BP OIL

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

January 27, 1998

Alameda County Health Care Services Agency
Attention Mr. Scott Seery
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

RE: Former BP Oil Site No. 11105
3159 Castro Valley Boulevard (at Redwood)
Castro Valley, CA

Dear Mr. Seery:

Enclosed find a 31 December 1997 Groundwater Monitoring and Sampling Report prepared on behalf of BP by Alisto Engineering Group.

The report shows that aromatic petroleum hydrocarbons were detected in samples obtained in two of the seven wells sampled this quarter. **The highest benzene concentration (56 ug/l) was detected in a sample obtained from well ESE-1, located southwest of the underground storage tank area.**

You will also note that **MTBE was detected in groundwater samples collected from wells ESE-1(220 ug/l), ESE-2 (7,100 ug/l), and MW-7 (560 ug/l).**

Please contact me at (425) 251-0689 if you have any questions or concerns regarding this submittal.

Sincerely,

Scott Hooton

attachment

cc: site file
A. Fagorala - RWQCB-SFBR
Mr. Azim Shakoori, Castro Valley Chevron, 3519 Castro Valley Boulevard, Castro Valley, CA 94546 (w/attachment)

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11105
3519 Castro Valley Boulevard
Castro Valley, California

Project No. 10-138-10-001

Prepared for:

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

Prepared by:

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

December 31, 1997

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

REGISTERED PROFESSIONAL ENGINEER
ALBERTO SANCHEZ SEVILLA
26392
Exp. Date 3/31/00
CIVIL
STATE OF CALIFORNIA

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11105
3519 Castro Valley Boulevard
Castro Valley, California

Project No. 10-138-10-001

December 31, 1997

INTRODUCTION

This report presents the results and findings of the October 27, 1997 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11105, 3519 Castro Valley Boulevard, Castro Valley, 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.

