BP OIL

BP Oil Company
Environmental Remediation Management
295 SW 41st Street
Renton, Washington 98055-4931
(425) 251-0567
Fax No: (425) 251-0736

August 1, 1998

Alameda County Health Care Services Agency
Attention Mr. Larry Seto - Senior Hazardous Materials Specialist
1131 Harbor Bay Parkway, STE 250
Alameda, CA 94502-6577

RE: Former BP Oil Site No. 11270
3255 MeCartney Road (at Island)
Alameda, CA
STID 1771

Dear Mr. Seto:

In response to your letter of 4 May 1998, enclosed find the 16 July 1998 Groundwater Monitoring and Sampling Report prepared by Alisto Engineering Group on behalf of BP.

The Alameda County Health Care Services Agency previously communicated plans to resume case closure review if the analytical results show that MTBE concentrations are stable or decreasing. However, if concentrations appear to be increasing, or significant migration is occurring, further assessments may be warranted to assure that there are no potential releases or on-going releases. You will recall that two additional rounds of groundwater sampling for well MW-6 were requested in your 9 June 1997 letter. The basis for the request was MTBE monitoring data, where 150 ug/l MTBE was detected in a sample obtained during 1/96, followed by 1400 ug/l during 9/97.

The data in the enclosed report show that MTBE concentrations of 480 ug/l and 660 ug/l were detected in replicate samples obtained from MW-6 on 19 April 1998. MTBE was detected in samples obtained from XW-3 and MW-7 at respective concentrations of 4800 ug/l and 3600 ug/l. You should note that the product lines were recently replaced by Tosco during July, 1998.

We believe that the monitoring data indicated that a petroleum release has occurred at this site subsequent to BP's ownership. We are taking the matter up with the current operator of the facility. If you can agree that this situation can best be addressed by the current operator, please request further actions from them. The terms of our contract with the current operator (Tosco) requires them to be responsible for and bear the cost of Corrective Action that may arise as a consequence of the ownership or operation of the property after the purchase date of August, 1994.

Please give me a call at (425) 251-0689 if you have any questions or concerns.

Sincerely,

Scott Hooton

attachment

cc: site file
Tina Berry - Tosco (w/attachment)

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11270
3255 Mecartney Road
Alameda, California

Project No. 10-206-04-003

Prepared for:

BP Oil Company
Environmental Resources Management
295 S.W. 41st Street
Building 13, Suite N
Renton, Washington

Prepared by:

Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California

July 16, 1998

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11270
3255 Mecartney Road
Alameda, California

Project No. 10-206-04-003

July 16, 1998

INTRODUCTION

This report presents the results and findings of the April 19, 1998 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11270, 3255 Mecartney Road, Alameda, California. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean sea level. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, each well was purged of 3 casing volumes while recording field readings of pH, temperature, electrical conductivity, and dissolved oxygen. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown on Figure 2. The results of groundwater analysis are shown on Figure 3. The laboratory report and chain of custody record are presented in Appendix B.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11270
3255 MECARTNEY ROAD, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-206

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (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)		TDS (mg/l)	DO (ppm)	LAB
MW-1	(c)	10/29/92	7.49	7.28	0.21	---	---	---	---	---	---	---		---	---	---
MW-1	(c)	06/21/93	7.49	5.40	2.09	---	---	---	---	---	---	---		---	---	---
MW-1		04/05/94	7.49	5.64	1.85	1700	---	20	1.1	3.9	7.6	---		---	---	PACE
MW-1		07/28/94	7.49	6.22	1.27	---	---	---	---	---	---	---		---	---	PACE
MW-1		10/26/94	7.49	6.40	1.09	---	---	---	---	---	---	---		---	---	---
MW-1	(d)	02/05/95	---	---	---	---	---	---	---	---	---	---		---	---	---
MW-2		10/29/92	7.07	6.84	0.23	2500	3900	140	ND<10	65	22	---		---	---	---
MW-2		06/21/93	7.07	5.49	1.58	720	770	12	1.5	11	12	---		---	---	---
MW-2		04/05/94	7.07	5.40	1.67	420	1300	ND<0.5	ND<0.5	ND<0.5	4	4500	(e)	---	1.8	PACE
MW-2		07/28/94	7.07	5.97	1.10	---	---	---	---	---	---	---		---	---	PACE
MW-2		10/26/94	7.07	6.10	0.97	---	---	---	---	---	---	---		---	---	---
MW-2	(d)	02/05/95	---	---	---	---	---	---	---	---	---	---		---	---	---
MW-3	(c)	10/29/92	7.08	7.14	-0.06	---	---	---	---	---	---	---		---	---	---
MW-3	(c)	06/21/93	7.08	5.84	1.24	---	---	---	---	---	---	---		---	---	---
MW-3		04/05/94	7.08	5.83	1.25	990	4300	3.2	ND<0.5	ND<0.5	1.3	790	(e)	---	---	PACE
MW-3		07/28/94	7.08	6.32	0.76	---	---	---	---	---	---	---		---	---	PACE
MW-3		10/26/94	7.08	6.42	0.66	---	---	---	---	---	---	---		---	---	---
MW-3	(d)	02/05/95	---	---	---	---	---	---	---	---	---	---		---	---	---
MW-4		10/29/92	7.13	6.90	0.23	2600	---	250	2.5	74	6.6	---		---	---	---
MW-4		06/21/93	7.13	5.54	1.59	1400	1100	24	2.9	2.6	7.9	---		---	---	---
MW-4		04/05/94	7.13	5.46	1.67	930	940	33	0.8	ND<0.5	2.8	8700	(e)	---	2.7	PACE
MW-4		07/28/94	7.13	6.02	1.11	2400	1400	19	1.8	0.5	8	---		---	6.7	PACE
QC-1	(f)	07/28/94	---	---	---	2300	---	19	1.7	0.5	7.4	---		---	---	PACE
MW-4		10/26/94	7.13	6.13	1.00	---	---	---	---	---	---	---		---	---	---
MW-4	(d)	02/05/95	---	---	---	---	---	---	---	---	---	---		---	---	---
MW-5		06/21/93	8.36	7.44	0.92	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---
MW-5		04/05/94	8.36	7.42	0.94	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	2.5	PACE
QC-1	(f)	04/05/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	PACE
MW-5		07/28/94	8.36	7.88	0.48	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	7.4	PACE
MW-5		10/26/94	8.36	7.92	0.44	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	5.5	PACE
QC-1	(f)	10/26/94	---	---	---	ND<50	---	ND<0.5	0.5	ND<0.5	ND<0.5	---		---	---	PACE
MW-5		02/05/95	8.36	7.83	0.53	ND<50	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---		---	---	ATI
QC-1	(f)	02/05/95	---	---	---	ND<50	---	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---		---	---	ATI
MW-5		05/05/95	8.36	9.00	-0.64	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	3.1	ATI
MW-5		07/19/95	8.36	9.03	-0.67	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		14700	4.6	ATI
MW-5		10/12/95	8.36	9.15	-0.79	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		8490	4.3	ATI
MW-5		01/08/96	8.36	9.04	-0.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		10000	4.9	ATI
MW-5		09/11/97	8.36	8.90	-0.54	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	4	SPL
MW-5		01/27/98	8.36	8.27	0.09	---	---	---	---	---	---	---		---	---	---
MW-5		04/19/98	8.36	8.60	-0.24	---	---	---	---	---	---	---		---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11270
3255 MECARTNEY ROAD, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-206

