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ENVIRONMENTAL PROTECTION
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BP OIL

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

September 19, 1998

Alameda County Health Care Services Agency
Attention Ms. Eva Chu
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

Can do semi sampling on wells still getting hits. Discont those ND for 2 yrs. Only operated during day. Tanks were pulled recently.

RE: Former BP Oil Site No. 11133
2220 98th Avenue (at Bancroft)
Oakland, CA

Dear Ms. Chu:

This letter transmits the groundwater monitoring and sampling report dated 31 August 1998 prepared on behalf of BP by Alisto Engineering Group.

A petroleum release was documented during the replacement of underground storage tanks by Mobil Oil Corporation during 1987. BP purchased the site from Mobil in 1989, and Mobil later transferred management of the cleanup to BP. BP subsequently sold the site to the current operator (Tosco Corporation) during 1994. I understand that Tosco plans to remove the UST system in the near future.

The 31 August 1998 groundwater monitoring and sampling report includes laboratory data for samples collected on 19 June 1998. You will note that aromatic petroleum hydrocarbons were detected in samples obtained from wells MW-1, AW-1, RW-1, and AW-6. The highest benzene concentration this quarter (19,000 µg/l) was detected in a sample obtained from well RW-1.

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

Sincerely,

Scott Hooton
Environmental Remediation Management

attachment

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

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11133
2220 98th Avenue
Oakland, California

Project No. 10-025-17-004

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

August 31, 1998

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11133
2220 98th Avenue
Oakland, California

Project No. 10-025-17-004

August 31, 1998

INTRODUCTION

This report presents the results and findings of the June 19, 1998 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11133, 2220 98th Avenue, Oakland, 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.

FREE PRODUCT MONITORING AND RECOVERY

A product recovery canister has been installed in Monitoring Well MW-1 to recover liquid-phase product. Product thicknesses for this and previous monitoring events are presented in Table 1. The volume of product recovered is presented in Table 2.

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. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-1	04/05/91	34.46	---	---	---	---	---	---	---	---	---	---	---
MW-1	04/01/92	34.46	11.25	0.01	23.22	---	---	---	---	---	---	---	---
MW-1	07/06/92	34.46	13.61	0.02	20.87	---	---	---	---	---	---	---	---
MW-1	10/07/92	34.46	15.15	0.09	19.38	---	---	---	---	---	---	---	---
MW-1	01/14/93	34.46	10.73	0.01	23.74	---	---	---	---	---	---	---	---
MW-1	04/22/93	34.46	11.64	0.16	22.94	---	---	---	---	---	---	---	---
MW-1	07/15/93	34.46	13.50	1.11	21.79	---	---	---	---	---	---	---	---
MW-1	10/21/93	34.46	15.21	1.00	20.00	---	---	---	---	---	---	---	---
MW-1	01/27/94	34.46	17.48	0.81	17.59	---	---	---	---	---	---	---	---
MW-1	04/21/94	34.46	10.94	---	23.52	110000	1400	9100	3400	30000	11000 (c)	1.6	PACE
MW-1	09/09/94	34.46	13.80	---	20.66	---	---	---	---	---	---	---	---
MW-1	12/21/94	34.46	12.60	0.02	21.88	---	---	---	---	---	---	---	---
MW-1	01/30/95	34.46	---	---	---	---	---	---	---	---	---	---	---
MW-1	04/10/95	34.46	10.62	---	23.84	---	---	---	---	---	---	---	---
MW-1	06/29/95	34.46	18.72	---	15.74	---	---	---	---	---	---	---	---
MW-1	09/18/95	34.46	12.92	---	21.54	---	---	---	---	---	---	---	---
MW-1	12/07/95	34.46	13.82	---	20.64	---	---	---	---	---	---	---	---
MW-1	03/28/96	34.46	10.03	0.01	24.44	---	---	---	---	---	---	---	---
MW-1	06/20/96	34.46	11.29	0.02	23.19	---	---	---	---	---	---	---	---
MW-1	10/11/96	34.46	14.86	0.01	19.61	---	---	---	---	---	---	---	---
MW-1	01/02/97	34.46	11.03	0.01	23.44	---	---	---	---	---	---	---	---
MW-1	04/14/97	34.46	12.25	0.01	22.22	---	---	---	---	---	---	---	---
MW-1	04/15/97	34.46	---	---	---	35000	130	650	1700	8200	4800	---	SPL
MW-1	07/02/97	34.46	14.11	---	20.35	42000	ND<250	ND<500	2000	9600	ND<5000	5.5	SPL
MW-1	09/30/97	34.46	14.40	---	20.06	61000	130	1100	2700	14600	2000	6.7	SPL
MW-1	01/21/98	34.46	7.99	0.01	26.48	14000	11	60	310	1790	1300	4.5	SPL
MW-1	04/09/98	34.46	7.89	---	26.57	---	---	---	---	---	---	---	---
MW-1	04/10/98	34.46	---	---	---	45000	380	520	2100	6800	9300	5.3	SPL
MW-1	06/19/98	34.46	10.31	---	24.15	35000	170	100	1100	3590	5000	4.9	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-2	04/05/91	35.50	16.62	---	18.88	ND<50	0.6	0.9	ND<0.3	ND<0.3	---	---	SUP
MW-2	04/01/92	35.50	11.25	---	24.25	---	---	---	---	---	---	---	---
MW-2	04/02/92	35.50	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	APP
MW-2	07/06/92	35.50	12.72	---	22.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-2	10/07/92	35.50	15.08	---	20.42	ND<50	ND<0.5	1.8	ND<0.5	2.3	---	---	ANA
MW-2	01/14/93	35.50	9.69	---	25.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	04/22/93	35.50	10.46	---	25.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30 (c)	---	PACE
MW-2	07/15/93	35.50	12.02	---	23.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22 (c)	---	PACE
MW-2	10/21/93	35.50	13.12	---	22.38	ND<50	0.7	0.9	ND<0.5	0.9	---	---	PACE
MW-2	01/27/94	35.50	12.01	---	23.49	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	04/21/94	35.50	10.60	---	24.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.1	PACE
MW-2	09/09/94	35.50	12.42	---	23.08	ND<50	ND<0.5	ND<0.5	ND<0.5	0.6	---	2.2	PACE
MW-2	12/21/94	35.50	10.85	---	24.65	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.2	PACE
MW-2	01/30/95	35.50	8.38	---	27.12	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	1.7	ATI
MW-2	04/10/95	35.50	9.00	---	26.50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.8	ATI
MW-2	06/29/95	35.50	9.91	---	25.59	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	9.1	ATI
MW-2	09/18/95	35.50	10.98	---	24.52	---	---	---	---	---	---	---	---
MW-2	09/19/95	35.50	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.2	ATI
MW-2	12/07/95	35.50	12.30	---	23.20	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	2.4	ATI
MW-2	03/28/96	35.50	8.57	---	26.93	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.2	SPL
MW-2	06/20/96	35.50	9.77	---	25.73	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.2	SPL
MW-2	10/11/96	35.50	13.32	---	22.18	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.3	SPL
MW-2	01/02/97	35.50	9.60	---	25.90	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.7	SPL
MW-2	04/14/97	35.50	10.93	---	24.57	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.7	SPL
MW-2	07/02/97	35.50	12.57	---	22.93	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.9	SPL
MW-2	09/30/97	35.50	12.91	---	22.59	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.3	SPL
MW-2	01/21/98	35.50	10.12	---	25.38	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	100	5.4	SPL
MW-2	04/09/98	35.50	6.82	---	28.68	---	---	---	---	---	---	---	---
MW-2	04/10/98	35.50	---	---	---	ND<50	1.0	ND<1.0	ND<1.0	ND<1.0	23	5.0	SPL
MW-2	06/19/98	35.50	9.00	---	26.50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.9	SPL

