



BP OIL

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

June 30, 1998

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

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 23 June 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. To comply with 1998 requirements for leak detection and prevention, the current tanks are understood to require spill buckets around the fill ports, and containment pans beneath the dispensers. The current tanks are believed to be constructed of double-wall fiberglass.

The 23 June 1998 groundwater monitoring and sampling report includes laboratory data for samples collected on 9 April 1998. You will note that aromatic petroleum hydrocarbons were detected in samples obtained from wells MW-1, AW-1, AW-3, and RW-1. The highest benzene concentration this quarter (26,000 µg/l) was detected in a sample obtained from well RW-1.

MTBE concentration data is now shown in Figure 3, replacing the dissolved oxygen measurements shown in past reports. Estimated MTBE concentrations for samples analyzed during 1993 and 1994 are also shown on Table 1 - Summary of Results of Groundwater Sampling. I have no other information regarding the suspected or confirmed presence of MTBE in groundwater other than the data summarized in this report. The results associated with samples obtained on 9 April 1998 show that MTBE has been detected in samples obtained from MW-1, MW-2, MW-3, AW-1, AW-4, AW-5, and AW-6.

Plans for the coming quarter include groundwater monitoring and evaluating the efficacy of the remediation system.

Alameda County Health Care Services Agency
June 30, 1998
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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
Brady Nagle - Alisto
T. Berry - Tosco (w/attachment)

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-025-17-003

JUN 26 1998

Prepared for:

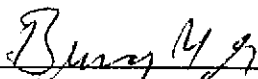
**BP OIL CO.
ENVIRONMENTAL DEPT.
WEST COAST REGION OFFICE**

**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**

June 23, 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. 10-025-17-003

June 23, 1998

INTRODUCTION

This report presents the results and findings of the April 9 and 10, 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

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

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ALISTO PROJECT NO. 10-025

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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)	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

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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

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

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

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

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

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

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

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

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
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

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 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<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
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	ND<5.0	---	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<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2 (i)	06/20/96	---	---	---	---	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.

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	

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	

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.

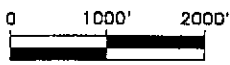
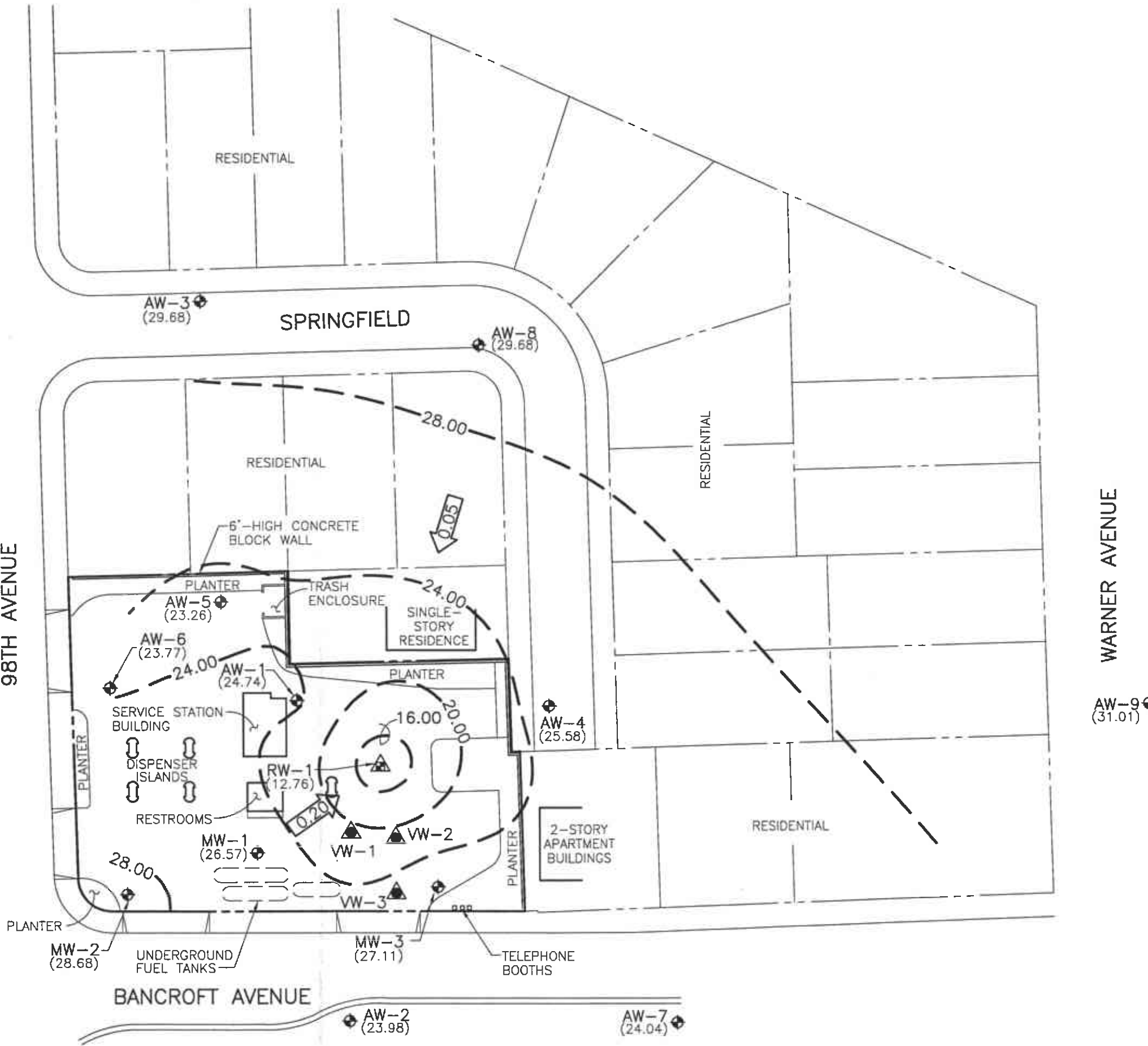


