



BP OIL

ST10 3960
SOS

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

March 13, 1999

Alameda County Health Care Services Department
Attention Ms. Juliette Shin
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

only wells MW-2
and -4 were sampled

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

Dear Mr. Shin:

This letter transmits a Groundwater Monitoring and Sampling Report, dated 26 February 1999. A petroleum release was documented during 1991 when a site assessment was performed in support of the property owner's plans to refinance an adjacent shopping center property, which also includes the BP site. After BP performed several iterations of groundwater monitoring and site assessment, the business and related improvements were sold to the current operator (Tosco Corporation) in 1994.

The enclosed groundwater monitoring and sampling report includes **laboratory data for samples collected on 30 December 1998**. Upon review of the data, please note the following:

1. Aromatic petroleum hydrocarbons were not detected in a groundwater sample obtained from well MW-1, where aromatic petroleum concentrations have – with one exceptions – not been detected since the 12 January 1996 sampling event. **Prior to 12 January 1996, aromatic petroleum hydrocarbons were reported to be present in every sample obtained from MW-1.**
2. Accumulated liquid petroleum hydrocarbon was observed in well MW-2 (0.10 feet) on 30 December 1998. Liquid petroleum hydrocarbon was first observed in MW-2 on 7 June 1993. A cumulative volume of approximately 25 gallons has been removed to date.
3. MTBE concentrations were corroborated by US EPA Method 8260.

What?
MW-1 was
not sampled

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

Sincerely,

Scott Hooton

attachment

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

BLAINE
TECH SERVICES INC.

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



February 26, 1999

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

4th Quarter 1998 Monitoring at 11117

Fourth Quarter 1998 Groundwater Monitoring
BP Service Station Number 11117
7210 Bancroft
Oakland, CA

Monitoring Performed on December 30, 1998

Groundwater Sampling Report 981230-R-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.

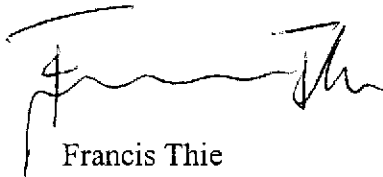
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The **Professional Engineering Appendix** 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,

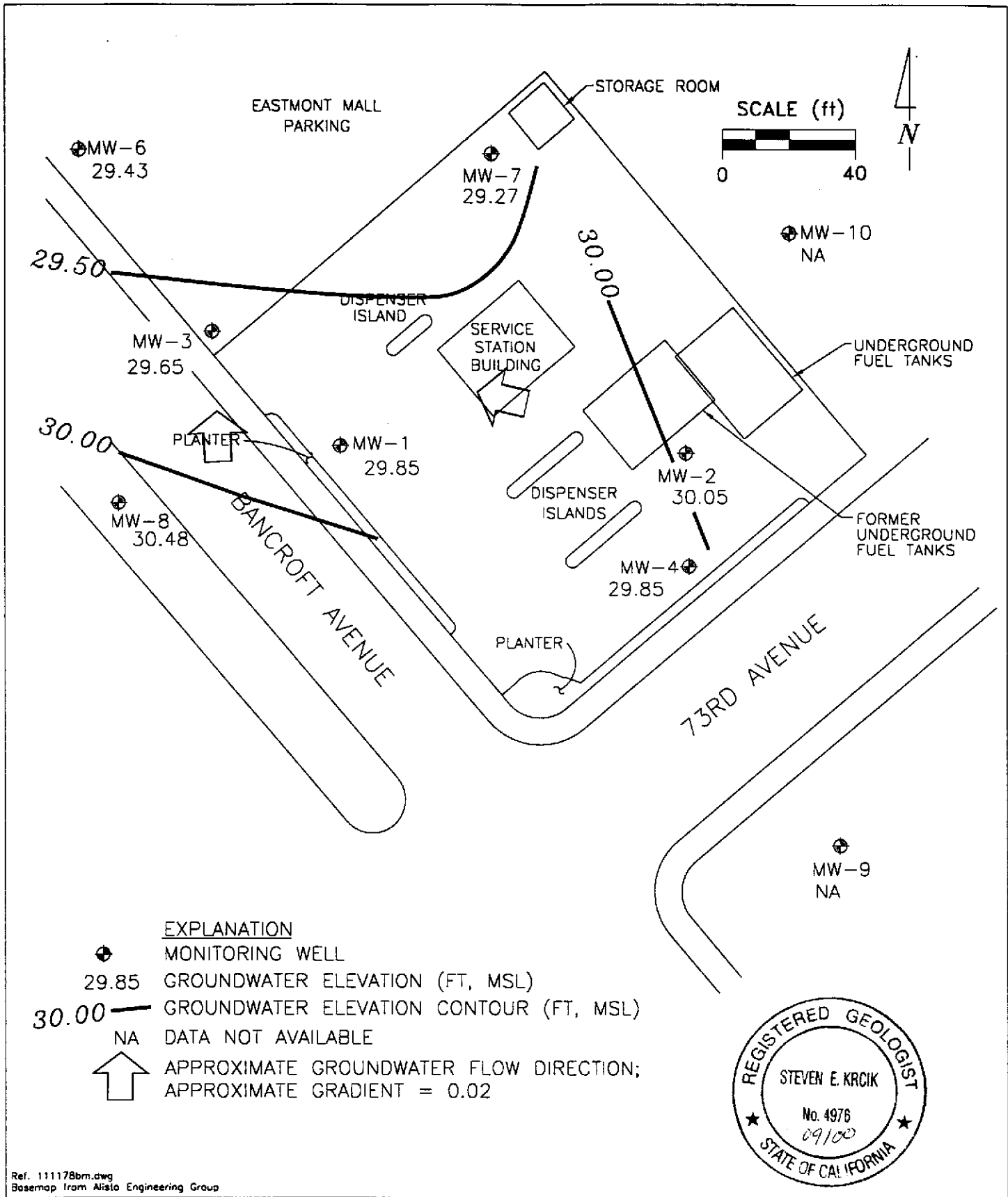
A handwritten signature in black ink, appearing to read 'Francis Thie', written over a horizontal line.