Groundwater monitoring was performed concurrently at the neighboring Xtra Oil Company service station, 3495 Castro Valley Boulevard. The results are presented in Table 2.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples collected during 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 laboratory 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. 11105
3519 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (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
ESE-1 (c)	10/05/92	177.69	11.22	166.47	2100	370	150	17	110	---	---	---
ESE-1D (d)	10/05/92	---	---	---	2300	370	160	16	110	---	---	---
ESE-1	04/01/93	177.69	8.79	168.90	5900	1500	410	110	390	---	---	PACE
ESE-1	06/29/93	177.69	10.34	167.35	7600	2900	390	130	460	---	---	PACE
ESE-1	09/23/93	177.69	10.91	166.78	2000	490	40	20	56	600 (e)	---	PACE
QC-1 (d)	09/23/93	---	---	---	1500	420	39	19	56	550 (e)	---	PACE
ESE-1	12/10/93	177.69	9.93	167.76	1800	480	42	19	66	921 (e)	3.2	PACE
QC-1 (d)	12/10/93	---	---	---	1500	380	38	17	55	770 (e)	---	PACE
ESE-1	02/17/94	177.69	9.64	168.05	1900	380	48	24	80	590 (e)	---	PACE
QC-1 (d)	02/17/94	---	---	---	2200	430	42	19	65	680 (e)	---	PACE
ESE-1	08/08/94	177.69	11.72	165.97	2100	450	46	16	50	760 (e)	5.1	PACE
ESE-1	10/12/94	177.69	10.48	167.21	760	240	16	51	39	230 (e)	3.5	PACE
ESE-1	01/19/95	177.69	7.77	169.92	840	600	120	22	58	---	8.0	ATI
ESE-1	05/02/95	177.69	8.69	169.00	2000	640	67	24	98	---	8.5	ATI
ESE-1	07/28/95	177.69	10.12	167.57	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.9	ATI
ESE-1	11/17/95	177.69	10.57	167.12	200	3.4	ND<1.0	1.0	ND<2.0	600	7.7	ATI
ESE-1	02/07/96	177.69	7.41	170.28	750	370	23	21	64	680	2.5	SPL
ESE-1	04/23/96	177.69	9.12	168.57	310	100	ND<1	ND<1	ND<1	1500	6.3	SPL
ESE-1	07/09/96	177.69	10.12	167.57	730	230	74	13	63	750	2.9	SPL
ESE-1	10/10/96	177.69	10.80	166.89	420	26	1.6	7.3	12.0	430	7.4	SPL
ESE-1	01/20/97	177.69	8.52	169.17	660	290	4.2	13	36	450	5.9	SPL
ESE-1	04/25/97	177.69	9.77	167.92	410	ND<0.5	ND<1.0	ND<1.0	ND<1.0	580	5.3	SPL
ESE-1	07/18/97	177.69	10.55	167.14	420	ND<0.5	ND<1.0	ND<1.0	ND<1.0	370	5.0	SPL
ESE-1	10/27/97	177.69	10.36	167.33	300	56	ND<1.0	6.5	ND<1.0	220	4.8	SPL
ESE-2	10/05/92	178.23	11.68	166.55	300	5.4	16	3.9	45	---	---	---
ESE-2	04/01/93	178.23	9.17	169.06	240	27	ND<0.5	17	2.6	123 (e)	---	PACE
ESE-2	06/29/93	178.23	10.88	167.35	1700	260	24	110	23	---	---	PACE
QC-1 (d)	06/29/93	---	---	---	1300	240	17	110	25	---	---	PACE
ESE-2	09/23/93	178.23	11.56	166.67	240	3.1	0.5	0.6	2.5	900 (e)	---	PACE
ESE-2	12/10/93	178.23	10.48	167.75	250	2.4	2.4	1.5	11	940 (e)	2.6	PACE
ESE-2	02/17/94	178.23	10.06	168.17	900	ND<0.5	ND<0.5	ND<0.5	ND<0.5	930 (e)	---	PACE
ESE-2	08/08/94	178.23	11.11	167.12	750	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1400 (e)	5.1	PACE
ESE-2	10/12/94	178.23	11.31	166.92	1700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3000 (e)	3.6	PACE
ESE-2	01/19/95	178.23	8.25	169.98	300	2	0.9	0.7	1	---	8.1	ATI
ESE-2	05/02/95	178.23	9.21	169.02	1200	4.0	ND<2.5	ND<2.5	ND<5.0	---	8.4	ATI
ESE-2	07/28/95	178.23	10.64	167.59	2000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	---	7.7	ATI
ESE-2	11/17/95	178.23	11.13	167.10	3600	ND<25	ND<25	ND<25	ND<50	12000	7.4	ATI
QC-1 (d)	11/17/95	---	---	---	3400	ND<25	ND<25	ND<25	ND<50	12000	---	ATI
ESE-2	02/07/96	178.23	7.94	170.29	450	ND<0.5	ND<1	ND<1	ND<1	2800	1.8	SPL
ESE-2	04/23/96	178.23	9.73	168.50	260	0.9	ND<1	ND<1	ND<1	8800	7.2	SPL
ESE-2	07/09/96	178.23	10.70	167.53	780	ND<2.5	ND<5	ND<5	ND<5	13000	3.0	SPL
ESE-2	10/10/96	178.23	11.39	166.84	2900	ND<0.5	ND<1.0	ND<1.0	ND<1.0	13000	7.0	SPL
ESE-2	01/20/97	178.23	9.04	169.19	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	12000	6.2	SPL
ESE-2	04/25/97	178.23	10.31	167.92	2700	ND<0.5	ND<1.0	ND<1.0	ND<1.0	13000	5.9	SPL
ESE-2	07/18/97	178.23	11.02	167.21	11000	ND<5	ND<10	ND<10	ND<10	11000	5.0	SPL
ESE-2	10/27/97	178.23	10.93	167.30	6100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	7000	4.8	SPL
QC-1 (d)	10/27/97	---	---	---	6600	ND<2.5	ND<5.0	ND<5.0	ND<5.0	7400	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11105
3519 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)		DEPTH TO WATER (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
ESE-3	10/05/92	178.20	(a)	10.58	167.62	430	57	31	3.6	34	---		---	---
ESE-3	04/01/93	178.20		8.14	170.06	2400	460	220	74	210	---		---	PACE
ESE-3	06/29/93	178.20		9.72	168.48	280	56	14	15	13	---		---	PACE
ESE-3	09/23/93	178.20		10.46	167.74	72	13	3.5	1.7	4.1	---		---	PACE
ESE-3	12/10/93	178.20		9.30	168.90	270	71	32	6.1	33	---		2.7	PACE
ESE-3	02/17/94	178.20		8.97	169.23	520	140	10	20	33	---		---	PACE
ESE-3	08/08/94	178.20		10.02	168.18	ND<50	8.8	1.6	1.6	2.3	---		6.2	PACE
ESE-3	10/12/94	178.20		10.32	167.88	470	190	6.4	15	18	---		3.5	PACE
ESE-3	01/19/95	178.20		7.40	170.80	330	260	27	21	20	---		6.7	ATI
ESE-3	05/02/95	178.20		8.26	169.94	530	180	30	23	44	---		8.6	ATI
ESE-3	07/28/95	178.20		9.54	168.66	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—		8.8	ATI
ESE-3	11/17/95	178.20		10.04	168.16	ND<50	1.7	ND<0.50	ND<0.50	ND<1.0	ND<5.0		7.3	ATI
ESE-3	02/07/96	178.20		7.08	171.12	ND<50	8.6	ND<1	ND<1	ND<1	ND<10		3.9	SPL
ESE-3	04/23/96	178.20		8.79	169.41	ND<50	7.6	ND<1	ND<1	ND<1	65		6.9	SPL
ESE-3	07/09/96	178.20		10.09	168.11	ND<50	12	2.6	2.0	3.9	26		3.4	SPL
ESE-3	10/10/96	178.20		10.48	167.72	—	---	---	—	---	---		---	—
ESE-3	10/11/96	178.20		---	---	260	140	ND<1.0	ND<1.0	2.6	ND<10		7.2	SPL
ESE-3	01/20/97	178.20		8.65	169.55	ND<50	1.5	1.7	ND<1.0	ND<1.0	14		5.7	SPL
ESE-3	04/25/97	178.20		10.02	168.18	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	14		5.4	SPL
ESE-3	07/18/97	178.20		10.66	167.54	10000	1400	1400	300	1280	ND<250		5.2	SPL
ESE-3	10/27/97	178.20		9.83	168.37	ND<250	ND<2.5	ND<5.0	ND<5.0	36	ND<50		5.0	SPL
ESE-4	10/05/92	177.73		10.33	167.40	98	7.2	1.3	1.1	6.1	---		—	---
ESE-4	04/01/93	177.73		7.88	169.85	550	93	20	23	33	---		—	PACE
ESE-4	06/29/93	177.66	(f)	8.33	169.33	150	23	0.6	5.4	0.5	54	(e)	—	PACE
ESE-4	09/23/93	177.66		10.05	167.61	110	14	1.7	3.2	4.6	---		---	PACE
ESE-4	12/10/93	177.66		8.95	168.71	110	21	7.2	4.2	10	---		2.8	PACE
ESE-4	02/17/94	177.66		8.65	169.01	210	26	1.2	4.7	11	110	(e)	---	PACE
ESE-4	08/08/94	177.66		9.76	167.90	76	9.6	ND<0.5	2.0	ND<0.5	62	(e)	7.0	PACE
ESE-4	10/12/94	177.66		9.62	168.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	44	(e)	3.2	PACE
ESE-4	01/19/95	177.66		6.97	170.69	140	56	14	24	23	—		6.9	ATI
ESE-4	05/02/95	177.66		7.85	169.81	130	21	2.8	8.6	8.2	---		9.1	ATI
ESE-4	07/28/95	177.66		9.20	168.46	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		8.1	ATI
ESE-4	11/17/95	177.66		9.68	167.98	ND<50	ND<0.50	0.60	ND<0.50	ND<1.0	18		5.7	ATI
ESE-4	02/07/96	177.66		6.59	171.07	100	2.6	ND<1	1.6	4.1	42		2.0	SPL
ESE-4	04/23/96	177.66		8.30	169.36	160	37	15	16	31	43		5.4	SPL
ESE-4	07/09/96	177.66		9.21	168.45	60	17	1.5	6.8	11.6	27		3.9	SPL
ESE-4	10/10/96	177.66		9.97	167.69	---	---	---	---	---	---		---	---
ESE-4	10/11/96	177.66		—	—	ND<50	ND<0.50	ND<1.0	ND<1.0	ND<1.0	18		5.5	SPL
ESE-4	01/20/97	177.66		7.68	169.98	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	130		4.9	SPL
ESE-4	04/25/97	177.66		9.15	168.51	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50		4.3	SPL
ESE-4	07/18/97	177.66		9.71	167.95	ND<50	15	ND<10	ND<10	ND<10	ND<100		4.5	SPL
ESE-4	10/27/97	177.66		9.38	168.28	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50		4.9	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11105
3519 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (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
ESE-5	10/05/92	176.08	9.22	166.86	1300	200	3.8	1.2	18	---	—	---
ESE-5	04/01/93	176.08	7.02	169.06	13000	2200	26	730	1000	---	---	PACE
QC-1 (d)	04/01/93	---	—	—	13000	2500	25	740	1100	---	---	PACE
ESE-5	06/29/93	176.08	10.21	165.87	7600	1500	9.3	170	100	---	---	PACE
ESE-5	09/23/93	176.08	10.64	165.44	560	19	1.2	0.9	1.8	—	---	PACE
ESE-5	12/10/93	176.08	9.42	166.66	1700	300	3.0	76	110	—	2.5	PACE
ESE-5	02/07/94	176.08	9.35	166.73	3500	640	7.8	90	130	---	—	PACE
ESE-5	08/08/94	176.08	8.76	167.32	2600	210	4.6	9.4	4.4	33 (e)	5.8	PACE
QC-1 (d)	08/08/94	---	---	---	2500	230	4.6	13	4.8	32 (e)	---	PACE
ESE-5	10/12/94	176.08	8.95	167.13	5600	560	9.5	75	21	---	3.6	PACE
QC-1 (d)	10/12/94	---	—	---	6000	550	10	78	22	77 (e)	---	PACE
ESE-5	01/19/95	176.08	5.40	170.68	1900	620	ND<5	95	15	---	7.6	ATI
QC-1 (d)	01/19/95	---	—	---	1600	620	ND<5	93	17	—	---	ATI
ESE-5	05/02/95	176.08	6.48	169.60	5700	1100	ND<10	180	58	---	8.2	ATI
QC-1 (d)	05/02/95	—	---	---	5300	1100	ND<10	180	58	---	---	ATI
ESE-5	07/28/95	176.08	7.97	168.11	520	15	ND<0.50	1.7	1.3	---	8.2	ATI
QC-1 (d)	07/28/95	---	---	---	460	7.2	ND<0.50	1.9	1.5	---	---	ATI
ESE-5	11/17/95	176.08	8.39	167.69	850	39	1.8	7.6	2.7	24	6.3	ATI
ESE-5	02/07/96	176.08	4.71	171.37	4100	670	6.0	190	140	ND<50	1.5	SPL
ESE-5	04/23/96	176.08	7.35	168.73	3000	570	ND<5	79	100	84	6.5	SPL
ESE-5	07/09/96	176.08	9.40	166.68	620	150	1.7	9.3	6.4	25	3.7	SPL
ESE-5	10/10/96	176.08	9.04	167.04	1100	29	ND<5.0	ND<5.0	ND<5.0	ND<50	6.3	SPL
QC-1 (d)	10/10/96	---	---	—	1100	31	ND<5.0	ND<5.0	ND<5.0	ND<50	---	SPL
ESE-5	01/20/97	176.08	5.82	170.26	2100	980	ND<25	280	80	ND<250	5.4	SPL
QC-1 (d)	01/20/97	---	---	---	2700	910	8.8	280	84	180	---	SPL
ESE-5	04/25/97	176.08	7.24	168.84	---	---	---	---	---	---	---	---
ESE-5	04/28/97	176.08	---	---	ND<250	7.9	ND<5.0	ND<5.0	ND<5.0	ND<50	4.9	SPL
ESE-5	07/18/97	176.08	7.86	168.22	1200	ND<5	ND<10	ND<10	ND<10	ND<100	5.0	SPL
QC-1 (d)	07/18/97	---	---	---	630	31	ND<5.0	ND<5.0	ND<5.0	130	---	SPL
ESE-5	10/27/97	176.08	7.91	168.17	ND<250	5.4	ND<5.0	ND<5.0	ND<5.0	ND<50	5.2	SPL
MW-6	07/28/95	179.24	10.00	169.24	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.1	ATI
MW-6	11/17/95	179.24	10.44	168.80	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	6.8	ATI
MW-6	02/07/96	179.24	7.68	171.56	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	2.4	SPL
MW-6	04/23/96	179.24	9.33	169.91	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	6.6	SPL
MW-6	07/09/96	179.24	10.10	169.14	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	2.7	SPL
MW-6	10/10/96	179.24	11.00	168.24	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.9	SPL
MW-6	01/20/97	179.24	8.70	170.54	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.5	SPL
MW-6	04/25/97	179.24	10.16	169.08	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.1	SPL
MW-6	07/18/97	179.24	10.66	168.58	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL
MW-6	10/27/97	179.24	10.25	168.99	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL