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ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)		B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		DO (ppm)	LAB
MW-3	04/05/91	36.53	17.84	---	18.69	ND<50		ND<0.3	ND<0.3	ND<0.3	ND<0.3	---		---	SUP
MW-3	04/01/92	36.53	15.64	---	20.89	---		---	---	---	---	---		---	---
MW-3	04/02/92	36.53	---	---	---	ND<50		1.4	ND<0.5	ND<0.5	ND<0.5	---		---	APP
MW-3	07/06/92	36.53	19.03	---	17.50	ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	ANA
MW-3	10/07/92	36.53	21.83	---	14.70	ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	ANA
MW-3	01/14/93	36.53	15.96	---	20.57	350		ND<0.5	ND<0.5	ND<0.5	ND<0.5	714	(c)	---	PACE
MW-3	04/22/93	36.53	16.20	---	20.33	2800		ND<0.5	ND<0.5	ND<0.5	ND<0.5	3600	(c)	---	PACE
MW-3	07/15/93	36.53	16.82	---	19.71	1400		1.2	ND<0.5	2.0	3.5	2200	(c)	---	PACE
MW-3	10/21/93	36.53	18.84	---	17.69	370		2.1	2.3	2.3	6.0	850	(c)	---	PACE
MW-3	01/27/94	36.53	18.00	---	18.53	1300		6.3	ND<0.5	ND<0.5	ND<0.5	4000	(c)	---	PACE
MW-3	04/21/94	36.53	16.62	---	19.91	2000		ND<0.5	ND<0.5	ND<0.5	ND<0.5	4300	(c)	1.4	PACE
MW-3	09/09/94	36.53	18.38	---	18.15	1300		ND<0.5	ND<0.5	0.5	1.2	---		3.0	PACE
MW-3	12/21/94	36.53	15.28	---	21.25	420		16	0.7	3.5	5.9	---		1.9	PACE
MW-3	01/30/95	36.53	12.62	---	23.91	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		2.5	ATI
MW-3	04/10/95	36.53	12.41	---	24.12	150		ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		6.9	ATI
MW-3	06/29/95	36.53	14.95	---	21.58	100	(d)	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		6.4	ATI
MW-3	09/18/95	36.53	15.82	---	20.71	---		---	---	---	---	---		---	---
MW-3	09/19/95	36.53	---	---	---	82		ND<0.50	ND<0.50	ND<0.50	ND<1.0	260		7.0	ATI
MW-3	12/07/95	36.53	17.09	---	19.44	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	91		4.5	ATI
MW-3	03/28/96	36.53	11.90	---	24.63	ND<50		ND<0.5	ND<1	ND<1	ND<1	230		4.2	SPL
MW-3	06/20/96	36.53	12.66	---	23.87	260		ND<0.5	ND<1	ND<1	ND<1	370		4.4	SPL
MW-3	10/11/96	36.53	16.23	---	20.30	330		ND<0.5	ND<1.0	ND<1.0	ND<1.0	440		5.8	SPL
MW-3	01/02/97	36.53	12.17	---	24.36	ND<50		ND<0.5	ND<1.0	ND<1.0	ND<1.0	140		6.0	SPL
MW-3	04/14/97	36.53	13.45	---	23.08	---		---	---	---	---	---		---	---
MW-3	04/15/97	36.53	---	---	---	1500		ND<0.5	ND<1.0	ND<1.0	ND<1.0	1800		5.6	SPL
MW-3	07/02/97	36.53	15.60	---	20.93	880		ND<0.5	ND<1.0	ND<1.0	ND<1.0	940		5.3	SPL
MW-3	09/30/97	36.53	17.16	---	19.37	40000		13000	2400	870	3100	510		6.6	SPL
MW-3	01/21/98	36.53	11.77	---	24.76	120		ND<0.5	ND<1.0	ND<1.0	ND<1.0	98		4.7	SPL
MW-3	04/09/98	36.53	9.42	---	27.11	950		ND<0.5	ND<1.0	ND<1.0	ND<1.0	890		5.7	SPL
MW-3	06/19/98	36.53	12.09	---	24.44	1800		ND<0.5	ND<1.0	ND<1.0	ND<1.0	1900		4.7	SPL