FIGURE 1
SITE VICINITY MAP
 BP OIL SERVICE STATION NO. 11133
 2220 98TH AVENUE
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-025





LEGEND

- ◆ GROUNDWATER MONITORING WELL
- ▲ VAPOR EXTRACTION WELL
- ▲ COMBINED GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL
- (23.26) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 24.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-4.00 FEET)
- ← 0.20 → 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.

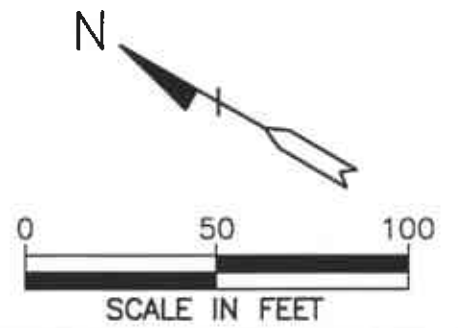
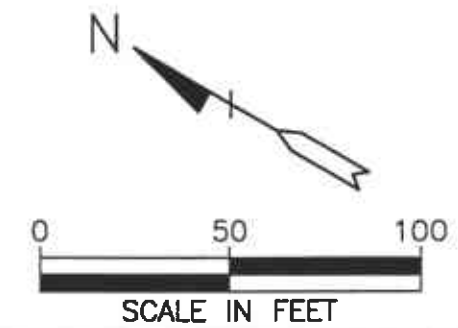
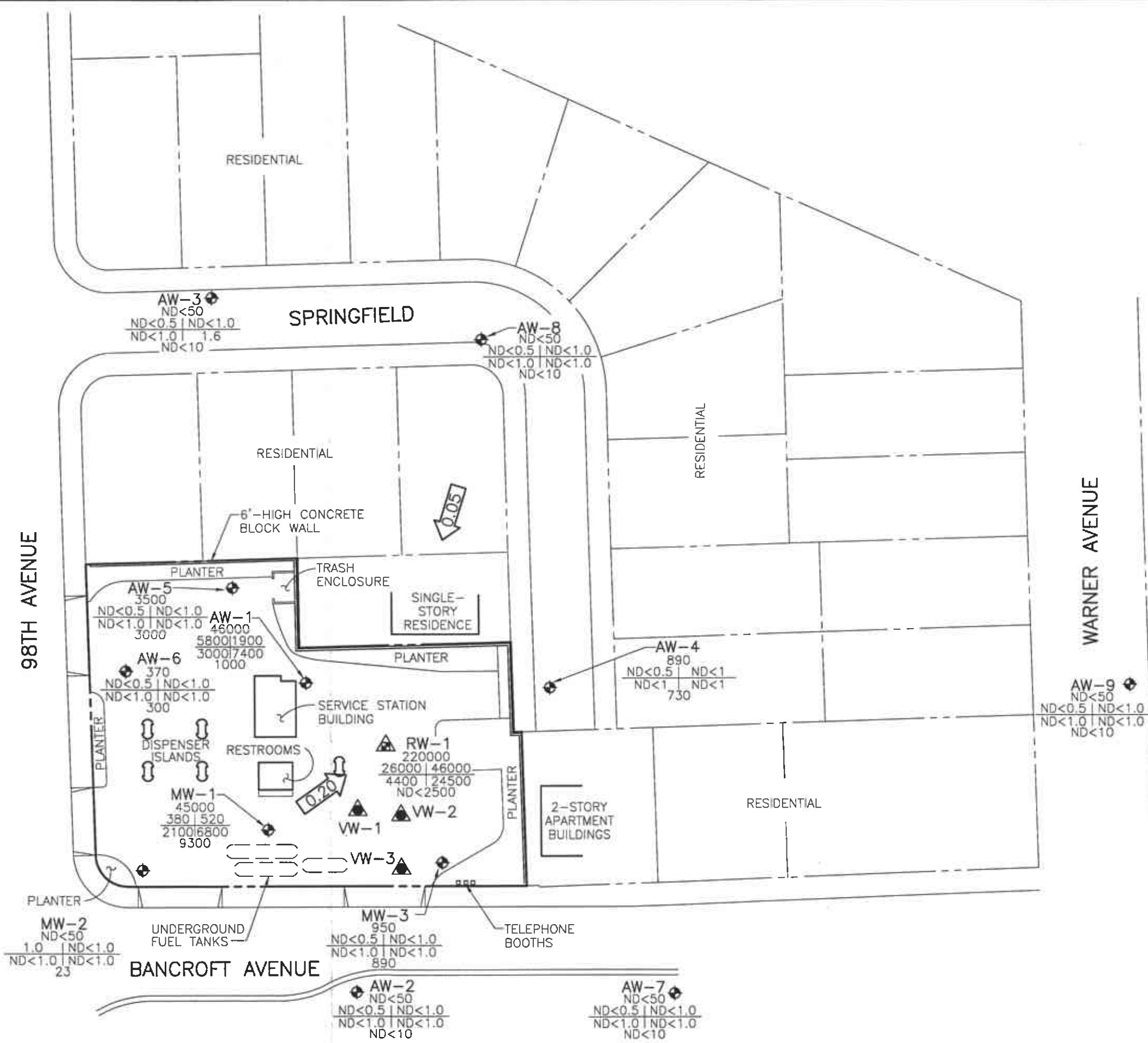


FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 APRIL 9, 1998
 BP OIL SERVICE STATION NO. 11133
 2220 98TH AVENUE
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-025

100020-2.DWG 8-18-98 DWG 14-20



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - ▲ VAPOR EXTRACTION WELL
 - ▲ COMBINED GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL
 - TPH-G CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
 - B | T | E | X | MTBE 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
 - ← 0.20 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
APRIL 9 AND 10, 1998
 BP OIL SERVICE STATION NO. 11133
 2220 98TH AVENUE
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-025

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

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.

10-025-017-003

Date:

4/9/98 - 4/16/98

Address

2220 98TH Ave.

Day:

MTWTF

Contract No.

H177113

City:

Oakland

Station No.

BP 11133

Sampler:

LC8

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-1	S-12	2"	34.00	7.89	irradescan	1123	PPRS Replaced Cap + Lock
MW-2	S-16	2"	34.10	6.82	Ø	1051	Replaced Cap Sample ID # S-6
MW-3	S-14	2"	21.83	9.42		1040	Sample ID # S-4
X AW-1	S-11	2"	38.60	13.37		1119	
X AW-2	S-18	2"	35.20	12.85		1101	Replaced Cap + Lock Sample ID # S-8
o AW-3	S-17	2"	45.00	9.45		1055	Dup must be from this well Replaced 2" Cap + Lock
o AW-4	S-10	2"	35.00	13.50		1115	
AW-5	S-9	4"	42.90	15.25		1107	
X AW-6	S-15	4"	34.20	13.31		1045	Sample ID # S-5
AW-7	S-1	2"	32.30	13.56		1017	Replaced Cap
o AW-8	S-13	2"	39.20	11.18		1033	Replaced Lock Sample ID # S-3
AW-9	S-12	2"	40.00	6.77	✓	1024	Sample ID # S-2
RW-1	S-13	4"	40.00	25.01	.05	1127	Sample through dip tube No Sample Port or Dip Tube

FIELD INSTRUMENT CALIBRATION DATA

pH METER Icm 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED N TIME 1040

D.O. METER Icm ZERO d.O. SOLUTION 0 BAROMETRIC PRESSURE _____ TEMP 57 WEATHER Cloudy/Rain

CONDUCTIVITY METER Icm 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER X

LEAK DETECTOR: _____ ALARM MODE X NON ALARM MODE _____

* 12" weighted pull off lid

o 8" weighted lid hole in center of lid

PAGE 1 OF 5

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.

10-025-017-0023

Address

2220 98TH Ave.

Contract No.

H177113

Station No.

BP 11133

Sampler:

Date:

4/9-4/10/98

Day:

MTWTF

City:

Oakland

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
Aw-9	6.77	2"	Replaced	Ø	Y (N)	6	1156	59.2	7.22	77 ^{µs}	5.3
Total Depth - Water Level=						12		60.7	7.31	.92ms	
40.00-6.77=33.23x.16=5.32x3=75.96						16	1207	60.9	7.37	.97ms	5.6
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port											
Comments:											

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

TIME/SAMPLE ID
1210 419

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
Aw-7	13.56	2"	Replaced	Ø	Y (N)	3	1221	60.7	6.67	6.91	4.7
Total Depth - Water Level=						6		61.4	5.99 ^{µs}	7.31	
32.30-13.56=18.74x.16=3.00x3=9.00						9	1232	61.9	5.62 ^{µs}	7.37	4.9
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port											
Comments:											

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

TIME/SAMPLE ID
1235 419

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
Aw-8	11.18	2"	Replaced	Ø	Y (N)	4	1251	59.8	7.30	.98ms	4.2
Total Depth - Water Level=						9		60.1	7.39	1.03ms	
39.20-11.18=28.02x.16=4.48x3=13.74						14	1301	60.8	7.44	1.08ms	4.4
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port											
Comments:											

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

TIME/SAMPLE ID
1307 419

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
Mw-3	9.42	2"	OK	Ø	Y (N)	2	1324	59.4	6.93	506 ^{µs}	5.4
Total Depth - Water Level=						4		60.4	7.20	451 ^{µs}	
21.83-9.42=12.41x.16=1.99x3=5.97						6	1331	61.4	7.29	437 ^{µs}	5.7
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port											
Comments:											

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

TIME/SAMPLE ID
1334 419

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. 10-025-017-002/3

Address 2220 98TH Ave.