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3519 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (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-7	07/28/95	176.55	9.25	167.30	ND<50	0.54 (g)	0.54	ND<0.50	ND<1.0	---	7.1	ATI
MW-7	11/17/95	176.55	9.73	166.82	1100	ND<10	ND<10	ND<10	ND<20	4000	6.3	ATI
MW-7	02/07/96	176.55	6.48	170.07	610	ND<0.5	ND<1	ND<1	ND<1	2500	4.1	SPL
QC-1 (d)	02/07/96	—	---	---	280	ND<0.5	ND<1	ND<1	ND<1	2600	---	SPL
MW-7	04/23/96	176.55	8.37	168.18	110	ND<0.5	ND<1	ND<1	ND<1	3500	6.4	SPL
QC-1 (d)	04/23/96	—	---	---	230	ND<0.5	ND<1	ND<1	ND<1	3500	---	SPL
MW-7	07/09/96	176.55	9.24	167.31	230	ND<0.5	ND<1	ND<1	ND<1	4296	3.1	SPL
QC-1 (d)	07/09/96	---	---	---	220	ND<0.5	ND<1	ND<1	ND<1	4400	---	SPL
MW-7	10/10/96	176.55	10.05	166.50	---	---	---	---	---	---	---	—
MW-7	10/11/96	176.55	---	—	1600	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3000	6.9	SPL
MW-7	01/20/97	176.55	7.51	169.04	ND<50	0.63	1.0	ND<1.0	ND<1.0	2600	5.7	SPL
MW-7	04/25/97	176.55	8.79	167.76	—	---	---	---	---	—	—	—
MW-7	04/28/97	176.55	---	---	1500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3600	5.1	SPL
QC-1 (d)	04/28/97	---	---	---	7700	3500	ND<25	74	37	ND<250	—	SPL
MW-7	07/18/97	176.55	9.50	167.05	1400	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2600	5.2	SPL
MW-7	10/27/97	176.55	9.19	167.36	420	ND<0.5	ND<1.0	ND<1.0	ND<1.0	560	4.9	SPL
MW-8	07/28/95	176.34	7.80	168.54	1100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	—	7.2	ATI
MW-8	11/17/95	176.34	8.29	168.05	8300	75	5.3	670	240	140	7.0	ATI
MW-8	02/07/96	176.34	4.99	171.35	2300	33	ND<10	190	216	ND<100	1.7	SPL
MW-8	04/23/96	176.34	6.09	170.25	2000	390	ND<20	150	26	ND<250	5.1	SPL
MW-8 (h)	07/09/96	---	---	—	---	---	---	---	—	---	---	—
QC-2 (i)	04/01/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	PACE
QC-2 (i)	06/29/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	PACE
QC-2 (i)	09/23/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	12/10/93	---	—	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	02/17/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (i)	08/08/94	---	---	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	PACE
QC-2 (i)	10/12/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	01/19/95	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	—	ATI
QC-2 (i)	05/02/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	07/28/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	11/17/95	---	---	—	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	—	ATI
QC-2 (i)	02/07/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	—	SPL
QC-2 (i)	04/23/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2 (i)	07/09/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	—	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11105
3519 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (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

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
ND	Not detected above reported detection limit
---	Not applicable/available/measured/analyzed
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

(a) Top of casing elevations surveyed relative to mean sea level.

