	ND<0.5	ND<0 5	ND<0 5	1 4	---	---	---	8.4	ATI
MW-7	07/11/95	7 61	5 25	---	2 36	ND<50	---	ND<0 50	ND<0.50	ND<0 50	ND<1 0	---	---	---	7.9	ATI
MW-7	11/02/95	7 61	6 19	---	1 42	ND<50	---	ND<0.50	ND<0 50	ND<0 50	ND<1 0	55	---	---	8 0	ATI
MW-7	02/05/96	7 61	5 69	---	1 92	ND<50	---	ND<0 5	ND<1	ND<1	ND<1	40	---	---	1.9	SPL
MW-7	04/24/96	7 61	5 59	---	2 02	ND<250	---	ND<2 5	ND<5	ND<5	ND<5	53	---	---	8.2	SPL
MW-7	07/15/96	7 61	6 07	---	1 54	ND<250	---	ND<2 5	ND<5	ND<5	ND<5	ND<50	---	---	7.8	SPL
MW-7	07/30/96	7 61	6 04	---	1 57	---	---	---	---	---	---	---	---	---	---	---
MW-7	11/04/96	7 61	7 76	---	-0 15	---	---	---	---	---	---	---	---	---	---	---
MW-7	11/05/96	7 61	---	---	---	ND<50	---	ND<0 5	ND<1 0	ND<1 0	ND<1 0	ND<10	---	---	7 8	SPL
MW-7	05/17/97	7 61	6 42	---	1 19	---	---	---	---	---	---	---	---	---	---	---
MW-7	08/11/97	7 61	6 06	---	1 55	---	---	---	---	---	---	---	---	---	---	---
MW-7	11/17/97	7 61	9 07	---	-1 46	ND<50	---	ND<0 5	ND<1 0	ND<1 0	ND<1 0	ND<10	---	---	7.1	SPL
MW-7	01/29/98	7 61	7 44	---	0 17	---	---	---	---	---	---	---	---	---	---	---
MW-7	06/22/98	7 61	7 39	---	0 22	---	---	---	---	---	---	---	---	---	---	---
MW-7	12/30/98	7 61	5 51	---	2 10	---	---	---	---	---	---	---	---	---	---	---
MW-8	10/12/93	8 60	5 86	---	2 74	ND<50	---	ND<0 5	ND<0.5	ND<0.5	ND<0 5	---	---	---	---	PACE
MW-8	02/15/94	8 60	5 50	---	3 10	380	---	ND<0 5	ND<0 5	ND<0 5	ND<0 5	---	---	---	3 3	PACE
MW-8	05/11/94	8 60	5 09	---	3 51	330	---	ND<0 5	1 2	ND<0 5	1 9	---	---	---	8 5	PACE
MW-8	08/01/94	8 60	5 20	---	3 40	260	---	ND<0 5	1 2	2 9	5 8	---	---	---	2 3	PACE
MW-8	10/18/94	8 60	5 70	---	2 90	82	---	ND<0 5	ND<0 5	ND<0 5	ND<0.5	---	---	---	6.4	PACE
MW-8	01/13/95	8 60	4 96	---	3 64	ND<50	---	ND<0 5	ND<0 5	ND<0 5	ND<1	---	---	---	6.9	ATI
MW-8	04/13/95	8 60	5 40	---	3 20	270	---	ND<0 5	ND<0 5	ND<0 5	4 4	---	---	---	8.4	ATI
MW-8	07/11/95	8 60	6 01	---	2 59	320	---	ND<0 50	ND<0 50	ND<0 50	3 5	---	---	---	8 0	ATI
MW-8	11/02/95	8 60	6 81	---	1 79	100	---	ND<0 50	ND<0 50	ND<0 50	ND<1.0	ND<5.0	---	---	8 7	ATI
MW-8	02/05/96	8 60	6 12	---	2 48	ND<50	---	ND<5	ND<10	ND<10	ND<10	ND<100	---	---	1 5	SPL
MW-8	04/24/96	8 60	6 23	---	2 37	ND<50	---	ND<5	ND<10	ND<10	ND<10	ND<100	---	---	8 7	SPL
MW-8	07/15/96	8 60	6 70	---	1 90	ND<250	---	ND<2 5	ND<5	ND<5	ND<5	ND<50	---	---	8.4	SPL
MW-8	07/30/96	8 60	6 64	---	1 96	---	---	---	---	---	---	---	---	---	---	---
MW-8	11/04/96	8 60	8 36	---	0 24	---	---	---	---	---	---	---	---	---	---	---
MW-8	11/05/96	8 60	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	7.2	SPL
MW-8	05/17/97	8 60	7 03	---	1 57	---	---	---	---	---	---	---	---	---	---	---
MW-8	08/11/97	8 60	6 05	---	2 55	---	---	---	---	---	---	---	---	---	---	---
MW-8	11/17/97	8 60	9 14	---	-0 54	ND<50	---	ND<0 5	ND<1 0	ND<1 0	ND<1 0	ND<10	---	---	7.7	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-8	01/29/98	8 60	7 90	—	0 70	—	—	—	—	—	—	—	—	—	—	—