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2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-1	04/05/91	38.11	25.44	---	12.67	4100	1500	69	100	83	---	---	SUP
AW-1	04/01/92	38.11	23.22	---	14.89	---	---	---	---	---	---	---	---
AW-1	04/02/92	38.11	---	---	---	11000	1800	210	210	490	---	---	APP
AW-1	07/06/92	38.11	24.89	---	13.22	6500	4000	40	290	530	---	---	ANA
AW-1	10/07/92	38.11	26.55	---	11.56	4700	1500	41	47	300	---	---	ANA
QC-1 (e)	10/07/92	---	---	---	---	2900	1200	25	37	210	---	---	ANA
AW-1	01/14/93	38.11	23.73	---	14.38	2800	830	31	140	240	---	---	PACE
QC-1 (e)	01/14/93	---	---	---	---	4100	1700	28	130	230	---	---	PACE
AW-1	04/22/93	38.11		---	38.11	39000	14000	530	1800	6100	987 (c)	---	PACE
AW-1	07/15/93	38.11	22.50	---	15.61	6200	2200	28	210	540	840 (c)	---	PACE
AW-1	10/21/93	38.11	24.32	---	13.79	2400	820	13	55	120	830 (c)	---	PACE
AW-1	01/27/94	38.11	23.72	---	14.39	3500	1400	26	130	220	650 (c)	---	PACE
AW-1	04/21/94	38.11	22.48	---	15.63	40000	12000	1900	1600	5000	---	1.4	PACE
AW-1	09/09/94	38.11	23.04	---	15.07	3500	1600	5.0	200	250	---	2.1	PACE
QC-1 (e)	09/09/94	---	---	---	---	3900	1900	5.5	190	240	---	---	PACE
AW-1	12/21/94	38.11	21.70	---	16.41	7600	3100	36	370	320	---	1.6	PACE
AW-1	01/30/95	38.11	17.71	---	20.4	35000	23000	650	3200	4100	---	1.7	ATI
AW-1	04/10/95	38.11	20.04	---	18.07	60000	18000	2000	4300	11000	---	7.9	ATI
QC-1 (e)	04/10/95	---	---	---	---	56000	17000	2000	3900	10000	---	---	ATI
AW-1	06/29/95	38.11	20.60	---	17.51	72000	10000	7300	4200	15000	---	6.2	ATI
QC-1 (e)	06/29/95	---	---	---	---	86000	12000	8400	4800	18000	---	---	ATI
AW-1	09/18/95	38.11	21.87	---	16.24	---	---	---	---	---	---	---	---
AW-1	09/19/95	38.11	---	---	---	65000	12000	3100	4400	14000	1000	8.5	ATI
AW-1	12/07/95	38.11	22.06	---	16.05	25000	8700	ND<50	2500	1300	1100	2.9	ATI
AW-1	03/28/96	38.11	16.91	---	21.20	24000	11000	ND<100	3200	3390	ND<1000	6.6	SPL
AW-1	06/20/96	38.11	20.82	---	17.29	38000	6900	1100	3200	7300	ND<100	6.4	SPL
AW-1	10/11/96	38.11	23.20	---	14.91	33000	8500	69	3300	4230	580	6.3	SPL
AW-1	01/02/97	38.11	20.41	---	17.70	32000	8000	ND<50	3100	2300	700	6.7	SPL
AW-1	04/14/97	38.11	21.61	---	16.50	---	---	---	---	---	---	---	---
AW-1	04/15/97	38.11	---	---	---	31000	5000	160	2400	4540	340	5.4	SPL
AW-1	07/02/97	38.11	21.17	---	16.94	26000	5800	ND<100	2600	2200	ND<1000	6.2	SPL
AW-1	09/30/97	38.11	21.48	---	16.63	29000	9200	17	1400	130	560	6.9	SPL
AW-1	01/21/98	38.11	20.02	---	18.09	50000	6900	450	3200	4450	720	5.8	SPL
AW-1	04/09/98	38.11	13.37	---	24.74	---	---	---	---	---	---	---	---
AW-1	04/10/98	38.11	---	---	---	46000	5800	1900	3000	7400	1000	4.3	SPL
AW-1	06/19/98	38.11	19.12	---	18.99	42000	6600	200	3000	3350	660	4.9	SPL
QC-1 (e)	06/19/98	---	---	---	---	43000	6800	260	3100	3490	620	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-2	04/05/91	36.83	22.36	---	14.47	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SUP
AW-2	04/01/92	36.83	20.81	---	16.02	---	---	---	---	---	---	---	---
AW-2	04/02/92	36.83	---	---	---	130	25	2.3	0.7	2.1	---	---	APP
AW-2	07/06/92	36.83	23.57	---	13.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-2	10/07/92	36.83	25.24	---	11.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-2	01/14/93	36.83	20.82	---	16.01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	04/22/93	36.83	19.37	---	17.46	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	07/15/93	36.83	21.29	---	15.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	10/21/93	36.83	23.14	---	13.69	ND<50	1.3	1.1	0.9	2.1	---	---	PACE
AW-2	01/27/94	36.83	22.34	---	14.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-2	04/21/94	36.83	21.15	---	15.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.0	PACE
AW-2	09/09/94	36.83	22.09	---	14.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.1	PACE
AW-2	12/21/94	36.83	20.12	---	16.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.0	PACE
AW-2	01/30/95	36.83	16.65	---	20.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	2.5	ATI
AW-2	04/10/95	36.83	16.22	---	20.61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	4.4	ATI
AW-2	06/29/95	36.83	17.55	---	19.28	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.8	ATI
AW-2	09/18/95	36.83	19.87	---	16.96	---	---	---	---	---	---	---	---
AW-2	09/19/95	36.83	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	4.5	ATI
QC-1 (e)	09/19/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-2	12/07/95	36.83	21.31	---	15.52	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	4.9	ATI
AW-2	03/28/96	36.83	15.61	---	21.22	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.1	SPL
AW-2	06/20/96	36.83	16.30	---	20.53	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	5.2	SPL
AW-2	10/11/96	36.83	19.60	---	17.23	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.0	SPL
AW-2	01/02/97	36.83	15.97	---	20.86	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.1	SPL
AW-2	04/14/97	36.83	17.19	---	19.64	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.3	SPL
AW-2	07/02/97	36.83	18.11	---	18.72	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.7	SPL
AW-2	09/30/97	36.83	18.52	---	18.31	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	860	5.4	SPL
AW-2	01/21/98	36.83	14.46	---	22.37	160	13	ND<1.0	ND<1.0	ND<1.0	110	4.9	SPL
AW-2	04/09/98	36.83	12.85	---	23.98	---	---	---	---	---	---	---	---
AW-2	04/10/98	36.83	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.9	SPL
AW-2	06/19/98	36.83	14.37	---	22.46	60	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.6	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-3	04/05/91	39.13	23.90	---	15.23	5200	980	450	95	310	---	---	SUP
AW-3	04/01/92	39.13	22.50	—	16.63	4700	890	47	43	110	---	---	APP
AW-3	07/06/92	39.13	23.26	---	15.87	3900	3100	30	80	99	---	---	ANA
AW-3	10/07/92	39.13	24.75	---	14.38	5000	2600	ND<0.5	ND<0.5	59	---	---	ANA
AW-3	01/14/93	39.13	23.59	---	15.54	350	250	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-3	04/22/93	39.13	19.42	---	19.71	240	71	2.4	0.6	4.0	---	---	PACE
AW-3	07/15/93	39.13	20.09	---	19.04	650	71	2.8	1.5	1.1	38 (c)	---	PACE
AW-3	10/21/93	39.13	21.88	---	17.25	160	4.8	1.7	1.6	3.6	---	---	PACE
QC-1 (e)	10/21/93	---	---	—	---	170	6.1	2.0	1.7	4.4	---	---	PACE
AW-3	01/27/94	39.13	22.33	---	16.80	92	2.1	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-1 (e)	01/27/94	---	---	---	---	90	2.9	0.5	ND<0.5	ND<0.5	---	---	PACE
AW-3	04/21/94	39.13	20.96	---	18.17	150	3.6	0.8	0.9	2.5	---	1.3	PACE
AW-3	09/09/94	39.13	21.60	---	17.53	53	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.9	PACE
AW-3 (f)	12/21/94	39.13	---	---	---	---	---	---	---	---	---	---	---
AW-3 (f)	01/30/95	39.13	---	---	---	---	---	---	---	---	---	---	---
AW-3 (f)	04/10/95	39.13	---	---	---	---	---	---	---	---	---	---	---
AW-3	06/29/95	39.13	15.41	—	23.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.0	ATI
AW-3	09/18/95	39.13	17.83	—	21.30	---	---	---	---	---	---	---	---
AW-3	09/19/95	39.13	---	—	---	61000	11000	2900	4100	13000	790	7.4	ATI
AW-3	12/07/95	39.13	19.27	---	19.86	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	3.4	ATI
QC-1 (e)	12/07/95	---	---	—	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
AW-3	03/28/96	39.13	13.85	---	25.28	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.1	SPL
QC-1 (e)	03/28/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	—	SPL
AW-3	06/20/96	39.13	14.47	---	24.66	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.2	SPL
QC-1 (e)	06/20/96	---	---	—	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
AW-3	10/11/96	39.13	17.97	---	21.16	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.7	SPL
QC-1 (e)	10/11/96	---	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-3	01/02/97	39.13	13.00	---	26.13	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.6	SPL
AW-3	04/14/97	39.13	14.36	---	24.77	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
QC-1 (e)	04/15/97	---	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
AW-3	07/02/97	39.13	15.87	---	23.26	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.4	SPL
AW-3	09/30/97	39.13	17.50	---	21.63	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	810	5.7	SPL
AW-3	01/21/98	39.13	11.98	---	27.15	140	ND<0.5	ND<1.0	ND<1.0	ND<1.0	99	4.6	SPL
QC-1 (e)	01/21/98	---	---	---	---	150	ND<0.5	ND<1.0	ND<1.0	1.2	110	---	SPL
AW-3	04/09/98	39.13	9.45	—	29.68	---	---	---	---	---	---	---	---
AW-3	04/10/98	39.13	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	1.6	ND<10	4.5	SPL
QC-1 (e)	04/10/98	---	---	---	---	ND<50	ND<0.5	ND<1.0	1.4	1.7	ND<10	---	SPL
AW-3	06/19/98	39.13	12.13	—	27.00	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-4	04/05/91	39.08	25.12	---	13.96	110000	40000	13000	2000	5500	---	---	SUP
AW-4	04/01/92	39.08	23.56	---	15.52	230000	57000	31000	2900	7600	---	---	APP
QC-1 (e)	04/01/92	---	---	---	---	210000	55000	23000	2900	7000	---	---	APP
AW-4	07/06/92	39.08	25.87	---	13.21	38000	16000	5400	2000	6100	---	---	ANA
AW-4	10/07/92	39.08	27.53	---	11.55	120000	41000	26000	4700	13000	---	---	ANA
AW-4	01/14/93	39.08	24.12	---	14.96	62000	18000	14000	2700	7700	1400 (c)	---	PACE
AW-4	04/22/93	39.08	21.47	---	17.61	18000	1100	2100	320	3500	---	---	PACE
AW-4	07/15/93	39.08	23.30	---	15.78	21000	820	2300	590	3800	2000 (c)	---	PACE
AW-4	10/21/93	39.08	25.08	---	14.00	11000	570	83	630	2300	4600 (c)	---	PACE
AW-4	01/27/94	39.08	24.61	---	14.47	12000	420	460	600	2200	6400 (c)	---	PACE
AW-4	04/21/94	39.08	22.96	---	16.12	12000	110	250	150	1900	16 (c)	1.5	PACE
QC-1 (e)	04/21/94	---	---	---	---	14000	71	160	29	1200	13000 (c)	---	PACE
AW-4	09/09/94	39.08	23.85	---	15.23	9700	75	64	280	2000	---	2.1	PACE
AW-4 (f)	12/21/94	39.08	---	---	---	---	---	---	---	---	---	---	---
AW-4 (f)	01/30/95	39.08	---	---	---	---	---	---	---	---	---	---	---
AW-4	04/10/95	39.08	18.07	---	21.01	3700	69	8.7	44	130	---	8.5	ATI
AW-4	06/29/95	39.08	19.25	---	19.83	8000	62	190	190	1100	---	7.5	ATI
AW-4	09/18/95	39.08	20.73	---	18.35	---	---	---	---	---	---	---	---
AW-4	09/19/95	39.08	---	---	---	12000	660	1600	200	1900	7100	8.3	ATI
AW-4	12/07/95	39.08	22.49	---	16.59	41000	8400	7200	710	6300	5200	3.6	ATI
AW-4 (f)	03/28/96	39.08	16.49	---	22.59	---	---	---	---	---	---	---	---
AW-4	06/20/96	39.08	16.00	---	23.08	ND<50	ND<0.5	ND<1	ND<1	ND<1	12	---	SPL
AW-4	10/11/96	39.08	19.52	---	19.56	36000	12000	5500	ND<25	3800	880/1000 (g)	6.2	SPL
AW-4	01/02/97	39.08	15.80	---	23.28	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	22	6.4	SPL
QC-1 (e)	01/02/97	---	---	---	---	ND<50	61	3.8	3.5	8.1	110	---	SPL
AW-4	04/14/97	39.08	17.01	---	22.07	---	---	---	---	---	---	---	---
AW-4	04/15/97	39.08	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.4	SPL
AW-4	07/02/97	39.08	19.68	---	19.40	ND<50	21	ND<1.0	ND<1.0	ND<1.0	41	4.1	SPL
AW-4 (f)	09/30/97	39.08	22.71	---	16.37	---	---	---	---	---	---	---	---
AW-4	01/21/98	39.08	15.89	---	23.19	13000	2900	ND<10	230	314	3100	3.9	SPL
AW-4	04/09/98	39.08	13.50	---	25.58	---	---	---	---	---	---	---	---
AW-4	04/10/98	39.08	---	---	---	890	ND<0.5	ND<1	ND<1	ND<1	730	4.9	SPL
AW-4	06/19/98	39.08	14.75	---	24.33	60	ND<0.5	ND<1.0	ND<1.0	ND<1.0	34	4.3	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-5	04/05/91	38.51	25.48	---	13.03	420	31	7.5	20	68	---	---	SUP
AW-5	04/01/92	38.51	23.95	---	14.56	---	---	---	---	---	---	---	---
AW-5	04/02/92	38.51	---	---	---	4000	270	63	190	290	---	---	APP
AW-5	07/06/92	38.51	26.48	---	12.03	1400	160	ND<2.5	250	58	---	---	ANA
AW-5	10/07/92	38.51	28.18	---	10.33	360	12	0.6	8.7	5	---	---	ANA
AW-5	01/14/93	38.51	24.15	---	14.36	1700	270	7.5	130	62	---	---	PACE
AW-5	04/22/93	38.51	22.43	---	16.08	2700	780	30	220	180	---	---	PACE
QC-1 (e)	04/22/93	---	---	---	---	3500	780	29	240	210	---	---	PACE
AW-5	07/15/93	38.51	24.31	---	14.20	1300	69	16	67	120	---	---	PACE
QC-1 (e)	07/15/93	---	---	---	---	1300	68	8.3	64	99	---	---	PACE
AW-5	10/21/93	38.51	26.05	---	12.46	510	9.6	1.5	17	45	75 (c)	---	PACE
AW-5	01/27/94	38.51	26.42	---	12.09	420	3.3	ND<0.5	1.0	0.9	---	---	PACE
AW-5	04/21/94	38.51	24.36	---	14.15	1000	110	25	56	27	75 (c)	1.3	PACE
AW-5	09/09/94	38.51	24.55	---	13.96	210	ND<0.5	ND<0.5	0.5	0.9	---	2.7	PACE
AW-5	12/21/94	38.51	22.30	---	16.21	410	ND<0.5	20	4.3	1.4	---	1.1	PACE
QC-1 (e)	12/21/94	---	---	---	---	340	ND<0.5	15	3.3	1.4	---	---	PACE
AW-5	01/30/95	38.51	18.88	---	19.63	210	0.6	11	8.8	2	---	1.5	ATI
AW-5	04/10/95	38.51	18.44	---	20.07	500	1.4	0.59	6.5	4.3	---	8.3	ATI
AW-5	06/29/95	38.51	19.92	---	18.59	490 (d)	1.2	0.58	7.3	2.2	---	6.9	ATI
AW-5	09/18/95	38.51	22.15	---	16.36	---	---	---	---	---	---	---	---
AW-5	09/19/95	38.51	---	---	---	260	0.62	ND<0.50	3.1	1.1	110	8.2	ATI
AW-5	12/07/95	38.51	23.75	---	14.76	60	ND<0.50	ND<0.50	ND<0.50	ND<1.0	210	4.3	ATI
AW-5	03/28/96	38.51	17.76	---	20.75	ND<50	ND<0.5	ND<1	ND<1	ND<1	63	3.0	SPL