(b) Groundwater elevations in feet relative to mean sea level.

(c) Additional analysis of the sample collected from ESE-1 on 10/5/92 detected 96 ug/l total petroleum hydrocarbons as diesel and 1.8 ug/l 1,2-dichloroethane.

(d) Blind duplicate.

(e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-138-09-004.

(f) Top of casing lowered by 0.07 foot after the monitoring event on 4/01/93.

(g) Sample result may be falsely elevated due to matrix interference.

(h) Well destroyed.

(i) Travel blank.

F\01\10-138\138-10-1.WQ2

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
XTRA OIL COMPANY SERVICE STATION
3495 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)
MW-1		08/19/91	175.73	9.31	166.42	48	47	13	8.4	0.99	29
MW-1		09/17/91	175.73	9.50	166.23	39	19	4.9	4.1	1.2	5.9
MW-1		10/10/91	175.73	9.70	166.03	28	19	4.1	4.7	1.0	4.8
MW-1		11/25/91	175.73	9.41	166.32	170	36	5.6	5.6	1.6	8.4
MW-1		12/23/91	175.73	9.65	166.08	78	34	9.3	7.3	0.54	13
MW-1		01/14/92	175.73	8.57	167.16	39	19	7.3	8.7	1.3	8.9
MW-1		05/29/92	175.73	8.59	167.14	120	11	8.8	16	2.3	15
MW-1		11/13/92	175.73	9.13	166.60	120	4.4	5.8	10	2.1	13
MW-1		02/23/93	200.00 (c)	7.34	192.66	100	14	4.5	11	2.1	12
MW-1		05/18/93	177.43 (d)	8.12	169.31	92	30	4.0	11	2.5	15
MW-1		08/30/93	177.43	8.78	168.65	77	9.4	6.4	11	2.2	12
MW-1		11/24/93	177.43	8.74	168.69	66	8.2	8.3	8.9	2.0	11
MW-1		02/28/94	177.43	7.44	169.99	90	110	11	9.6	2.1	9.9
MW-1		05/19/94	177.43	8.05	169.38	---	---	---	---	---	---
MW-1		08/22/94	177.43	8.67	168.76	---	---	---	---	---	---
MW-1		11/18/94	177.43	7.14	170.29	---	---	---	---	---	---
MW-1		02/23/95	177.43	7.72	169.71	---	---	---	---	---	---
MW-1		05/02/95	177.43	6.96	170.47	---	---	---	---	---	---
MW-1		07/28/95	177.43	8.27	169.16	---	---	---	---	---	---
MW-1		10/26/95	177.43	8.45	168.98	---	---	---	---	---	---
MW-1		01/29/96	177.43	6.17	171.26	---	---	---	---	---	---
MW-1		02/07/96	177.43	6.09	171.34	---	---	---	---	---	---
MW-1		04/23/96	177.43	7.47	169.96	---	---	---	---	---	---
MW-1		07/09/96	177.43	8.16	169.27	---	---	---	---	---	---
MW-1		01/20/97	177.43	7.12	170.31	---	---	---	---	---	---
MW-1		04/25/97	177.43	7.98	169.45	---	---	---	---	---	---
MW-1		07/24/97	177.43	8.71	168.72	---	---	---	---	---	---
MW-1		08/26/97	177.37 (e)	8.51	168.86	---	---	---	---	---	---
MW-1		11/06/97	177.37	8.79	168.58	---	---	---	---	---	---
MW-2		08/19/91	175.45	9.60	165.85	69	19	26	22	2.1	18
MW-2		09/17/91	175.45	10.23	165.22	74	56	10	11	1.4	8.1
MW-2		10/10/91	175.45	10.39	165.06	85	360	21	25	2.1	14
MW-2		11/25/91	175.45	9.81	165.64	230	130	11	9.7	1.4	9.7
MW-2		12/23/91	175.45	10.39	165.06	2100	700	36	130	79	560
MW-2		01/14/92	175.45	8.97	166.48	59	1600	17	14	1.8	15
MW-2		05/27/95	175.45	9.31	166.14	89	130	18	19	1.7	14
MW-2		11/13/92	198.61 (c)	8.70	189.91	79	8.2	10	13	1.4	8.6
MW-2		02/23/93	198.61	6.39	192.22	76	7.0	12	17	1.6	9.6
MW-2		05/18/93	176.04 (d)	7.73	168.31	67	44	9.2	12	1.4	9.3
MW-2		08/30/93	176.04	8.64	167.40	110	110	11	14	1.8	11
MW-2		11/24/93	176.04	8.47	167.57	12	79	13	17	2.5	17
MW-2		02/28/94	176.04	6.99	169.05	91	13	13	16	1.5	9.0
MW-2		05/19/94	176.04	7.70	168.34	---	---	---	---	---	---
MW-2		08/22/94	176.04	8.59	167.45	---	---	---	---	---	---
MW-2		11/18/94	176.04	6.92	169.12	---	---	---	---	---	---
MW-2		02/23/95	176.04	7.51	168.53	---	---	---	---	---	---
MW-2		05/02/95	176.04	6.79	169.25	---	---	---	---	---	---
MW-2		07/28/95	176.04	7.99	168.05	---	---	---	---	---	---
MW-2		10/26/95	176.04	8.21	167.83	---	---	---	---	---	---
MW-2		01/29/96	176.04	5.16	170.88	---	---	---	---	---	---
MW-2		02/07/96	176.04	5.70	170.34	---	---	---	---	---	---
MW-2	(f)	04/23/96	176.04	---	---	---	---	---	---	---	---