Contract No. H177113

Station No. BP 11133

Date: 4/9 - 4/10/99

Day: M T W T F

City: Oakland

Sampler: WS

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-6	13.31	8"	OK	Ø	Y (N)	13	0930	60.9	6.75	560µs	3.9	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level=						27		62.3	6.92	583µs		<input checked="" type="checkbox"/> TPH-G/BTEX _____
x Well Vol. Factor=						41	1005	62.7	7.03	603µs	4.3	<input type="checkbox"/> TPH Diesel _____
x#vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520 _____
34.20 - 13.31 = 20.89 X .65 = 13.58 X 3 = 40.74												TIME/SAMPLE ID
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												1010 4/10
Comments:												
MW-2	6.82	2"	OK	Ø	Y (N)	4	1027	59.3	7.49	98µs	5.0	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level=						8		61.6	7.20	342µs		<input checked="" type="checkbox"/> TPH-G/BTEX _____
x Well Vol. Factor=						14	1040	62.2	7.10	363µs		<input type="checkbox"/> TPH Diesel _____
x#vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520 _____
34.10 - 6.82 = 27.28 X .16 = 4.36 X 3 = 13.08								62.5	7.09	368µs	5.0	TIME/SAMPLE ID
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												1045 4/10
Comments:												
AW-3	9.45	2"	Revised	Ø	Y (N)	6	1101	59.3	7.49	98µs	4.3	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level=						12		60.0	7.55	1.05ms		<input checked="" type="checkbox"/> TPH-G/BTEX _____
x Well Vol. Factor=						18	1115	60.6	7.54	1.08ms	4.5	<input type="checkbox"/> TPH Diesel _____
x#vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520 _____
45 - 9.45 = 35.55 X .16 = 5.69 X 3 = 17.07												TIME/SAMPLE ID
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												1117 4/10
Comments: QC-1 from this well s-14												
AW-2	12.85	2"	Revised	Ø	Y (N)	4	1129	61.3	7.17	457µs	3.7	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level=						8		60.8	7.03	525µs	3.9	<input checked="" type="checkbox"/> TPH-G/BTEX _____
x Well Vol. Factor=						11	1136	60.4	7.00	531µs	3.9	<input type="checkbox"/> TPH Diesel _____
x#vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520 _____
35.20 - 12.85 = 22.35 X .16 = 3.58 X 3 = 10.74												TIME/SAMPLE ID
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												1138 4/10
Comments:												

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. 10-025-017-0023

Address 2220 98TH Ave.

Contract No. H177113

Station No. BP 11133

Date: 4/9 - 4/10/98

Day: M T W ~~TH~~ F

City: Oakland

Sampler: LUB

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-5	15.25	4"	OK	Ø	Y (N)	18	1155	61.8	6.90	640µs	5.4	<input type="checkbox"/> EPA 601
Total Depth - Water Level=						36		62.3	6.83	627µs		<input checked="" type="checkbox"/> TPH-G/BTEX
x Well Vol. Factor=						54	1239	62.6	6.81	620µs	5.4	<input type="checkbox"/> TPH Diesel
x#Vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520
Purge Method: <input checked="" type="checkbox"/> Surface Pump												TIME/SAMPLE ID
ODisp. Tube OWinch ODisp. Bailer(s) OSys Port												1245 4/10
Comments:												

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-4	13.50	2"	OK	Ø	Y (N)	4	1210	59.6	7.23	.88ms	4.6	<input type="checkbox"/> EPA 601
Total Depth - Water Level=						8		60.7	7.11	.82ms		<input checked="" type="checkbox"/> TPH-G/BTEX
x Well Vol. Factor=						11	1224	61.1	7.03	.80ms	4.9	<input type="checkbox"/> TPH Diesel
x#Vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520
Purge Method: <input checked="" type="checkbox"/> Surface Pump												TIME/SAMPLE ID
ODisp. Tube OWinch ODisp. Bailer(s) OSys Port												1230 4/10
Comments:												

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-1	13.37	2"	OK	Ø	Y (N)	13	1251	62.0	6.99	800µs	4.0	<input type="checkbox"/> EPA 601
Total Depth - Water Level=						26		61.4	6.77	827µs		<input checked="" type="checkbox"/> TPH-G/BTEX
x Well Vol. Factor=						40	1327	62.8	6.73	836µs	4.3	<input type="checkbox"/> TPH Diesel
x#Vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520
Purge Method: <input checked="" type="checkbox"/> Surface Pump												TIME/SAMPLE ID
ODisp. Tube OWinch ODisp. Bailer(s) OSys Port												1332 4/10
Comments:												

