GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11109
4280 Foothill Boulevard
Oakland, California

Project No. 10-014-06-004

Prepared for:

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May 27, 1997

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INTRODUCTION

This report presents the results and findings of the March 17, 1997 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11109, 4280 Foothill Boulevard, 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.

Groundwater monitoring was performed concurrently at the neighboring Chevron service station, 4265 Foothill Boulevard, and the Shell service station, 4411 Foothill Boulevard. The results are presented in Tables 2 and 3.

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. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)		B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)		DO (ppm)	LAB
MW-1		01/31/90	38.19	15.41	---	22.78	---	---		---	---	---	---	---	---	---		---	---
MW-1	(c)	02/05/90	38.19	---	---	---	---	---		---	---	---	---	---	---	---		---	---
MW-2		02/05/90	41.22	21.90	---	19.31	1300	---		14	ND<0.1	9	13	---	---	---		---	SUP
MW-2		02/14/91	41.22	21.16	---	20.06	ND<50	ND<10000		ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	ND<5000	51	(d)	---	SUP
MW-2		05/13/91	41.22	21.32	---	19.90	ND<50	ND<50		ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	6000	0.5	(e)	---	SUP
MW-2		07/24/91	41.22	22.92	---	18.30	---	---		---	---	---	---	---	---	---		---	---
MW-2		10/03/91	41.22	24.90	---	16.32	ND<50	ND<50		ND<0.3	0.8	ND<0.3	ND<0.3	---	ND<5000	0.7	(e)	---	SUP
MW-2		10/15/91	41.22	24.10	---	17.12	---	---		---	---	---	---	---	---	---		---	---
MW-2	(f)	12/04/91	41.22	---	---	---	---	---		---	---	---	---	---	---	---		---	---
MW-2		12/16/91	41.22	23.95	---	17.27	---	---		---	---	---	---	---	---	---		---	---
MW-2		01/06/92	41.22	23.30	---	17.92	ND<50	ND<50		ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	ND<5000	ND		---	ANA
MW-2		01/22/92	41.22	23.14	---	18.08	---	---		---	---	---	---	---	---	---		---	---
MW-2		01/28/92	41.22	22.99	---	18.23	---	---		---	---	---	---	---	---	---		---	---
MW-2		02/05/92	41.22	22.63	---	18.59	---	---		---	---	---	---	---	---	---		---	---
MW-2		02/12/92	41.22	22.04	---	19.18	---	---		---	---	---	---	---	---	---		---	---
MW-2		02/17/92	41.22	20.84	---	20.38	---	---		---	---	---	---	---	---	---		---	---
MW-2		04/03/92	41.22	18.29	---	22.93	---	---		---	---	---	---	---	---	---		---	---
MW-2		04/08/92	41.22	18.86	---	22.36	ND<50	63		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	ND		---	ANA
MW-2		04/14/92	41.22	19.45	---	21.77	---	---		---	---	---	---	---	---	---		---	---
MW-2		04/29/92	41.22	20.35	---	20.87	---	---		---	---	---	---	---	---	---		---	---
MW-2		05/07/92	41.22	20.84	---	20.38	---	---		---	---	---	---	---	---	---		---	---
MW-2		07/03/92	41.22	22.34	---	18.88	ND<50	---		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---		---	ANA
MW-2		10/08/92	41.22	23.73	---	17.49	ND<50	---		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---		---	ANA
MW-2		12/31/92	41.22	21.12	---	20.10	ND<50	---		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---		---	ANA
MW-2		04/21/93	41.22	17.68	---	23.54	ND<50	ND<50	(g)	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	ND		---	PACE
MW-2		07/07/93	41.22	20.30	---	20.92	ND<50	---		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	1.0	(e)	---	PACE
MW-2		09/21/93	41.22	21.93	---	19.29	ND<50	---		0.9	0.7	0.7	2.6	---	---	---		---	PACE
MW-2		12/17/93	41.22	21.48	---	19.74	---	---		---	---	---	---	---	---	---		---	---
MW-2		12/23/93	41.22	---	---	---	ND<50	---		ND<0.5	ND<0.5	ND<0.5	0.7	---	---	---		---	PACE
MW-2		04/07/94	41.22	20.25	---	20.97	ND<50	---		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---		5.9	PACE
MW-2		07/06/94	41.22	20.59	---	20.63	ND<50	---		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---		3.1	PACE
MW-2		10/07/94	41.22	22.04	---	19.18	ND<50	---		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---		2.8	PACE
MW-2		01/27/95	41.22	26.12	---	15.10	ND<50	440		ND<0.5	ND<0.5	ND<0.5	ND<1	---	ND<5000	---		4.8	ATI
MW-2		03/30/95	41.22	12.34	---	28.88	ND<50	---		ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---		7.2	ATI
MW-2		06/20/95	41.22	16.42	---	24.80	ND<50	---		ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---		6.0	ATI
MW-2		10/03/95	41.22	20.06	---	21.16	ND<50	---		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---		5.7	ATI
MW-2		12/06/95	41.22	21.31	---	19.91	ND<50	---		ND<0.50	ND<0.50	ND<0.50	ND<1.0	46	---	---		5.4	ATI
MW-2		03/21/96	41.22	12.28	---	28.94	ND<50	---		ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---		7.4	SPL
MW-2		06/21/96	41.22	13.28	---	27.94	ND<50	---		ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---		7.3	SPL
MW-2		09/06/96	41.22	13.94	---	27.28	---	---		---	---	---	---	---	---	---		---	---
MW-2		09/09/96	41.22	---	---	---	ND<50	---		ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---		7.4	SPL
MW-2		12/19/96	41.22	12.19	---	29.03	ND<50	---		ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---		7.9	SPL
MW-2		03/17/97	41.22	11.59	---	29.63	---	---		---	---	---	---	---	---	---		---	---

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BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-3		02/05/90	40.74		17.45	---	23.29		1400	---	15	ND<2.5	11	8	---	---	---	---	SUP
MW-3		02/14/91	40.74		18.52	---	22.22		320	---	8	ND<0.3	8	1	---	---	---	---	SUP
MW-3		05/13/91	40.74		19.32	---	21.42		640	---	13	ND<0.3	18	1	---	---	---	---	SUP
MW-3		07/24/91	40.74		20.69	---	20.05		---	---	---	---	---	---	---	---	---	---	---
MW-3		10/03/91	40.74		19.47	---	21.27		940	---	21	ND<0.3	23	2.1	---	---	---	---	SUP
MW-3		10/15/91	40.74		20.46	---	20.28		---	---	---	---	---	---	---	---	---	---	---
MW-3		12/04/91	40.74		18.29	---	22.45		---	---	---	---	---	---	---	---	---	---	---
MW-3		12/16/91	40.74		18.34	---	22.40		---	---	---	---	---	---	---	---	---	---	---
MW-3		01/06/92	40.74		18.50	---	22.24		580	---	6.1	1	6.1	7.1	---	---	---	---	ANA
MW-3		01/22/92	40.74		17.86	---	22.88		---	---	---	---	---	---	---	---	---	---	---
MW-3		01/28/92	40.74		15.84	---	24.90		---	---	---	---	---	---	---	---	---	---	---
MW-3		02/05/92	40.74		17.53	---	23.21		---	---	---	---	---	---	---	---	---	---	---
MW-3		02/12/92	40.74		17.15	---	23.59		---	---	---	---	---	---	---	---	---	---	---
MW-3		02/17/92	40.74		16.18	---	24.56		---	---	---	---	---	---	---	---	---	---	---
MW-3		04/03/92	40.74		14.80	---	25.94		---	---	---	---	---	---	---	---	---	---	---
MW-3		04/08/92	40.74		17.06	---	23.68		1100	---	30	4.6	32	11	---	---	---	---	ANA
MW-3		04/14/92	40.74		15.22	---	25.52		---	---	---	---	---	---	---	---	---	---	---
MW-3		04/29/92	40.74		15.90	---	24.84		---	---	---	---	---	---	---	---	---	---	---
MW-3		05/07/92	40.74		16.35	---	24.39		---	---	---	---	---	---	---	---	---	---	---
MW-3		07/03/92	40.74		17.74	---	23.00		1200	---	38	ND<2.5	24	ND<2.5	---	---	---	---	ANA
MW-3		10/08/92	40.74		19.06	---	21.68		1400	---	31	ND<0.5	25	13	---	---	---	---	ANA
MW-3		12/31/92	40.74		16.61	---	24.13		820	---	12	4.1	13	5.9	---	---	---	---	ANA
QC-1	(h)	12/31/92	40.74		---	---	---		960	---	11	3.6	10	3.8	---	---	---	---	ANA
MW-3		04/21/93	40.74		14.24	---	26.50		420	---	5.6	ND<0.5	3.9	1.4	---	---	---	---	PACE
QC-1	(h)	04/21/93	40.74		---	---	---		390	---	5.0	ND<0.5	3.7	1.5	---	---	---	---	PACE
MW-3		07/07/93	40.13	(i)	15.19	---	24.94		54	---	0.6	0.6	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-3		09/21/93	40.13		16.58	---	23.55		540	---	7.9	0.9	4.7	2.4	---	---	---	---	PACE
MW-3		12/17/93	40.13		15.82	---	24.31		---	---	---	---	---	---	---	---	---	---	---
MW-3		12/23/93	40.13		---	---	---		500	---	9.8	1.5	3.3	2.1	---	---	---	---	PACE
QC-1	(h)	12/23/93	40.13		---	---	---		480	---	9.2	ND<0.5	5.4	5.3	---	---	---	---	PACE
MW-3		04/07/94	40.13		28.50	---	11.63		460	---	20	7.4	8.9	11	---	---	---	---	PACE
QC-1	(h)	04/07/94	40.13		---	---	---		460	---	20	7.7	9.0	11	---	---	---	---	PACE
MW-3		07/06/94	40.13		---	---	---		300	---	10	0.6	1.7	6.4	---	---	---	4.8	PACE
MW-3		10/07/94	40.13		27.65	---	12.48		620	---	28	ND<0.5	2.2	12	---	---	---	4.4	PACE
MW-3		01/27/95	40.13		27.65	---	12.48		---	---	---	---	---	---	---	---	---	---	---
MW-3		03/30/95	40.13		26.05	---	14.08		300	---	10	6.0	3.4	18	---	---	---	7.6	ATI
MW-3		06/20/95	40.13		19.49	---	20.64		170	---	7.2	3.4	0.85	15	---	---	---	---	ATI
MW-3		10/03/95	40.13		24.93	---	15.20		170	---	2.1	ND<0.50	0.81	8.0	6.7	---	---	---	ATI
MW-3		12/06/95	40.13		25.14	---	14.99		1700	---	6.7	3.1	2.8	210	64	---	---	---	ATI
QC-1	(h)	12/06/95	40.13		---	---	---		1400	---	6.1	3.0	1.7	190	53	---	---	---	ATI
MW-3		03/21/96	40.13		9.48	---	30.65		ND<50	---	0.5	ND<1	ND<1	1	ND<10	---	---	7.3	SPL
MW-3		06/21/96	40.13		11.60	---	28.53		ND<50	---	13	ND<1	ND<1	ND<1	12	---	---	7.6	SPL
MW-3		09/06/96	40.13		12.23	---	27.90		---	---	---	---	---	---	---	---	---	---	---
MW-3		09/09/96	40.13		---	---	---		ND<250	---	6.5	ND<5.0	ND<5.0	ND<5.0	ND<50	---	---	7.6	SPL
MW-3		12/19/96	40.13		10.46	---	29.67		ND<50	---	4.1	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	8.4	SPL
MW-3		03/17/97	40.13		9.86	---	30.27		50	---	ND<5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	7.4	SPL