MW-8	06/22/98	8 60	7 72	—	0 88	—	—	—	—	—	—	—	—	—	—	—
MW-8	12/30/98	8 60 (h)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-9	10/12/93	8 08	5 66	0 08	2 48	—	—	—	—	—	—	—	—	—	—	—
MW-9	02/15/94	8 08	5 32	0 05	2 80	—	—	—	—	—	—	—	—	—	—	—
MW-9	05/11/94	8 08	5 57	—	2 51	—	—	—	—	—	—	—	—	—	—	—
MW-9	08/01/94	8 08	6 25	—	1 83	—	—	—	—	—	—	—	—	—	—	—
MW-9	10/18/94	8 08	5 59	0 13	2 59	—	—	—	—	—	—	—	—	—	—	—
MW-9	01/13/95	8 08	4 42	0 14	3 77	—	—	—	—	—	—	—	—	—	—	—
MW-9	04/13/95	8 08	4 06	0 11	4 10	—	—	—	—	—	—	—	—	—	—	—
MW-9	07/11/95	8 08	4 21	0 08	3 93	—	—	—	—	—	—	—	—	—	—	—
MW-9	11/02/95	8 08	5 22	0 05	2 90	—	—	—	—	—	—	—	—	—	—	—
MW-9	02/05/96	8 08	4 76	0 01	3 33	—	—	—	—	—	—	—	—	—	—	—
MW-9	04/24/96	8 08	4 62	0 09	3 53	—	—	—	—	—	—	—	—	—	—	—
MW-9	07/15/96	8 08	5 11	0 04	3 00	—	—	—	—	—	—	—	—	—	—	—
MW-9	07/30/96	8 08	5 15	—	2 93	—	—	—	—	—	—	—	—	—	—	—
MW-9	11/04/96	8 08	6 75	0 01	1 34	—	—	—	—	—	—	—	—	—	—	—
MW-9	05/17/97	8 08	5 42	—	2 66	97000	—	16000	7700	2300	18400	40000	—	—	7 0	SPL
QC-1 (e)	05/17/97	—	—	—	—	97000	—	16000	8200	2300	17300	39000	—	—	—	SPL
MW-9	08/11/97	8 08	5 37	—	2 71	71000	—	12000	340	2100	4300	26000	—	—	9.1	SPL
QC-1 (e)	08/11/97	—	—	—	—	100000	—	14000	360	3200	5790	27000	—	—	—	SPL
MW-9	11/17/97	8 08	5 62	Sheen	2 46	100000	—	22000	4800	3100	17900	32000	—	—	8.3	SPL
QC-1 (e)	11/17/97	—	—	—	—	100000	—	24000	5300	3500	19300	35000	—	—	—	SPL
MW-9	01/29/98	8 08	4 07	Sheen	4 01	250000	—	20000	21000	3100	18500	110000	—	—	6 6	SPL
QC-1 (e)	01/29/98	—	—	—	—	250000	—	20000	20000	3100	18400	110000	—	—	—	SPL
MW-9	06/22/98	8 08	4 28	—	3 80	280000	—	21000	18000	3800	21200	110000	—	—	5 8	SPL
QC-1 (e)	06/22/98	—	—	—	—	290000	—	20000	17000	3800	21200	110000	—	—	—	SPL
MW-9	12/30/98	8 08	4 95	—	3 13	150000	—	10000	3800	2000	9600	86000/89000 (f)	—	—	—	SPL
QC-2 (g)	11/05/92	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<0.5	—	—	—	—	PACE
QC-2 (g)	10/12/93	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<0.5	—	—	—	—	PACE
QC-2 (g)	02/15/94	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<0.5	—	—	—	—	PACE
QC-2 (g)	05/11/94	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<0 5	—	—	—	—	PACE
QC-2 (g)	08/01/94	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<0 5	—	—	—	—	PACE
QC-2 (g)	10/18/94	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<0 5	—	—	—	—	PACE
QC-2 (g)	01/13/95	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<1	—	—	—	—	ATI
QC-2 (g)	04/13/95	—	—	—	—	ND<50	—	ND<0 5	ND<0 5	ND<0 5	ND<1	—	—	—	—	ATI
QC-2 (g)	07/11/95	—	—	—	—	ND<50	—	ND<0 50	ND<0 50	ND<0 50	ND<1.0	—	—	—	—	ATI
QC-2 (g)	11/02/95	—	—	—	—	ND<50	—	ND<0 50	ND<0 50	ND<0 50	ND<1 0	ND<5 0	—	—	—	ATI
QC-2 (g)	02/05/96	—	—	—	—	ND<50	—	ND<0 5	ND<1	ND<1	ND<1	ND<10	—	—	—	SPL
QC-2 (g)	04/24/96	—	—	—	—	ND<50	—	ND<0 5	ND<1	ND<1	ND<1	ND<10	—	—	—	SPL
QC-2 (g)	07/16/96	—	—	—	—	ND<50	—	ND<0 5	ND<1	ND<1	ND<1	ND<10	—	—	—	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