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



PREPARED BY

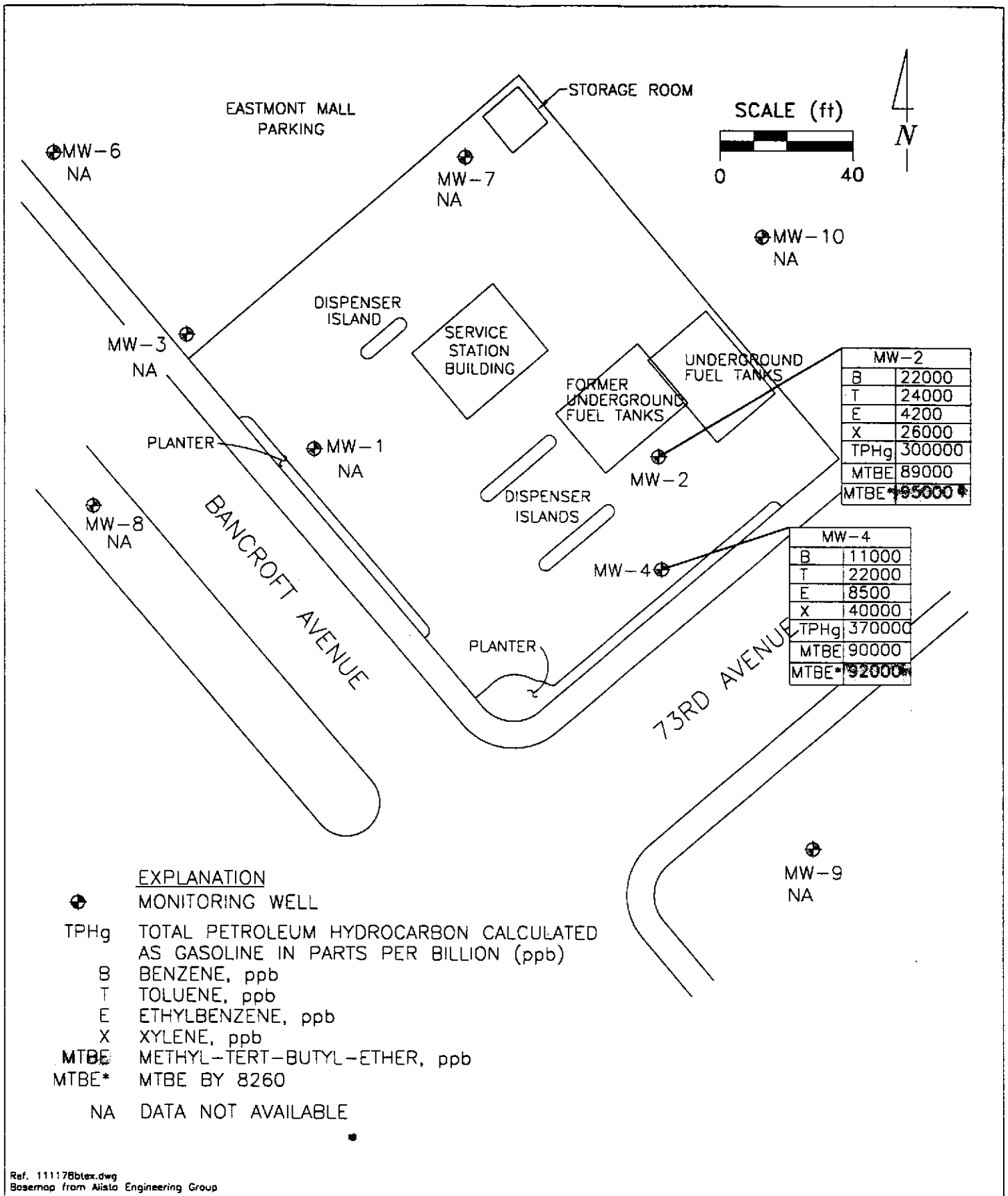
RRM
engineering contracting firm

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

**GROUNDWATER ELEVATION CONTOUR MAP,
DECEMBER 30, 1998**

FIGURE:
1

PROJECT:
DAC04



Ref. 111176btex.dwg
 Basemap from Aista Engineering Group

PREPARED BY



BP Oil Service Station No. 11117
 7210 Bancroft Avenue
 Oakland, California

**HYDROCARBON CONCENTRATION MAP,
 DECEMBER 30, 1998**

**FIGURE:
 2
 PROJECT:
 DAC04**

Table of Well Data and Analytical Results

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

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

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

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

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

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

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|----------|------------------------------|-----------------------------|-----------------------|--------------------------|----------------------------------|--------------|--------------|----------|----------|----------|----------|-------------|---------------------|----------|------|
| QC-2 (i) | 09/15/92 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | ANA |
| QC-2 (i) | 12/15/92 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | ANA |
| QC-2 (i) | 03/15/93 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | PACE |
| QC-2 (i) | 06/07/93 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | PACE |
| QC-2 (i) | 09/24/93 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | PACE |
| QC-2 (i) | 12/27/93 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | PACE |
| QC-2 (i) | 04/05/94 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | PACE |
| QC-2 (i) | 07/22/94 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | PACE |
| QC-2 (i) | 10/13/94 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | PACE |
| QC-2 (i) | 01/25/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | 2 | 0.6 | 1 | --- | --- | --- | ATI |
| QC-2 (i) | 04/19/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | ATI |
| QC-2 (i) | 07/05/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | --- | --- | --- | ATI |
| QC-2 (i) | 10/05/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | ND<5.0 | --- | --- | ATI |
| QC-2 (i) | 01/12/96 | --- | --- | --- | --- | ND<50 | --- | ND<0.50 | ND<0.50 | ND<0.50 | ND<1.0 | ND<5.0 | --- | --- | ATI |
| QC-2 (i) | 04/22/96 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<1 | ND<1 | ND<1 | ND<10 | --- | --- | SPL |
| QC-2 (i) | 07/02/96 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<1 | ND<1 | ND<1 | ND<10 | --- | --- | SPL |