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
XTRA OIL COMPANY SERVICE STATION
3495 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)
MW-3	08/19/91	175.00	8.95	166.05	170	150	82	31	4.4	22
MW-3	09/17/91	175.00	9.20	165.80	180	140	47	25	2.6	15
MW-3	10/10/91	175.00	9.43	165.57	140	39	57	31	2.2	14
MW-3	11/25/91	175.00	9.19	165.81	150	74	65	31	3.4	18
MW-3	12/23/91	175.00	9.37	165.63	740	540	30	61	31	160
MW-3	01/14/92	175.00	8.24	166.76	130	270	76	30	3.4	21
MW-3	05/29/92	175.00	8.45	166.55	370	27	91	57	3.0	21
MW-3	11/13/92	175.00	7.86	167.14	140	4.7	38	24	2.0	12
MW-3	02/23/93	190.97 (c)	8.01	182.96	110	8.1	31	18	1.9	11
MW-3	05/18/93	176.41 (d)	7.12	169.29	130	7.2	36	21	2.1	12
MW-3	08/30/93	176.41	7.64	168.77	130	32	36	21	1.9	8.2
MW-3	11/24/93	176.41	7.55	168.86	160	24	48	26	2.2	12
MW-3	02/28/94	176.41	6.68	169.73	110	210	36	21	1.9	11
MW-3	05/19/94	176.41	7.15	169.26	---	---	---	---	---	---
MW-3	08/22/94	176.41	7.65	168.76	---	---	---	---	---	---
MW-3	11/18/94	176.41	6.05	170.36	---	---	---	---	---	---
MW-3	02/23/95	176.41	7.24	169.17	---	---	---	---	---	---
MW-3	05/02/95	176.41	6.50	169.91	---	---	---	---	---	---
MW-3	07/28/95	176.41	7.80	168.61	---	---	---	---	---	---
MW-3	10/26/95	176.41	7.72	168.69	---	---	---	---	---	---
MW-3	01/29/96	176.41	5.77	170.64	---	---	---	---	---	---
MW-3	02/07/96	176.41	5.05	171.36	---	---	---	---	---	---
MW-3	04/23/96	176.41	6.81	169.60	---	---	---	---	---	---
MW-3	07/09/96	176.41	7.61	168.80	---	---	---	---	---	---
MW-3	01/20/97	176.41	6.35	170.06	---	---	---	---	---	---
MW-3	04/25/97	176.41	7.12	169.29	---	---	---	---	---	---
MW-3	07/24/97	176.41	7.90	168.51	---	---	---	---	---	---
MW-3	08/26/97	176.60 (e)	7.67	168.93	---	---	---	---	---	---
MW-3	11/06/97	176.60	7.80	168.80	---	---	---	---	---	---
MW-4	08/20/97	176.35	7.66	168.69	---	---	---	---	---	---
MW-4	08/26/97	176.35	8.92	167.43	---	---	---	---	---	---
MW-4	11/06/97	176.35	9.16	167.19	---	---	---	---	---	---

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
ug/l	Micrograms per liter
---	Not available

NOTES:

(a) Top of casing elevations relative to mean sea level.

(b) Groundwater elevations in feet above mean sea level.

(c) Well resurveyed on December 5, 1992.

(d) Well resurveyed on March 24, 1993.

(e) Well resurveyed on August 20, 1997.

(f) Well destroyed February 7, 1996.

F:\01\10-138\JOINT-1.WQ2

SOURCE:
USGS MAP, HAYWARD QUADRANGLE, CALIFORNIA. 7.5 MINUTE SERIES. 1959. PHOTOREVISED 1980.

N

0 1000' 2000'

FIGURE 1

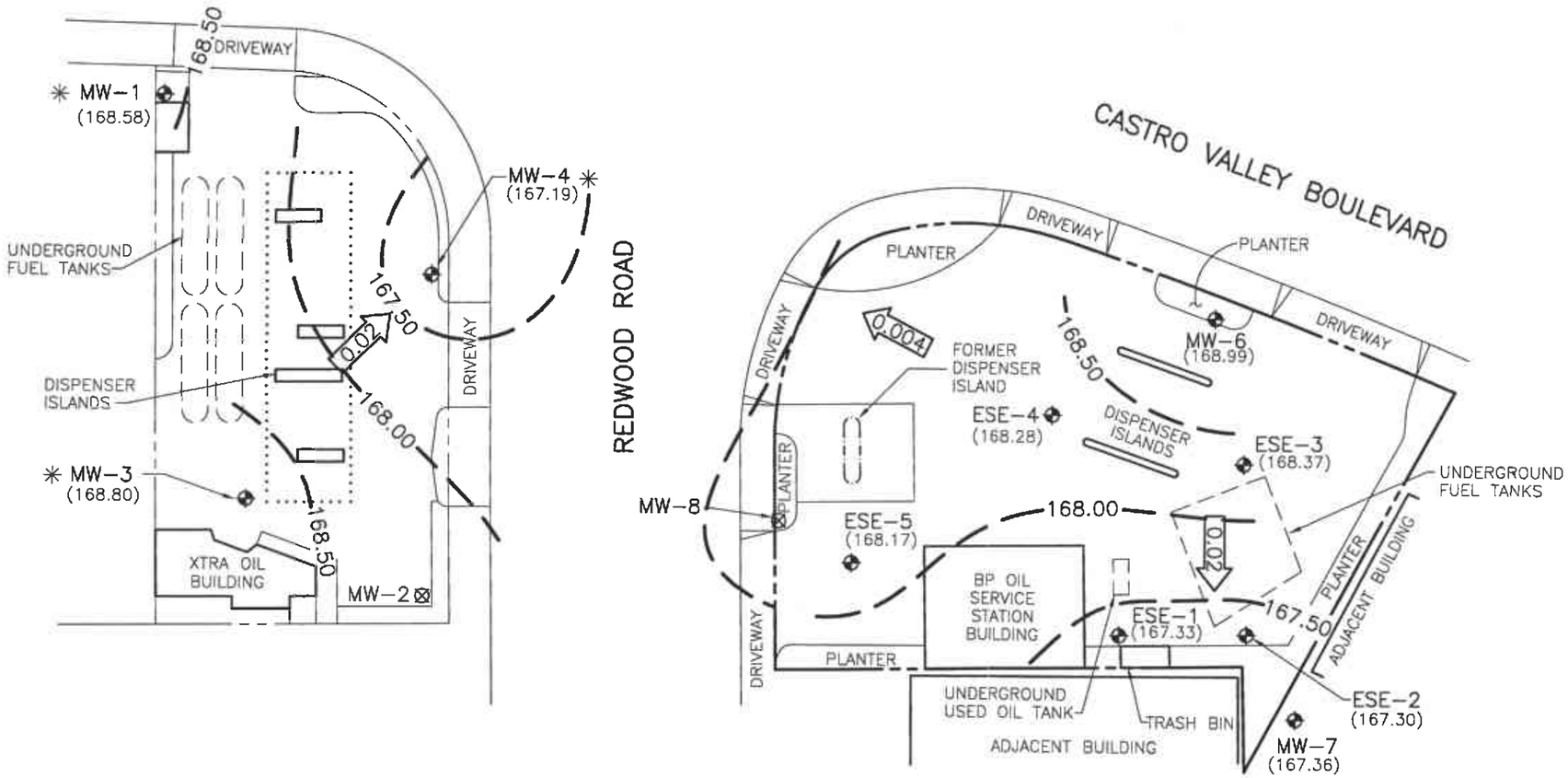
SITE VICINITY MAP

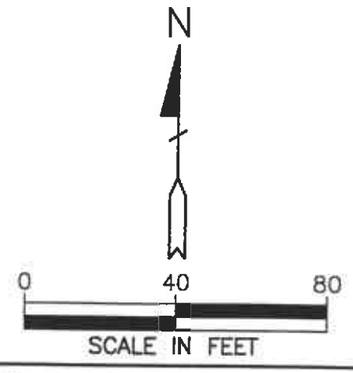
BP OIL SERVICE STATION NO. 11105
3519 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10-138