AW-5	06/20/96	38.51	18.46	---	20.05	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.6	SPL
AW-5	10/11/96	38.51	21.84	---	16.67	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.5	SPL
AW-5	01/02/97	38.51	18.01	---	20.50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL
AW-5	04/14/97	38.51	19.35	---	19.16	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.1	SPL
AW-5	07/02/97	38.51	20.29	---	18.22	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.0	SPL
AW-5	09/30/97	38.51	23.15	---	15.36	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	1300	6.3	SPL
AW-5	01/21/98	38.51	17.33	---	21.18	6100	ND<0.5	2.1	ND<1.0	ND<1.0	3700	4.5	SPL
AW-5	04/09/98	38.51	15.25	---	23.26	---	---	---	---	---	---	---	---
AW-5	04/10/98	38.51	---	---	---	3500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3000	5.4	SPL
AW-5	06/19/98	38.51	17.39	---	21.12	3300	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2500	5.2	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-6	04/05/91	37.08	22.48	---	14.60	1100	80	19	1.4	230	---	---	SUP
AW-6	04/01/92	37.08	22.50	---	14.58	---	---	---	---	---	---	---	---
AW-6	04/02/92	37.08	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	APP
AW-6	07/06/92	37.08	22.74	---	14.34	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-6	10/07/92	37.08	24.64	---	12.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-6	01/14/93	37.08	22.36	---	14.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-6	04/22/93	37.08	22.82	---	14.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-6	07/15/93	37.08	20.49	---	16.59	ND<50	ND<0.5	ND<0.5	ND<0.5	0.8	---	---	PACE
AW-6	10/21/93	37.08	22.84	---	14.24	ND<50	0.5	0.6	ND<0.5	0.7	---	---	PACE
AW-6	01/27/94	37.08	22.33	---	14.75	ND<50	ND<0.5	0.9	3.1	12	---	---	PACE
AW-6	04/21/94	37.08	20.66	---	16.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.7	PACE
AW-6	09/09/94	37.08	21.57	---	15.51	ND<50	0.9	ND<0.5	ND<0.5	0.5	---	2.9	PACE
AW-6	12/21/94	37.08	19.40	---	17.68	ND<50	1.8	0.8	0.8	3.2	---	1.1	PACE
AW-6	01/30/95	37.08	16.74	---	20.34	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	2.2	ATI
QC-1 (e)	01/30/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
AW-6	04/10/95	37.08	16.01	---	21.07	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.6	ATI
AW-6	06/29/95	37.08	17.54	---	19.54	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.3	ATI
AW-6	09/18/95	37.08	19.65	---	17.43	---	---	---	---	---	---	---	---
AW-6	09/19/95	37.08	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	25	8.3	ATI
AW-6	12/07/95	37.08	20.35	---	16.73	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	16	4.7	ATI
AW-6	03/28/96	37.08	14.99	---	22.09	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.0	SPL
AW-6	06/20/96	37.08	15.59	---	21.49	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.6	SPL
AW-6	10/11/96	37.08	19.09	---	17.99	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.3	SPL
AW-6	01/02/97	37.08	15.11	---	21.97	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.5	SPL
AW-6	04/14/97	37.08	16.25	---	20.83	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.9	SPL
AW-6	07/02/97	37.08	17.99	---	19.09	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL
AW-6	09/30/97	37.08	20.50	---	16.58	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.0	SPL
AW-6	01/21/98	37.08	15.72	---	21.36	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	110	5.0	SPL
AW-6	04/09/98	37.08	13.31	---	23.77	---	---	---	---	---	---	---	---
AW-6	04/10/98	37.08	---	---	---	370	ND<0.5	ND<1.0	ND<1.0	ND<1.0	300	4.3	SPL
AW-6	06/19/98	37.08	15.18	---	21.90	830	2.0	ND<1.0	ND<1.0	ND<1.0	690	4.0	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-7	04/05/91	37.60	23.38	---	14.22	ND<50	0.4	0.7	ND<0.3	ND<0.3	---	---	SUP
AW-7	04/01/92	37.60	21.92	---	15.68	---	---	---	---	---	---	---	---
AW-7	04/02/92	37.60	---	---	---	ND<50	ND<0.5	3.2	1.0	5.4	---	---	APP
AW-7	07/06/92	37.60	24.50	---	13.10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-7	10/07/92	37.60	26.18	---	11.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-7	01/14/93	37.60	22.03	---	15.57	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	04/22/93	37.60	21.18	---	16.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	07/15/93	37.60	22.09	---	15.51	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	10/21/93	37.60	24.05	---	13.55	51	5.0	4.2	3.5	8.2	---	---	PACE
AW-7	01/27/94	37.60	23.40	---	14.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-7	04/21/94	37.60	22.24	---	15.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.5	PACE
AW-7	09/09/94	37.60	22.94	---	14.66	ND<50	ND<0.5	ND<0.5	ND<0.5	0.5	---	4.3	PACE
AW-7	12/21/94	37.60	20.86	---	16.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.2	PACE
AW-7	01/30/95	37.60	17.51	---	20.09	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	2.7	ATI
AW-7	04/10/95	37.60	16.69	---	20.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	4.8	ATI
AW-7	06/29/95	37.60	18.33	---	19.27	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.6	ATI
AW-7	09/18/95	37.60	20.68	---	16.92	---	---	---	---	---	---	---	---
AW-7	09/19/95	37.60	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	5.1	ATI
AW-7	12/07/95	37.60	22.15	---	15.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	5.2	ATI
AW-7	03/28/96	37.60	16.38	---	21.22	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.9	SPL
AW-7	06/20/96	37.60	17.02	---	20.58	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	5.0	SPL
AW-7	10/11/96	37.60	20.47	---	17.13	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.3	SPL
AW-7	01/02/97	37.60	16.70	---	20.90	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.2	SPL
AW-7	04/14/97	37.60	17.96	---	19.64	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
AW-7	07/02/97	37.60	19.11	---	18.49	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.4	SPL
AW-7	09/30/97	37.60	22.97	---	14.63	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	1100	6.5	SPL
AW-7	01/21/98	37.60	16.50	---	21.10	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.9	SPL
AW-7	04/09/98	37.60	13.56	---	24.04	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.9	SPL
AW-7	06/19/98	37.60	15.41	---	22.19	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-8	04/05/91	40.86	26.68	---	14.18	80	1.9	2.2	0.5	1.3	---	---	SUP
AW-8	04/01/92	40.86	25.11	---	15.75	73	ND<0.5	0.7	ND<0.5	0.6	---	---	APP
AW-8	07/06/92	40.86	26.43	---	14.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-8	10/07/92	40.86	28.59	---	12.27	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
AW-8	01/14/93	40.86	25.55	---	15.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-8	04/22/93	40.86	22.29	---	18.57	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-8	07/15/93	40.86	23.42	---	17.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
AW-8	10/21/93	40.86	25.15	---	15.71	ND<50	1.9	1.8	1.3	3.3	---	---	PACE
AW-8	01/27/94	40.86	25.42	---	15.44	ND<50	ND<0.5	0.5	0.6	8.5	---	---	PACE
AW-8	04/21/94	40.86	24.14	---	16.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.5	PACE
AW-8	09/09/94	40.86	24.55	---	16.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.4	PACE
AW-8	12/21/94	40.86	22.72	---	18.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.1	PACE
AW-8	01/30/95	40.86	19.75	---	21.11	ND<50	ND<0.50	1	ND<0.50	1	---	0.8	ATI
AW-8	04/10/95	40.86	17.78	---	23.08	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.3	ATI
AW-8	06/29/95	40.86	18.18	---	22.68	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.3	ATI
AW-8	09/18/95	40.86	20.20	---	20.66	---	---	---	---	---	---	---	---
AW-8	09/19/95	40.86	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.7	ATI
AW-8	12/07/95	40.86	21.54	---	19.32	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	4.4	ATI
AW-8	03/28/96	40.86	15.77	---	25.09	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.8	SPL
AW-8	06/20/96	40.86	16.41	---	24.45	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	3.6	SPL
AW-8	10/11/96	40.86	19.90	---	20.96	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.4	SPL
AW-8	01/02/97	40.86	15.89	---	24.97	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.9	SPL
AW-8	04/14/97	40.86	17.07	---	23.79	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL
AW-8	07/02/97	40.86	18.67	---	22.19	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.6	SPL
AW-8	09/30/97	40.86	22.52	---	18.34	ND<50	ND<5	ND<10	ND<10	ND<10	820	6.7	SPL
AW-8	01/21/98	40.86	16.01	---	24.85	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL
AW-8	04/09/98	40.86	11.18	---	29.68	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
AW-8	06/19/98	40.86	13.01	---	27.85	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.1	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
AW-9	01/02/97	37.78	10.00	---	27.78	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.7	SPL
AW-9 (f)	04/14/97	37.78	---	---	---	---	---	---	---	---	---	---	---
AW-9	07/02/97	37.78	12.71	---	25.07	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.0	SPL
AW-9	09/30/97	37.78	21.22	---	16.56	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.8	SPL
AW-9	01/21/98	37.78	10.26	---	27.52	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.3	SPL
AW-9	04/09/98	37.78	6.77	---	31.01	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.6	SPL
AW-9	06/19/98	37.78	8.96	---	28.82	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL
RW-1	04/05/91	37.73	---	---	---	---	---	---	---	---	---	---	---
RW-1	04/01/92	37.73	22.81	0.30	15.14	---	---	---	---	---	---	---	---
RW-1	07/06/92	37.73	26.92	0.41	11.12	---	---	---	---	---	---	---	---
RW-1	10/07/92	37.73	28.51	1.26	10.16	---	---	---	---	---	---	---	---
RW-1	01/14/93	37.73	23.75	0.25	14.17	---	---	---	---	---	---	---	---
RW-1	04/22/93	37.73	22.70	1.38	16.07	---	---	---	---	---	---	---	---
RW-1	07/15/93	37.73	26.10	0.81	12.24	---	---	---	---	---	---	---	---
RW-1	10/21/93	37.73	25.40	0.49	12.70	---	---	---	---	---	---	---	---
RW-1	10/21/93	37.73	25.40	0.49	12.70	---	---	---	---	---	---	---	---
RW-1	01/27/94	37.73	28.02	0.37	9.99	---	---	---	---	---	---	---	---
RW-1	04/21/94	37.73	23.10	0.91	15.31	---	---	---	---	---	---	---	---
RW-1	09/09/94	37.73	24.39	1.04	14.12	---	---	---	---	---	---	---	---
RW-1 (h)	12/21/94	37.73	---	---	---	---	---	---	---	---	---	---	---
RW-1	12/07/95	37.73	25.71	1.04	12.80	150000	34000	35000	4300	21000	2700	---	ATI
RW-1	03/28/96	37.73	16.75	0.18	21.12	---	---	---	---	---	---	---	---
RW-1 (h)	06/20/96	37.73	25.10	0.02	12.64	---	---	---	---	---	---	---	---
RW-1	10/11/96	37.73	25.51	0.00	12.22	130000	20000	32000	2800	20700	1400/1200 (g)	7.4	SPL
RW-1	01/02/97	37.73	24.49	0.01	13.25	---	---	---	---	---	---	---	---
RW-1	04/14/97	37.73	23.99	0.04	13.77	---	---	---	---	---	---	---	---
RW-1	04/15/97	37.73	---	---	---	1800000	38000	190000	48000	281000	ND<25000	---	SPL
RW-1	07/02/97	37.73	16.40	0.20	21.48	140000	19000	55000	4400	32400	ND<10000	5.7	SPL
QC-1 (e)	07/02/97	---	---	---	---	130000	19000	54000	4700	33400	ND<10000	---	SPL
RW-1	09/30/97	37.73	27.97	0.02	9.78	110000	13000	22000	2000	12500	1100	7.0	SPL
QC-1 (e)	09/30/97	---	---	---	---	140000	17000	29000	2500	15900	1200	---	SPL
RW-1	01/21/98	37.73	14.14	0.44	23.92	270000	21000	48000	3500	25000	1100	4.8	SPL
RW-1	04/09/98	37.73	25.01	0.05	12.76	---	---	---	---	---	---	---	---
RW-1	04/10/98	37.73	---	---	---	220000	26000	46000	4400	24500	ND<2500	5.1	SPL
RW-1	06/19/98	37.73	11.43	---	26.30	180000	19000	32000	3000	17400	ND<2500	4.6	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
QC-2 (i)	10/07/92	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (i)	01/14/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	04/22/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	07/15/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	10/21/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	01/27/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	04/21/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	09/09/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	12/21/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	01/30/95	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	04/10/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	06/27/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	09/19/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	12/07/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (i)	03/28/96	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (i)	06/20/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
						ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
---	Not available/applicable/measurable
ND	Not detected above reported detection limit
PACE	Pace, Inc.
SUP	Superior Analytical Laboratories, Inc.
APP	Applied Analytical Laboratory
ANA	Anametrix, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