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

| ABBREVIATIONS: | NOTES: |
|--|---|
| TPH-G Total petroleum hydrocarbons as gasoline | (a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level. |
| TPH-D Total petroleum hydrocarbons as diesel | |
| B Benzene | (b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product. |
| T Toluene | |
| E Ethylbenzene | (c) Concentrations reported as diesel from MW-1, MW-2 and MW-4 are primarily due to the presence of a |
| X Total xylenes | lighter petroleum product, possibly gasoline or kerosene. |
| MTBE Methyl tert butyl ether | |
| DO Dissolved oxygen | (d) Blind duplicate. |
| ug/l Micrograms per liter | |
| ppm Parts per million | (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-018-05-004. |
| ND Not detected above reported detection limit | |
| --- Not analyzed/applicable/measurable | (f) Well not sampled due to presence of free product. |
| ANA Anametrix, Inc. | |
| PACE Pace, Inc. | (g) Well inaccessible. |
| ATI Analytical Technologies, Inc. | |
| SPL Southern Petroleum Laboratories | (h) Top of casing not surveyed. |
| | (i) Travel blank. |
| | (j) EPA method by 8020\8260 |

Analytical Appendix



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

January 14, 1999

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

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on January 5, 1999. The sample(s) was assigned to Certificate of Analysis No.(s) 9901063 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

A handwritten signature in cursive script that reads 'Sonia West'. The signature is written in black ink and is positioned above a horizontal line.

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: 99-01-063

Approved for Release by:

Sonia West

Sonia West, Senior Project Manager

1-15-99

Date

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

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



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

Certificate of Analysis No. H9-9901063-01

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

P.O.#
 N/A , COC#100195
 DATE: 01/14/99

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

PROJECT NO: 981230-R1
 MATRIX: WATER
 DATE SAMPLED: 12/30/98 10:40:00
 DATE RECEIVED: 01/05/99

ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|--------------------------------------|---------|-----------------|-------|
| MTBE | 89000 | 500 P | ug/L |
| BENZENE | 22000 | 500 P | ug/L |
| TOLUENE | 24000 | 500 P | ug/L |
| ETHYLBENZENE | 4200 | 500 P | ug/L |
| TOTAL XYLENE | 26000 | 500 P | ug/L |
| TOTAL VOLATILE AROMATIC HYDROCARBONS | 76200 | | ug/L |

Surrogate

% Recovery

1,4-Difluorobenzene

113

4-Bromofluorobenzene

107

Method 8020A ***

Analyzed by: LJ

Date: 01/09/99

Gasoline Range Organics

300

25.0 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene

87

4-Bromofluorobenzene

107

California LUFT Manual for Gasoline

Analyzed by: CJ

Date: 01/07/99 19:07:00

MTBE

95000

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.

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. H9-9901063-01

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

P.O.#
N/A , COC#100195
DATE: 01/14/99

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

PROJECT NO: 981230-R1
MATRIX: WATER
DATE SAMPLED: 12/30/98 10:40:00
DATE RECEIVED: 01/05/99

| PARAMETER | ANALYTICAL DATA | RESULTS | DETECTION LIMIT | UNITS |
|----------------------|-----------------|---------|-----------------|-------|
| 4-Bromofluorobenzene | | 108 | | |
| 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



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

Certificate of Analysis No. H9-9901063-02

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

P.O.#
 N/A , COC#100195
 DATE: 01/14/99

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

PROJECT NO: 981230-R1
 MATRIX: WATER
 DATE SAMPLED: 12/30/98 11:15:00
 DATE RECEIVED: 01/05/99

ANALYTICAL DATA

| PARAMETER | RESULTS | DETECTION LIMIT | UNITS |
|--------------------------------------|---------|-----------------|-------|
| MTBE | 90000 | 250 P | ug/L |
| BENZENE | 11000 | 250 P | ug/L |
| TOLUENE | 22000 | 250 P | ug/L |
| ETHYLBENZENE | 8500 | 250 P | ug/L |
| TOTAL XYLENE | 40000 | 250 P | ug/L |
| TOTAL VOLATILE AROMATIC HYDROCARBONS | 81500 | | ug/L |

| | |
|----------------------|-------------------|
| Surrogate | % Recovery |
| 1,4-Difluorobenzene | 117 |
| 4-Bromofluorobenzene | 101 |

Method 8020A ***

Analyzed by: CJ

Date: 01/07/99

| | | | |
|-------------------------|-----|--------|------|
| Gasoline Range Organics | 370 | 12.5 P | mg/L |
|-------------------------|-----|--------|------|

| | |
|----------------------|-------------------|
| Surrogate | % Recovery |
| 1,4-Difluorobenzene | 112 |
| 4-Bromofluorobenzene | 111 |

California LUFT Manual for Gasoline

Analyzed by: CJ

Date: 01/07/99 19:34:00

| | | | |
|------|-------|---------|------|
| MTBE | 92000 | 10000 P | ug/L |
|------|-------|---------|------|

| | |
|-----------------------|-------------------|
| Surrogate | % Recovery |
| 1,2-Dichloroethane-d4 | 88 |
| 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.