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (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)		TDS (mg/l)	DO (ppm)	LAB
MW-6		02/05/95	6.88	6.39	0.49	1000	1000	7.6	19	9.1	96	---	(g)	---	5	ATI
MW-6		05/05/95	6.88	6.85	0.03	2300	---	49	9	130	46	---		---	3.3	ATI
QC-1	(f)	05/05/95	---	---	---	2400	---	49	9.2	140	48	---		---	---	ATI
MW-6		07/19/95	6.88	7.13	-0.25	1500	---	84	3.3	28	24	---	(g)	818	3.7	ATI
QC-1	(f)	07/19/95	---	---	---	1500	---	89	3.8	30	26	---	(g)	---	---	ATI
MW-6		10/12/95	6.88	7.35	-0.47	1800	---	38	13	38	86	2500		868	4.1	ATI
QC-1	(f)	10/12/95	---	---	---	1100	---	33	7	18	44	2200		---	---	ATI
MW-6		01/08/96	6.88	7.04	-0.16	1300	---	31	4.7	60	53	170		474	4.2	ATI
QC-1	(f)	01/08/96	---	---	---	1000	---	27	4	49	44	150		---	---	ATI
MW-6		09/11/97	6.88	7.29	-0.41	ND<250	---	8.5	ND<5.0	11	6	1400		---	3.5	SPL
QC-1	(f)	09/11/97	---	---	---	210	---	8.7	ND<5.0	14	8	1400		---	---	SPL
MW-6		01/27/98	6.88	6.20	0.68	47000	---	350	150	360	690	38000		---	4.6	SPL
QC-1	(f)	01/27/98	---	---	---	51000	---	290	120	300	580	35000		---	---	SPL
MW-6		04/19/98	6.88	6.64	0.24	36000	---	40	510	140	10500	660		---	4	SPL
QC-1	(f)	04/19/98	---	---	---	24000	---	20	360	81	7100	480		---	---	SPL
MW-7		02/05/95	6.62	7.62	-1.00	280	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	(g)	---	5.1	ATI
MW-7		05/05/95	6.62	7.64	-1.02	290	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	3.6	ATI
MW-7		07/19/95	6.62	7.70	-1.08	150	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	(g)	12100	4.6	ATI
MW-7		10/12/95	6.62	7.88	-1.26	110	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	390		14000	4.7	ATI
MW-7		01/08/96	6.62	7.66	-1.04	90	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	300		12060	4.9	ATI
MW-7		09/11/97	6.62	7.78	-1.16	ND<50	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	63		---	3.8	SPL
MW-7		01/27/98	6.62	7.30	-0.68	1400	---	7.7	ND<1.0	ND<1.0	ND<1.0	920		---	4.4	SPL
MW-7		04/19/98	6.62	7.52	-0.90	3500	---	15	7.7	11	19.3	3600		---	4.7	SPL
XW-1		06/21/93	---	---	---	---	---	---	---	---	---	---		---	---	---
XW-1		04/05/94	---	5.36	---	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	3	PACE
XW-1		07/28/94	---	5.92	---	---	---	---	---	---	---	---		---	---	PACE
XW-1		10/26/94	---	6.05	---	---	---	---	---	---	---	---		---	---	---
XW-1		02/05/95	7.49	5.82	1.67	ND<50	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---		---	4.9	ATI
XW-1		05/05/95	7.49	5.57	1.92	---	---	---	---	---	---	---		---	---	---
XW-1		07/19/95	7.49	6.12	1.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		1680	4.3	ATI
XW-1		10/12/95	7.49	6.82	0.67	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		1150	3.8	ATI
XW-1		01/08/96	7.49	6.11	1.38	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		1300	4.7	ATI
XW-1		09/11/97	7.49	6.57	0.92	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	3.3	SPL
XW-1		01/27/98	7.49	5.27	2.22	---	---	---	---	---	---	---		---	---	---
XW-1		04/19/98	7.49	5.24	2.25	---	---	---	---	---	---	---		---	---	---
XW-2		06/21/93	7.48	5.89	1.59	---	---	---	---	---	---	---		---	---	---
XW-2		04/05/94	7.48	5.77	1.71	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	3	PACE
XW-2		07/28/94	7.48	6.25	1.23	---	---	---	---	---	---	---		---	---	PACE
XW-2		10/26/94	7.48	6.39	1.09	---	---	---	---	---	---	---		---	---	---
XW-2		02/05/95	7.48	5.62	1.86	ND<50	ND<500	ND<0.25	0.38	ND<0.25	ND<0.50	---		---	5.2	ATI
XW-2		05/05/95	7.48	5.66	1.82	---	---	---	---	---	---	---		---	---	---
XW-2		07/19/95	7.48	6.80	0.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		4750	3.9	ATI
XW-2		10/12/95	7.48	7.21	0.27	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		3630	4.3	ATI
XW-2		01/08/96	7.48	6.79	0.69	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		3440	4.2	ATI
XW-2		09/11/97	7.48	6.86	0.62	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	3.6	SPL
XW-2		01/27/98	7.48	5.88	1.60	---	---	---	---	---	---	---		---	---	---
XW-2		04/19/98	7.48	5.42	2.06	---	---	---	---	---	---	---		---	---	---

