**BP OIL**

R0666

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

June 2, 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 18 May 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 change in conditions 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.

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
D. Camille - Tosco (w/attachment)

99 JUN -7 PM 3:49

ENVIRONMENTAL
PROTECTION

BLAINE
TECH SERVICES inc

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

May 18, 1999

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

**1st Quarter 1999 Monitoring at 11126**

Fourth Quarter 1999 Groundwater Monitoring
BP Service Station Number 11126
1700 Powell St.
Emeryville, CA

Monitoring Performed on March 9, 1999

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Groundwater Sampling Report **990309-G-1**

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.

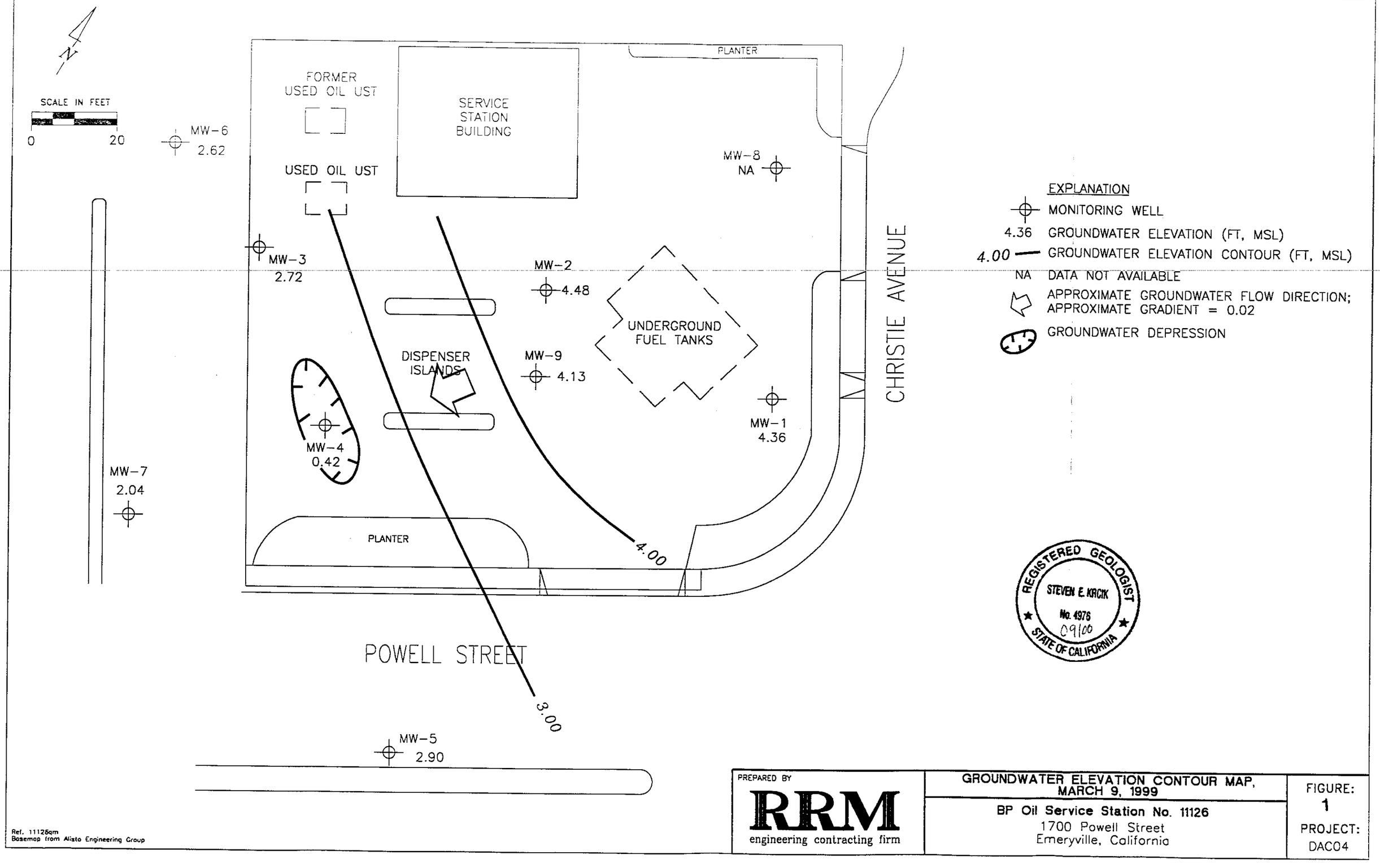
Please call if you have any questions.