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. H9-9901063-02

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

P.O.#
N/A , COC#100195
DATE: 01/14/99

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

PROJECT NO: 981230-R1
MATRIX: WATER
DATE SAMPLED: 12/30/98 11:15:00
DATE RECEIVED: 01/05/99

| PARAMETER | ANALYTICAL DATA | RESULTS | DETECTION LIMIT | UNITS |
|----------------------|-----------------|---------|-----------------|-------|
| 4-Bromofluorobenzene | | 106 | | |
| 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

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 | 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: 1990112
 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/1990112a.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 |



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 690-0000

Matrix: Aqueous
Sample ID: VLBLK
Batch: L990112104646

Reported on: 01/13/99 18:11
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 9901063-01 9901063-02

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 | | QC Limits(**) (Mandatory) % Recovery Range |
|--------------------|-------------------------------|-----------------------|---------------|---------------|--|
| | | | Result <1> | Recovery % | |
| MTBE | ND | 50 | 51 | 102 | 72 - 128 |
| Benzene | ND | 50 | 51 | 102 | 61 - 119 |
| Toluene | ND | 50 | 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 | | Matrix Spike Duplicate | | MS/MSD Relative % Difference | QC Limits(***) (Advisory) | |
|--------------------|--------------------------|-----------------------|---------------|-----------------|---------------------------|-----------------|------------------------------------|------------------------------|----------------|
| | | | Result <1> | Recovery <4> | Result <1> | Recovery <5> | | RPD Max. | 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 |

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

« = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: 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

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 ****
 METHOD 8020

Matrix: Aqueous
 Units: ug/L

Batch Id: VARE990107101000

LABORATORY CONTROL SAMPLE

| SPIKE COMPOUNDS | Method Blank Result <2> | Spike Added <3> | Blank Spike | | QC Limits(**) (Mandatory) % Recovery Range |
|-----------------|----------------------------|--------------------|---------------|------------|--|
| | | | Result <1> | Recovery % | |
| MTBE | ND | 50 | 47 | 94.0 | 72 - 128 |
| Benzene | ND | 50 | 51 | 102 | 61 - 119 |
| Toluene | ND | 50 | 52 | 104 | 65 - 125 |
| EthylBenzene | ND | 50 | 55 | 110 | 70 - 118 |
| O Xylene | ND | 50 | 53 | 106 | 72 - 117 |
| M & P Xylene | ND | 100 | 110 | 110 | 72 - 116 |

MATRIX SPIKES

| SPIKE COMPOUNDS | Sample Results <2> | Spike Added <3> | Matrix Spike | | Matrix Spike Duplicate | | MS/MSD Relative % Difference | QC Limits(***) (Advisory) | |
|-----------------|-----------------------|--------------------|---------------|-----------------|------------------------|-----------------|------------------------------------|------------------------------|----------------|
| | | | Result <1> | Recovery <4> | Result <1> | Recovery <5> | | RPD Max. | Recovery Range |
| | | | MTBE | 330 | 20 | 340 | NC | 360 | NC |
| BENZENE | ND | 20 | 19 | 95.0 | 20 | 100 | 5.13 | 21 | 32 - 164 |
| TOLUENE | ND | 20 | 19 | 95.0 | 20 | 100 | 5.13 | 20 | 38 - 159 |
| ETHYLBENZENE | ND | 20 | 19 | 95.0 | 21 | 105 | 10.0 | 19 | 52 - 142 |
| O XYLENE | ND | 20 | 20 | 100 | 22 | 110 | 9.52 | 18 | 53 - 143 |
| M & P XYLENE | ND | 40 | 42 | 105 | 45 | 112 | 6.45 | 17 | 53 - 144 |