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MW-4	02/05/90	40.11	20.75	---	19.36	620	---	ND<0.5	9	ND<0.5	10	---	---	---	---	SUP
MW-4	02/14/91	40.11	21.73	---	18.38	180	---	ND<0.3	ND<0.3	0.4	2	---	---	---	---	SUP
MW-4	05/13/91	40.11	18.55	---	21.56	72	---	0.7	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	SUP
MW-4	07/24/91	40.11	21.31	---	18.80	---	---	---	---	---	---	---	---	---	---	---
MW-4	10/03/91	40.11	22.57	---	17.54	57	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	SUP
MW-4	10/15/91	40.11	22.88	---	17.23	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/04/91	40.11	22.54	---	17.57	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/16/91	40.11	22.59	---	17.52	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/06/92	40.11	22.00	---	18.11	480	---	0.8	3.2	1.9	7.7	---	---	---	---	ANA
MW-4	01/22/92	40.11	21.58	---	18.53	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/28/92	40.11	21.42	---	18.69	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/05/92	40.11	21.10	---	19.01	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/12/92	40.11	20.74	---	19.37	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/17/92	40.11	19.78	---	20.33	---	---	---	---	---	---	---	---	---	---	---
MW-4	04/03/92	40.11	16.80	---	23.31	---	---	---	---	---	---	---	---	---	---	---
MW-4	04/08/92	40.11	17.13	---	22.98	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-4	04/14/92	40.11	17.74	---	22.37	---	---	---	---	---	---	---	---	---	---	---
MW-4	04/29/92	40.11	18.56	---	21.55	---	---	---	---	---	---	---	---	---	---	---
MW-4	05/07/92	40.11	19.10	---	21.01	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/03/92	40.11	20.71	---	19.40	ND<50	---	0.6	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-4	10/08/92	40.11	22.43	---	17.68	270	---	ND<0.5	2.1	2.5	3.2	---	---	---	---	ANA
MW-4	12/31/92	40.11	19.58	---	20.53	150	---	ND<0.5	ND<0.5	ND<0.5	1.3	---	---	---	---	ANA
MW-4	04/21/93	40.11	17.79	---	22.32	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-4	07/07/93	40.11	18.44	---	21.67	160	---	1.2	5.4	3.8	19	---	---	---	---	PACE
MW-4	09/21/93	40.11	20.14	---	19.97	71	---	ND<0.5	1.9	ND<0.5	2.1	---	---	---	---	PACE
MW-4	12/17/93	40.11	19.80	---	20.31	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/23/93	40.11	---	---	---	ND<50	---	3.1	1.6	0.8	3.8	---	---	---	---	PACE
MW-4	04/07/94	40.11	19.12	---	20.99	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	6.6	PACE
MW-4	07/06/94	40.11	19.90	---	20.21	62	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	4.1	PACE
MW-4	10/07/94	40.11	20.07	---	20.04	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	3.6	PACE
MW-4	01/27/95	40.11	13.72	---	26.39	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	2.7	ATI
MW-4	03/30/95	40.11	11.46	---	28.65	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	8.3	ATI
MW-4	06/20/95	40.11	14.78	---	25.33	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
MW-4	10/03/95	40.11	19.62	---	20.49	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	5.0	---	---	5.8	ATI
MW-4	12/06/95	40.11	19.91	---	20.20	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	47	---	---	5.7	ATI
MW-4	03/21/96	40.11	11.12	---	28.99	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	7.8	SPL
MW-4	06/21/96	40.11	12.21	---	27.90	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	7.9	SPL
MW-4	09/06/96	40.11	12.89	---	27.22	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/09/96	40.11	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	7.2	SPL
MW-4	12/19/96	40.11	11.01	---	29.10	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	8.4	SPL
MW-4	03/17/97	40.11	10.42	---	29.69	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-5		10/03/91	39.55		18.08	---	21.47		79000	---	13000	7400	1400	6200	---	---	---	---	SUP
MW-5		10/15/91	39.55		18.55	---	21.00		---	---	---	---	---	---	---	---	---	---	---
MW-5		12/04/91	39.55		18.44	0.13	21.21		---	---	---	---	---	---	---	---	---	---	---
MW-5		12/16/91	39.55		18.66	0.01	20.90		---	---	---	---	---	---	---	---	---	---	---
MW-5		01/06/92	39.55		19.12	0.11	20.51		---	---	---	---	---	---	---	---	---	---	---
MW-5		01/22/92	39.55		14.59	---	24.96		---	---	---	---	---	---	---	---	---	---	---
MW-5		01/28/92	39.55		15.25	---	24.30		---	---	---	---	---	---	---	---	---	---	---
MW-5		02/05/92	39.55		15.58	SHEEN	23.97		---	---	---	---	---	---	---	---	---	---	---
MW-5		02/12/92	39.55		15.54	0.01	24.02		---	---	---	---	---	---	---	---	---	---	---
MW-5		02/17/92	39.55		13.98	SHEEN	25.57		---	---	---	---	---	---	---	---	---	---	---
MW-5		04/03/92	39.55		13.63	0.04	25.95		---	---	---	---	---	---	---	---	---	---	---
MW-5		04/08/92	39.55		13.17	0.01	26.39		---	---	---	---	---	---	---	---	---	---	---
MW-5		04/14/92	39.55		13.45	0.01	26.11		---	---	---	---	---	---	---	---	---	---	---
MW-5		04/29/92	39.55		13.75	0.07	25.85		---	---	---	---	---	---	---	---	---	---	---
MW-5		05/07/92	39.55		16.15	0.04	23.43		---	---	---	---	---	---	---	---	---	---	---
MW-5		07/03/92	39.55		17.67	0.08	21.94		---	---	---	---	---	---	---	---	---	---	---
MW-5		09/01/92	39.55		17.83	0.50	22.10		---	---	---	---	---	---	---	---	---	---	---
MW-5		10/08/92	39.55		17.86	0.92	22.38		---	---	---	---	---	---	---	---	---	---	---
MW-5		12/31/92	39.55		15.20	SHEEN	24.35		---	---	---	---	---	---	---	---	---	---	---
MW-5		04/21/93	39.55		12.64	0.02	26.93		---	---	---	---	---	---	---	---	---	---	---
MW-5		07/07/93	39.14	(i)	12.68	0.82	27.08		---	---	---	---	---	---	---	---	---	---	---
MW-5		09/21/93	39.14		14.35	SHEEN	24.79		---	---	---	---	---	---	---	---	---	---	---