(a) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level.

(b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.

(c) A copy of the documentation for this data is included in Appendix C of Alisto report 10-025-13-003.

(d) MTBE peak. See documentation in Appendix C of Alisto report 10-025-13-003.

(e) Blind duplicate.

(f) Well inaccessible.

(g) EPA Methods 8020/8260 used.

(h) Well not monitored and/or sampled due to vapor extraction system.

(i) Travel blank.

F:\0\10-025\10-025GW.WQ2

TABLE 2 - PRODUCT REMOVAL STATUS
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
RW-1	10/06/93	1.00	1.00
	10/14/94	1.00	2.00
	10/20/94	18.00	20.00
	10/26/94	3.00	23.00
	11/02/93	5.00	28.00
	11/10/94	6.00	34.00
	11/16/94	2.50	36.50
	11/23/94	5.00	41.50
	11/30/93	2.00	43.50
	12/07/93	4.00	47.50
	12/17/93	1.50	49.00
	01/04/94	5.00	54.00
	01/12/94	3.50	57.50
	01/20/94	2.50	60.00
	02/11/94	4.00	64.00
	02/18/93	3.50	67.50
	02/25/94	3.00	70.50
	03/04/94	3.50	74.00
	03/18/94	5.50	79.50
	03/30/94	4.00	83.50
	04/13/94	4.60	88.10
	04/21/94	4.20	92.30
	04/29/94	4.50	96.80
	05/06/94	5.50	102.30
	05/13/94	3.50	105.80
	05/20/94	3.50	109.30
	05/26/94	4.50	113.80
	06/02/94	3.50	117.30
	06/09/94	2.50	119.80
	06/16/94	3.50	123.30
	06/23/94	4.00	127.30
	06/29/94	2.50	129.80
	07/07/94	2.00	131.80
	07/12/94	3.00	134.80
	07/20/94	1.50	136.30
	07/29/94	3.50	139.80
	08/05/94	1.50	141.30
	08/12/94	2.00	143.30
	08/18/94	2.50	145.80
	09/09/94	3.50	149.30
	09/16/94	4.00	153.30
	09/23/94	2.00	155.30
	12/07/95	0.00	155.30
	03/28/96	0.01	155.31
	06/20/96	0.00	155.31
	04/14/97	<0.05	155.31
	07/02/97	0.25	155.56
	09/30/97	<0.01	155.56
	01/21/98	0.5	156.06
	04/10/98	0.09	156.15
	06/19/98	<0.01	156.15

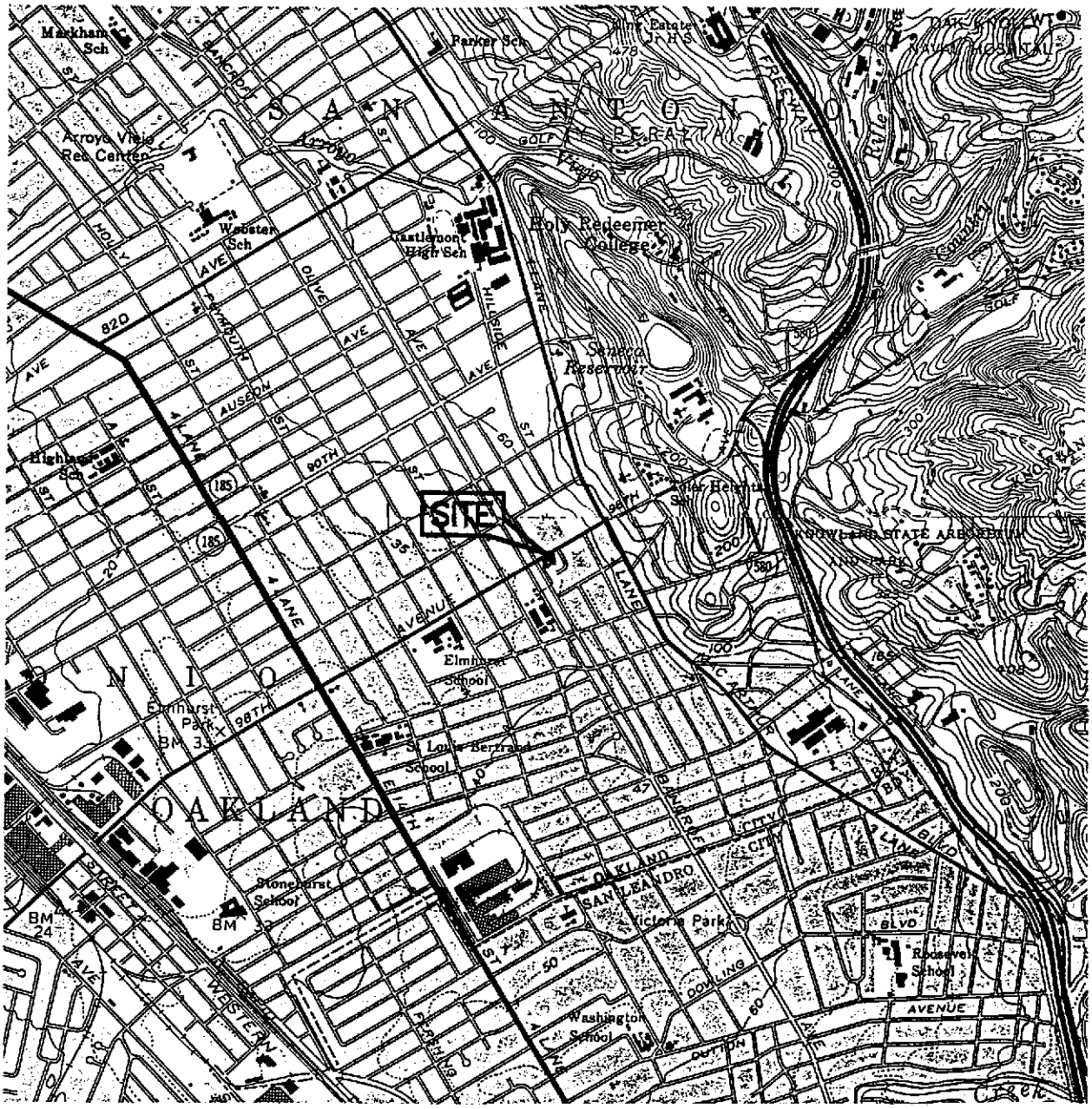
TABLE 2 - PRODUCT REMOVAL STATUS
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

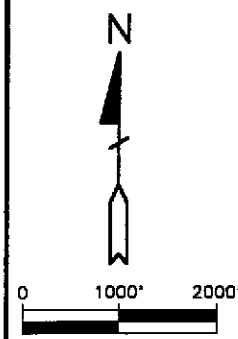
WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-1	10/20/93	0.10	0.10
	11/10/93	0.10	0.20
	09/09/94	SHEEN	0.20
	10/26/94	SHEEN	0.20
	11/16/94	SHEEN	0.20
	12/21/94	0.25	0.45
	02/08/95	0.00	0.45
	04/10/95	0.25	0.70
	06/29/95	SHEEN	0.70
	09/18/95	SHEEN	0.70
	12/07/95	SHEEN	0.70
	03/28/96	<.001	0.70
	06/20/96	0.002	0.70
	10/11/96	<0.001	0.70
	01/02/97	<0.01	0.70
	04/14/97	<0.01	0.70
	07/02/97	<0.01	0.70
	01/21/98	<0.01	0.70
	06/19/98	<0.01	0.70

NOTE: Groundwater and soil vapor extraction equipment installed in RW-1 in October 1994.