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BP OIL COMPANY SERVICE STATION NO. 11270
3255 MECARTNEY ROAD, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-206

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (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)		TDS (mg/l)	DO (ppm)	LAB
XW-3	06/21/93	6.84	5.85	0.99	---	---	---	---	---	---	---		---	---	---
XW-3	04/05/94	6.84	5.85	0.99	ND<50	150	ND<0.5	0.7	ND<0.5	ND<0.5	---		---	3.1	PACE
XW-3	07/28/94	6.84	6.28	0.56	---	---	---	---	---	---	---		---	---	PACE
XW-3	10/26/94	6.84	6.40	0.44	---	---	---	---	---	---	---		---	---	---
XW-3	02/05/95	6.84	7.23	-0.39	280	ND<500	ND<0.50	ND<0.50	0.63	ND<1.0	---	(g)	---	4.9	ATI
XW-3	05/05/95	6.84	7.43	-0.59	---	---	---	---	---	---	---		---	---	---
XW-3	07/19/95	6.84	7.60	-0.76	400	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		10400	4.3	ATI
XW-3	10/12/95	6.84	7.74	-0.90	130	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	480	(e)	8430	4.7	ATI
XW-3	01/08/96	6.84	7.58	-0.74	320	---	ND<2.5	ND<2.5	ND<2.5	ND<5.0	1100		10000	4.4	ATI
XW-3	01/27/98	6.84	7.01	-0.17	1200	---	2.8	ND<1.0	ND<1.0	ND<1.0	990		---	4.3	SPL
XW-3	04/19/98	6.84	7.28	-0.44	4500	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	4800		---	4.3	SPL
QC-2 (h)	04/05/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	PACE
QC-2 (h)	07/28/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	PACE
QC-2 (h)	10/26/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	PACE
QC-2 (h)	02/05/95	---	---	---	ND<50	---	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---		---	---	ATI
QC-2 (h)	05/05/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	---	ATI
QC-2 (h)	07/19/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	---	ATI
QC-2 (h)	10/12/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		---	---	ATI
QC-2 (h)	01/08/96	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		---	---	ATI

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
TDS	Total dissolved solids
DO	Dissolved oxygen
ug/l	Micrograms per liter
mg/l	Milligrams per liter
ppm	Parts per million
---	Not analyzed/measured/applicable
ND	Not detected above reported detection limit
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

(a) Casing elevations surveyed to nearest 0.01 foot relative to an arbitrary datum.

(b) Groundwater elevations in feet above an arbritary datum.

(c) Not sampled due to inadequate recharge.

(d) Wells destroyed by HETI on January 18 and 19, 1995.