MW-5		12/17/93	39.14		12.61	0.41	26.84		---	---	---	---	---	---	---	---	---	---	---
MW-5		04/07/94	39.14		30.00	---	9.14		66000	---	3000	1700	250	6800	---	---	---	---	PACE
MW-5		07/06/94	39.14		---	---	---		29000	---	1900	330	63	2700	---	---	---	---	PACE
MW-5		10/07/94	39.14		28.70	---	10.44		250000	---	2600	660	830	5200	---	---	---	4.2	PACE
QC-1	(h)	10/07/94	39.14		---	---	---		45000	---	2900	540	260	2600	---	---	---	---	PACE
MW-5		01/27/95	39.14		28.70	---	10.44		---	---	---	---	---	---	---	---	---	---	---
MW-5		03/30/95	39.14		28.95	---	10.19		50000	---	7900	2600	520	6400	---	---	---	5.5	ATI
QC-1	(h)	03/30/95	39.14		---	---	---		43000	---	7900	2500	440	6200	---	---	---	---	ATI
MW-5		06/20/95	39.14		22.54	---	16.60		34000	---	5100	1900	300	3700	---	---	---	---	ATI
QC-1	(h)	06/20/95	39.14		---	---	---		26000	---	3500	290	ND<25	3300	---	---	---	---	ATI
MW-5		10/03/95	39.14		18.84	---	20.30		12000	---	68	42	11	1600	330	---	---	---	ATI
QC-1	(h)	10/03/95	39.14		---	---	---		12000	---	46	39	10	1600	320	---	---	---	ATI
MW-5		12/06/95	39.14		19.07	---	20.07		16000	---	1200	93	51	700	600	---	---	---	ATI
MW-5		03/21/96	39.14		7.43	---	31.71		1500	---	89	28	6	250	ND<10	---	---	7.2	SPL
QC-1	(h)	03/21/96	39.14		---	---	---		1900	---	92	30	7	270	ND<10	---	---	---	SPL
MW-5		06/21/96	39.14		9.87	---	29.27		3500	---	740	150	19	400	ND<100	---	---	7.1	SPL
QC-1	(h)	06/21/96	39.14		---	---	---		2700	---	680	140	20	400	ND<50	---	---	---	SPL
MW-5		09/06/96	39.14		10.52	---	28.62		---	---	---	---	---	---	---	---	---	---	---
MW-5		09/09/96	39.14		---	---	---		82000	---	3100	1700	850	9100	ND<2500	---	---	7.5	SPL
QC-1	(h)	09/09/96	---			---	---		90000	---	2900	1600	670	6900	ND<2500	---	---	---	SPL
MW-5		12/19/96	39.14		8.62	---	30.52		41000	---	790	820	120	2040	ND<500	---	---	7.7	SPL
QC-1	(h)	12/19/96	---		---	---	---		26000	---	490	430	63	1140	ND<500	---	---	---	SPL
MW-5		03/17/97	39.14		8.22	---	30.92		5500	---	1.9	2.4	ND<1.0	ND<1.0	29	---	---	6.4	SPL
QC-1	(h)	03/17/97	---		---	---	---		6600	---	2.5	2.7	ND<1.0	ND<1.0	28	---	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-6		10/03/91	41.59	20.73	---	20.86	ND<50	—	0.7	0.8	ND<0.3	1.3	---		---	—	—	SUP
MW-6		10/15/91	41.59	21.20	---	20.39	---	—	---	---	---	---	---		—	—	---	---
MW-6		12/04/91	41.59	21.26	---	20.33	---	—	---	---	---	---	---		---	---	—	—
MW-6		12/16/91	41.59	21.12	---	20.47	---	---	---	---	---	---	—		—	—	---	---
MW-6		01/06/92	41.59	20.29	---	21.30	ND<50	—	ND<0.5	ND<0.5	ND<0.5	1.6	—		—	—	---	ANA
MW-6		01/22/92	41.59	20.12	---	21.47	---	—	---	---	---	—	---		---	—	—	—
MW-6		01/28/92	41.59	20.20	---	21.39	---	---	---	---	---	—	—		---	---	---	---
MW-6		02/05/92	41.59	20.09	---	21.50	---	---	---	---	---	—	—		---	---	---	---
MW-6		02/12/92	41.59	19.15	---	22.44	---	—	—	---	---	—	---		---	—	—	—
MW-6		02/17/92	41.59	18.02	---	23.57	---	—	—	—	---	---	—		---	---	—	—
MW-6		04/03/92	41.59	16.62	---	24.97	---	—	---	---	---	---	—		---	—	---	---
MW-6		04/08/92	41.59	17.06	---	24.53	ND<50	—	0.6	ND<0.5	0.8	ND<0.5	—		—	—	---	ANA
MW-6		04/14/92	41.59	17.23	---	24.36	---	---	—	---	---	---	---		---	—	—	—
MW-6		04/29/92	41.59	18.12	—	23.47	---	---	---	—	---	—	—		---	---	---	---
MW-6		05/07/92	41.59	18.52	—	23.07	---	---	—	—	---	—	---		---	---	---	---
MW-6		07/03/92	41.59	19.71	—	21.88	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—		---	---	---	ANA
MW-6		10/08/92	41.59	21.22	—	20.37	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	ANA
QC-1	(h)	10/08/92	41.59	21.22	---	20.37	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	—	—	ANA
MW-6		12/31/92	41.59	21.33	---	20.26	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—		---	—	—	ANA
MW-6		04/21/93	41.59	16.45	---	25.14	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	—	—	PACE
MW-6		07/07/93	41.59	18.68	—	22.91	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—		---	---	---	PACE
MW-6		09/21/93	41.59	19.64	---	21.95	ND<50	—	ND<0.5	ND<0.5	ND<0.5	1.6	---		---	—	—	PACE
MW-6		12/17/93	41.59	21.08	---	20.51	---	---	---	---	---	---	---		---	—	—	---
MW-6		12/23/93	41.59	---	---	---	ND<50	---	ND<0.5	0.5	ND<0.5	0.6	---		---	—	—	PACE
MW-6		04/07/94	41.59	21.27	---	20.32	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		—	—	6.1	PACE
MW-6		07/06/94	41.59	19.81	---	21.78	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	4.0	PACE
QC-1	(h)	07/06/94	41.59	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	PACE
MW-6		10/07/94	41.59	21.25	---	20.34	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	3.5	PACE
MW-6		01/27/95	41.59	12.39	---	29.20	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---		---	---	4.2	ATI
MW-6		03/30/95	41.59	11.34	---	30.25	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	---	6.1	ATI
MW-6		06/20/95	41.59	15.12	---	26.47	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	---	---	ATI
MW-6		10/03/95	41.59	20.68	—	20.91	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	66		---	---	6.4	ATI
MW-6		12/06/95	41.59	23.77	---	17.82	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	45		---	---	5.7	ATI
MW-6		03/21/96	41.59	11.55	---	30.04	ND<50	—	ND<0.5	ND<1	ND<1	ND<1	41		---	---	9.1	SPL
MW-6		06/21/96	41.59	12.60	—	28.99	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10		---	---	8.6	SPL
MW-6		09/06/96	41.59	13.25	—	28.34	---	—	---	---	---	—	—		---	---	---	---
MW-6		09/09/96	41.59	---	---	---	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	22/22	(j)	---	---	7.9	SPL
MW-6		12/19/96	41.59	11.45	---	30.14	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	---	7.7	SPL
MW-6		03/17/97	41.59	10.80	---	30.79	---	---	---	---	---	---	---		—	---	---	---