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




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

Ref. 11126am
Basemap from Alisto Engineering Group

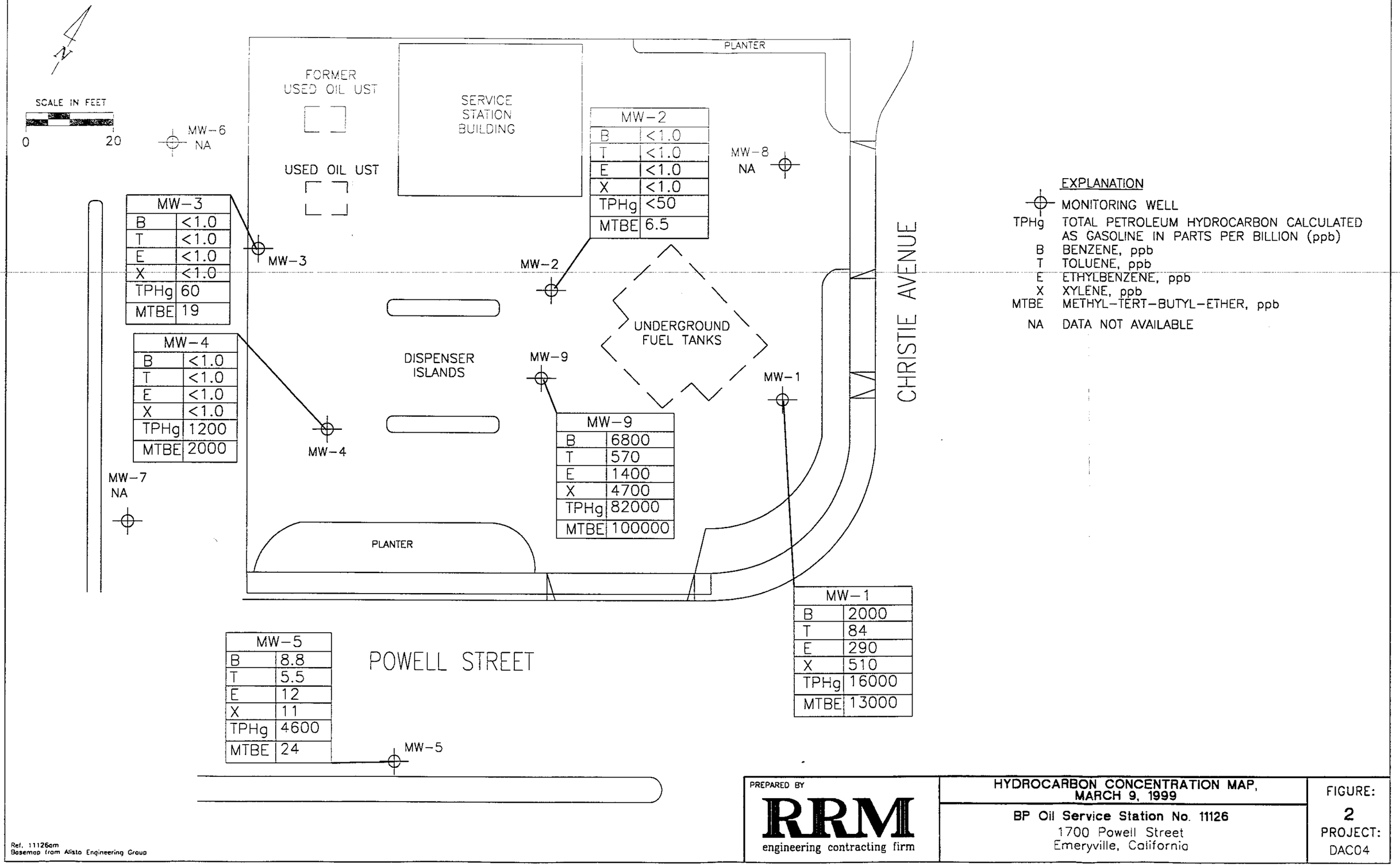
PREPARED BY
RRM
engineering contracting firm