ABBREVIATIONS

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
TOG	Total oil and grease
HVOC	Halogenated volatile organic compounds
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not analyzed/applicable/measurable
PACE	Pace, Inc
ATI	Analytical Technologies, Inc
SPL	Southern Petroleum Laboratories

NOTES

(a) Top of casing elevations surveyed relative to an established benchmark with an elevation of 8 11 feet above mean sea level

(b) Groundwater elevations adjusted assuming a specific gravity of 0 75 for free product.

(c) Detection limits vary; see laboratory report

(d) A copy of the documentation for this data is included in Appendix C of Alisto report 10-061-07-004

(e) Blind duplicate

(f) EPA Methods 8020/8260 used

(g) Travel blank

(h) Inaccessible

Analytical Appendix

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

January 14, 1999

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

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on January 5, 1999. The sample(s) was assigned to Certificate of Analysis No.(s) 9901062 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: 99-01-062

Approved for Release by:

Sonia West
Sonia West, Senior Project Manager

1-15-99
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. H9-9901062-01

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

P.O.# N/A , COC#100189
DATE: 01/14/99

PROJECT: #11126, 1700 Powell St.
SITE: Emeryville
SAMPLED BY: Blaine Tech Services
SAMPLE ID: A

PROJECT NO: 981230-Y2
MATRIX: WATER
DATE SAMPLED: 12/30/98 11:08:00
DATE RECEIVED: 01/05/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	15000	100 P	ug/L
BENZENE	2500	100 P	ug/L
TOLUENE	24	5.0 P	ug/L
ETHYLBENZENE	120	5.0 P	ug/L
TOTAL XYLENE	400	5.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3044		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	153MI		
4-Bromofluorobenzene	107		
Method 8020A ***			
Analyzed by: CJ			
Date: 01/08/99			
Gasoline Range Organics	22	0.250 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	100		
California LUFT Manual for Gasoline			
Analyzed by: CJ			
Date: 01/07/99 05:47:00			
MTBE	13000	1000 P	ug/L
Surrogate	**% Recovery**		
1,2-Dichloroethane-d4	80		
Toluene-d8	104		

(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. H9-9901062-01

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

P.O.# N/A , COC#100189
DATE: 01/14/99

PROJECT: #11126, 1700 Powell St.
SITE: Emeryville
SAMPLED BY: Blaine Tech Services
SAMPLE ID: A

PROJECT NO: 981230-Y2
MATRIX: WATER
DATE SAMPLED: 12/30/98 11:08:00
DATE RECEIVED: 01/05/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
4-Bromofluorobenzene	102		
Method 8260B ***			
Analyzed by: LT			
Date: 01/11/99			

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.
SPL California License # 1903