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BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-7		10/03/91	40.64		14.93	---	25.71		360	---	62	13	3.4	20	---	---	---	---	SUP
MW-7		10/15/91	40.64		15.16	---	25.48		---	---	---	---	---	---	---	---	---	---	---
MW-7		12/04/91	40.64		15.41	---	25.23		---	---	---	---	---	---	---	---	---	---	---
MW-7		12/16/91	40.64		15.21	---	25.43		---	---	---	---	---	---	---	---	---	---	---
MW-7		01/06/92	40.64		14.56	---	26.08		1100	---	170	ND<0.5	24	23	---	---	---	---	ANA
MW-7		01/22/92	40.64		14.63	---	26.01		---	---	---	---	---	---	---	---	---	---	---
MW-7		01/28/92	40.64		14.73	---	25.91		---	---	---	---	---	---	---	---	---	---	---
MW-7		02/05/92	40.64		14.58	---	26.06		---	---	---	---	---	---	---	---	---	---	---
MW-7		02/12/92	40.64		13.94	---	26.70		---	---	---	---	---	---	---	---	---	---	---
MW-7		02/17/92	40.64		13.10	---	27.54		---	---	---	---	---	---	---	---	---	---	---
MW-7		04/03/92	40.64		12.66	---	27.98		---	---	---	---	---	---	---	---	---	---	---
MW-7		04/08/92	40.64		12.77	---	27.87		750	---	150	ND<0.5	23	9.9	---	---	---	---	ANA
MW-7		04/14/92	40.64		13.02	---	27.62		---	---	---	---	---	---	---	---	---	---	---
MW-7		04/29/92	40.64		13.59	---	27.05		---	---	---	---	---	---	---	---	---	---	---
MW-7		05/07/92	40.64		13.95	---	26.69		---	---	---	---	---	---	---	---	---	---	---
MW-7		07/03/92	40.64		14.73	---	25.91		660	---	210	ND<2.5	33	8	---	---	---	---	ANA
MW-7		10/08/92	40.64		15.75	---	24.89		320	---	49	1.4	13	6.2	---	---	---	---	ANA
MW-7		12/31/92	40.64		13.57	---	27.07		900	---	100	ND<2.5	28	4.3	---	---	---	---	ANA
MW-7		04/21/93	40.64		14.56	---	26.08		510	---	83	1.2	10	5.8	---	---	---	---	PACE
MW-7		07/07/93	40.32	(i)	13.40	---	26.92		1100	---	160	2.0	27	4.0	---	---	---	---	PACE
QC-1	(h)	07/07/93	40.32		---	---	---		1100	---	170	1.9	29	2.8	---	---	---	---	PACE
MW-7		09/21/93	40.32		14.40	---	25.92		690	---	150	3.1	26	5.7	---	---	---	---	PACE
QC-1	(h)	09/21/93	40.32		---	---	---		640	---	140	1.7	23	2.4	---	---	---	---	PACE
MW-7		12/17/93	40.32		13.65	---	26.67		---	---	---	---	---	---	---	---	---	---	---
MW-7		12/23/93	40.32		---	---	---		250	---	64	1.2	9.0	1.8	---	---	---	---	PACE
MW-7		04/07/94	40.32		30.62	---	9.70		140	---	32	1.4	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-7		07/06/94	40.32		16.88	---	23.44		410	---	94	1.3	10	3.5	---	---	---	4.4	PACE
MW-7		10/07/94	40.32		25.59	---	14.73		ND<50	---	9.2	ND<0.5	ND<0.5	ND<0.5	---	---	---	4.9	PACE
MW-7		01/27/95	40.32		9.82	---	30.50		810	---	570	3	60	17	---	---	---	0	ATI
QC-1	(h)	01/27/95	---		---	---	---		930	---	620	4	77	21	---	---	---	---	ATI
MW-7		03/30/95	40.32		9.15	---	31.17		180	---	65	0.53	2.0	ND<1.0	---	---	---	7.8	ATI
MW-7		06/20/95	40.32		11.38	---	28.94		2800	---	980	ND<5.0	ND<5.0	43	---	---	---	---	ATI
MW-7		10/03/95	40.32		29.95	---	10.37		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
MW-7		12/06/95	40.32		29.85	---	10.47		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
MW-7		03/21/96	40.32		9.76	---	30.56		1000	---	390	2	40	13	ND<10	---	---	7.4	SPL
MW-7		06/21/96	40.32		11.01	---	29.31		ND<250	---	40	ND<5	ND<5	ND<5	ND<50	---	---	7.4	SPL
MW-7		09/06/96	40.32		11.68	---	28.64		---	---	---	---	---	---	---	---	---	---	---
MW-7		09/09/96	40.32		---	---	---		ND<250	---	13	ND<5.0	ND<5.0	ND<5.0	ND<50	---	---	7.2	SPL
MW-7		12/19/96	40.32		10.78	---	29.54		70	---	1.2	ND<1.0	1.4	ND<1.0	ND<10	---	---	8.3	SPL
MW-7		03/17/97	40.32		9.96	---	30.36		---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-8		10/03/91	38.18	22.37	---	15.81	ND<50	---	ND<0.3	0.6	ND<0.3	0.9	---	---	---	---	SUP
MW-8		10/15/91	38.18	22.70	---	15.48	---	---	---	---	---	---	---	---	---	---	---
MW-8		12/04/91	38.18	22.44	---	15.74	---	---	---	---	---	---	---	---	---	---	---
MW-8		12/16/91	38.18	22.47	---	15.71	---	---	---	---	---	---	---	---	---	---	---
MW-8		01/06/92	38.18	21.94	---	16.24	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-8		01/22/92	38.18	21.44	---	16.74	---	---	---	---	---	---	---	---	---	---	---
MW-8		01/28/92	38.18	21.20	---	16.98	---	---	---	---	---	---	---	---	---	---	---
MW-8		02/05/92	38.18	20.88	---	17.30	---	---	---	---	---	---	---	---	---	---	---
MW-8		02/12/92	38.18	20.54	---	17.64	---	---	---	---	---	---	---	---	---	---	---
MW-8		02/17/92	38.18	19.99	---	18.19	---	---	---	---	---	---	---	---	---	---	---
MW-8		04/03/92	38.18	16.75	---	21.43	---	---	---	---	---	---	---	---	---	---	---
MW-8		04/08/92	38.18	16.57	---	21.61	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-8	(f)	04/14/92	38.18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8		04/29/92	38.18	18.61	---	19.57	---	---	---	---	---	---	---	---	---	---	---
MW-8		05/07/92	38.18	18.41	---	19.77	---	---	---	---	---	---	---	---	---	---	---
MW-8		07/03/92	38.18	20.35	---	17.83	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-8	(f)	10/08/92	38.18	21.74	---	16.44	---	---	---	---	---	---	---	---	---	---	---
MW-8		12/31/92	38.18	19.09	---	19.09	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-8		04/21/93	38.18	18.92	---	19.26	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-8		07/07/93	38.18	17.76	---	20.42	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-8		09/21/93	38.18	19.71	---	18.47	ND<50	---	2.9	2.2	2.2	7.1	---	---	---	---	PACE
MW-8		12/17/93	38.18	21.33	---	16.85	---	---	---	---	---	---	---	---	---	---	---
MW-8		12/23/93	38.18	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.6	---	---	---	---	PACE
MW-8		04/07/94	38.18	21.51	---	16.67	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	6.6	PACE
MW-8		07/06/94	38.18	17.41	---	20.77	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	4.4	PACE
MW-8		10/07/94	38.18	19.20	---	18.98	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	3.7	PACE
MW-8		01/27/95	38.18	12.25	---	25.93	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	2.9	ATI
MW-8		03/30/95	38.18	10.35	---	27.83	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	8.3	ATI
MW-8		06/20/95	38.18	13.37	---	24.81	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	6.9	ATI
MW-8	(f)	10/03/95	38.18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8		12/06/95	38.18	18.42	---	19.76	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	47	---	---	5.3	ATI
MW-8	(f)	03/21/96	38.18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8		06/21/96	38.18	13.03	---	25.15	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	7.0	SPL
MW-8		09/06/96	38.18	13.70	---	24.48	---	---	---	---	---	---	---	---	---	---	---
MW-8		09/09/96	38.18	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	7.0	SPL
MW-8		12/19/96	38.18	11.93	---	26.25	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	7.6	SPL
MW-8		03/17/97	38.18	11.29	---	26.89	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-9	10/03/91	41.25	14.12	---	27.13	ND<50	---	ND<0.3	0.4	ND<0.3	ND<0.3	---		---	---	---	SUP
MW-9	10/15/91	41.25	14.27	---	26.98	---	---	---	---	---	---	---		---	---	---	---
MW-9	12/04/91	41.25	13.84	---	27.41	---	---	---	---	---	---	---		---	---	---	---
MW-9	12/16/91	41.25	14.18	---	27.07	---	---	---	---	---	---	---		---	---	---	---
MW-9	01/06/92	41.25	13.42	---	27.83	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.9	---		---	---	---	ANA
MW-9	01/22/92	41.25	13.75	---	27.50	---	---	---	---	---	---	---		---	---	---	---
MW-9	01/28/92	41.25	14.76	---	26.49	---	---	---	---	---	---	---		---	---	---	---
MW-9	02/05/92	41.25	13.38	---	27.87	---	---	---	---	---	---	---		---	---	---	---
MW-9	02/12/92	41.25	11.86	---	29.39	---	---	---	---	---	---	---		---	---	---	---
MW-9	02/17/92	41.25	10.78	---	30.47	---	---	---	---	---	---	---		---	---	---	---
MW-9	04/03/92	41.25	11.63	---	29.62	---	---	---	---	---	---	---		---	---	---	---
MW-9	04/08/92	41.25	12.25	---	29.00	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	ANA
MW-9	04/14/92	41.25	12.32	---	28.93	---	---	---	---	---	---	---		---	---	---	---
MW-9	04/29/92	41.25	13.07	---	28.18	---	---	---	---	---	---	---		---	---	---	---
MW-9	05/07/92	41.25	14.43	---	26.82	---	---	---	---	---	---	---		---	---	---	---
MW-9	07/03/92	41.25	13.85	---	27.40	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	ANA
MW-9	10/08/92	41.25	14.89	---	26.36	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	ANA
MW-9	12/31/92	41.25	11.90	---	29.35	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	ANA
MW-9	04/21/93	41.25	13.68	---	27.57	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	PACE
MW-9	07/07/93	41.25	13.12	---	28.13	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	PACE
MW-9	09/21/93	41.25	14.00	---	27.25	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.9	---		---	---	---	PACE
MW-9	12/17/93	41.25	12.98	---	28.27	---	---	---	---	---	---	---		---	---	---	---
MW-9	12/23/93	41.25	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.9	---		---	---	---	PACE
MW-9	04/07/94	41.25	13.24	---	28.01	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	4.7	PACE
MW-9	07/06/94	41.25	13.77	---	27.48	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	3.9	PACE
MW-9	10/07/94	41.25	14.60	---	26.65	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	3.0	PACE
MW-9	01/27/95	41.25	8.47	---	32.78	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---		---	---	2.5	ATI
MW-9	03/30/95	41.25	8.19	---	33.06	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	---	8.4	ATI
MW-9	06/20/95	41.25	11.25	---	30.00	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---		---	---	8.1	ATI
MW-9	10/03/95	41.25	14.68	---	26.57	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0		---	---	6.0	ATI
MW-9	12/06/95	41.25	16.07	---	25.18	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	46		---	---	5.4	ATI
MW-9	03/21/96	41.25	9.60	---	31.65	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10		---	---	8.0	SPL
MW-9	06/21/96	41.25	10.86	---	30.39	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10		---	---	7.8	SPL
MW-9	09/06/96	41.25	11.52	---	29.73	---	---	---	---	---	---	---		---	---	---	---
MW-9	09/09/96	41.25	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	20/21	(j)	---	---	7.3	SPL
MW-9	12/19/96	41.25	10.43	---	30.82	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	---	7.3	SPL
MW-9	03/17/97	41.25	9.87	---	31.38	---	---	---	---	---	---	---		---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
QC-2	(k)	10/08/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
QC-2	(k)	12/31/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
QC-2	(k)	04/21/93	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	PACE
QC-2	(k)	07/07/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.6	---	---	---	---	PACE
QC-2	(k)	09/21/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2	(k)	12/23/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2	(k)	04/07/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2	(k)	07/06/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2	(k)	10/07/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2	(k)	01/27/95	---	---	---	---	ND<50	---	ND<0.5	0.5	ND<0.5	ND<1	---	---	---	---	ATI
QC-2	(k)	03/30/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
QC-2	(k)	06/20/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
QC-2	(k)	10/03/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
QC-2	(k)	12/06/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
QC-2	(k)	03/21/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	SPL
QC-2	(k)	06/21/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	SPL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
TOG	Total oil and grease
HVOC	Halogenated volatile organic compounds
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
---	Not analyzed/measured/applicable
ND	Not detected above reported detection limit
SUP	Superior Analytical Laboratory
ANA	Anametrix, Inc.
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