**GROUNDWATER ELEVATION CONTOUR MAP, MARCH 9, 1999**

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

FIGURE: 1

PROJECT: DAC04




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
- NA DATA NOT AVAILABLE

Ref. 11126am
Basemap from Alisto Engineering Group

PREPARED BY
RRM
engineering contracting firm

**HYDROCARBON CONCENTRATION MAP, MARCH 9, 1999**

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

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-1 | 03/09/99 | 7 76 | 3 40 | — | 4.36 | 16000 | — | 2000 | 84 | 290 | 510 | 13000 | — | — | — | 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 | 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 |
| 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-2 | 03/09/99 | 8 56 | 4 08 | — | 4 48 | ND<50 | — | ND<1.0 | ND<1.0 | ND<1.0 | ND<1 0 | 6.5 | | — | — | — | 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-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-3 | 03/09/99 | 8.25 | 5 53 | — | 2 72 | 60 | 840 | ND<1.0 | ND<1.0 | ND<1 0 | ND<1.0 | 19 | 7600 | — | — | 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 | 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 |
| 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-4 | 03/09/99 | 8 12 | 7 70 | — | 0.42 | 1200 | --- | ND<1 0 | ND<1.0 | ND<1.0 | ND<1.0 | 2000 | | — | — | — | 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-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) | — | — | — | SPL |
| MW-5 | 03/09/99 | 7 69 | 4 79 | — | 2.90 | 4600 | — | 8 8 | 5.5 | 12 | 11 | 24 | | — | — | — | SPL |

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| 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 | 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 | — | — | — | — | — | — | — | | — | — | — | — |
| 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-6 | 03/09/99 | 8 52 | 5 90 | — | 2 62 | — | — | — | — | — | — | — | | — | — | — | — |

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| 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-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-7 | 03/09/99 | 7 61 | 5 57 | --- | 2 04 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 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-8 | 03/09/99 | 8 60 | (h) — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| MW-9 | 03/09/99 | 8.08 | 3.95 | --- | 4.13 | 82000 | --- | 6800 | 570 | 1400 | 4700 | 100000 | --- | --- | --- | SPL |

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| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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

March 23, 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 March 12, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9903547 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: 99-03-547

Approved for Release by:

Sonia West
Sonia West, Senior Project Manager

3-23-99
Date

Greg Grandits
Laboratory Director

Idelis Williams
Corporate Quality Assurance Director

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

# Certificate of Analysis No. H9-9903547-01

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

P.O.#
N/A, COC#118686
DATE: 03/23/99

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

**PROJECT NO:** 990309-G1
**MATRIX:** WATER
**DATE SAMPLED:** 03/09/99 10:12:00
**DATE RECEIVED:** 03/12/99

## ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|---|---|---|---|
| MTBE | 2000 | 10 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 | 97 | | |
| 4-Bromofluorobenzene | 93 | | |
| Method 8020A *** | | | |
| Analyzed by: DR | | | |
| Date: 03/19/99 | | | |
| Gasoline Range Organics | 1.2 | 0.05 P | mg/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 103 | | |
| 4-Bromofluorobenzene | 93 | | |
| California LUFT Manual for Gasoline | | | |
| Analyzed by: DR | | | |
| Date: 03/17/99 15:29:00 | | | |

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

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

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

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

# Certificate of Analysis No. H9-9903547-02

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

P.O.# N/A, COC#118686
DATE: 03/23/99

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

**PROJECT NO:** 990309-G1
**MATRIX:** WATER
**DATE SAMPLED:** 03/09/99 10:30:00
**DATE RECEIVED:** 03/12/99

## ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|---|---|---|---|
| MTBE | 19 | 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 | 100 | | |
| 4-Bromofluorobenzene | 93 | | |
| Method 8020A *** | | | |
| Analyzed by: DR | | | |
| Date: 03/18/99 | | | |
| Gasoline Range Organics | 0.060 | 0.05 P | mg/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 107 | | |
| 4-Bromofluorobenzene | 90 | | |
| California LUFT Manual for Gasoline | | | |
| Analyzed by: DR | | | |
| Date: 03/18/99 00:42:00 | | | |
| Diesel Range Organics | 0.84 | 0.05 P | mg/L |

(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.

**COMMENTS:** Sample contains petroleum hydrocarbons from C13-C24 that do not resemble a diesel pattern.(c10-c24) RR

**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. H9-9903547-02

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

P.O.# N/A, COC#118686
DATE: 03/23/99

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

**PROJECT NO:** 990309-G1
**MATRIX:** WATER
**DATE SAMPLED:** 03/09/99 10:30:00
**DATE RECEIVED:** 03/12/99

## ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|---|---|---|---|
| **Surrogate** | **% Recovery** | | |
| n-Pentacosane | 108 | | |
| California LUFT Manual for Diesel<br>Analyzed by: RR<br>Date: 03/19/99 01:52:00 | | | |
| California TPH-D Extraction<br>Method 3510C ***<br>Analyzed by: KL<br>Date: 03/15/99 12:00:00 | 03/15/99 | | |
| Hydrocarbons by Gravimetry<br>Method 5520 B & F **<br>Analyzed by: TM<br>Date: 03/15/99 08:00:00 | 7.6 | 5.0 | mg/L |

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.