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

Certificate of Analysis No. H9-9901062-02

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

P.O.# N/A , COC#100189
DATE: 01/14/99

PROJECT: #11126, 1700 Powell St.
SITE: Emeryville
SAMPLED BY: Blaine Tech Services
SAMPLE ID: B

PROJECT NO: 981230-Y2
MATRIX: WATER
DATE SAMPLED: 12/30/98 10:48:00
DATE RECEIVED: 01/05/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	63	1.0 P	ug/L
BENZENE	18	1.0 P	ug/L
TOLUENE	9.1	1.0 P	ug/L
ETHYLBENZENE	22	1.0 P	ug/L
TOTAL XYLENE	16	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	65.1		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	123		
4-Bromofluorobenzene	117		
Method 8020A ***			
Analyzed by: CJ			
Date: 01/08/99			
Gasoline Range Organics	6.0	0.050 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	167MI		
California LUFT Manual for Gasoline			
Analyzed by: CJ			
Date: 01/07/99 06:14:00			
MTBE	44	10 P	ug/L
Surrogate	**% Recovery**		
1,2-Dichloroethane-d4	84		
Toluene-d8	100		

(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.

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

Certificate of Analysis No. H9-9901062-02

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

P.O.# N/A , COC#100189
DATE: 01/14/99

PROJECT: #11126, 1700 Powell St.
SITE: Emeryville
SAMPLED BY: Blaine Tech Services
SAMPLE ID: B

PROJECT NO: 981230-Y2
MATRIX: WATER
DATE SAMPLED: 12/30/98 10:48:00
DATE RECEIVED: 01/05/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
4-Bromofluorobenzene	104		
Method 8260B ***			
Analyzed by: LT			
Date: 01/11/99			

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.

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SPL California License # 1903

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

Certificate of Analysis No. H9-9901062-03

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

P.O.# N/A , COC#100189
DATE: 01/14/99

PROJECT: #11126, 1700 Powell St.
SITE: Emeryville
SAMPLED BY: Blaine Tech Services
SAMPLE ID: C

PROJECT NO: 981230-Y2
MATRIX: WATER
DATE SAMPLED: 12/30/98 11:20:00
DATE RECEIVED: 01/05/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	86000	1000 P	ug/L
BENZENE	10000	100 P	ug/L
TOLUENE	3800	100 P	ug/L
ETHYLBENZENE	2000	100 P	ug/L
TOTAL XYLENE	9600	100 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	25400		ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	120		
4-Bromofluorobenzene	107		
Method 8020A ***			
Analyzed by: CJ			
Date: 01/08/99			
Gasoline Range Organics	150	5.0 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	83		
4-Bromofluorobenzene	117		
California LUFT Manual for Gasoline			
Analyzed by: CJ			
Date: 01/07/99 18:41:00			
MTBE	89000	10000 P	ug/L
Surrogate	**% Recovery**		
1,2-Dichloroethane-d4	90		
Toluene-d8	104		

(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.

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SPL California License # 1903

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

Certificate of Analysis No. H9-9901062-03

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

P.O.# N/A , COC#100189
DATE: 01/14/99

PROJECT: #11126, 1700 Powell St.
SITE: Emeryville
SAMPLED BY: Blaine Tech Services
SAMPLE ID: C

PROJECT NO: 981230-Y2
MATRIX: WATER
DATE SAMPLED: 12/30/98 11:20:00
DATE RECEIVED: 01/05/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
4-Bromofluorobenzene	104		
Method 8260B ***			
Analyzed by: LT			
Date: 01/13/99			

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.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Contract:

Lab Code: Case No.: 9901202 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: MW-54A-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	54	108	61-145
Trichloroethene	50	0	50	100	71-120
Benzene	50	0	46	92	76-127
Toluene	50	0	49	98	76-125
Chlorobenzene	50	0	47	94	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	51	102	6	14	61-145
Trichloroethene	50	48	96	4	14	71-120
Benzene	50	43	86	7	11	76-127
Toluene	50	46	92	6	13	76-125
Chlorobenzene	50	43	86	9	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: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name:
Client SDG: l990111
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: METHSPIKE-8260W/1X
Client Smp ID: LCS
Level: LOW
Operator: LT
Data Type: MS DATA
SampleType: METHSPIKE
SpikeList File: 8260_water.spk
Quant Type: ISTD
Sublist File: 8260_lcs.sub
Method File: /var/chem/l.i/l990111.b/l8260aw.m
Misc Info: L011W1/L011B01/L011CW1