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

<< = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: CJ

Sequence Date: 01/07/99

SPL ID of sample spiked: 9901072-01A

Sample File ID: E_A1132.TX0

Method Blank File ID:

Blank Spike File ID: E_A1122.TX0

Matrix Spike File ID: E_A1125.TX0

Matrix Spike Duplicate File ID: E_A1126.TX0

SAMPLES IN BATCH(SPL ID):

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



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

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

Matrix: Aqueous
 Units: mg/L

Batch Id: VARE990107103700

LABORATORY CONTROL SAMPLE

| SPIKE COMPOUNDS | Method Blank Result <2> | Spike Added <3> | Blank Spike | | QC Limits(**) (Mandatory) % Recovery Range |
|-------------------------|-------------------------|-----------------|-------------|------------|--|
| | | | Result <1> | Recovery % | |
| Gasoline Range Organics | ND | 1.0 | 0.98 | 98.0 | 64 - 131 |

MATRIX SPIKES

| SPIKE COMPOUNDS | Sample Results <2> | Spike Added <3> | Matrix Spike | | Matrix Spike Duplicate | | MS/MSD Relative % Difference | QC Limits(***) (Advisory) | |
|-------------------------|--------------------|-----------------|--------------|--------------|------------------------|--------------|------------------------------------|------------------------------|----------------|
| | | | Result <1> | Recovery <4> | Result <1> | Recovery <5> | | RPD Max. | Recovery Range |
| GASOLINE RANGE ORGANICS | 2.9 | 0.90 | 3.5 | 66.7 | 3.7 | 88.9 | 28.5 | 36 | 36 - 160 |

* = Values outside QC Range due to Matrix Interference (except RPD)
 « = Data outside Method Specification limits.
 NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
 ND = Not Detected/Below Detection Limit
 % Recovery = $[(<1> - <2>) / <3>] \times 100$
 LCS % Recovery = $(<1> / <3>) \times 100$
 Relative Percent Difference = $| (<4> - <5>) | / [(<4> + <5>) \times 0.5] \times 100$
 (**) = Source: SPL-Houston Historical data (1st Q '97)
 (***) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: 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

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



9901063

CHAIN OF CUSTODY

No. 100195

Page 1 of 1

| | | | |
|--|--|---|--|
| CONSULTANT'S NAME <i>Blame tech S.</i> | | CONSULTANT'S ADDRESS <i>1680 Rogers Ave</i> | |
| BP SITE NUMBER <i>11117</i> | BP SITE / FACILITY ADDRESS <i>7210 Bancroft Oakland, CA</i> | | CONSULTANT PROJECT NUMBER <i>981230 R-1</i> |
| CONSULTANT PROJECT MANGER | | PHONE NUMBER | FAX NUMBER |
| BP CONTACT | | BP ADDRESS | PHONE NUMBER |
| LAB CONTACT | | LABORATORY ADDRESS | PHONE NUMBER |
| 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 | | PRESERVATIVE | TPH-G | BTEX | MTBE | AMBIENT | COMPTON | 3-2-99 | COMMENTS |
|---------------------------|-----------------|-----------------|-------------------|------------|-------------|--------------|----------|----------|----------|----------|---------|--------|----------|
| | | | | NO. | TYPE (VOL.) | LAB SAMPLE # | | | | | | | |
| 10000 <i>A</i> | <i>12/30/98</i> | <i>10:40</i> | <i>W</i> | <i>5</i> | | | <i>+</i> | <i>+</i> | <i>+</i> | <i>+</i> | | | |
| 10000 <i>B</i> | <i>12/30/98</i> | <i>11:15</i> | <i>W</i> | <i>5</i> | | | <i>+</i> | <i>+</i> | <i>+</i> | <i>+</i> | | | |

| | | | | | | | | |
|---|---------------|-------------|---|---------------|-------------|---------------------|--|--|
| SAMPLED BY (Please Print Name) <i>Sim Rose</i> | | | SAMPLED BY (Signature) <i>[Signature]</i> | | | ADDITIONAL COMMENTS | | |
| RELINQUISHED BY / AFFILIATION (Print Name / Signature) | DATE | TIME | ACCEPTED BY / AFFILIATION (Print Name / Signature) | DATE | TIME | | | |
| <i>Sim Rose</i> | <i>1/4/99</i> | <i>4:30</i> | <i>Joni Rose</i> | | | | | |
| | | | <i>Joni Rose</i> | <i>1-5-99</i> | <i>1000</i> | | | |