**COMMENTS:** Sample contains petroleum hydrocarbons from C13-C24 that do not resemble a diesel pattern.(c10-c24) RR

**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. H9-9903547-03

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

P.O.# N/A, COC#118686
DATE: 03/23/99

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

**PROJECT NO:** 990309-G1
**MATRIX:** WATER
**DATE SAMPLED:** 03/09/99 10:50:00
**DATE RECEIVED:** 03/12/99

## ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|---|---|---|---|
| MTBE | 6.5 | 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 | 97 | | |
| 4-Bromofluorobenzene | 97 | | |
| Method 8020A *** | | | |
| Analyzed by: DR | | | |
| Date: 03/19/99 | | | |
| Gasoline Range Organics | ND | 0.05 P | mg/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 100 | | |
| 4-Bromofluorobenzene | 93 | | |
| California LUFT Manual for Gasoline | | | |
| Analyzed by: DR | | | |
| Date: 03/18/99 01:10:00 | | | |

(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. H9-9903547-04

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

P.O.# N/A, COC#118686
DATE: 03/23/99

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

**PROJECT NO:** 990309-G1
**MATRIX:** WATER
**DATE SAMPLED:** 03/09/99 11:14:00
**DATE RECEIVED:** 03/12/99

## ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|---|---|---|---|
| MTBE | 24 | 1.0 P | ug/L |
| BENZENE | 8.8 | 1.0 P | ug/L |
| TOLUENE | 5.5 | 1.0 P | ug/L |
| ETHYLBENZENE | 12 | 1.0 P | ug/L |
| TOTAL XYLENE | 11 | 1.0 P | ug/L |
| TOTAL VOLATILE AROMATIC HYDROCARBONS | 37.3 | | ug/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 120 | | |
| 4-Bromofluorobenzene | 100 | | |
| Method 8020A *** | | | |
| Analyzed by: DR | | | |
| Date: 03/19/99 | | | |
| Gasoline Range Organics | 4.6 | 0.5 P | mg/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 147MI | | |
| 4-Bromofluorobenzene | 90 | | |
| California LUFT Manual for Gasoline | | | |
| Analyzed by: DR | | | |
| Date: 03/18/99 03:27:00 | | | |

(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. H9-9903547-05

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

P.O.# N/A, COC#118686
DATE: 03/23/99

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

**PROJECT NO:** 990309-G1
**MATRIX:** WATER
**DATE SAMPLED:** 03/09/99 11:34:00
**DATE RECEIVED:** 03/12/99

## ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|---|---|---|---|
| MTBE | 13000 | 100 P | ug/L |
| BENZENE | 2000 | 5.0 P | ug/L |
| TOLUENE | 84 | 5.0 P | ug/L |
| ETHYLBENZENE | 290 | 5.0 P | ug/L |
| TOTAL XYLENE | 510 | 5.0 P | ug/L |
| TOTAL VOLATILE AROMATIC HYDROCARBONS | 2884 | | ug/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 103 | | |
| 4-Bromofluorobenzene | 93 | | |
| Method 8020A *** | | | |
| Analyzed by: DR | | | |
| Date: 03/18/99 | | | |
| Gasoline Range Organics | 16 | 0.25 P | mg/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 113 | | |
| 4-Bromofluorobenzene | 113 | | |
| California LUFT Manual for Gasoline | | | |
| Analyzed by: DR | | | |
| Date: 03/18/99 01:38:00 | | | |

(P) - Practical Quantitation Limit

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

**QUALITY ASSURANCE:** These analyses are performed in accordance with EPA guidelines for quality assurance.
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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