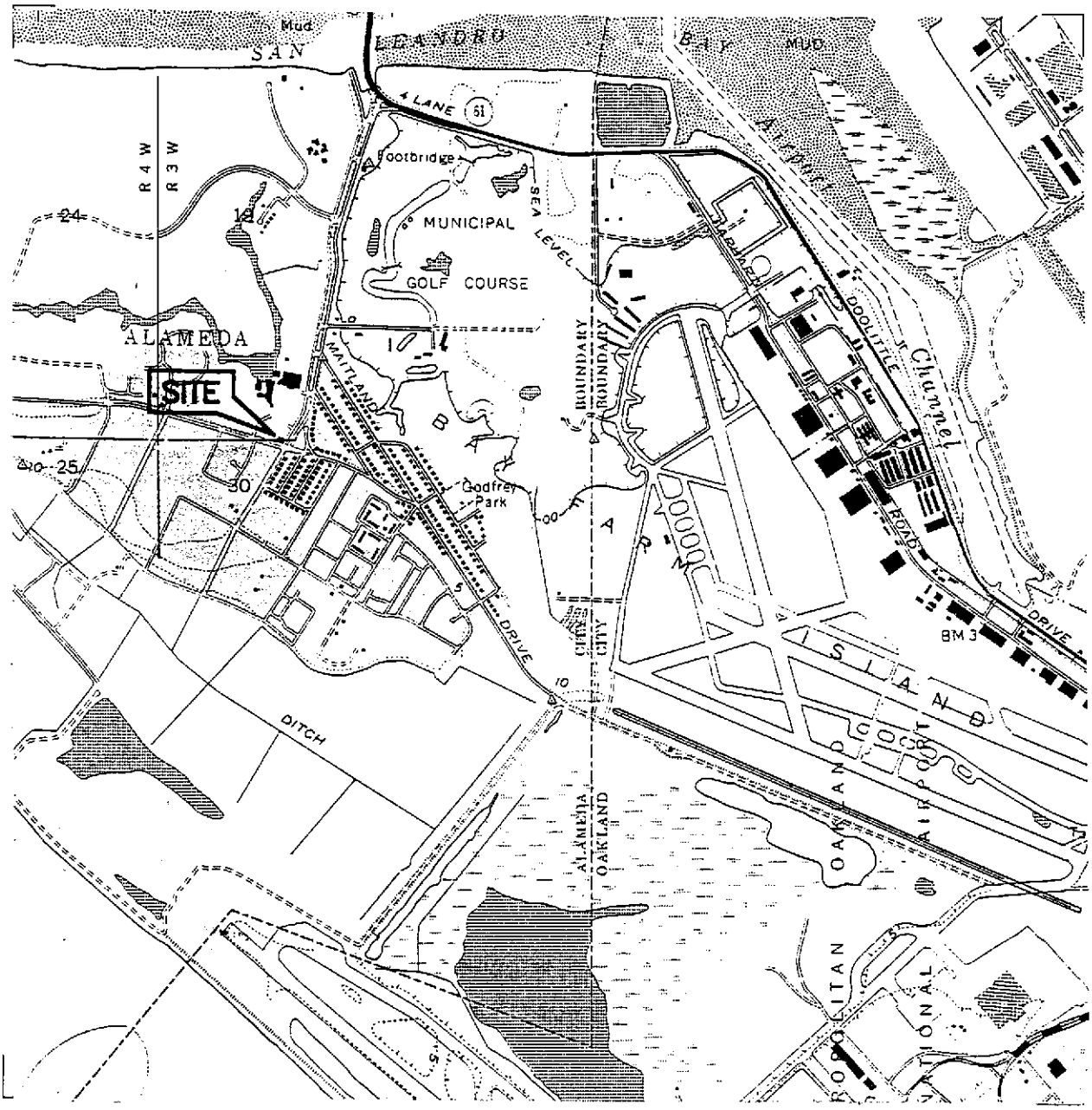
(e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-206-04-001.

(f) Blind duplicate.

(g) MTBE peak present. See documentation for this data included in Appendix C of Alisto report 10-206-04-001.

(h) Travel blank.

F:\02\10-206\10-206GW.WQ2



SOURCE:
USGS MAP, SAN LEANDRO QUADRANGLE,
7.5 MINUTE SERIES. 1959.
PHOTOREVISED 1980.

N

0 1000' 2000'