F:\0\10-025\PRODUCT.WQ2



SOURCE:
USGS MAP, OAKLAND EAST AND SAN LEANDRO QUADRANGLES, CALIFORNIA. 7.5 MINUTE SERIES. 1956. PHOTOREVISED 1980.



QUADRANGLE LOCATION

FIGURE 1

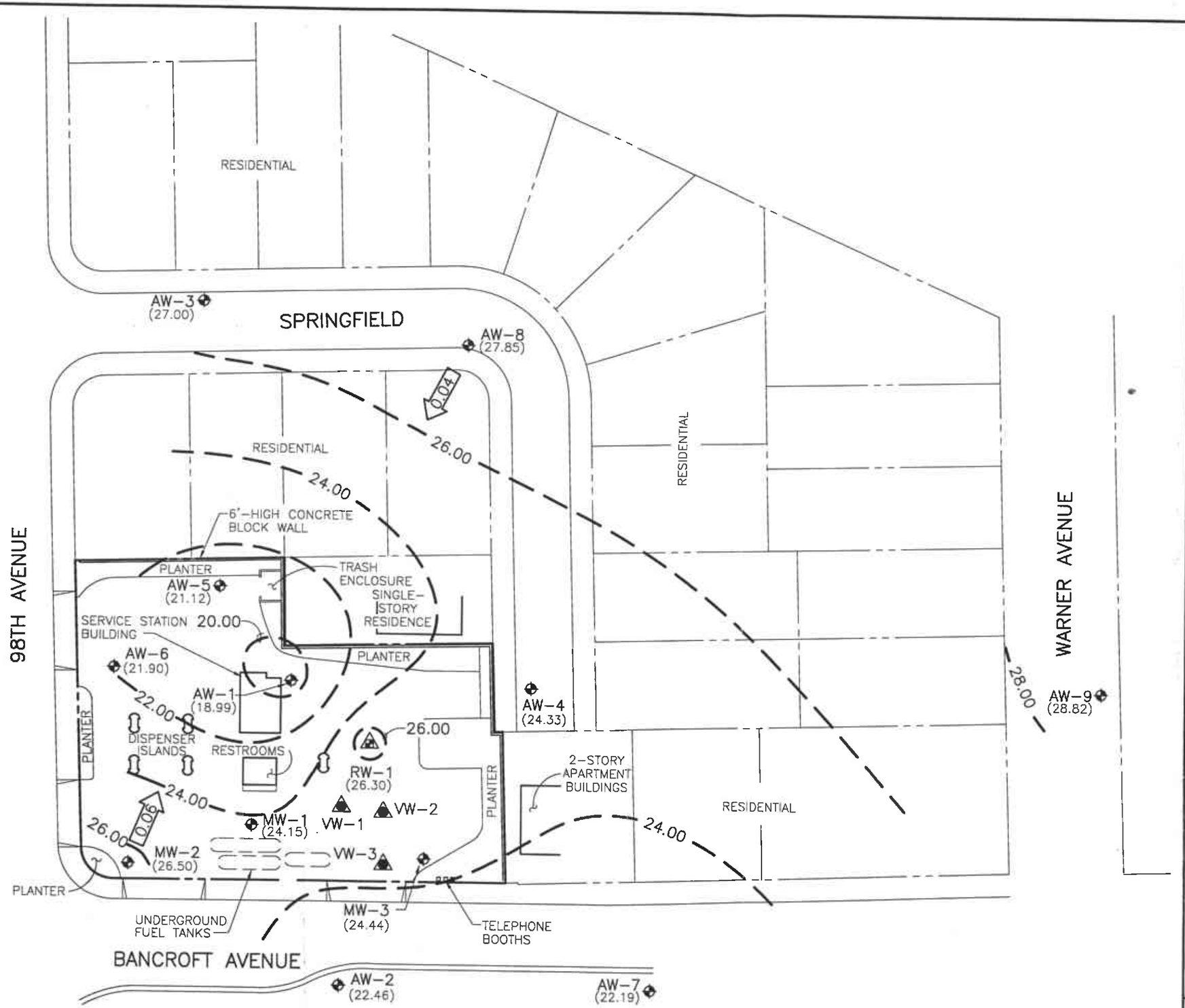
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10025B---.DWG 3-22-94 RKW 1=1



N

0 50 100

SCALE IN FEET

LEGEND

- GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION WELL
- COMBINED GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL
- (22.19) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 24.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-2.00 FEET)
- 0.06 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

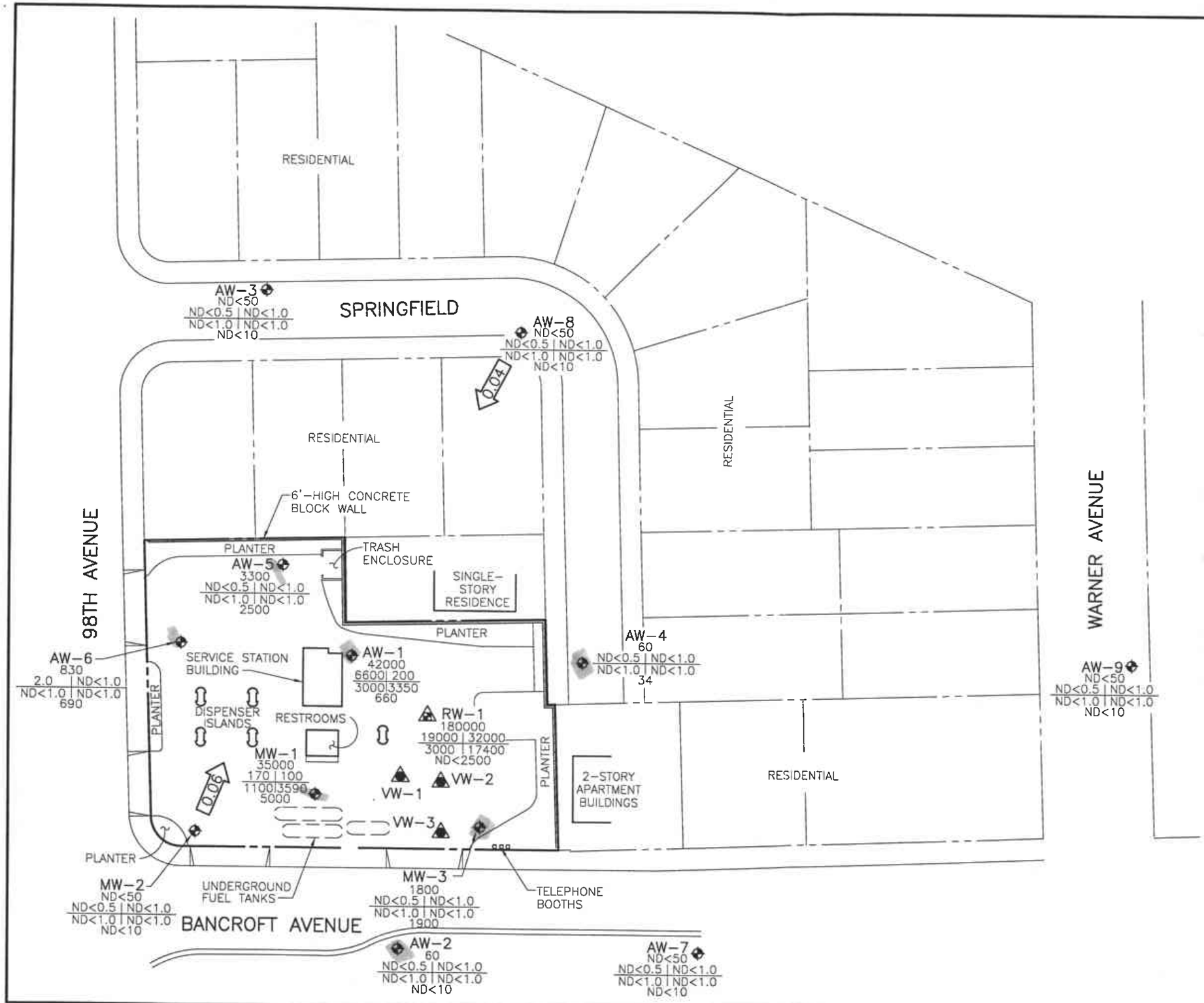
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

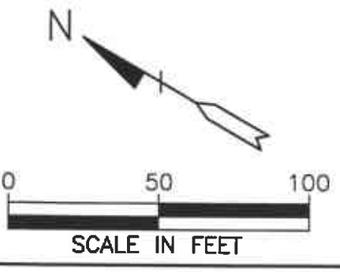
JUNE 19, 1998

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA





LEGEND

◆	GROUNDWATER MONITORING WELL
▲	VAPOR EXTRACTION WELL
◭	COMBINED GROUNDWATER RECOVERY/VAPOR EXTRACTION 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
0.06	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JUNE 19, 1998

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10025SA2.DWG 8-24-98 TWH 1=50

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. 10-025-017-004 Date: 6/19/98
Address 2220 98th Ave. Day: M T W TH (F)
Contract No. H177113 City: Oakland
Station No. BP 11133 Sampler: LCB