# Certificate of Analysis No. H9-9903547-06

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

P.O.# N/A, COC#118686
DATE: 03/23/99

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

**PROJECT NO:** 990309-G1
**MATRIX:** WATER
**DATE SAMPLED:** 03/09/99 11:52:00
**DATE RECEIVED:** 03/12/99

## ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|---|---|---|---|
| MTBE | 100000 | 250 P | ug/L |
| BENZENE | 6800 | 50 P | ug/L |
| TOLUENE | 570 | 50 P | ug/L |
| ETHYLBENZENE | 1400 | 50 P | ug/L |
| TOTAL XYLENE | 4700 | 50 P | ug/L |
| TOTAL VOLATILE AROMATIC HYDROCARBONS | 13470 | | ug/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 116 | | |
| 4-Bromofluorobenzene | 95 | | |
| Method 8020A *** | | | |
| Analyzed by: DR | | | |
| Date: 03/19/99 | | | |
| Gasoline Range Organics | 82 | 2.5 P | mg/L |
| **Surrogate** | **% Recovery** | | |
| 1,4-Difluorobenzene | 133 | | |
| 4-Bromofluorobenzene | 100 | | |
| California LUFT Manual for Gasoline | | | |
| Analyzed by: DR | | | |
| Date: 03/18/99 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.
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*QUALITY CONTROL*

*DOCUMENTATION*

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: HP_S990319102100

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

| S P I K E C O M P O U N D S | Method Blank Result <2> | Spike Added <3> | Blank Spike Result <1> | Blank Spike Recovery % | QC Limits(**) (Mandatory) % Recovery Range |
|---|---|---|---|---|---|
| MTBE | ND | 50 | 42 | 84.0 | 72 - 128 |
| Benzene | ND | 50 | 43 | 86.0 | 61 - 119 |
| Toluene | ND | 50 | 46 | 92.0 | 65 - 125 |
| EthylBenzene | ND | 50 | 43 | 86.0 | 70 - 118 |
| O Xylene | ND | 50 | 45 | 90.0 | 72 - 117 |
| M & P Xylene | ND | 100 | 92 | 92.0 | 72 - 116 |

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

| S P I K E C O M P O U N D S | Sample Results <2> | Spike Added <3> | Matrix Spike Result <1> | Matrix Spike Recovery <4> | Matrix Spike Duplicate Result <1> | Matrix Spike Duplicate Recovery <5> | MS/MSD Relative % Difference | QC Limits(***) (Advisory) RPD Max. | QC Limits(***) (Advisory) Recovery Range |
|---|---|---|---|---|---|---|---|---|---|
| MTBE | 1.8 | 20 | 22 | 101 | 24 | 111 | 9.43 | 20 | 39 - 150 |
| BENZENE | ND | 20 | 20 | 100 | 20 | 100 | 0 | 21 | 32 - 164 |
| TOLUENE | ND | 20 | 20 | 100 | 20 | 100 | 0 | 20 | 38 - 159 |
| ETHYLBENZENE | ND | 20 | 20 | 100 | 20 | 100 | 0 | 19 | 52 - 142 |
| O XYLENE | ND | 20 | 20 | 100 | 20 | 100 | 0 | 18 | 53 - 143 |
| M & P XYLENE | ND | 40 | 41 | 102 | 41 | 102 | 0 | 17 | 53 - 144 |

Analyst: DR
Sequence Date: 03/19/99
SPL ID of sample spiked: 9903572-06A
Sample File ID: S_C3155.TX0
Method Blank File ID:
Blank Spike File ID: S_C3148.TX0
Matrix Spike File ID: S_C3150.TX0
Matrix Spike Duplicate File ID: S_C3151.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):

9903541-01A 9903541-02A 9903547-01A 9903547-06A
9903572-05A 9903574-02A 9903573-01A 9903573-03A
9903573-04A 9903573-05A 9903573-07A 9903573-08A
9903573-09A 9903574-01A 9903572-06A 9903573-06A
9903547-03A 9903547-04A

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: HP_S990318042100

## 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 | 46 | 92.0 | 61 - 119 |
| Toluene | ND | 50 | 46 | 92.0 | 65 - 125 |
| EthylBenzene | ND | 50 | 46 | 92.0 | 70 - 118 |
| O Xylene | ND | 50 | 47 | 94.0 | 72 - 117 |
| M & P Xylene | ND | 100 | 95 | 95.0 | 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 | 19 | 20 | 46 | 135 | 48 | 145 | 7.14 | 20 | 39 - 150 |
| BENZENE | ND | 20 | 24 | 120 | 23 | 115 | 4.26 | 21 | 32 - 164 |
| TOLUENE | ND | 20 | 23 | 115 | 23 | 115 | 0 | 20 | 38 - 159 |
| ETHYLBENZENE | ND | 20 | 23 | 115 | 22 | 110 | 4.44 | 19 | 52 - 142 |
| O XYLENE | ND | 20 | 23 | 115 | 23 | 115 | 0 | 18 | 53 - 143 |
| M & P XYLENE | ND | 40 | 47 | 118 | 47 | 118 | 0 | 17 | 53 - 144 |