SPL Houston Environmental Laboratory

Sample Login Checklist

| | |
|---|---|
| Date: 1-5-99 | Time: 1000 |
|---|---|

| |
|--|
| SPL Sample ID: 9901063 |
|--|

| | | Yes | No |
|----|--|---|---|
| 1 | Chain-of-Custody (COC) form is present. | <input checked="" type="checkbox"/> | |
| 2 | COC is properly completed. | <input checked="" type="checkbox"/> | |
| 3 | If no, Non-Conformance Worksheet has been completed. | | |
| 4 | Custody seals are present on the shipping container. | <input checked="" type="checkbox"/> | |
| 5 | If yes, custody seals are intact. | <input checked="" type="checkbox"/> | |
| 6 | All samples are tagged or labeled. | <input checked="" type="checkbox"/> | |
| 7 | If no, Non-Conformance Worksheet has been completed. | | |
| 8 | Sample containers arrived intact | <input checked="" type="checkbox"/> | |
| 9 | Temperature of samples upon arrival: | 3° C | |
| 10 | Method of sample delivery to SPL: | SPL Delivery | |
| | | Client Delivery | |
| | | FedEx Delivery (airbill #) | 864039443641 |
| | | Other: | |
| 11 | Method of sample disposal: | SPL Disposal | <input checked="" type="checkbox"/> |
| | | HOLD | |
| | | Return to Client | |

| | |
|--|--|
| Name: Jana Beckrum | Date: 1-5-99 |
|--|--|

Field Data Sheets

WELL MONITORING DATA SHEET

| | |
|-------------------------------------|---|
| Project #: 981230 R-1 | Client: BP |
| Sampler: SR | Start Date: 12-30-98 |
| Well I.D.: MW-2 | Well Diameter: ② 3 4 6 8 |
| Total Well Depth: 39.56 | Depth to Water: 21.10 |
| Before: After: | Before: After: |
| Depth to Free Product: 21.00 | Thickness of Free Product (feet): 0.10 |
| Referenced to: <u>PVC</u> Grade | D.O. Meter (if req'd): YSI HACH |

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

| | | | | | |
|---------------|-----------|-------------------|---|-------------------|-------|
| 2.9 | (Gals.) X | 3 | = | 8.7 | 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 | radius ² * 0.163 |

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|-------|-----------|-----|-------|-----------|---------------|------------------|
| 10:30 | 64.1 | 7.2 | 1106 | 2200 | 3 | Revised 150mL FF |
| 10:33 | 63.2 | 7.1 | 1124 | 2200 | 6 | |
| 10:36 | 64.5 | 6.8 | 1158 | 2200 | 9 | |
| | | | | | | |
| | | | | | | |

Did well dewater? Yes No Gallons actually evacuated: 9

Sampling Time: 10:40 Sampling Date: 12-30-98

Sample I.D.: MW-2 3 Laboratory: SPL

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

Equipment Blank I.D.: @ 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-R1 | Client: BP |
| Sampler: SR | Start Date: 12-30-98 |
| Well I.D.: MW-4 | Well Diameter: ② 3 4 6 8 |
| Total Well Depth: 39.71 | Depth to Water: 20.91 |
| 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: _____

| | | | | |
|---------------|-------------------|---|-------------------|-------|
| 3.0 (Gals.) X | 3 | = | 9 | 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 | radius ² * 0.163 |

| Time | Temp (°F) | pH | Cond. | Turbidity | Gals. Removed | Observations |
|------|-----------|-----|-------|-----------|---------------|--------------|
| 1105 | 64.6 | 7.0 | 1248 | >200 | 3 | |
| 1108 | 68.1 | 6.8 | 1283 | >200 | 6 | |
| 1111 | 68.1 | 6.6 | 1292 | >200 | 9 | |
| | | | | | | |
| | | | | | | |

Did well dewater? Yes No Gallons actually evacuated: 9

Sampling Time: 11:15 Sampling Date: 12-30-98

Sample I.D.: MW-4 Laboratory: SPL

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

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

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

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