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS: Operated AS BP Temporarily Closed!
MW-1	S-11	2"	34.00	10.31	~~X~~	1001	PPRS Serviced PPRS, irredescence
MW-2	S-5	2"	34.10	9.00	Ø	0933	
MW-3	S-9	2"	21.83	12.09		0950	
AW-1	S-12	2"	38.60	19.12		1003	QC-1 (S-13) From this well
X AW-2	S-1	2"	35.20	14.37		0915	
AW-3	S-6	2"	45.00	12.13		0937	~~Dup must be from this well~~
AW-4	S-8	2"	35.00	14.75		0947	
AW-5	S-10	4"	42.90	17.39		0955	
AW-6	S-7	4"	34.20	15.18		0941	
X AW-7	S-2	2"	32.30	15.41		0920	
X AW-8	S-3	2"	39.20	13.01		0923	
X AW-9	S-4	2"	40.00	8.96		0927	
RW-1	S-14	4"	40.00	11.43	irredescence	1007	Sample through dip tube

FIELD INSTRUMENT CALIBRATION DATA

pH METER Ion 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME 1021
D.O. METER Ion ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP 64 WEATHER Clear
CONDUCTIVITY METER Ion 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER X
LEAK DETECTOR : _____ ALARM MODE _____ X _____ NON ALARM MODE

ALISTO

Field Report / Sampling Data Sheet

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

Project No. 10-025-017-004 | Date: 6/19/98
Address 2220 98th Ave. | Day: M T W TH F
Contract No. H177113 | City: Oakland
Station No. BP 11133 | Sampler: LAB

Well ID AW-2 | Depth to Water 14.37 | Diam 2" | Cap/Lock OK | Product Depth Ø | Iridescence Y (N)
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.
35.20 - 14.37 = 20.83 x .16 = 3.33 x 3 = 9.99
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
3	1050	71.3	7.31	486 µs	3.3
7		70.7	7.16	579 µs	
10	1101	69.8	7.08	527 µs	3.6

O EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520 ___
TIME/SAMPLE ID: 1107

Well ID AW-7 | Depth to Water 15.41 | Diam 2" | Cap/Lock OK | Product Depth Ø | Iridescence Y (N)
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.
32.30 - 15.41 = 16.89 x .16 = 2.70 x 3 = 8.10
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
3	1121	73.3	7.11	610 µs	4.2
6		71.9	7.21	587 µs	
9	1130	70.7	7.17	581 µs	4.4

O EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520 ___
TIME/SAMPLE ID: 1133

Well ID AW-8 | Depth to Water 13.01 | Diam 2" | Cap/Lock OK | Product Depth Ø | Iridescence Y (N)
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.
39.20 - 13.01 = 26.19 x .16 = 4.19 x 3 = 12.57
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
4	1157	72.7	7.27	1.01 ms	3.7
8		72.2	7.36	1.06 ms	
13	1215	71.3	7.41	1.07 ms	4.1

O EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520 ___
TIME/SAMPLE ID: 1215

Well ID AW-9 | Depth to Water 8.96 | Diam 2" | Cap/Lock OK | Product Depth Ø | Iridescence Y (N)
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.
40.00 - 8.96 = 31.04 x .16 = 4.97 x 3 = 14.91
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
5	1245	72.2	6.89	.79 ms	4.5
10		71.3	7.20	.92 ms	
15	1301	70.6	7.23	.96 ms	4.8

O EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520 ___
TIME/SAMPLE ID: 1306

ALISTO

Field Report / Sampling Data Sheet

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

Project No. 10-025-017-004 Date: 6/19/18
Address 2220 98th Ave. Day: M T W TH F
Contract No. H177113 City: Oakland
Station No. BP 11133 Sampler: LG

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-2	9.00	2"	OK	Ø	Y (N)	4	1317	71.4	7.36	319µS	4.3
						8		70.3	7.17	350µS	
						13	1327	70.3	7.09	357µS	4.9

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
34.10 - 9.00 = 25.10 X .16 = 4.02 X 3 = 12.06

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

Comments: Needs New Monument

O EPA 601___ (X) TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID: 1327

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
AW-3	12.13	2"	OK	Ø	Y (N)	6	1351	72.6	7.37	1.03ms	3.9
						12		71.8	7.48	1.10ms	
						16	1410	70.9	7.53	1.14ms	4.4

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
45.00 - 12.13 = 32.87 X .16 = 5.26 X 3 = 15.78

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

Comments:

O EPA 601___ (X) TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID: 1413

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
AW-6	15.18	4"	OK	Ø	Y (N)	18	1427	70.9	6.97	588µS	4.0
						24		70.1	7.04	617µS	
						38	1452	69.4	7.07	610µS	4.0

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
34.20 - 15.18 = 19.02 X .65 = 12.36 X 3 = 37.08

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

Comments: Needs New Monument

O EPA 601___ (X) TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID: 1500

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
AW-4	14.75	2"	OK	Ø	Y (N)	3	1515	71.4	7.34	.76ms	4.1
						7		70.8	7.18	.87ms	
						10	1527	70.2	7.11	.91ms	4.3

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
35.00 - 14.75 = 20.25 X .16 = 3.24 X 3 = 9.72

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

Comments:

O EPA 601___ (X) TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID: 1530

ALISTO

Field Report / Sampling Data Sheet

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

Project No. 10-025-017-004 Date: 6/19/98
Address 2220 98th Ave. Day: M T W TH (F)
Contract No. H177113 City: Oakland
Station No. BP 11133 Sampler: CB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-3	12.09	2"	OK	Ø	Y (N)	3	1546	71.7	7.11	511µS	4.6
						4		71.4	7.27	472µS	
						5	1552	70.5	7.31	466µS	4.7

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
21.83 - 12.09 = 9.74 X .16 = 1.56 X 3 = 4.68
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments: ~~No odor~~

O EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___
TIME/SAMPLE ID: 1555

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
AW-5	17.39	4"	OK	Ø	Y (N)	16	1610	70.7	7.03	667µS	4.8
						32		70.1	6.92	651µS	
						50	1701	69.2	6.88	643µS	5.2

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
42.90 - 17.39 = 25.51 X .65 = 16.58 X 3 = 49.74
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments:

O EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___
TIME/SAMPLE ID: 1710

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-1	10.31	2"	OK	irridescent	(Y) N	4	1717	70.9	7.17	811µS	4.4
						8		69.7	7.03	836µS	
						12	1727	69.0	6.97	847µS	4.9

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
34.00 - 10.31 = 23.69 X .16 = 3.79 X 3 = 11.37
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments: Removed < .01 gal FP

O EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___
TIME/SAMPLE ID: 1730

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
AW-1	19.12	2"	OK	Ø	Y (N)	3	1741	73.1	7.04	820µS	4.9
						7		72.4	6.92	861µS	
						10	1750	71.9	6.88	858µS	4.9

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
38.60 - 19.12 = 19.48 X .16 = 3.12 X 3 = 9.36
Purge Method: (Surface Pump) ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments: ~~Removed < 0.01 gal FP~~

X EPA 601___ X TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___
TIME/SAMPLE ID: 1752

ALISTO

Field Report / Sampling Data Sheet

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

Project No. 10-025-017-004 | Date: 6/19/98
Address 2220 98th Ave. | Day: M T W TH F
Contract No. H177113 | City: Oakland
Station No. BP 11133 | Sampler: WB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
RW-1	11.43	4"	OK	irredescence	(Y) N	20	1809	71.1	7.31	1.00ms	4.6
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.						40		70.4	7.09	1.04ms	
40.00 - 11.43 = 28.57 x .65 = 18.57 x 3 = 55.71						60	1859	70.2	7.06	1.04ms	4.6

Purge Method: O Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ ⊗ Sys Port

Comments: Lot System Purge 60 gal

O EPA 601______
⊗ TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___

Removed < .01 gal FP

TIME/SAMPLE ID: 1906

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.											

Purge Method: O Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port

Comments:

O EPA 601______
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___

TIME/SAMPLE ID

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.											

Purge Method: O Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port

Comments:

O EPA 601______
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___

TIME/SAMPLE ID

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.											

Purge Method: O Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port

Comments:

O EPA 601______
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___

TIME/SAMPLE ID

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

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

July 2, 1998

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

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on June 23, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9806A25 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
Senior Organic Project Manager

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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-06-A25

Approved for Release by:

Joel Grice, Senior Organic Project Manager

Date: 7/7/98

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. H9-9806A25-01

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	0.060	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 05:09:00			

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

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

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

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

Certificate of Analysis No. H9-9806A25-02

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-2

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 05:35:00			

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

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

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

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

Certificate of Analysis No. H9-9806A25-03

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
4-Bromofluorobenzene	100		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 06:00:00			

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

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

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

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

Certificate of Analysis No. H9-9806A25-04

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-4

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	100		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 06:26:00			

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

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

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

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

Certificate of Analysis No. H9-9806A25-05

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-5

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
4-Bromofluorobenzene	100		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	97		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 06:51:00			

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

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

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

Certificate of Analysis No. H9-9806A25-06

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-6

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
4-Bromofluorobenzene	100		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 07:17:00			

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

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

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

Certificate of Analysis No. H9-9806A25-07

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-7

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	690	50 P	ug/L
Benzene	2.0	0.5 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
Surrogate	**% Recovery**		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	0.83	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	100		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 07:43:00			

(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. H9-9806A25-08

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-8

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	34	10 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	0.060	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 08:08:00			

(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. H9-9806A25-09

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-9

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	1900	100 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	103		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	1.8	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	97		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 08:34:00			

(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. H9-9806A25-10

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-10

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	2500	100 P	ug/L
Benzene	ND	0.5 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
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	3.3	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	123		
4-Bromofluorobenzene	100		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 09:00:00			