Analyst: DR
Sequence Date: 03/18/99
SPL ID of sample spiked: 9903547-02A
Sample File ID: S_C3120.TX0
Method Blank File ID:
Blank Spike File ID: S_C3109.TX0
Matrix Spike File ID: S_C3114.TX0
Matrix Spike Duplicate File ID: S_C3115.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): 9903572-01A 9903572-03A 9903572-04A 9903547-02A 9903572-08A 9903547-05A

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: HP_S990317101800

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 | 0.94 | 94.0 | 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 | 1.2 | 0.90 | 2.0 | 88.9 | 2.2 | 111 | 22.1 | 36 | 36 - 160 |

Analyst: DR

Sequence Date: 03/17/99

SPL ID of sample spiked: 9903547-01A

Sample File ID: SSC3078.TX0

Method Blank File ID:

Blank Spike File ID: SSC3074.TX0

Matrix Spike File ID: SSC3075.TX0

Matrix Spike Duplicate File ID: SSC3076.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):

9903547-02A 9903547-03A 9903547-05A 9903547-06A
9903572-01A 9903572-02A 9903547-04A 9903547-01A
9903541-01A 9903541-02A

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HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **

California LUFT Manual for Diesel

Matrix: Aqueous

Batch Id: HPVV990318195302

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 |
|---|---|---|---|---|---|
| Diesel | ND | 5.0 | 4.0 | 80.0 | 53 - 148 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| DIESEL | ND | 5.0 | 4.20 | 84.0 | 4.18 | 83.6 | 0.477 | 39 | 21 - 175 |

Analyst: RR

Sequence Date: 03/18/99

SPL ID of sample spiked: 9903505-01B

Sample File ID: VVC2065.TX0

Method Blank File ID:

Blank Spike File ID: VVC2064.TX0

Matrix Spike File ID: VVC2066.TX0

Matrix Spike Duplicate File ID: VVC2067.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 Historical Limits (4th Qtr'97)

(***) = Source: SPL Historical Limits (4th Qtr.'97)

SAMPLES IN BATCH(SPL ID): 9903505-01B 9903547-02B

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

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 03/15/99
Analyzed on: 03/15/99
Analyst: TM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Hydrocarbons by Gravimetry
Method 5520 B & F **

| SPL Sample ID Number | Method Blank mg/L | Sample Result mg/L | Spike Added mg/L | Matrix Spike Result mg/L | Matrix Spike Recovery % | Matrix Spike Duplicate Result mg/L | Matrix Spike Duplicate Recovery % | RPD (%) | QC LIMITS (Advisory) RPD Max | QC LIMITS (Advisory) % REC |
|---|---|---|---|---|---|---|---|---|---|---|
| BLANK | ND | ND | 40 | 37.2 | 93.0 | 35.9 | 89.8 | 3.5 | 7.9 | 84 -108 |

990315TM -9903442

Samples in batch:

9903471-02C 9903544-01C 9903547-02C 9903581-01C

COMMENTS:

*CHAIN OF CUSTODY*

*AND*

*SAMPLE RECEIPT CHECKLIST*

9903547 BAF

# CHAIN OF CUSTODY

No. 118686

Page 1 of 1

| CONSULTANT'S NAME | CONSULTANT'S ADDRESS | | |
|---|---|---|---|
| Blaine Tech Services | 1680 Rogers Ave, San Jose, CA | | |
| BP SITE NUMBER | BP SITE / FACILITY ADDRESS | | CONSULTANT PROJECT NUMBER |
| 11126 | 1700 Powell St., Emeryville, CA | | 990309-G1: |
| 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 804039490154

| | SAMPLE DESCRIPTION | COLLECTION DATE | COLLECTION TIME | MATRIX SOIL/WATER | CONTAINERS NO. | CONTAINERS TYPE (VOL.) | PRESERVATIVE LAB SAMPLE # | TPH-D BTEX | MTBE | TPH-D | TOG | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ✓ | A | 3/9/99 | ~~1012~~ 1012 | Water | 3 | VOAs | | X | X | | | |
| X | B | | 1030 | | 7 | Mixed | | X | X | X | X | |
| ✓ | C | | 1050 | | 3 | VOAs | | X | X | | | |
| ✓ | D | | 1114 | | | | | X | X | | | |
| ✓ | E | | 1134 | | | | | X | X | | | |
| ✓ | F | ↓ | 1152 | ↓ | ↓ | ↓ | | X | X | | | |