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

1013BIS — DWG 10-17-95 MAP 1=1





LEGEND

- ◆ GROUNDWATER MONITORING WELL
- ⊠ DESTROYED WELL
- ✳ WELL MONITORED ON NOVEMBER 6, 1997
- (168.58) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 168.50 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.50 FOOT)
- 0.02 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

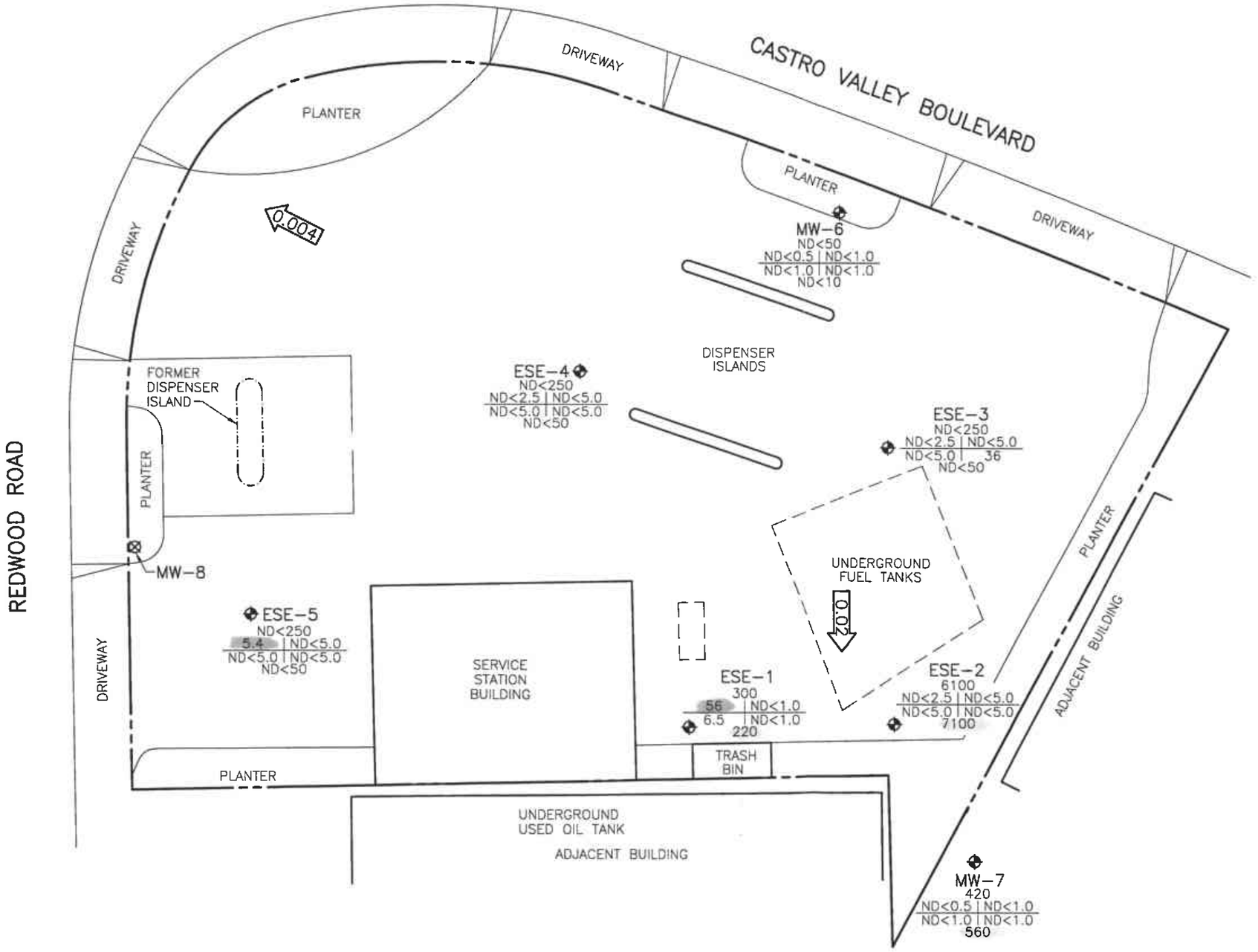
OCT. 27 AND NOV. 06, 1997

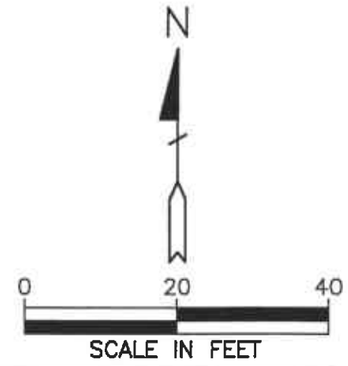
BP OIL SERVICE STATION NO. 11105
3519 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10–138

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10138D-4.DWG 12-19-97 JAH 1=40





LEGEND

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

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

OCTOBER 27, 1997

BP OIL SERVICE STATION NO. 11105
3519 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10-138

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10138E-X.DWG 12-19-97 JMH 1=20

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. 10-138-10-001 Date: 10/27/97
Address 3515 Castro Valley Blvd Day: (M) T W TH F
Contract No. H176918 City: Castro Valley
Station No. BP 11105 Sampler: LB

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS: JOINT
ESE-1	S-3	2"	30.00	10.36	Ø	1252	
ESE-2	S-7	2"	30.00	10.93		1306	QC-1 From this well (S-8)
ESE-3	S-6	2"	30.00	9.83		1302	
ESE-4	S-2	2"	25.00	9.38		1247	
ESE-5	S-4	2"	24.00	7.91		1255	
MW-6	S-1	2"	29.43	10.25		1242	
MW-7	S-5	2"	19.85	9.19		1259	~~QC-1 From This~~
MW-8	—	—	—	—	—	—	Destroyed Well