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-1	7.89	2"	OK	Ø	Y (N)	4	1349	60.7	7.07	710µs	5.0	<input type="checkbox"/> EPA 601
Total Depth - Water Level=						8		61.1	6.96	840µs		<input checked="" type="checkbox"/> TPH-G/BTEX
x Well Vol. Factor=						13	1358	61.7	6.89	851µs	5.3	<input type="checkbox"/> TPH Diesel
x#Vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520
Purge Method: <input checked="" type="checkbox"/> Surface Pump												TIME/SAMPLE ID
ODisp. Tube OWinch ODisp. Bailer(s) OSys Port												1402 4/10
Comments:												

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. 10-025-017-0023

Address 2220 98TH Ave.

Contract No. H177113

Station No. BP 11133

Date: 4/9 - 4/10/98

Day: M T W ~~TH~~

City: Oakland

Sampler: LCB

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
Rw-1	25.01	4"	OK	24.96	Ⓟ N	10	1417	60.7	7.16	.92ms	5.1	<input type="checkbox"/> EPA 601
Total Depth - Water Level=						20		61.4	7.03	.97ms		<input checked="" type="checkbox"/> TPH-G/BTEX
x Well Vol. Factor=						30	1439	61.7	7.01	1.0ms	5.1	<input type="checkbox"/> TPH Diesel
x#vol. to Purge PurgeVol.												<input type="checkbox"/> TOG 5520
$40 - 25.01 = 14.99 \times .65 = 9.74 \times 3 = 29.22$												TIME/SAMPLE ID
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Baller(s) <input type="checkbox"/> Sys Port												1444
Comments: Removed .09 gal FP												4/10

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



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

April 24, 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 15, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9804738 and analyzed for all parameters as listed on the chain of custody.

Your sample "S-10" (SPL ID:9804738-10) was randomly selected for the use in SPL's Quality Control program for the BTEX analysis by method 8020. The Matrix Spike (MS) recovery was outside of advisable quality control limits for Benzene, due to matrix interference (Batch ID:VARE980423110500). The Relative Percent Difference (RPD) was also outside of QC criteria for Benzene. A Laboratory Control Sample (LCS) was analyzed as a Quality Control check for the analytical batch and all recoveries were within acceptable limits.

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).

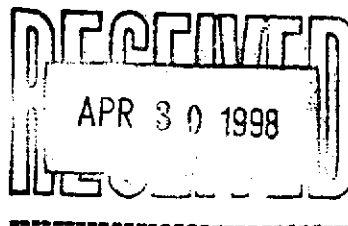
If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

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

A handwritten signature in black ink, appearing to read "J. Grice", is written over a horizontal line.

Joel Grice
Project Manager





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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-04-738

Approved for Release by:



Joel Grice, Project Manager

Date: 4/24/98

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.



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

Certificate of Analysis No. H9-9804738-01

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-1

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/09/98
 DATE RECEIVED: 04/15/98

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

1,4-Difluorobenzene 97
 4-Bromofluorobenzene 97

Method 8020A***

Analyzed by: fab

Date: 04/22/98

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: 04/22/98 11:10:00

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. H9-9804738-02

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-2

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/09/98
 DATE RECEIVED: 04/15/98

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

1,4-Difluorobenzene
 4-Bromofluorobenzene

100
 97

Method 8020A***

Analyzed by: fab

Date: 04/22/98

Gasoline Range Organics

ND 0.05 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

93
 100

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/22/98 11:36:00

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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Certificate of Analysis No. H9-9804738-03

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

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

P.O.#
H177113, COC#098090
DATE: 04/24/98

PROJECT: #11133, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-025-17-003
MATRIX: WATER
DATE SAMPLED: 04/09/98
DATE RECEIVED: 04/15/98

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, Benzene, Toluene, Ethylbenzene, Total Xylene.

Surrogate % Recovery
1,4-Difluorobenzene 93
4-Bromofluorobenzene 97

Method 8020A***
Analyzed by: fab
Date: 04/23/98

Gasoline Range Organics ND 0.05 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 93
4-Bromofluorobenzene 100

California LUFT Manual for Gasoline
Analyzed by: fab
Date: 04/23/98 07:37:00

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. H9-9804738-04

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-4

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/09/98
 DATE RECEIVED: 04/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	890	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	93
4-Bromofluorobenzene	100

Method 8020A***
 Analyzed by: LJ
 Date: 04/23/98

Gasoline Range Organics	0.95	0.05 P	mg/L
-------------------------	------	--------	------

Surrogate	% Recovery
1,4-Difluorobenzene	93
4-Bromofluorobenzene	103

California LUFT Manual for Gasoline
 Analyzed by: fab
 Date: 04/23/98 08:02:00

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

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

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

Certificate of Analysis No. H9-9804738-05

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-5

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	300	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 110
 4-Bromofluorobenzene 97

Method 8020A***
 Analyzed by: fab
 Date: 04/23/98

Gasoline Range Organics 0.37 0.05 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 97
 4-Bromofluorobenzene 107