SAMPLED BY (Please Print Name): Morgan Gillies

SAMPLED BY (Signature):

ADDITIONAL COMMENTS

| RELINQUISHED BY / AFFILIATION (Print Name / Signature) | DATE | TIME | ACCEPTED BY /AFFILIATION (Print Name / Signature) | DATE | TIME |
|---|---|---|---|---|---|
| Morgan Gillies, | 3/11/99 | 1535 | | | |
| | | | | | |
| | | | | 3/12/99 | 1000 |

2°

CLV-16722-A (2/97)
PKG/50

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

# WELL GAUGING DATA

Project # 990309-G1 Date 3/9/99 Client BP 11126

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 | |
|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 2 | | | | | 3.40 | 11.42 | TOC | |
| MW-2 | 2 | | | | | 4.08 | 10.63 | | |
| MW-3 | 2 | | | | | 5.53 | 11.92 | | |
| MW-4 | 2 | | | | | 7.70 | 10.98 | | |
| MW-5 | 2 | | | | | 4.79 | 13.87 | | |
| MW-6 | 2 | | | | | 5.90 | 13.46 | | |
| MW-7 | 2 | | | | | 5.57 | 13.95 | | |
| MW-8 | | Unable to locate - possibly paved over. | | | | | | | |
| MW-9 | 4 | | | | | 3.95 | 13.81 | | |

# BP WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 990309-61 | Job # 11126 |
| Sampler: MG | Date: 3/9/99 |
| Well I.D.: MW-1 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth: 11.42 | Depth to Water: 3.40 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | D.O. Meter (if req'd): YSI HACH |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 2" | 0.16 | 5" | 1.02 |
| 3" | 0.37 | 6" | 1.47 |
| 4" | 0.65 | Other | radius$^2$ * 0.163 |

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

Sampling Method:
- Bailer
- (Disposable Bailer)
- Extraction Port
- Other: ___

1.3 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 3.9 (Calculated Volume) Gals.

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1125 | 62.7 | 6.8 | 1000 | 48 | 1.5 | |
| 1127 | 63.1 | 6.8 | 1060 | 23 | 3.0 | |
| 1129 | 63.4 | 6.7 | 1050 | 29 | 4.0 | |
| | | | | | | |
| | | | | | | |

Did well dewater? Yes (No) Gallons actually evacuated: 4.0

Sampling Time: 1134 Sampling Date: 3/9/99

Sample I.D.: 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 #: 990309-61 | Job # 1126 |
| Sampler: MG | Date: 3/9/99 |
| Well I.D.: MW-2 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth: 10.63 | Depth to Water: 4.08 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | D.O. Meter (if req'd): YSI HACH |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 2" | 0.16 | 5" | 1.02 |
| 3" | 0.37 | 6" | 1.47 |
| 4" | 0.65 | Other | radius$^2$ * 0.163 |

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

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

1.0 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 3.0 (Calculated Volume) Gals.

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1041 | 61.9 | 8.3 | 240 | >200 | 1.25 | |
| 1043 | 62.3 | 8.3 | 250 | >200 | 2.5 | |
| 1045 | 62.4 | 8.3 | 250 | >200 | 3.5 | |
| | | | | | | |
| | | | | | | |

| | | | |
|---|---|---|---|
| Did well dewater? Yes (No) | | Gallons actually evacuated: 3.5 | |
| Sampling Time: 1050 | | Sampling Date: 3/9/99 | |
| Sample I.D.: ~~Affiliate~~ 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 |

# BP WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 990309-G1 | Job # 11126 |
| Sampler: MG | Date: 3/9/99 |
| Well I.D.: MW-3 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth: 11.92 | Depth to Water: 5.53 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | D.O. Meter (if req'd): YSI HACH |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 2" | 0.16 | 5" | 1.02 |
| 3" | 0.37 | 6" | 1.47 |
| 4" | 0.65 | Other | radius$^2$ * 0.163 |

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

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

| 1 Case Volume (Gals.) | X Specified Volumes | = Calculated Volume |
|---|---|---|
| 1.0 | 3 | 3.0 Gals. |