FIELD INSTRUMENT CALIBRATION DATA

pH METER Ilm 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME 1320

D.O. METER Ilm ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP _____ WEATHER clear

CONDUCTIVITY METER Ilm 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER _____

LEAK DETECTOR OPERATION: _____ ALARM MODE X NON ALARM MODE

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-6	10.25	2"	Replaced	Ø	Y (N)	3	1350	72.0	7.57	460 µs	5.0
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			7		71.0	7.42	487 µs	
29.43 - 10.25 = 19.18	X .16 = 3.07	X3 = 9.21				10	1401	70.4	7.40	482 µs	4.8

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

Comments:

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

TIME/SAMPLE ID: 1404

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
ESE-4	9.38	2"	Replaced	Ø	Y (N)	2	1415	71.6	7.67	449 µs	4.8
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			5		71.0	7.52	467 µs	
25.00 - 9.38 = 15.62	X .16 = 2.50	X3 = 7.50				8	1426	70.2	7.48	472 µs	4.9

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

Comments:

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

TIME/SAMPLE ID: 1430

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. 10-138-10-001 Date: 10/27/97
Address 3515 Castro Valley Blvd Day: (M) T W TH F
Contract No. H176918 City: Castro Valley
Station No. BP 11105 Sampler: LJB

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-1	10.36	2"	OK	Ø	Y (N)	3	1439	72.4	7.80	462 µS	4.8
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			7		71.3	7.62	497 µS	
30.00 - 10.36 = 19.64 X .16 = 3.14 X 3 =			9.42			10	1450	70.6	7.55	505 µS	4.8
Purge Method: (X) Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port											
Comments:											

O EPA 601_____
(X) TPH-G/BTEX___
O TPH Diesel_____
O TOG 5520 ___
TIME/SAMPLE ID: 1453

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-5	7.91	2"	Replaced	Ø	Y (N)	3	1505	70.6	7.60	582 µS	5.2
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			5		70.0	7.29	603 µS	
24.00 - 7.91 = 16.09 X .16 = 2.57 X 3 =			7.71			8	1512	69.4	7.29	611 µS	5.2
Purge Method: (X) Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port											
Comments:											

O EPA 601_____
(X) TPH-G/BTEX___
O TPH Diesel_____
O TOG 5520 ___
TIME/SAMPLE ID: 1517

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-7	9.19	2"	OK	Ø	Y (N)	2	1529	72.6	7.77	427 µS	4.6
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			4		71.5	7.55	460 µS	
19.85 - 9.19 = 10.66 X .16 = 1.71 X 3 =			5.13			6	1538	71.0	7.49	467 µS	4.9
Purge Method: (X) Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port											
Comments:											

O EPA 601_____
(X) TPH-G/BTEX___
O TPH Diesel_____
O TOG 5520 ___
TIME/SAMPLE ID: 1544

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-3	9.83	2"	Replaced	Ø	Y (N)	3	1557	71.8	7.82	492 µS	4.7
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			7		70.9	7.63	504 µS	
30.00 - 9.83 = 20.17 X .16 = 3.23 X 3 =			9.69			10	1609	70.3	7.58	510 µS	5.0
Purge Method: (X) Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port											
Comments:											

O EPA 601_____
(X) TPH-G/BTEX___
O TPH Diesel_____
O TOG 5520 ___
TIME/SAMPLE ID: 1615

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-2	10.93	2"	OK	Ø	Y (N)	3	1629	71.0	7.40	429 µS	4.5
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			7		70.5	7.31	453 µS	
30.00 - 10.93 = 19.07 X .16 = 3.05 X 3 =			9.15			10	1639	69.6	7.22	462 µS	4.8
Purge Method: (X) Surface Pump O Disp.Tube O Winch O Disp. Bailer(s)___ O Sys Port											
Comments: QC-1 (S-8) From this well											

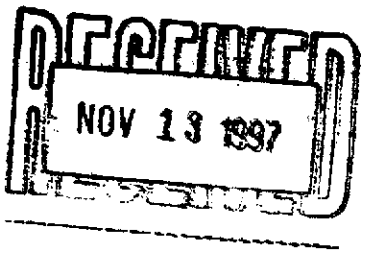
O EPA 601_____
(X) TPH-G/BTEX___
O TPH Diesel_____
O TOG 5520 ___
TIME/SAMPLE ID: 1647

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

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

November 7, 1997



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

The following report contains analytical results for samples received at Southern Petroleum Laboratories (SPL) on October 29, 1997. The samples were assigned to Certificate of Analysis No.(s) 9710E24 and analyzed for all parameters as listed on the chain of custody.

There were no analytical problems encountered with this group of samples and all quality control data was within acceptance limits.

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

James P Adams
Client Services Manager

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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 97-10-E24

Approved for Release by:

James P. Adams, Client Services Manager

Date: 11/7/97

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

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

Certificate of Analysis No. H9-9710E24-01

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	93		
Method 8020A***			
Analyzed by: DN			
Date: 11/05/97			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	83		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/05/97 08:57:00			

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. H9-9710E24-02

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-2

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	50 P	µg/L
Benzene	ND	2.5 P	µg/L
Toluene	ND	5.0 P	µg/L
Ethylbenzene	ND	5.0 P	µg/L
Total Xylene	ND	5.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	100		
Method 8020A***			
Analyzed by: DN			
Date: 11/05/97			
Gasoline Range Organics	ND	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	87		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/05/97 09:52:00			

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. H9-9710E24-03

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	220	10 P	µg/L
Benzene	56	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	6.5	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: DN			
Date: 11/05/97			
Gasoline Range Organics	0.30	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	90		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/05/97 09:25:00			

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

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

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

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

Certificate of Analysis No. H9-9710E24-04

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-4

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	50 P	µg/L
Benzene	5.4	2.5 P	µg/L
Toluene	ND	5.0 P	µg/L
Ethylbenzene	ND	5.0 P	µg/L
Total Xylene	ND	5.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	93		
Method 8020A***			
Analyzed by: DN			
Date: 11/05/97			
Gasoline Range Organics	ND	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	87		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/05/97 10:19:00			

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. H9-9710E24-05

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-5

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	560	50 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: DN			
Date: 11/06/97			
Gasoline Range Organics	0.42	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	83		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/05/97 10:47:00			

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

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

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

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

Certificate of Analysis No. H9-9710E24-06

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-6

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	50 P	µg/L
Benzene	ND	2.5 P	µg/L
Toluene	ND	5.0 P	µg/L
Ethylbenzene	ND	5.0 P	µg/L
Total Xylene	36	5.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	100		
Method 8020A***			
Analyzed by: DN			
Date: 11/05/97			
Gasoline Range Organics	ND	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	93		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/05/97 11:14:00			