(a) Top of casing elevations surveyed in feet above mean sea level, relative to the NGVD (1929).

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

(c) Well destroyed during tank removal in November 1990.

(d) Methylene chloride.

(e) 1,2-Dichloroethane.

(f) Well inaccessible.

(g) Sample collected from MW-2 for TPH-D analysis received in laboratory 7 days after collection; sample exceeded EPA recommended holding time for TPH-D on a water matrix.

(h) Blind duplicate.

(i) Top of casing lowered.

(j) EPA Methods 8020/8260 used.

(k) Travel blank.

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TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
CHEVRON U.S.A. SERVICE STATION NO. 9-0076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)
C-1	07/14/92	38.41	27.61	---	10.80
C-1	10/08/92	38.41	24.44	---	13.97
C-1	09/21/93	38.41	21.42	---	16.99
C-1	03/30/95	38.41	12.02	---	26.39
C-1	06/20/95	38.41	14.40	---	24.01
C-1	03/21/96	38.41	11.65	---	26.76
C-1	09/06/96	38.41	16.75	---	21.66
C-1	12/19/96	38.41	13.98	---	24.43
C-1	03/17/97	38.41	12.78	---	25.63
C-2	07/14/92	37.47	---	---	---
C-2	10/08/92	37.47	---	---	---
C-2	09/21/93	37.47	26.29	---	11.18
C-2	03/30/95	37.47	17.18	---	20.29
C-2	06/20/95	37.47	18.95	---	18.52
C-2	03/21/96	37.47	16.17	---	21.30
C-2	09/06/96	37.47	21.14	0.04	16.36
C-2	12/19/96	37.47	17.55	0.03	19.94
C-2	03/17/97	37.47	18.59	---	18.88
C-3	07/14/92	38.37	27.87	---	10.50
C-3	10/08/92	38.37	28.55	---	9.82
C-3	09/21/93	38.37	26.22	---	12.15
C-3	03/30/95	38.37	18.42	---	19.95
C-3	06/20/95	38.37	19.79	---	18.58
C-3	03/21/96	38.37	17.85	---	20.52
C-3	09/06/96	38.37	21.63	---	16.74
C-3	12/19/96	38.37	22.30	---	16.07
C-3	03/17/97	38.37	18.95	---	19.42
C-4	07/14/92	36.49	26.89	---	9.60
C-4	10/08/92	36.49	27.79	---	8.70
C-4	09/21/93	36.49	25.51	---	10.98
C-4	03/30/95	36.49	14.86	---	21.63
C-4	06/20/95	36.49	16.90	---	19.59
C-4	03/21/96	36.49	14.10	---	22.39
C-4	09/06/96	36.49	20.13	---	16.36
C-4	12/19/96	36.49	16.92	---	19.57
C-4	03/17/97	36.49	17.40	---	19.09
C-5	07/14/92	38.50	28	---	10.50
C-5	10/08/92	38.50	28.65	---	9.85
C-5	09/21/93	38.50	26.36	---	12.14
C-5	03/30/95	38.50	18.54	---	19.96
C-5	06/20/95	38.50	20.13	---	18.37
C-5	03/21/96	38.50	18.40	---	20.10
C-5	09/06/96	38.50	21.90	---	16.60
C-5	12/19/96	38.50	21.15	---	17.35
C-5	03/17/97	38.50	19.84	---	18.66

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
CHEVRON U.S.A. SERVICE STATION NO. 9-0076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)
C-6	07/14/92	35.40	38.89	---	-3.49
C-6	10/08/92	35.40	38.67	---	-3.27
C-6	09/21/93	35.40	33.98	---	1.42
C-6	03/30/95	35.40	26.38	---	9.02
C-6	06/20/95	35.40	25.01	---	10.39
C-6	03/21/96	35.40	23.12	---	12.28
C-6	09/06/96	35.40	24.83	---	10.57
C-6	12/19/96	35.40	24.50	---	10.90
C-6	03/17/97	35.40	22.59	---	12.81
C-7	07/14/92	35.19	39.77	---	-4.58
C-7	10/08/92	35.19	39.14	---	-3.95
C-7	09/21/93	35.19	35.46	---	-0.27
C-7	03/30/95	35.19	27.60	---	7.59
C-7	06/20/95	35.19	27.87	---	7.32
C-7	03/21/96	35.19	27.85	---	7.34
C-7	09/06/96	35.19	28.35	---	6.84
C-7	12/19/96	35.19	29.11	---	6.08
C-7	03/17/97	35.19	27.14	---	8.05
C-8	07/14/92	34.68	39.02	---	-4.34
C-8	10/08/92	34.68	38.68	---	-4.00
C-8	09/21/93	34.68	35.30	---	-0.62
C-8	03/30/95	34.68	29.24	---	5.44
C-8	06/20/95	34.68	28.34	---	6.34
C-8	03/21/96	34.68	28.65	---	6.03
C-8	09/06/96	34.68	28.70	---	5.98
C-8	12/19/96	34.68	29.70	---	4.98
C-8	03/17/97	34.68	27.76	---	6.92
C-9	03/17/97	30.68	27.56	---	3.11

NOTES:

(a) Top of casing elevations surveyed relative to 1929 NGVD. Measured in feet above mean sea level.

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

--- Not measured/available.

Source: Groundwater data collected by Blaine Tech Services Inc.