FIGURE 1

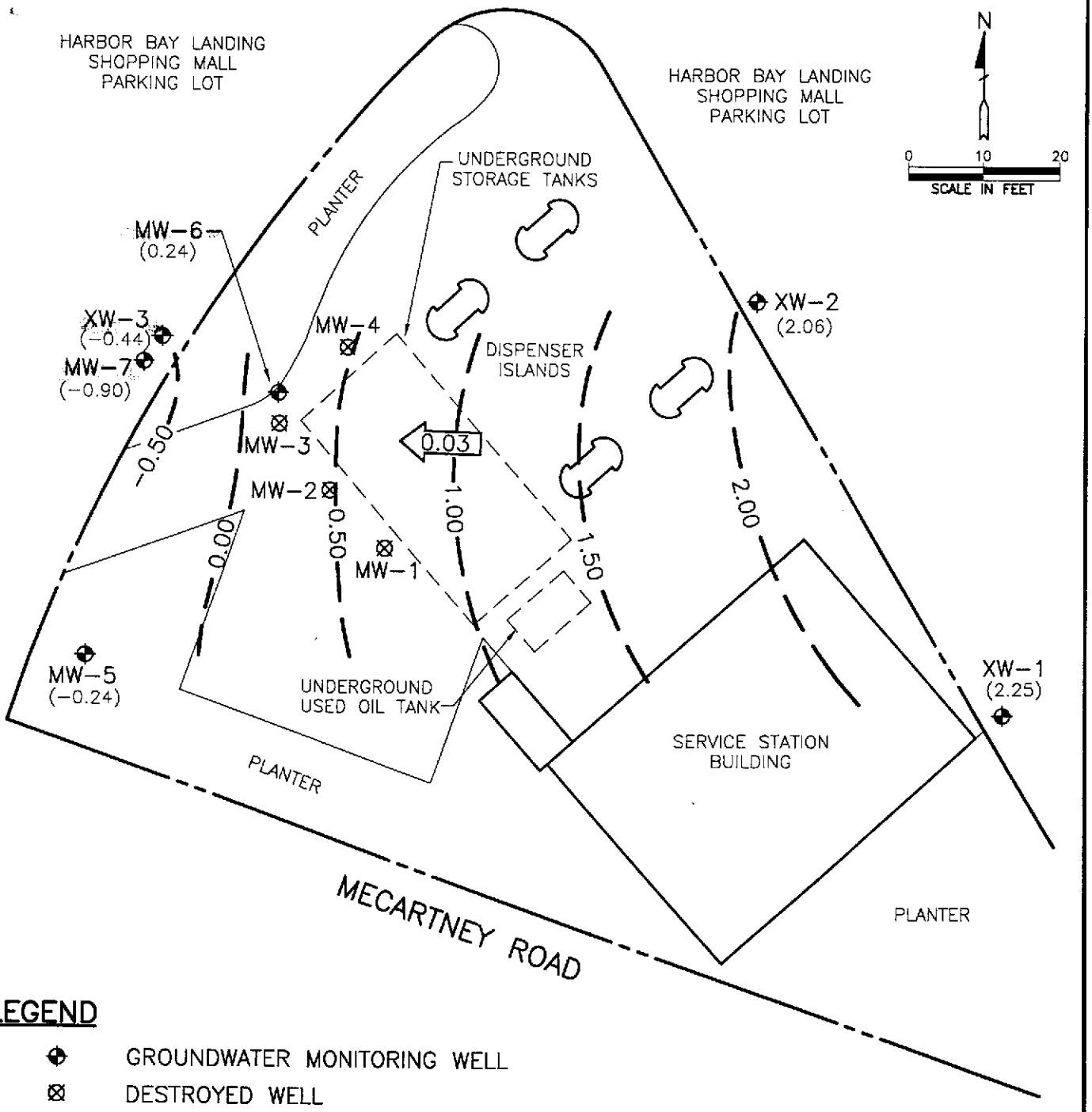
VICINITY MAP

BP OIL SERVICE STATION NO. 11270
3255 MECARTNEY ROAD
ALAMEDA, CALIFORNIA

PROJECT NO. 10-206

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10206B---DWG 5-2-85 RKW 1=1



LEGEND

- ⊕ GROUNDWATER MONITORING WELL
- ⊠ DESTROYED WELL
- (-0.24) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 0.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL—1.00 FOOT)
- 0.03 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

NOTE:
Potentiometric groundwater elevation contours were generated with Quicksurf using the Kriging method with a spherical variogram on a triangulated grid surface.