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1020 | 62.9 | 7.3 | 7400 | >200 | 1.25 | |
| 1022 | 63.4 | 7.3 | 7470 | >200 | 2.5 | |
| 1024 | 63.6 | 7.3 | 7450 | >200 | 3.5 | |
| | | | | | | |
| | | | | | | |

| | | | |
|---|---|---|---|
| Did well dewater? Yes (No) | | Gallons actually evacuated: 3.5 | |
| Sampling Time: 1030 | | Sampling Date: 3/9/99 | |
| Sample I.D.: ~~MW-3~~ B | | Laboratory: (SPL) | Other ___ |
| Analyzed for: (TPH-G) BTEX MTBE (TPH-D) | | Other: TOG | |
| 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 #: 990309-61 | Job # 1126 |
| Sampler: MG | Date: 3/9/99 |
| Well I.D.: MW-4 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth: 10.98 | Depth to Water: 7.70 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | D.O. Meter (if req'd): YSI HACH |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 2" | 0.16 | 5" | 1.02 |
| 3" | 0.37 | 6" | 1.47 |
| 4" | 0.65 | Other | radius$^2$ * 0.163 |

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

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

| 1 Case Volume (Gals.) | | Specified Volumes | | Calculated Volume |
|---|---|---|---|---|
| 0.5 | X | 3 | = | 1.5 Gals. |

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1005 | 62.8 | 7.4 | 5100 | >200 | 0.75 | Gray |
| 1006 | 63.3 | 7.3 | 5120 | >200 | 1.5 | ↓ |
| 1007 | 63.5 | 7.3 | 5180 | >200 | 2.0 | ↓ |
| | | | | | | |
| | | | | | | |

| | | | |
|---|---|---|---|
| Did well dewater? Yes (No) | | Gallons actually evacuated: 2.0 | |
| Sampling Time: 1012 | | Sampling Date: 3/9/99 | |
| Sample I.D.: A | | Laboratory: (SPL) | Other_____ |
| Analyzed for: (TPH-G BTEX MTBE) TPH-D | | Other: | |
| D.O. (if req'd): | Pre-purge: | mg/L | Post-purge: mg/L |
| O.R.P. (if req'd): | Pre-purge: | mV | Post-purge: mV |

# BP WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 990309-61 | Job # 11126 |
| Sampler: MB | Date: 3/9/99 |
| Well I.D.: MW-5 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth: 13.87 | Depth to Water: 4.79 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | D.O. Meter (if req'd): YSI HACH |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 2" | 0.16 | 5" | 1.02 |
| 3" | 0.37 | 6" | 1.47 |
| 4" | 0.65 | Other | radius$^2$ * 0.163 |

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

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

| 1.5 | x | 3 | = | 4.5 Gals. |
|---|---|---|---|---|
| 1 Case Volume (Gals.) | | Specified Volumes | | Calculated Volume |

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1105 | 62.9 | 6.9 | 1010 | >200 | 1.75 | Odor |
| 1107 | 63.2 | 6.9 | 1000 | >200 | 3.5 | ↓ |
| 1109 | 63.3 | 6.9 | 1000 | >200 | 5.0 | ↓ |
| | | | | | | |
| | | | | | | |

| | | | |
|---|---|---|---|
| Did well dewater? Yes (No) | | Gallons actually evacuated: 5.0 | |
| Sampling Time: 1114 | | Sampling Date: 3/9/99 | |
| Sample I.D.: 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 #: 990309-61 | Job # 11126 |
| Sampler: MG | Date: 3/9/99 |
| Well I.D.: MW-9 | Well Diameter: 2 3 (4) 6 8 ___ |
| Total Well Depth: 13.81 | Depth to Water: 3.95 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | D.O. Meter (if req'd): YSI HACH |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 2" | 0.16 | 5" | 1.02 |
| 3" | 0.37 | 6" | 1.47 |
| 4" | 0.65 | Other | radius$^2$ * 0.163 |

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

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

6.4 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 19.2 (Calculated Volume) Gals.

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1145 | 63.3 | 6.8 | 870 | >200 | 7 | Odor |
| 1146 | 63.4 | 6.7 | 890 | >200 | 14 | " |
| 1147 | 63.7 | 6.7 | 920 | >200 | 21 | " |
| | | | | | | |
| | | | | | | |

| | | | |
|---|---|---|---|
| Did well dewater? Yes (No) | | Gallons actually evacuated: 21 | |
| Sampling Time: 1152 | | Sampling Date: 3/9/99 | |
| Sample I.D.: F | | Laboratory: (SPL) | Other ___ |
| Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: | | | |
| D.O. (if req'd): | Pre-purge: ___ mg/L | Post-purge: | ___ mg/L |
| O.R.P. (if req'd): | Pre-purge: ___ mV | Post-purge: | ___ mV |