TABLE 3 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
SHELL SERVICE STATION
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)
S-1	03/30/95	38.31	6.09	32.22
S-1	06/20/95	38.31	7.30	31.01
S-1	12/06/95	38.31	11.64	26.67
S-1	03/21/96	38.31	6.87	31.44
S-1	06/21/96	38.31	8.65	29.66
S-1	09/06/96	38.31	10.50	27.81
S-1	12/19/96	38.31	8.24	30.07
S-1	03/17/97	38.31	7.26	31.05
S-2	03/30/95	38.79	7.86	30.93
S-2	06/20/95	38.79	9.51	29.28
S-2	12/06/95	38.79	10.52	28.27
S-2	03/21/96	38.79	8.60	30.19
S-2	06/21/96	38.79	9.95	28.84
S-2	09/06/96	38.79	10.50	28.29
S-2	12/19/96	38.79	9.40	29.39
S-2	03/17/97	38.79	9.82	28.97
S-3	03/30/95	37.33	7.06	30.27
S-3	06/20/95	37.33	8.15	29.18
S-3	12/06/95	37.33	10.53	26.80
S-3	03/21/96	37.33	7.32	30.01
S-3	06/21/96	37.33	8.85	28.48
S-3	09/06/96	37.33	10.10	27.23
S-3	12/19/96	37.33	8.36	28.97
S-3	03/17/97	37.33	8.57	28.76

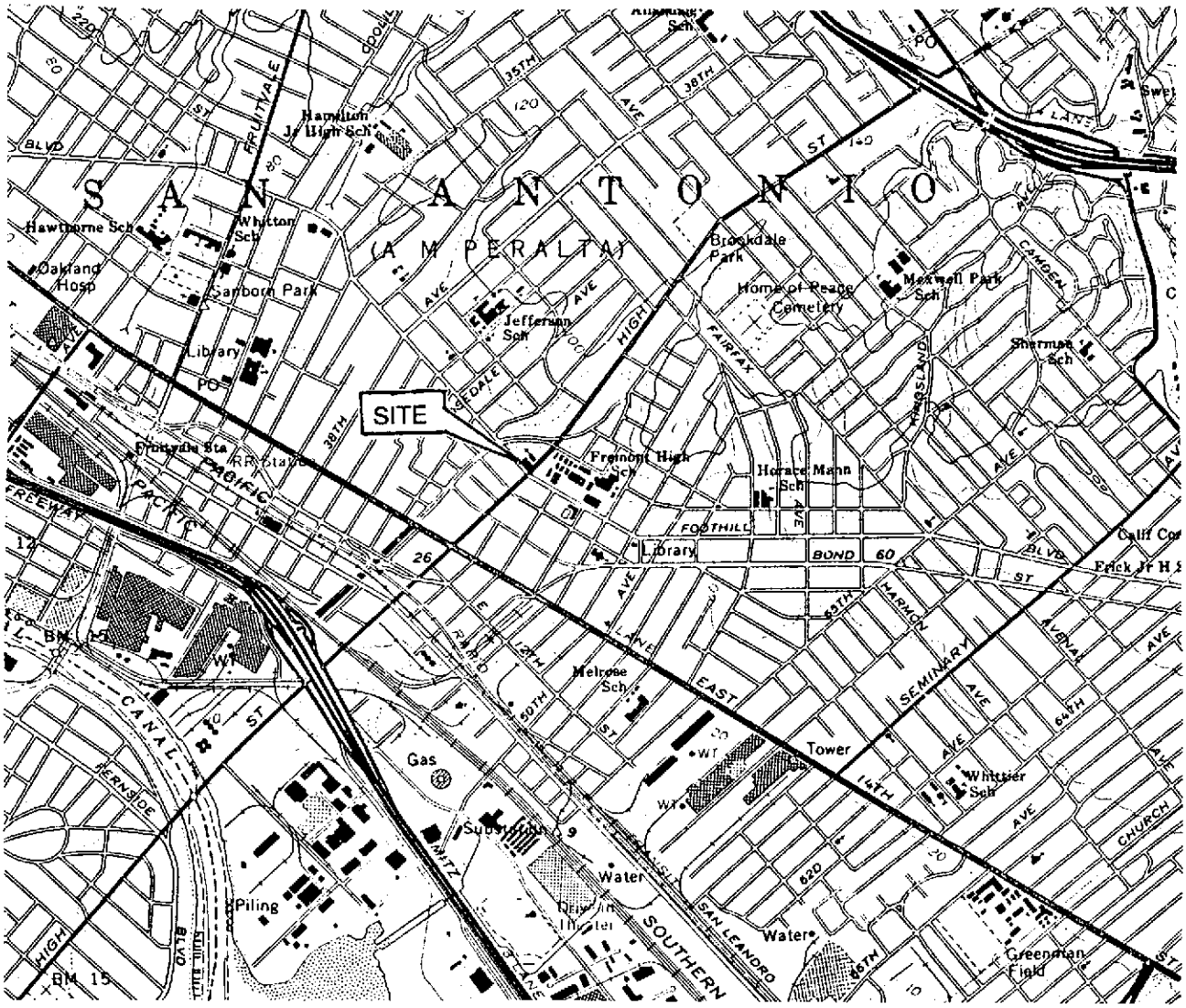
NOTES:

(a) Top of casing elevations surveyed relative to 1929 NGVD. Measured in feet above mean sea level.

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

SOURCE: Groundwater data collected by Weiss Associates

F:\0\10-014\014-6-4B.WQ2



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

N

0 1000' 2000'

FIGURE 1

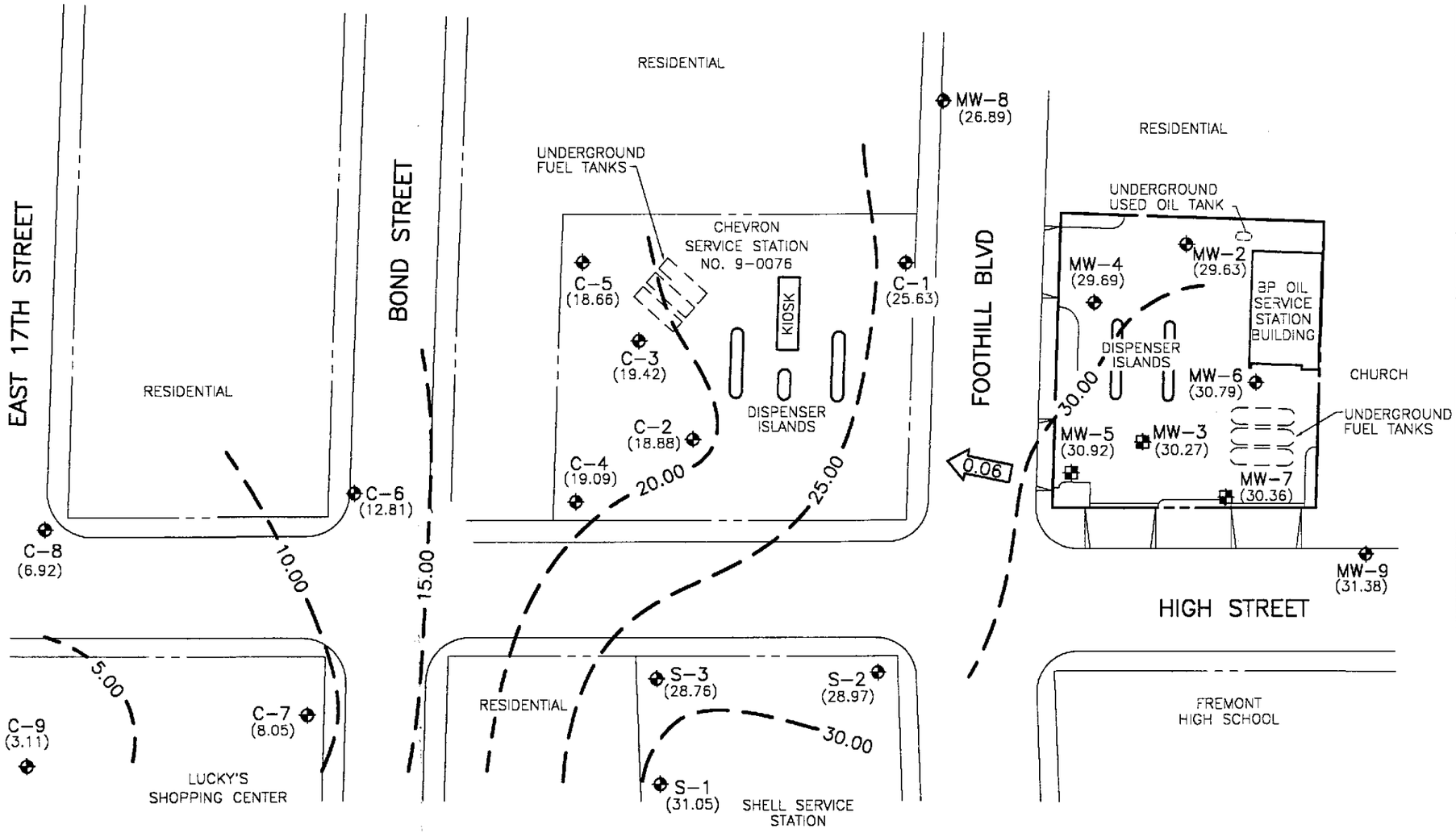
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. 10-014