California LUFT Manual for Gasoline
 Analyzed by: fab
 Date: 04/23/98 08:28:00

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

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

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

Certificate of Analysis No. H9-9804738-06

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-6

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	23	10 P	ug/L
Benzene	1.0	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 100
 4-Bromofluorobenzene 100

Method 8020A***

Analyzed by: fab

Date: 04/23/98

Gasoline Range Organics ND 0.05 P mg/L

Surrogate

% Recovery

1,4-Difluorobenzene 93
 4-Bromofluorobenzene 107

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/23/98 08:54:00

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

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

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

Certificate of Analysis No. H9-9804738-07

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-7

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

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	1.6	1.0 P	ug/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

97
 100

Method 8020A***

Analyzed by: fab

Date: 04/23/98

Gasoline Range Organics

ND 0.05 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

97
 103

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/23/98 09:20:00

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. H9-9804738-08

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-8

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

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
1,4-Difluorobenzene	97
4-Bromofluorobenzene	97

Method 8020A***
 Analyzed by: fab
 Date: 04/23/98

Gasoline Range Organics	ND	0.05 P	mg/L
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Surrogate	% Recovery
1,4-Difluorobenzene	93
4-Bromofluorobenzene	103

California LUFT Manual for Gasoline
 Analyzed by: fab
 Date: 04/23/98 09:45:00

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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Certificate of Analysis No. H9-9804738-09

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

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

P.O.#
H177113, COC#098090
DATE: 04/24/98

PROJECT: #11133, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-9

PROJECT NO: 10-025-17-003
MATRIX: WATER
DATE SAMPLED: 04/10/98
DATE RECEIVED: 04/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	3000	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
4-Bromofluorobenzene

137
103

Method 8020A***

Analyzed by: fab

Date: 04/23/98

Gasoline Range Organics

3.5

0.5 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
4-Bromofluorobenzene

93
107

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/23/98 05:51:00

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

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

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

Certificate of Analysis No. H9-9804738-10

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-10

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
MTBE	730	100 P	ug/L	
Benzene	ND	0.5 P	ug/L	
Toluene	ND	1 P	ug/L	
Ethylbenzene	ND	1 P	ug/L	
Total Xylene	ND	1 P	ug/L	
Surrogate		% Recovery		
1,4-Difluorobenzene	100			
4-Bromofluorobenzene	103			
Method 8020A***				
Analyzed by: fab				
Date: 04/23/98				
Gasoline Range Organics	0.89	0.05 P	mg/L	
Surrogate		% Recovery		
1,4-Difluorobenzene	97			
4-Bromofluorobenzene	107			
California LUFT Manual for Gasoline				
Analyzed by: fab				
Date: 04/23/98 02:56:00				

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

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

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

Certificate of Analysis No. H9-9804738-11

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-11

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	1000	500 P	ug/L
Benzene	5800	25 P	ug/L
Toluene	1900	50 P	ug/L
Ethylbenzene	3000	50 P	ug/L
Total Xylene	7400	50 P	ug/L

Surrogate

% Recovery

1,4-Difluorobenzene 100
 4-Bromofluorobenzene 107

Method 8020A***

Analyzed by: fab

Date: 04/23/98

Gasoline Range Organics 46 2.5 P mg/L

Surrogate

% Recovery

1,4-Difluorobenzene 93
 4-Bromofluorobenzene 107

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/23/98 06:42:00

(P) - Practical Quantitation Limit

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

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

Certificate of Analysis No. H9-9804738-12

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-12

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	9300	500 P	ug/L
Benzene	380	25 P	ug/L
Toluene	520	50 P	ug/L
Ethylbenzene	2100	50 P	ug/L
Total Xylene	6800	50 P	ug/L

Surrogate	% Recovery
1,4-Difluorobenzene	100
4-Bromofluorobenzene	113

Method 8020A***

Analyzed by: fab

Date: 04/23/98

Gasoline Range Organics	45	2.5 P	mg/L
-------------------------	----	-------	------

Surrogate	% Recovery
1,4-Difluorobenzene	100
4-Bromofluorobenzene	113

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/23/98 07:08:00

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

Certificate of Analysis No. H9-9804738-13

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-13

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	2500 P	ug/L
Benzene	26000	120 P	ug/L
Toluene	46000	250 P	ug/L
Ethylbenzene	4400	250 P	ug/L
Total Xylene	24500	250 P	ug/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

100
 105

Method 8020A***

Analyzed by: fab

Date: 04/23/98

Gasoline Range Organics

220

12 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

99
 108

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/23/98 07:34:00

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



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

Certificate of Analysis No. H9-9804738-14

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

P.O.#
 H177113, COC#098090
 DATE: 04/24/98

PROJECT: #11133, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-14

PROJECT NO: 10-025-17-003
 MATRIX: WATER
 DATE SAMPLED: 04/10/98
 DATE RECEIVED: 04/15/98

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	1.4	1.0 P	ug/L
Total Xylene	1.7	1.0 P	ug/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