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8	1,1-Dichloroethene	50	52	104.00	61-145
29	Trichloroethene	50	48	96.00	71-120
25	Benzene	50	44	88.00	76-127
37	Toluene	50	45	90.00	76-125
45	Chlorobenzene	50	45	90.00	75-130

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 21	1,2-Dichloroethane	50	44	88.00	80-120
$ 36	Toluene-d8	50	50	100.00	88-110
$ 56	Bromofluorobenzene	50	51	102.00	86-115

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Contract:

Lab Code: Case No.: 9901072 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: C

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	2500	100	76-127
Toluene	2500	0	2600	104	76-125
Chlorobenzene	2500	0	2500	100	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	2500	2400	100	11	14	61-145
Trichloroethene	2500	2400	94	10	14	71-120
Benzene	2500	2300	86	15*	11	76-127
Toluene	2500	2300	88	17*	13	76-125
Chlorobenzene	2500	2300	90	11	13	75-130

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

* Values outside of QC limits, Per method recoveries are advisory only

RPD: 2 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name:
Client SDG: l990112
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: METHSPIKE-8260W/1X
Client Smp ID: LCS
Level: LOW
Operator: LT
Data Type: MS DATA
SampleType: METHSPIKE
SpikeList File: 8260_water.spk
Quant Type: ISTD
Sublist File: 8260_lcs.sub
Method File: /var/chem/l.i/l990112a.b/l8260aw.m
Misc Info: L012W2/L012B04/L012CW4

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8	1,1-Dichloroethene	50	53	106.00	61-145
29	Trichloroethene	50	49	98.00	71-120
25	Benzene	50	47	94.00	76-127
37	Toluene	50	48	96.00	76-125
45	Chlorobenzene	50	48	96.00	75-130

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 21	1,2-Dichloroethane	50	43	86.00	80-120
$ 36	Toluene-d8	50	51	102.00	88-110
$ 56	Bromofluorobenzene	50	53	106.00	86-115

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

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L990111104642

Reported on: 01/14/99 11:02
Analyzed on: 01/11/99 11:43
Analyst: LT

METHSPIKE L011B01

Compound	Result	Detection Limit	Units
Methyl t-Butyl Ether	ND	10	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	84	80-120	% Recovery
Toluene-d8	102	88-110	% Recovery
Bromofluorobenzene	100	86-115	% Recovery

Samples in Batch 9901062-01 9901062-02

Notes

ND - Not detected.

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

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L990112104646

Reported on: 01/14/99 11:02
Analyzed on: 01/12/99 23:49
Analyst: LT

METHOD 8260/8240 L012B04

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	104	88-110	% Recovery
Bromofluorobenzene	104	86-115	% Recovery

Samples in Batch 9901062-03

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
Units: ug/L

Batch Id: VARE990108104600

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	51	102	72 - 128
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	51	102	65 - 125
EthylBenzene	ND	50	52	104	70 - 118
O Xylene	ND	50	54	108	72 - 117
M & P Xylene	ND	100	110	110	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	ND	20	23	115	21	105	9 09	20	39 - 150
BENZENE	ND	20	21	105	18	90.0	15.4	21	32 - 164
TOLUENE	ND	20	21	105	19	95 0	10.0	20	38 - 159
ETHYLBENZENE	ND	20	20	100	19	95 0	5 13	19	52 - 142
O XYLENE	ND	20	21	105	20	100	4 88	18	53 - 143
M & P XYLENE	ND	40	41	102	38	95.0	7.11	17	53 - 144

Analyst. LJ
Sequence Date: 01/08/99
SPL ID of sample spiked: 9901174-02A
Sample File ID. E_A1177 TX0
Method Blank File ID·
Blank Spike File ID: E_A1169.TX0
Matrix Spike File ID: E_A1171.TX0
Matrix Spike Duplicate File ID: E_A1172 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)·

9901065-03A 9901192-05A 9901174-02A 9901201-01A
9901063-01A 9901065-02A 9901174-01A 9901192-01A
9901192-03A 9901192-04A 9901254-01A 9901062-02A
9901072-02A 9901072-04A 9901062-03A 9901062-01A
9901072-03A 9901065-04A