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

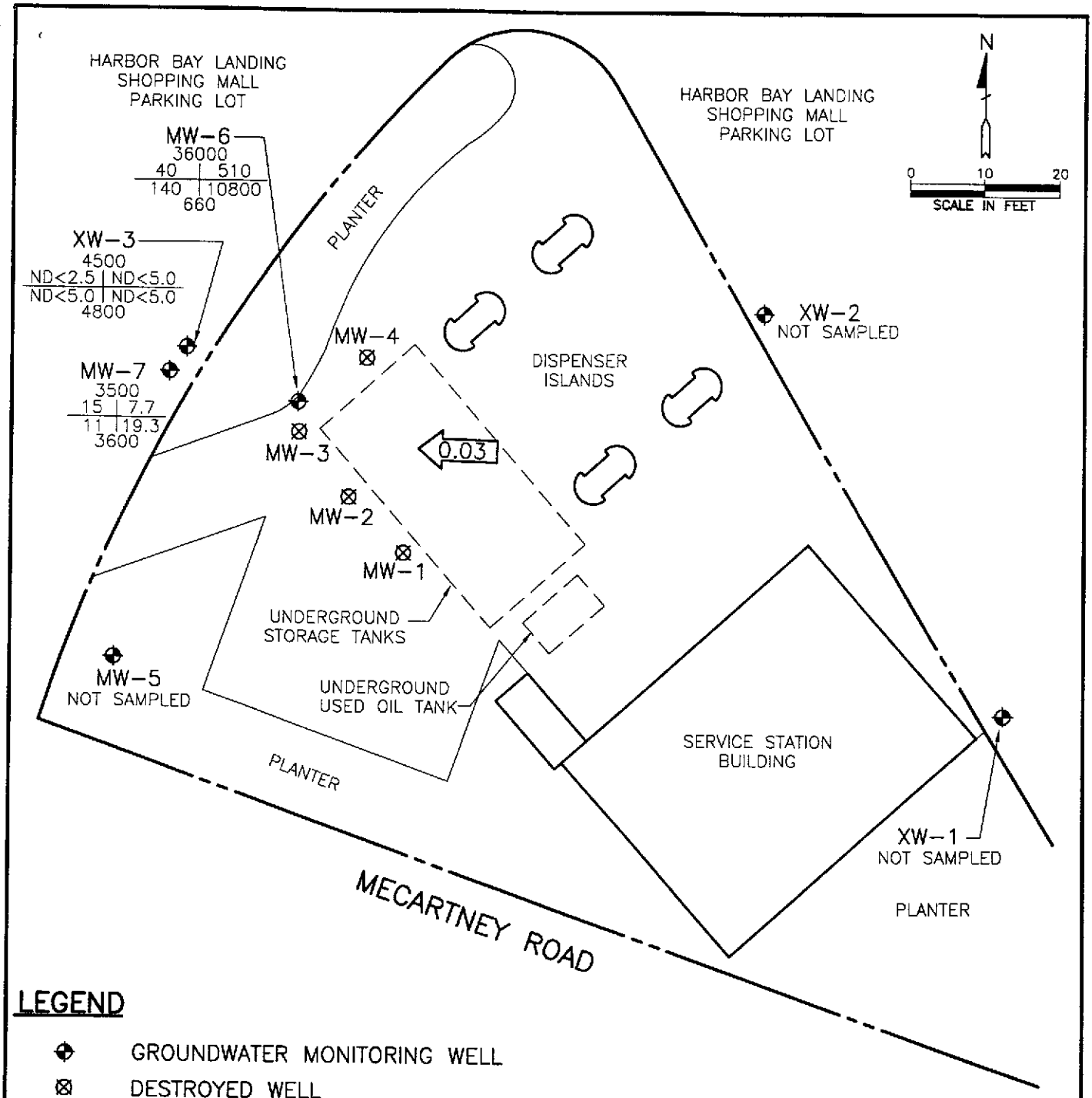
APRIL 19, 1998

BP OIL SERVICE STATION NO. 11270
3255 MECARTNEY ROAD
ALAMEDA, CALIFORNIA

PROJECT NO. 10-206

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10206D-2.DWG 5-29-98 TAH 1=20



LEGEND

⊕	GROUNDWATER MONITORING WELL
⊗	DESTROYED WELL
TPH-G / B | T / E | X / MTBE	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MTBE	METHYL TERT BUTYL ETHER
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
⟵ 0.03	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

APRIL 19, 1998

BP OIL SERVICE STATION NO. 11270
3255 MECARTNEY ROAD
ALAMEDA, CALIFORNIA

PROJECT NO. 10-206

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10206E-2.DWG 5-29-98 TAH 1=20

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO
ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

Project No.	10-206-04-003	Date:	4/19/98
Address	3255 McCartney Rd.	Day:	(M) T W TH F
Contract No.	H180266	City:	Alameda
Station No.	BP 11270	Sampler:	LCR

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME SAMPLED	COMMENTS:
MW-5	N/S	4"	14.51	8.60	Ø	1318	Monitor only
MW-6	S-3	4"	~~20.00~~ 19.89	6.64	↓	1333	Replaced Monument, Cap, + Lock QC-1 (S-4)
MW-7	S-1	2"	~~20.00~~ 14.52	7.52	↓	1324	
XW-1	N/S	2"	15.35	5.24	↓	1313	Monitor only Replaced Lock Needs 1/4 20" Bolts
XW-2	N/S	2"	13.62	5.42	↓	1320	Monitor only
XW-3	S-2	2"	13.53	7.28	↓	1328	

FIELD INSTRUMENT CALIBRATION DATA

pH METER I Cm 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME ~~05~~ 1350 WEATHER Clear

D.O. METER I Cm ZERO d.O. SOLUTION ______ BAROMETRIC PRESSURE 760 TEMP 65

CONDUCTIVITY METER I Cm 10,000 ______ TURBIDITY METER ______ 5.0 NTU ______ OTHER X

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.	
MW-7	7.52	2"	OK	Ø	Y (N)	1	1415	66.3	7.71	8.22 ms	4.5	O EPA 601
Total Depth - Water Level=		x Well Vol. Factor=		x#Vol. to Purge	PurgeVol.	2		65.7	7.50	8.39 ms		⊗ TPH-G/BTEX
14.52 - 7.52 = 7.00 x .16 = 1.12 x 3 = 3.36						4	1422	65.3	7.43	8.55 ms	4.7	O TPH Diesel
												O TOG 5520
Purge Method: ⊗Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port												TIME/SAMPLE ID
Comments:												1430

ALISTO

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

Project No. 10-206-04-003 Date: 4/19/98

Address 3255 McCartney Rd. Day: (M) T W TH F

Contract No. H180266 City: Alameda

Station No. BP 11270 Sampler: LCB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence
XW-3	7.28	2"	Replaced	∅	Y (N)

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.

13.53-7.28=6.25x.16=1.00x3=3.00

Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Baller(s)___ OSys Port

Comments:

Gal.	Time	Temp *F	pH	E.C.	D.O.
1	1451	68.3	7.07	9.49ms	4.0
3		67.1	6.98	9.81ms	
4	1501	66.8	6.90	9.77ms	4.3

O EPA 601___

(X) TPH-G/BTEX___

O TPH Diesel___

O TOG 5520___

TIME/SAMPLE ID

1505

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence
MW-6	6.64	4"	Replaced	∅	Y (N)

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.

14.69-6.64=8.05x.65=5.23x3=15.69

Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Baller(s)___ OSys Port

Comments: QC-1 (S-4) From this well

Gal.	Time	Temp *F	pH	E.C.	D.O.
5	1517	67.1	8.03	601µs	3.7
10		66.6	7.92	630µs	
16	1531	65.7	7.84	635µs	4.0

O EPA 601___

(X) TPH-G/BTEX___

O TPH Diesel___

O TOG 5520___

TIME/SAMPLE ID

1540

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

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

May 1, 1998

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

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on April 22, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9804A33 and analyzed for all parameters as listed on the chain of custody.