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. H9-9710E24-07

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-7

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	7100	500 P	µg/L
Benzene	ND	2.5 P	µg/L
Toluene	ND	5.0 P	µg/L
Ethylbenzene	ND	5.0 P	µg/L
Total Xylene	ND	5.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	107		
Method 8020A***			
Analyzed by: DN			
Date: 11/06/97			
Gasoline Range Organics	6.1	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	87		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/05/97 11:41:00			

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

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

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

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

Certificate of Analysis No. H9-9710E24-08

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

P.O.# H176918 , COC#072061
DATE: 11/07/97

PROJECT: #11105, NA
SITE: Castro Valley, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-8

PROJECT NO: 10-138-10/001
MATRIX: WATER
DATE SAMPLED: 10/27/97
DATE RECEIVED: 10/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	7400	500 P	µg/L
Benzene	ND	2.5 P	µg/L
Toluene	ND	5.0 P	µg/L
Ethylbenzene	ND	5.0 P	µg/L
Total Xylene	ND	5.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	93		
Method 8020A***			
Analyzed by: DN			
Date: 11/06/97			
Gasoline Range Organics	6.6	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	100		
California LUFT Manual for Gasoline			
Analyzed by: DN			
Date: 11/06/97 12:09:00			

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

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

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

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020/602

Matrix: Aqueous
Units: µg/L

Batch Id: HP_W971105165100

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	45	90.0	72 - 128
Benzene	ND	50	46	92.0	61 - 119
Toluene	ND	50	46	92.0	65 - 125
EthylBenzene	ND	50	46	92.0	70 - 118
O Xylene	ND	50	47	94.0	72 - 117
M & P Xylene	ND	100	93	93.0	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	20	100	20	100	0	20	39 - 150
BENZENE	ND	20	22	110	22	110	0	21	32 - 164
TOLUENE	ND	20	22	110	22	110	0	20	38 - 159
ETHYLBENZENE	ND	20	21	105	21	105	0	19	52 - 142
O XYLENE	ND	20	22	110	21	105	4.65	18	53 - 143
M & P XYLENE	ND	40	42	105	41	102	2.90	17	53 - 144

Analyst: DN
Sequence Date: 11/05/97
SPL ID of sample spiked: 9710E24-01A
Sample File ID: W_K7255.TX0
Method Blank File ID:
Blank Spike File ID: W_K7247.TX0
Matrix Spike File ID: W_K7250.TX0
Matrix Spike Duplicate File ID: W_K7251.TX0

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

SAMPLES IN BATCH(SPL ID):

9710E24-05A 9710E24-06A 9710E24-07A 9710E24-08A
9710F28-01A 9710F28-02A 9710F28-03A 9710F28-04A
9710F28-05A 9710F28-06A 9710F28-07A 9710F28-08A
9710E24-07A 9710E24-08A 9710E24-01A 9710E24-03A
9710E24-02A 9710E24-04A

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020/602

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

Matrix: Aqueous
Units: µg/L

Batch Id: HP_W971106220400

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	50	100	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	52	104	72 - 117
M & P Xylene	ND	100	100	100	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	26	130	26	130	0	20	39 - 150
BENZENE	ND	20	24	120	24	120	0	21	32 - 164
TOLUENE	ND	20	23	115	23	115	0	20	38 - 159
ETHYLBENZENE	ND	20	23	115	23	115	0	19	52 - 142
O XYLENE	ND	20	23	115	23	115	0	18	53 - 143
M & P XYLENE	ND	40	45	112	46	115	2.64	17	53 - 144

Analyst: DN
Sequence Date: 11/06/97
SPL ID of sample spiked: 9710E57-01A
Sample File ID: W_K7287.TXO
Method Blank File ID:
Blank Spike File ID: W_K7281.TXO
Matrix Spike File ID: W_K7282.TXO
Matrix Spike Duplicate File ID: W_K7283.TXO

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

SAMPLES IN BATCH(SPL ID): 9710E57-03A 9710E57-04A 9710E96-01A 9710E96-04A 9710E96-07A 9710E96-05A 9710E96-08A 9711056-01A 9711056-02A 9711057-02A 9711059-02A 9710E24-05A 9710E57-01A

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

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

Matrix: Aqueous
Units: mg/L

Batch Id: HP_W971105162700

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Range Organics	ND	1.0	0.96	96.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	0.30	0.90	0.96	73.3	0.96	73.3	0	36	36 - 160

Analyst: DN
Sequence Date: 11/05/97
SPL ID of sample spiked: 9710E24-03A
Sample File ID: WWK7256.TXO
Method Blank File ID:
Blank Spike File ID: WWK7248.TXO
Matrix Spike File ID: WWK7252.TXO
Matrix Spike Duplicate File ID: WWK7253.TXO

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

SAMPLES IN BATCH(SPL ID): 9710E24-05A 9710E24-06A 9710E24-07A 9710E24-08A
9710F28-01B 9710F28-02B 9710F28-03B 9710F28-04B
9710F28-05B 9710F28-06B 9710F28-07B 9710F28-08B
9710C30-06D 9710C30-05D 9710E24-01A 9710E24-03A
9710E24-02A 9710E24-04A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

9710E24

CHAIN OF CUSTODY

No. 072061 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
Alisto Engineering	1575 Treat Blvd #201	W.C.	Ca	94597

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11105	Castro Valley, Ca	10-138-10/001

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
Brady Nagle	(510) 295-1650	295-1823	H176910

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.
Scott Hooton	Renton, WA		

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.
SPL	Texas		

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
Larry Burns		10/28/97	Fed

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER 384847136Z

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	TPH 8015	BTEX 8020	COMMENTS
S-1	10/27/97	W	3	HCl		X	X	
S-2								
S-3								
S-4								
S-5								
S-6								
S-7								
S-8								
~~S-9~~								
~~S-~~								

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	10/28/97	0800	P. Yelton	10/28/97	0802
P. Yelton	10/28/97	1600	[signature] / SPL	10/28/97	1601

ADDITIONAL COMMENTS

20L

CLV-16722
PKG/50

Distribution: White - Original (with Data)
Yellow - BP
Pink - Lab
Blue - Consultant Field Staff

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
10/28/97	1000

SPL Sample ID:
971028L4

			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:		2° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	384847 1362	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
[signature]	10/28/97

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

BP Site Number:	11105
ERM Contact:	H176918
Sampling Date:	10/27/97
Matrix Description:	Water
Date Final Report Received:	11/13/97
Laboratory & Location:	SPL, Houston, Texas

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

Notes: _____

Data Validation Completed by: Brady Nagle

(signature): _____

Date: 12/30/97