100
 97

Method 8020A***

Analyzed by: fab

Date: 04/23/98

Gasoline Range Organics

ND 0.05 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

93
 97

California LUFT Manual for Gasoline

Analyzed by: fab

Date: 04/23/98 03:22:00

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



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

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

Matrix: Aqueous
Units: ug/L

Batch Id: VARE980422085210

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	56	112	72 - 128
Benzene	ND	50.0	56	112	61 - 119
Toluene	ND	50.0	56	112	65 - 125
EthylBenzene	ND	50.0	55	110	70 - 118
O Xylene	ND	50.0	55	110	72 - 117
M & P Xylene	ND	100.0	110	110	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	ND	20	19	95.0	18	90.0	5.41	20	39 - 150
BENZENE	ND	20	18	90.0	16	80.0	11.8	21	32 - 164
TOLUENE	ND	20	17	85.0	15	75.0	12.5	20	38 - 159
ETHYLBENZENE	ND	20	17	85.0	14	70.0	19.4 *	19	52 - 142
O XYLENE	ND	20	18	90.0	15	75.0	18.2 *	18	53 - 143
M & P XYLENE	ND	40	33	82.5	29	72.5	12.9	17	53 - 144

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

« = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: fab

Sequence Date: 04/22/98

SPL ID of sample spiked: 9804568-02A

Sample File ID: E_D3081.TX0

Method Blank File ID:

Blank Spike File ID: E_D3066.TX0

Matrix Spike File ID: E_D3076.TX0

Matrix Spike Duplicate File ID: E_D3077.TX0

SAMPLES IN BATCH(SPL ID):

9804568-02A 9804738-01A 9804738-02A 9804738-03A
9804738-04A 9804738-06A 9804738-07A 9804738-08A
9804738-09A



** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020

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

Matrix: Aqueous
Units: µg/L

Batch Id: HP_S980422220000

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	49	98.0	72 - 128
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	52	104	65 - 125
EthylBenzene	ND	50	51	102	70 - 118
O Xylene	ND	50	50	100	72 - 117
M & P Xylene	ND	100	100	100	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	ND	20	23	115	20	100	14.0	20	39 - 150
BENZENE	ND	20	23	115	21	105	9.09	21	32 - 164
TOLUENE	ND	20	22	110	20	100	9.52	20	38 - 159
ETHYLBENZENE	ND	20	22	110	21	105	4.65	19	52 - 142
O XYLENE	ND	20	21	105	21	105	0	18	53 - 143
M & P XYLENE	ND	40	46	115	43	108	6.28	17	53 - 144

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

<< = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] 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)

Analyst: fab

Sequence Date: 04/22/98

SPL ID of sample spiked: 9804987-01A

Sample File ID: S_D3017.TX0

Method Blank File ID:

Blank Spike File ID: S_D3008.TX0

Matrix Spike File ID: S_D3031.TX0

Matrix Spike Duplicate File ID: S_D3032.TX0

SAMPLES IN BATCH(SPL ID):

9804987-07A 9804921-02A 9804921-05A 9804921-06A
 9804A67-02A 9804A67-01A 9804738-04A 9804921-03A
 9804921-01A 9804987-01A 9804987-02A 9804987-03A
 9804987-04A 9804987-05A 9804987-06A



** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020

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

Matrix: Aqueous
Units: µg/L

Batch Id: VARE980423110500

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	54	108	72 - 128
Benzene	ND	50	58	116	61 - 119
Toluene	ND	50	56	112	65 - 125
EthylBenzene	ND	50	55	110	70 - 118
O Xylene	ND	50	55	110	72 - 117
M & P Xylene	ND	100	110	110	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
			MTBE	680	20	660	NC	690	NC
BENZENE	51	20	57	30.0 *	61	50.0	50.0 *	21	32 - 164
TOLUENE	2.3	20	20	88.5	21	93.5	5.49	20	38 - 159
ETHYLBENZENE	6.6	20	22	77.0	24	87.0	12.2	19	52 - 142
O XYLENE	2.0	20	19	85.0	21	95.0	11.1	18	53 - 143
M & P XYLENE	3.0	40	36	82.5	39	90.0	8.70	17	53 - 144

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

« = Data outside Method Specification Limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: fab

Sequence Date: 04/23/98

SPL ID of sample spiked: 9804738-10A

Sample File ID: E_D3114.TX0

Method Blank File ID:

Blank Spike File ID: E_D3108.TX0

Matrix Spike File ID: E_D3110.TX0

Matrix Spike Duplicate File ID: E_D3111.TX0

SAMPLES IN BATCH(SPL ID):

9804A92-01A 9804738-05A 9804738-09A 9804738-10A
 9804738-11A 9804738-12A 9804738-13A 9804730-01A
 9804730-02A 9804730-03A 9804730-06A 9804730-07A
 9804730-08A 9804730-09A 9804731-01A 9804730-04A
 9804738-10A 9804738-14A 9804A92-02A



Matrix: Aqueous
Units: mg/L

Batch Id: VARE980422125700

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	0.86	86.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.61	67.8	0.48	53.3	23.9	36	36 - 160