Any data flag or quality control exception 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

Joel Grice
Project Manager

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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-04-A33

Approved for Release by:

Joel Grice, Project Manager Date: 5/19/98

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

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

Certificate of Analysis No. H9-9804A33-01

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# H180266, COC#098290
DATE: 05/01/98

PROJECT: #11270, Park St.
SITE: Alameda,CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-206-4-3
MATRIX: WATER
DATE SAMPLED: 04/19/98
DATE RECEIVED: 04/22/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	3600	500 P	ug/L
Benzene	15	0.5 P	ug/L
Toluene	7.7	1.0 P	ug/L
Ethylbenzene	11	1.0 P	ug/L
Total Xylene	19.3	1.0 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	107		
Method 8020A***			
Analyzed by: fab			
Date: 04/30/98			
Gasoline Range Organics	3.5	2.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	100		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 04/30/98 12:08:00			

(P) - Practical Quantitation Limit

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

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

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

Certificate of Analysis No. H9-9804A33-02

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# H180266, COC#098290
DATE: 05/01/98

PROJECT: #11270, Park St.
SITE: Alameda,CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-2

PROJECT NO: 10-206-4-3
MATRIX: WATER
DATE SAMPLED: 04/19/98
DATE RECEIVED: 04/22/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	4800	500 P	ug/L
Benzene	ND	2.5 P	ug/L
Toluene	ND	5.0 P	ug/L
Ethylbenzene	ND	5.0 P	ug/L
Total Xylene	ND	5.0 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	107		
Method 8020A***			
Analyzed by: fab			
Date: 04/30/98			
Gasoline Range Organics	4.5	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	107		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 04/28/98 09:05:00			

(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. H9-9804A33-03

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# H180266, COC#098290
DATE: 05/01/98

PROJECT: #11270, Park St.
SITE: Alameda,CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-206-4-3
MATRIX: WATER
DATE SAMPLED: 04/19/98
DATE RECEIVED: 04/22/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	660	250 P	ug/L
Benzene	40	12 P	ug/L
Toluene	510	25 P	ug/L
Ethylbenzene	140	25 P	ug/L
Total Xylene	10500	25 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	109		
Method 8020A***			
Analyzed by: fab			
Date: 04/28/98			
Gasoline Range Organics	36	1.2 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	111		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 04/28/98 10:22:00			

(P) - Practical Quantitation Limit

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

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

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

Certificate of Analysis No. H9-9804A33-04

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# H180266, COC#098290
DATE: 05/01/98

PROJECT: #11270, Park St.
SITE: Alameda,CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-4

PROJECT NO: 10-206-4-3
MATRIX: WATER
DATE SAMPLED: 04/19/98
DATE RECEIVED: 04/22/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	480	250 P	ug/L
Benzene	20	12 P	ug/L
Toluene	360	25 P	ug/L
Ethylbenzene	81	25 P	ug/L
Total Xylene	7100	25 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	108		
Method 8020A***			
Analyzed by: fab			
Date: 04/28/98			
Gasoline Range Organics	24	1.2 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	109		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 04/28/98 10:48:00			

(P) - Practical Quantitation Limit

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

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

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
Method 8020A***

Batch Id: VARE980428063300

Units: ug/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	57	114	72 - 128
Benzene	ND	50	53	106	61 - 119
Toluene	ND	50	52	104	65 - 125
EthylBenzene	ND	50	52	104	70 - 118
O Xylene	ND	50	53	106	72 - 117
M & P Xylene	ND	100	100	100	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	23	115	25	125	8.33	20	39 - 150
BENZENE	39	20	63	120	57	90.0	28.6 *	21	32 - 164
TOLUENE	90	20	110	NC	99	NC	NC	20	38 - 159
ETHYLBENZENE	10	20	33	115	30	100	14.0	19	52 - 142
O XYLENE	16	20	38	110	35	95.0	14.6	18	53 - 143
M & P XYLENE	21	40	64	108	59	95.0	12.8	17	53 - 144

Analyst: fab
Sequence Date: 04/28/98
SPL ID of sample spiked: 9804B58-01A
Sample File ID: E_D4041.TX0
Method Blank File ID:
Blank Spike File ID: E_D4035.TX0
Matrix Spike File ID: E_D4037.TX0
Matrix Spike Duplicate File ID: E_D4038.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):

9804864-01A 9804864-02A 9804864-03A 9804864-04A
9804A41-05A 9804A41-07A 9804A41-08A 9804996-01A
9804A41-09A 9804A41-10A 9804A32-02A 9804A33-01A
9804A33-02A 9804A32-03A 9804A32-04A 9804A33-03A
9804A33-04A 9804B58-01A 9804A41-06A 9804C57-03E

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

** SPL BATCH QUALITY CONTROL REPORT **

California LUFT Manual for Gasoline

Batch Id: VARE980429163100

Matrix: Aqueous

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	0.87	87.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.81	90.0	0.72	80.0	11.8	36	36 - 160

Analyst: fab

Sequence Date: 04/29/98

SPL ID of sample spiked: 9804B90-04B

Sample File ID: EED4110.TX0

Method Blank File ID:

Blank Spike File ID: EED4103.TX0

Matrix Spike File ID: EED4106.TX0

Matrix Spike Duplicate File ID: EED4107.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): 9804A33-01A 9804B30-13A 9804C16-01A 9804C16-02A 9804C18-02A 9804C18-03A 9804C18-04A 9804C16-03A 9804C16-04A 9804C16-05A 9804B30-10A

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: VARE980428065800

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	0.87	87.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.83	92.2	0.79	87.8	4.89	36	36 - 160

Analyst: fab
Sequence Date: 04/28/98
SPL ID of sample spiked: 9804A41-06A
Sample File ID: EED4042.TX0
Method Blank File ID:
Blank Spike File ID: EED4036.TX0
Matrix Spike File ID: EED4039.TX0
Matrix Spike Duplicate File ID: EED4040.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):

9804864-02A 9804864-03A 9804864-04A 9804A32-02A
9804A33-01A 9804A33-02A 9804A32-03A 9804A32-04A
9804A33-03A 9804A33-04A 9804864-01A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 4-21-98	Time: 1000

SPL Sample ID: 9804A33

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		4 C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	3848427714	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
R.y	4-21-98

9804A33

CHAIN OF CUSTODY

No. 098290

Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering	CONSULTANT'S ADDRESS: 1575 Treat Blvd #201, W.C. Ca 94598		
BP SITE NUMBER: 11270	BP SITE / FACILITY ADDRESS: Alameda, Ca		CONSULTANT PROJECT NUMBER: 10-206-4-3
CONSULTANT PROJECT MANGER: Brady Nagle	PHONE NUMBER: (510) 295-1650	FAX NUMBER: 295-1823	CONSULTANT CONTRACT NUMBER: H180266
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, WA	PHONE NUMBER	FAX NO.
LAB CONTACT: SPL	LABORATORY ADDRESS: Texas	PHONE NUMBER	FAX NO.
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)	RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME	SHIPMENT DATE: 4/21/98

SHIPMENT METHOD: Fed Ex

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 72 Hours ☒ Standard 7 or 14 Days

ANALYSIS REQUIRED

AIRBILL NUMBER: 3848 727 14

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE	LAB SAMPLE #	TPH 8015	BTEX 8020	COMMENTS
S-1	4/19/98		H_2O	3	HCl			X	X	
S-2	"		"	"	"			X	X	
S-3	"		"	"	"			X	X	
S-4	"		"	"	"			X	X	

SAMPLED BY (Please Print Name)

SAMPLED BY (Signature)

ADDITIONAL COMMENTS: 4°C

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY /AFFILIATION (Print Name / Signature)	DATE	TIME
[signature]	4/19/98		P. Yelton	4/21/98	0800
P. Yelton	4/21/98	1430	[signature]	4/21/98	1000

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

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

BP EXPLORATION & OIL, INC.
ENVIRONMENTAL RESOURCE MANAGEMENT
DATA REVIEW CHECKLIST

BP Site Number:	11270
ERM Contact:	H180266
Sampling Date:	4/19/98
Matrix Description:	Water
Date Final Report Received:	5/4/98
Laboratory & Location:	SPL, Houston, Texas

		Yes	No	N/A
1.	Is BP contract release number consistent with analytical report?	X		
2.	Was report submitted within the specified timeframe?	X		
3.	Does report agree with the COC?	X		
4.	Are units consistent with the given matrix?	X		
5.	Were any target analytes/compounds detected in blanks (i.e., trip or equipment)?			X
6.	Are duplicate water samples within 30%?	See Attached	X	
7.	Are holding times met?	X		
8.	Are surrogates within limits using laboratory criteria?	X		
9.	Are MS/MSD acceptable using laboratory criteria?	See Below		
10.	Are LCS results acceptable using laboratory criteria?	X		

MS/MSD recovery and relative % difference for toluene in one of two matrix spikes was not calculated due to sample exceeding spike by a factor of 4 or more. MS/MSD relative % difference value for benzene in one of two matrix spikes was outside QC range due to matrix interference. MS/MSD limits are advisory only; as stated in SW-846, Section 8.7 to 8.8, if the MS/MSD results fall outside the advisable ranges, a laboratory control samples (LCS) must be analyzed and fall within those ranges. LCS results are within quality control limits.

Data Validation Completed by: Brady Nagle

(signature): Brady Nagle

Date: 7/14/98

Calculation of RPD
for BP Oil QA/QC Program
BP Oil Company Service Station No. 11270 4/19/98 Event

Analytical Data	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Primary Sample	36000	40	510	140	10500	660
QC-1 Duplicate	24000	20	360	81	7100	480
Sample Mean	30000	30	435	111	8800	570
RPD	40.00%	66.67%	34.48%	53.39%	38.64%	31.58%
Significant Result?	YES	YES	YES	YES	YES	YES

Notes:

(1) Significance is defined as an RPD greater than 30% (or less than -30).

(2) "A negative" RPD will result if the value of the Primary Sample Result is smaller than QC-1. The determination of Significant Result is not affected by sign of RPD.

Brady,

Samples H9-9804A33-03 and -04 were each analyzed only one time. All associated QC and continuing calibration standards met criteria. Both samples were analyzed at the same dilution. No errors were found in any data for these samples.

Joel