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10014B---DWG 5-28-03 RKW 1=1



LEGEND

- GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- (29.69) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 30.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–5.00 FEET)
- 0.06 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

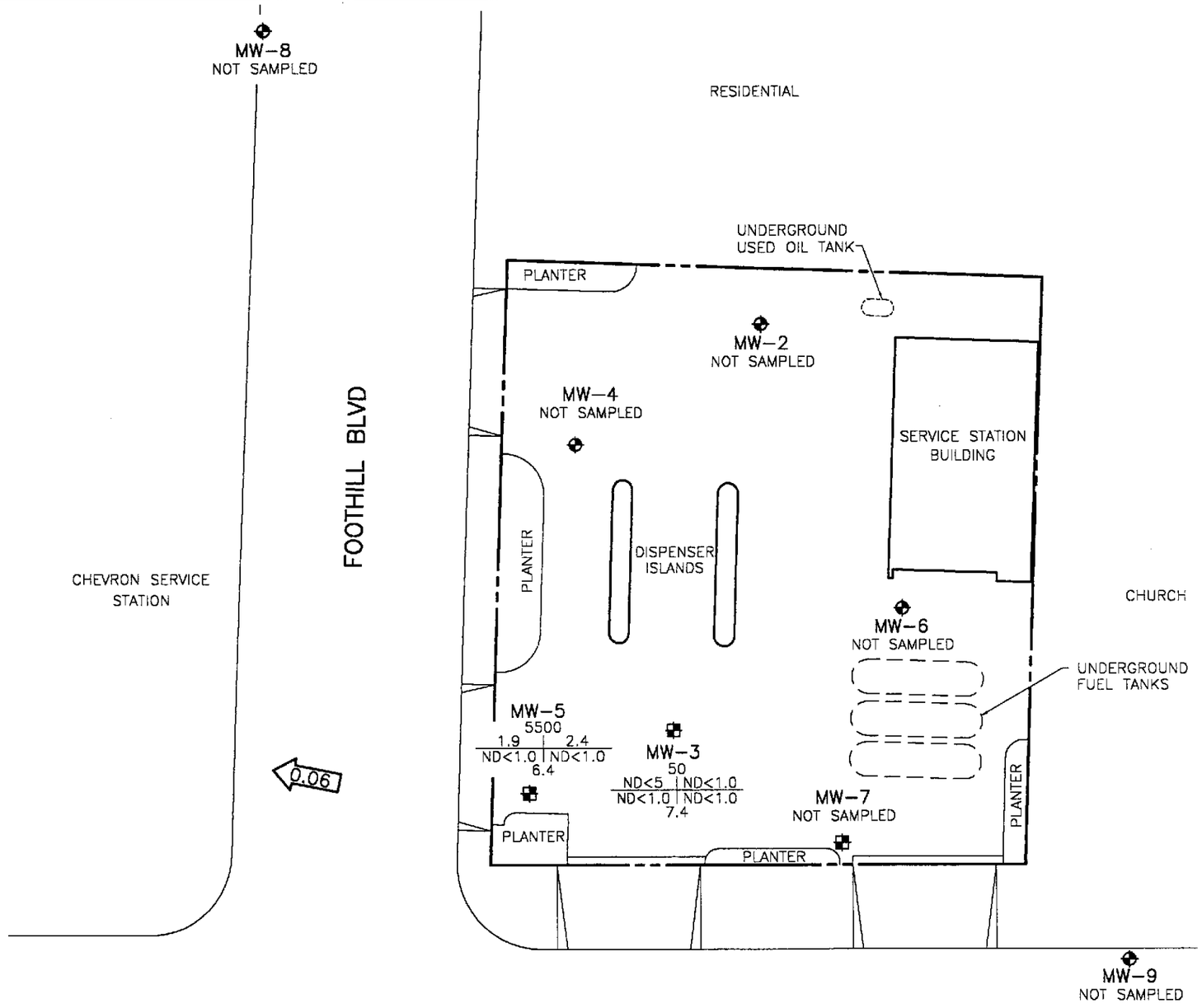
MARCH 17, 1997

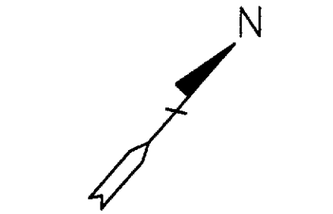
BP OIL SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. 10–014

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10014D-U.DWG 5-21-97 GDM 1=60





LEGEND

⊕	GROUNDWATER MONITORING WELL
■	GROUNDWATER RECOVERY WELL
TPH-G / B | T / E | X / DO	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER, EXCEPT DISSOLVED OXYGEN, WHICH IS IN PARTS PER MILLION
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
DO	DISSOLVED OXYGEN
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
0.06	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

MARCH 17, 1997

BP OIL SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. 10-014

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10014E-U.DWG 4-30-97 DSM 1=30

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201

Project No. 10-014-06-004 Date: 3/17/97
Address 4280 Foothill Blvd Day: M T W TH F
Contract No. G797448 City: Oakland
Station No. BP 11109 Sampler:

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-2	N/S	2"	30.10	11.59	Ø	1410	Not Sampled
MW-3	S-7	4"	31.80	9.86		1430	
MW-4	N/S	4"	34.28	10.42		1426	Not Sampled
MW-5	S-8	4"	35.00	8.22	Globules	1431	S-9 QC-1 From this well
MW-6	N/S	4"	34.28	10.80	Ø	1415	Not Sampled
MW-7		6"	33.42	9.96		1418	Not Sampled
MW-8		2"	29.71	11.29		1420	Not Sampled
MW-9		2"	29.31	9.87		1422	Not Sampled

FIELD INSTRUMENT CALIBRATION DATA

pH METER Ion 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED Y N TIME 1450

D.O. METER Ion ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP ~~[illegible]~~ 69 WEATHER Clear

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

LEAK DETECTOR: _____ 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-3	9.86	4"	OK	Ø	Y (N)	15	1450	71.7	7.31	1.30 ms	6.9
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			30		70.9	7.20	1.51 ms	
31.80 - 9.86 = 21.94	X .65 = 14.26	X3 =	42.78			43	1521	70.2	7.11	1.57 ms	7.4
Purge Method: (S)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port											
Comments:											

EPA 601 _____ TPH-G/BTEX HCl TPH Diesel _____ TOG 5520 _____
TIME/SAMPLE ID: 1530

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-5	8.22	4"	OK	Ø	Y (N)	17	1551	70.9	7.47	722 µS	6.0
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			34		70.0	7.31	697 µS	
35.00 - 8.22 = 26.78	X .65 = 17.41	X3 =	52.23			53	1615	69.9	7.27	693 µS	6.4
Purge Method: (S)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port											
Comments:											

EPA 601 _____ TPH-G/BTEX HCl TPH Diesel _____ TOG 5520 _____
TIME/SAMPLE ID: 1625

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

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

April 2, 1997

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

The following report contains analytical results for samples received at Southern Petroleum Laboratories (SPL) on March 21, 1997. The samples were assigned to Certificate of Analysis No. 9703B25 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

Ed Fry
Project Manager

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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 97-03-B25

Approved for Release by:

Ed Fry, Project Manager — Date: 4/2/97

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. H9-9703B25-07

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

P.O.# G797448 , COC#055989
DATE: 04/01/97

PROJECT: BP Oil #11109
SITE: Oakland, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-7

PROJECT NO: 10-014-6-3
MATRIX: WATER
DATE SAMPLED: 03/18/97
DATE RECEIVED: 03/21/97

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	93		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: LJ			
Date: 03/24/97			
Total Petroleum Hydrocarbons-Gasoline	0.050	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	103		
California LUFT Manual			
Analyzed by: LJ			
Date: 03/24/97 10:32:00			

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. H9-9703B25-08

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

P.O.# G797448 , COC#055989
DATE: 04/01/97

PROJECT: BP Oil #11109
SITE: Oakland, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-8

PROJECT NO: 10-014-6-3
MATRIX: WATER
DATE SAMPLED: 03/18/97
DATE RECEIVED: 03/21/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	29	10 P	µg/L
Benzene	1.9	0.5 P	µg/L
Toluene	2.4	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	100		
Method 8020A***			
Analyzed by: LJ			
Date: 03/24/97			
Total Petroleum Hydrocarbons-Gasoline	5.5	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	107		
California LUFT Manual			
Analyzed by: LJ			
Date: 03/24/97 11:00:00			