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

« = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: fab

Sequence Date: 04/22/98

SPL ID of sample spiked: 9804568-03A

Sample File ID: EED3082.TX0

Method Blank File ID:

Blank Spike File ID: EED3075.TX0

Matrix Spike File ID: EED3078.TX0

Matrix Spike Duplicate File ID: EED3079.TX0

SAMPLES IN BATCH(SPL ID):
9804738-02A 9804738-03A 9804738-04A 9804738-05A
9804738-06A 9804738-07A 9804738-08A 9804738-01A



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

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

Matrix: Aqueous
Units: mg/L

Batch Id: VARE980423113100

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	0.86	86.0	64 - 131

MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.62	68.9	0.71	78.9	13.5	36	36 - 160

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

<< = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: fab

Sequence Date: 04/23/98

SPL ID of sample spiked: 9804738-14A

Sample File ID: EED3115.TX0

Method Blank File ID:

Blank Spike File ID: EED3109.TX0

Matrix Spike File ID: EED3112.TX0

Matrix Spike Duplicate File ID: EED3113.TX0

SAMPLES IN BATCH(SPL ID):

9804738-12A 9804738-13A 9804738-10A 9804738-14A
9804738-09A 9804738-11A

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 4-15-98	Time: 1000
---------------	------------

SPL Sample ID: 9804738

		Yes	No
1	Chain-of-Custody (COC) form is present.	/	
2	COC is properly completed.	/	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	/	
5	If yes, custody seals are intact.	/	
6	All samples are tagged or labeled.	/	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	/	
9	Temperature of samples upon arrival:	3° C	
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	3848472401
		Other:	
11	Method of sample disposal:	SPL Disposal	/
		HOLD	
		Return to Client	

Name: <i>Roy</i>	Date: 4-15-98
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9804 150

CHAIN OF CUSTODY

No. 098090

Page 1 of 2

CONSULTANT'S NAME Alisto Engineering		CONSULTANT'S ADDRESS 1575 Trent Blvd #201 W.C., Ca 94598	
BP SITE NUMBER 11133	BP SITE / FACILITY ADDRESS Oakland, Ca		CONSULTANT PROJECT NUMBER 10-025-17-003
CONSULTANT PROJECT MANGER Brady Nagle		PHONE NUMBER (510) 295-1450	FAX NUMBER 295-1823
BP CONTACT Scott Hooton		BP ADDRESS Lepton, WA	PHONE NUMBER
LAB CONTACT SPL		LABORATORY ADDRESS Texas	PHONE NUMBER
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)		RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME 4/13/98
		SHIPMENT DATE	SHIPMENT METHOD Fed Ex

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

ANALYSIS REQUIRED

AIRBILL NUMBER **3848472401**

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	TPH-6 STX MTBE											COMMENTS	
				NO.	TYPE (VOL.)														LAB SAMPLE #
S-1	4/9/98		H2O	3	HCL		X	X											
S-2	↓																		
S-3	↓																		
S-4	↓																		
S-5	4/10/98																		
S-6	↓																		
S-7	↓																		
S-8	↓																		
S-9	↓																		
S-10	↓																		

SAMPLED BY (Please Print Name) _____ SAMPLED BY (Signature) _____ ADDITIONAL COMMENTS **3.c**

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME
<i>[Signature]</i>	4/13/98	1200	Patricia Gjelton	4/13/98	1200
Patricia Gjelton	4/13/98	1410	<i>[Signature]</i>	4-15-98	1000



9804738

CHAIN OF CUSTODY

No. 098091

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 Ca		CONSULTANT PROJECT NUMBER 10-025-17/003
CONSULTANT PROJECT MANGER Brady Nagle		PHONE NUMBER (510) 295-1650	FAX NUMBER 295-1823
BP CONTACT SPL Scott Hooton	BP ADDRESS Kenon, 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 4/13/98
			SHIPMENT METHOD Fed Ex

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

ANALYSIS REQUIRED

AIRBILL NUMBER
3848472401

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE		COMMENTS
				NO.	TYPE (VOL.)	LAB SAMPLE #		
- S-11	4/10/98		H2O	3	HL			
- S-12	↓		↓	↓	↓			
- S-13	↓		↓	↓	↓			
- S-14	↓		↓	↓	↓			

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
<i>[Signature]</i>	4/13/98	1200	Patricia Lyelton	4/13/98	1200
Patricia Lyelton	4/13/98	1410	<i>[Signature]</i>	4-15-98	1000

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

BP Site Number: 11133
ERM Contact: H177113
Sampling Date: 4/9&10/98
Matrix Description: Water
Date Final Report Received: 4/30/98
Laboratory & Location: SPL, Houston, Texas

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

MS/MSD recovery and relative % difference for MTBE in one matrix spike was not calculated due to sample exceeding spike by a factor of 4 or more. MS/MSD relative % difference values for benzene in one matrix spike and ethylbenzene and ortho xylene in another 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): *Brady Nagle*

Date: 6/19/98