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

** SPL BATCH QUALITY CONTROL REPORT **

California LUFT Manual for Gasoline

Matrix: Aqueous

Batch Id: VARE990107103700

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	0.98	98.0	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	2.9	0.90	3.5	66 7	3.7	88 9	28.5	36	36 - 160

Analyst: CJ

Sequence Date: 01/07/99

SPL ID of sample spiked: 9901072-03A

Sample File ID: EEA1147.TX0

Method Blank File ID:

Blank Spike File ID EEA1123.TX0

Matrix Spike File ID EEA1127.TX0

Matrix Spike Duplicate File ID: EEA1128 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):

9901063-01A 9901063-02A 9901065-01A 9901065-02A
9901065-04A 9901072-03A 9901072-01A 9901062-01A
9901062-02A 9901062-03A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

9901062

CHAIN OF CUSTODY

No. 100189 Page ____ of ____

CONSULTANT'S NAME	CONSULTANT'S ADDRESS	
Blaine Tech Services	16180 Rogers Ave, San Jose 95112	
BP SITE NUMBER: BP 11126	BP SITE / FACILITY ADDRESS: 1700 Powell St. Emeryville	CONSULTANT PROJECT NUMBER: 981230-42
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: 804039443641

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	TPH-G	BTEX	MTBE	COMMENTS
A	12/30	11:08		5			X	X	X	Confirm
B	↓	10:48		5						MTBE by
C	↓	11:20		5						8260

3°

SAMPLED BY (Please Print Name): Brooks Taylor

SAMPLED BY (Signature):

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY /AFFILIATION (Print Name / Signature)	DATE	TIME
Brooks Taylor	1/4/99	430			
			Tina Clockrum	1-5-99	1000

CLV-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: 1-5-99	Time: 1000

SPL Sample ID: 9901062

			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 #) 804039443641		
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name: Tina Clockrum	Date: 1-5-99

Field
Data
Sheets

WELL GAUGING DATA

Project # 981230 Y2 Date 12/30/98 Client BP

Site 1700 POWELL ST EMERYVILLE 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	
MW1						5.41		TOC	
MW2						5.21	10.63		
MW3						6.68	11.92		
MW4						8.21	10.98		
MW5						6.13	13.87		
MW6						6.98	13.41		
MW7						5.51	13.85		
MW8			COULD	NOT		LOCATE			
MW9						4.95	13.81		

WELL MONITORING DATA SHEET

Project #: 981230 Y 2	Client: BP
Sampler: B. TAYLOR	Start Date: 12/30
Well I.D.: MW1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 11.42	Depth to Water: 5.41
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: ___

1 Case Volume	Specified Volumes	Calculated Volume
6 (Gals.) X	3	= 23 Gals.

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
1103	61.4	7.2	7864	20	1	
1104	63.9	7.0	3978	10	2	
1105	64.7	7.0	3041	10	3	

Did well dewater? Yes (No)	Gallons actually evacuated: 3
Sampling Time: 1105	Sampling Date: 12/30
Sample I.D.: ~~Rattler~~ A	Laboratory: SEQ
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 #: 981230 Y2	Client: BP
Sampler: B. TAYLOR	Start Date: 12/30
Well I.D.: MW3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 13.87	Depth to Water: 6.13
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 / (Disposable Bailer) / Middleburg / Electric Submersible / Extraction Pump / Other: ____

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

1.2 (Gals.) X 3 = 3.6 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
1041	52.7	7.0	4975	30	1	
1043	61.3	7.0	3841	10	3	
1045	61.4	7.0	3811	10	4	

Did well dewater? Yes (No) Gallons actually evacuated: 4

Sampling Time: 1048 Sampling Date: 12/30/97

Sample I.D.: MW3 Laboratory: SEQ

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 #: 981230 Y2	Client: BP
Sampler: B. TAYLOR	Start Date: 12/30
Well I.D.: MW 9	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 13.81	Depth to Water: 4.95
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: ___

6 (Gals.) X	3	=	18 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
1116	59.8	7.0	4789	50	6	
1117	64.7	6.8	3764	130	12	
1118	65.8	6.7	3145	>200	18	

Did well dewater? Yes (No)	Gallons actually evacuated: 18
Sampling Time: 1000 C	Sampling Date: 12/30
Sample I.D.: MW9	Laboratory: SEQ
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