(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. H9-9806A25-11

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-11

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	5000	100 P	ug/L
Benzene	170	5 P	ug/L
Toluene	100	10 P	ug/L
Ethylbenzene	1100	10 P	ug/L
Total Xylene	3590	10 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	103		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	35	0.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	110		
4-Bromofluorobenzene	117		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 06:00:00			

(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. H9-9806A25-12

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-12

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	660	250 P	ug/L
Benzene	6600	12 P	ug/L
Toluene	200	25 P	ug/L
Ethylbenzene	3000	25 P	ug/L
Total Xylene	3350	25 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	101		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	42	1.2 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	108		
4-Bromofluorobenzene	113		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 06:26:00			

(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. H9-9806A25-13

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-13

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	620	250 P	ug/L
Benzene	6800	12 P	ug/L
Toluene	260	25 P	ug/L
Ethylbenzene	3100	25 P	ug/L
Total Xylene	3490	25 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	113		
4-Bromofluorobenzene	103		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	43	1.2 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	116		
4-Bromofluorobenzene	115		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 08:09:00			

(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. H9-9806A25-14

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

P.O.# H177113, COC#098669
DATE: 07/02/98

PROJECT: #11133, 2220 98th Ave
SITE: Oakland
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-14

PROJECT NO: 10-025-17-004
MATRIX: WATER
DATE SAMPLED: 06/19/98
DATE RECEIVED: 06/23/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	2500 P	ug/L
Benzene	19000	120 P	ug/L
Toluene	32000	250 P	ug/L
Ethylbenzene	3000	250 P	ug/L
Total Xylene	17400	250 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	99		
Method 8020A***			
Analyzed by: fab			
Date: 07/01/98			
Gasoline Range Organics	180	12 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	99		
4-Bromofluorobenzene	107		
California LUFT Manual for Gasoline			
Analyzed by: fab			
Date: 07/01/98 08:34:00			

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

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

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

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020

Matrix: Aqueous
Batch Id: VARE980630194500
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	49	98.0	72 - 128
Benzene	ND	50	54	108	61 - 119
Toluene	ND	50	53	106	65 - 125
EthylBenzene	ND	50	51	102	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 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	18	90.0	19	95.0	5.41	20	39 - 150
BENZENE	ND	20	19	95.0	19	95.0	0	21	32 - 164
TOLUENE	ND	20	18	90.0	18	90.0	0	20	38 - 159
ETHYLBENZENE	ND	20	17	85.0	18	90.0	5.71	19	52 - 142
O XYLENE	ND	20	18	90.0	19	95.0	5.41	18	53 - 143
M & P XYLENE	ND	40	36	90.0	37	92.5	2.74	17	53 - 144

Analyst: fab
Sequence Date: 06/30/98
SPL ID of sample spiked: 9806946-06A
Sample File ID: B_F5077.TX0
Method Blank File ID:
Blank Spike File ID: E_F5071.TX0
Matrix Spike File ID: E_F5073.TX0
Matrix Spike Duplicate File ID: E_F5074.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):

9806946-07A 9806A25-01A 9806A25-02A 9806A25-03A
9806A25-04A 9806A25-05A 9806A25-06A 9806A25-07A
9806A25-09A 9806A25-10A 9806946-06A 9806946-05A
9806920-08A

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: VARE980701095100

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	52	104	61 - 119
Toluene	ND	50	52	104	65 - 125
EthylBenzene	ND	50	53	106	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 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	34	20	55	105	50	80.0	27.0 *	20	39 - 150
BENZENE	ND	20	23	115	19	95.0	19.0	21	32 - 164
TOLUENE	ND	20	23	115	19	95.0	19.0	20	38 - 159
ETHYLBENZENE	ND	20	23	115	19	95.0	19.0	19	52 - 142
O XYLENE	ND	20	23	115	19	95.0	19.0 *	18	53 - 143
M & P XYLENE	ND	40	47	118	39	97.5	19.0 *	17	53 - 144

Analyst: fab
Sequence Date: 07/01/98
SPL ID of sample spiked: 9806A25-08A
Sample File ID: E_F5110.TX0
Method Blank File ID:
Blank Spike File ID: E_F5104.TX0
Matrix Spike File ID: E_F5106.TX0
Matrix Spike Duplicate File ID: E_F5107.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):

9806A25-09A 9806A25-10A 9806A57-03A 9806A57-04A
9806A25-11A 9806A25-12A 9806A25-13A 9806A25-14A
9806A65-01A 9806A65-02A 9806A65-03A 9806A37-01A
9806A37-02A 9806A37-03A 9806A29-01A 9806A29-02A
9806A25-08A 9806A57-01A 9806A25-07A

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: VARE980630201010

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	1.08	108	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	0.89	98.9	0.92	102	3.09	36	36 - 160

Analyst: fab

Sequence Date: 06/30/98

SPL ID of sample spiked: 9806957-21C

Sample File ID: EEF5078.TX0

Method Blank File ID:

Blank Spike File ID: EEF5072.TX0

Matrix Spike File ID: EEF5075.TX0

Matrix Spike Duplicate File ID: EEF5076.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): 9806A25-01A 9806A25-02A 9806A25-03A 9806A25-04A 9806A25-05A 9806A25-06A 9806A25-07A 9806A25-08A 9806A25-09A 9806A25-10A

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

** SPL BATCH QUALITY CONTROL REPORT **

California LUFT Manual for Gasoline

Batch Id: VARE980701101710

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	1.13	113	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	0.05	0.90	1.05	111	0.96	101	9.43	36	36 - 160

Analyst: fab
Sequence Date: 07/01/98
SPL ID of sample spiked: 9806A57-01A
Sample File ID: BEF5111.TX0
Method Blank File ID:
Blank Spike File ID: BEF5105.TX0
Matrix Spike File ID: BEF5108.TX0
Matrix Spike Duplicate File ID: BEF5109.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): 9806A57-03A 9806A57-02A 9806A57-04A 9806A25-11A 9806A25-12A 9806A25-13A 9806A25-14A 9806A57-01A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
6-23-98	1000

SPL Sample ID:
9806A25

		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 #)	805188475200	
	Other:		
11	Method of sample disposal: — SPL Disposal	✓	
	HOLD		
	Return to Client		

Name:	Date:
[signature]	6-23-98

✓ 9806A25

BP

CHAIN OF CUSTODY

No. 098669 Page 1 of 2

CONSULTANT'S NAME	CONSULTANT'S ADDRESS		
Alisto Engineering	1575 Treat Blvd #201, W.C., Ca 94598		
BP SITE NUMBER: 11133	BP SITE / FACILITY ADDRESS: 2220 98th Ave, Oakland		CONSULTANT PROJECT NUMBER: 10-025-17-4
CONSULTANT PROJECT MANGER: Brady Nagle	PHONE NUMBER: (510) 295-1650	FAX NUMBER: 295-1823	CONSULTANT CONTRACT NUMBER: H177113
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: 6/22/98 — SHIPMENT METHOD: Fed Ex

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 72 Hours ☒ Standard 7 or 14 Days — AIRBILL NUMBER: 8051 88475200

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	ANALYSIS REQUIRED: TPH-G / BTEX	MTBE								COMMENTS
S-1	6/19/98		W	3	HCL		X	X								
S-2	↓		↓	↓	↓		↓	↓								
S-3	↓		↓	↓	↓		↓	↓								
S-4	↓		↓	↓	↓		↓	↓								
S-5	↓		↓	↓	↓		↓	↓								
S-6	↓		↓	↓	↓		↓	↓								
S-7	↓		↓	↓	↓		↓	↓								
S-8	↓		↓	↓	↓		↓	↓								
S-9	↓		↓	↓	↓		↓	↓								
S-10	↓		↓	↓	↓		↓	↓								4°C

SAMPLED BY (Please Print Name) — SAMPLED BY (Signature) — ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY /AFFILIATION (Print Name / Signature)	DATE	TIME
[signature]	6/22/98		P. Yelton	6/22/98	0830
P. Yelton	6/22/98	1600			
			Randy Turnell / [signature]	6-23-98	10:00

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

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

CHAIN OF CUSTODY

9806A25

No. 098670

Page 2 of 2

CONSULTANT'S NAME: Alisto Engineering	CONSULTANT'S ADDRESS: 1575 Treat Blvd # 201, W.C. Ca 94598		
BP SITE NUMBER: 11133	BP SITE / FACILITY ADDRESS: Oakland		CONSULTANT PROJECT NUMBER: 10-035-17/004
CONSULTANT PROJECT MANGER: Brady Noyle	PHONE NUMBER: (510) 295-1650	FAX NUMBER: 295-1825	CONSULTANT CONTRACT NUMBER: H17713
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: 6/22/98

SHIPMENT METHOD: FedEx

AIRBILL NUMBER: 805188475200

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

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	TPH 8015	BTEX 8020	COMMENTS
S-11	6/19/98		W	3	HCl		X	X	
S-12	↓		↓	↓	↓		X	X	
S-13							X	X	
S-14	↓		↓	↓	↓		X	X	

4c

SAMPLED BY (Please Print Name)

SAMPLED BY (Signature)

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY /AFFILIATION (Print Name / Signature)	DATE	TIME
	6/23/98		P. Yelton	6/22/98	0830
P. Yelton	6/22/98	1600			
			Randy Turnell	6-23-98	1000

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

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

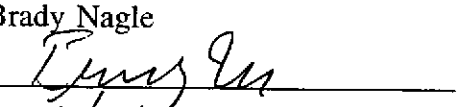
BP EXPLORATION & OIL, INC.
ENVIRONMENTAL RESOURCE MANAGEMENT
DATA REVIEW CHECKLIST

BP Site Number:	11133
ERM Contact:	H177113
Sampling Date:	6/19/98
Matrix Description:	Water
Date Final Report Received:	6/10/98
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%?	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 relative % difference values for MTBE and xylenes in one matrix spike and were 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): 

Date: 8/26/98