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

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

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

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

Certificate of Analysis No. H9-9703B25-09

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

P.O.# G797448 , COC#055989
DATE: 04/01/97

PROJECT: BP Oil #11109
SITE: Oakland, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-9

PROJECT NO: 10-014-6-3
MATRIX: WATER
DATE SAMPLED: 03/18/97
DATE RECEIVED: 03/21/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	28	10 P	µg/L
Benzene	2.5	0.5 P	µg/L
Toluene	2.7	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: LJ			
Date: 03/24/97			
Total Petroleum Hydrocarbons-Gasoline	6.6	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	107		
California LUFT Manual			
Analyzed by: LJ			
Date: 03/24/97 11:28:00			

(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.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

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

SURROGATE RECOVERY SUMMARY

04/02/97 08:52:59

Method 8020A* BATCH#:HP_N970324155800**
WORK ORDER: 9703B25-07A **CLIENT SAMPLE ID:** S-7

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	28	93	70- 131
4-Bromofluorobenzene	30	29	97	43- 135

Method 8020A* BATCH#:HP_N970324155800**
WORK ORDER: 9703B25-08A **CLIENT SAMPLE ID:** S-8

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	29	97	70- 131
4-Bromofluorobenzene	30	30	100	43- 135

Method 8020A* BATCH#:HP_N970324155800**
WORK ORDER: 9703B25-09A **CLIENT SAMPLE ID:** S-9

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	29	97	70- 131
4-Bromofluorobenzene	30	29	97	43- 135

Method 8020A * BATCH#:HP_N970324155800**
WORK ORDER: Method Blank **CLIENT SAMPLE ID:**

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	28	28.1	74- 131
4-Bromofluorobenzene	30	29	28.6	43- 135

Method 8020A * BATCH#:HP_N970324155800**
WORK ORDER: Matrix Spike **CLIENT SAMPLE ID:** 9703910-03A

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-DIFLUOROBENZENE	30	29	97	70- 131
4-BROMOFLUOROBENZENE	30	28	93	43- 135

Method 8020A * BATCH#:HP_N970324155800**
WORK ORDER: Matrix Spike Dup. **CLIENT SAMPLE ID:** 9703910-03A

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	29	97	70- 131
4-Bromofluorobenzene	30	28	93	43- 135

California LUFT Manual BATCH#:HP_N970324162600
WORK ORDER: 9703B25-07A **CLIENT SAMPLE ID:** S-7

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	27	90	50- 150
4-Bromofluorobenzene	30	31	103	50- 150

California LUFT Manual BATCH#:HP_N970324162600
WORK ORDER: 9703B25-08A **CLIENT SAMPLE ID:** S-8

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	27	90	50- 150

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

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
4-Bromofluorobenzene	30	32	107	50- 150

California LUFT Manual **BATCH#:**HP_N970324162600
WORK ORDER: 9703B25-09A **CLIENT SAMPLE ID:**S-9

1,4-Difluorobenzene	30	28	93	50- 150
4-Bromofluorobenzene	30	32	107	50- 150

Modified 8015A - Gasoline* **BATCH#:**HP_N970324162600
WORK ORDER: Method Blank **CLIENT SAMPLE ID:**

4-Bromofluorobenzene	30	29	29.4	52- 152
1,4-Difluorobenzene	30	26	26.0	54- 137

Modified 8015A - Gasoline* **BATCH#:**HP_N970324162600
WORK ORDER: Matrix Spike **CLIENT SAMPLE ID:**9703910-04A

4-Bromofluorobenzene	30	28	93	52- 152
1,4-Difluorobenzene	30	31	103	54- 137

Modified 8015A - Gasoline* **BATCH#:**HP_N970324162600
WORK ORDER: Matrix Spike Dup. **CLIENT SAMPLE ID:**9703910-04A

4-Bromofluorobenzene	30	27	90	52- 152
1,4-Difluorobenzene	30	32	107	54- 137

« = Recovery outside of control limits
*** = Methods for Chemical Analysis of Water & Wastes,1983,EPA**
**** = Standard Methods for Examination of Water & Wastewater,17th**
***** = Test Methods for Evaluating Solid Waste,EPA SW846,3rd**

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_N970324155800

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	41	82.0	63 - 120
Benzene	ND	50	42	84.0	62 - 121
Toluene	ND	50	40	80.0	66 - 136
EthylBenzene	ND	50	45	90.0	70 - 136
O Xylene	ND	50	47	94.0	74 - 134
M & P Xylene	ND	100	92	92.0	77 - 140

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	130	20	150	NC	150	NC	NC	20	39 - 150
BENZENE	4.8	20	25	101	25	101	0	25	39 - 150
TOLUENE	ND	20	19	95.0	18	90.0	5.41	26	56 - 134
ETHYLBENZENE	3.3	20	23	98.5	23	98.5	0	38	61 - 128
O XYLENE	2.1	20	23	104	23	104	0	29	40 - 130
M & P XYLENE	5.6	40	48	106	47	104	1.90	20	43 - 152

Analyst: LJ
Sequence Date: 03/24/97
SPL ID of sample spiked: 9703910-03A
Sample File ID: N_C7856.TX0
Method Blank File ID:
Blank Spike File ID: N_C7849.TX0
Matrix Spike File ID: N_C7851.TX0
Matrix Spike Duplicate File ID: N_C7852.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 (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9703925-10A 9703925-06A 9703910-01A 9703910-02A
9703910-05A 9703A34-07A 9703A34-01A 9703A34-02A
9703A34-03A 9703A34-04A 9703A34-05A 9703A34-06A
9703B25-07A 9703B25-08A 9703B25-09A 9703910-03A
9703910-04A 9703925-07A 9703925-09A

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

** SPL BATCH QUALITY CONTROL REPORT **
Modified 8015 - Gasoline

Matrix: Aqueous
Units: mg/L

Batch Id: HP_N970324162600

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 Petr. Hydrocarbon	ND	1.0	0.77	77.0	56 - 130

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 PETR. HYDROCARBON	ND	0.9	0.6	66.7	0.6	66.7	0	22	37 - 169

Analyst: LJ
Sequence Date: 03/24/97
SPL ID of sample spiked: 9703910-04A
Sample File ID: NNC7857.TX0
Method Blank File ID:
Blank Spike File ID: NNC7850.TX0
Matrix Spike File ID: NNC7853.TX0
Matrix Spike Duplicate File ID: NNC7854.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 (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (3rd Q '95)

SAMPLES IN BATCH(SPL ID): 9703910-02A 9703910-05A 9703C07-01F 9703B25-07A 9703B25-08A 9703B25-09A 9703910-03A 9703910-04A 9703925-07A 9703910-01A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

97-03-B25

CHAIN OF CUSTODY

No. 055989 Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering	ADDRESS: 1575 Treat Blvd #201	CITY: W.C.	STATE: Ca	ZIP CODE: 94598
BP SITE NUMBER: 11109	BP CORNER ADDRESS/CITY: Dall, S			CONSULTANT PROJECT NUMBER: 10-014-6-3
CONSULTANT PROJECT MANAGER: Brady Noyle	PHONE NUMBER: (510) 295-1650	FAX NUMBER: 295-1823		CONSULTANT CONTRACT NUMBER: 6797448
BP CONTACT: Scott Hooton	BP ADDRESS: Renton	PHONE NUMBER: —		FAX NO. —
LAB CONTACT: SPL	LABORATORY ADDRESS: Texas	PHONE NUMBER: —		FAX NO. —
SAMPLED BY (Please Print Name): Larry Buenaventura	SAMPLED BY (Signature):	SHIPMENT DATE: 3-20-97		SHIPMENT METHOD: Fed Ex
TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks		ANALYSIS REQUIRED		AIRBILL NUMBER: 3824170065

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	TPH-G/BTEX	TPH-D								COMMENTS
3/17/97															
S-1	3/18/97	W	3	HCl		X	X								
S-2															
S-3															
S-4															
S-5															
S-6															
S-7															
S-8															
S-9															

Per Brady 5/1/97 yms

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	3/20/97			3-20-97	3:20
	3/20/97	3:20	/ SPL	3-21-97	1000
			4°C/ROI, intact		

ADDITIONAL COMMENTS

CLV-16722

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

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
3-21-97	1000

SPL Sample ID:
97-03-B25

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		4° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	3848470065	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
[signature]	3-21-97

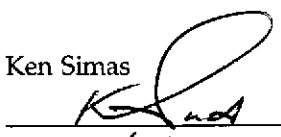
BP EXPLORATION & OIL, INC.
ENVIRONMENTAL REMEDIATION MANAGEMENT
DATA REVIEW CHECKLIST

BP Site Number: 11109
ERM Contact: G797448
Sampling Date: 03/17/97
Matrix Description: Water
Date Final Report Received: 04/07/97
Laboratory & Location: SPL, Houston, Texas

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

Notes: _____

Data Validation Completed by: Ken Simas

(signature): 

Date: 5/19/97