BP OIL

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

April 10, 1998

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

#102

RE: Former BP Oil Site No. 11109
4280 Foothill Boulevard (at High Street)
Oakland, CA

Dear Mr. Chan:

Enclosed please find 18 March 1998 Groundwater Monitoring and Sampling Report. The report summarizes groundwater monitoring and sampling data obtained since 1990.

Upon review of the results reported this quarter, you will note that an accumulation of liquid petroleum hydrocarbon measuring 0.06 feet in thickness was measured in well MW-5 on 10 December 1997. The well was sampled after the hydrocarbon accumulation was removed, and aromatic hydrocarbons were detected by the laboratory. After the sample was obtained, a product recovery canister was placed in the well.

BP plans to continue groundwater monitoring and product collection efforts at this time.

Please give me a call if you have any questions, comments or concerns regarding this matter. I can be reached at (425) 251-0689.

Sincerely,

Scott Hooton
Environmental Remediation Management

Choices:
1) passive FP removal + rem
2) purge well & add ORC.
3) offsite boring + (1 or 2)

attachment

cc: CRWQCB-SFBR, Attention Mr. E. So, 2101 Webster Street, Ste. 500, Oakland, CA 94612 (w/attachment)
site file
Brady Nagle - Alisto Engineering Group
Mark Miller - Chevron Products Company, P.O. Box 5004, San Ramon, CA 94583-0804 (w/attachment)

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-014-08-002

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

March 18, 1998

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-014-08-002

March 18, 1998

INTRODUCTION

This report presents the results and findings of the December 10, 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 in coordination with 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

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	---	---	---	---	---	---	---	---	---	---	---
MW-2	08/12/97	41.22	13.21	---	28.01	---	---	---	---	---	---	---	---	---	---	---
MW-2	12/10/97	41.22	12.34	---	28.88	---	---	---	---	---	---	---	---	---	---	---

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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 (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-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	---	---	---	---	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	---	---	---	---	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	---	---	---	---	460	---	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	---	---	---	---	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	---	31 (j)	---	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	---	---	---	---	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
MW-3	08/12/97	40.13	12.11	---	28.02	ND<50	---	0.79	ND<1.0	ND<1.0	ND<1.0	10	---	---	6.1	SPL
MW-3	12/10/97	40.13	10.90	---	29.23	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	3.2	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	---	0.6	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	---	---	---	---	---	---	---	---	---	---	---
MW-4	08/12/97	40.11	12.77	---	27.34	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/10/97	40.11	11.22	---	28.89	---	---	---	---	---	---	---	---	---	---	---

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 (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	---		---	---	---		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	---		---	---	---		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	---		---	---	---		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	---		---	---	---		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	---		---	---	---		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	---		---	---	---		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
MW-5		08/12/97	39.14		12.18	0.22	27.13		33000	---	6400	2400	680	4400	ND<1000	---	---	6.8	SPL
QC-1	(h)	08/12/97	---		---	---	---		36000	---	6100	2500	720	4500	ND<500	---	---	---	SPL
MW-5		12/10/97	39.14		10.78	0.06	28.41		31000	---	3000	2500	560	5100	500	---	---	1.8	SPL
QC-1	(h)	12/10/97	---		---	---	---		37000	---	2900	2500	440	4800	---	---	---	---	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	---	---	---	---	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	---	29 (j)	---	---	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	---	---	---	---	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	---	24 (j)	---	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 (k)	---	---	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	---	---	---	---	---	---	---	---	---	---	---
MW-6	08/12/97	41.59	13.11	---	28.48	---	---	---	---	---	---	---	---	---	---	---
MW-6	12/10/97	41.59	13.84	---	27.75	---	---	---	---	---	---	---	---	---	---	---

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-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	---		---	---	---		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	---		---	---	---		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	---	960	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		---	---	---	---	---	---	---	---	---	---	---
MW-7		06/12/97	40.32		11.44	---	28.88		---	---	---	---	---	---	---	---	---	---	---
MW-7		12/10/97	40.32		10.42	---	29.90		---	---	---	---	---	---	---	---	---	---	---

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	---	---	---	---	---	---	---	---	---	---	---
MW-8	08/12/97	38.18	13.73	---	24.45	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/10/97	38.18	11.88	---	26.30	---	---	---	---	---	---	---	---	---	---	---

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 (k)	---	---	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	---	---	---	---	---	---	---	---	---	---	---
MW-9	08/12/97	41.25	11.44	---	29.81	---	---	---	---	---	---	---	---	---	---	---
MW-9	12/10/97	41.25	10.44	---	30.81	---	---	---	---	---	---	---	---	---	---	---

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 (i)	10/08/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
QC-2 (i)	12/31/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
QC-2 (i)	04/21/93	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	PACE
QC-2 (i)	07/07/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.6	---	---	---	---	PACE
QC-2 (i)	09/21/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (i)	12/23/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (i)	04/07/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (i)	07/06/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (i)	10/07/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (i)	01/27/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (i)	03/30/95	---	---	---	---	ND<50	---	ND<0.5	0.5	ND<0.5	ND<1	---	---	---	---	ATI
QC-2 (i)	06/20/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
QC-2 (i)	10/03/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
QC-2 (f)	12/06/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
QC-2 (i)	03/21/96	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
QC-2 (i)	06/21/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	SPL
						ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	SPL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
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) A copy of the documentation for this data is included in Appendix C of Alisto report 10-014-07-001.

(k) EPA Methods 8020/8260 used.

(l) Travel blank.

F:\0\10-014\10-014GW.WQ2

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-1	06/11/97	38.41	15.16	---	23.25
C-1	09/17/97	38.41	16.94	---	21.47
C-1	12/10/97	38.41	13.18	---	25.23
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-2	06/11/97	37.47	21.30	---	16.17
C-2	09/17/97	37.47	23.14	---	14.33
C-2	12/10/97	37.47	17.21	---	20.26
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-3	06/11/97	38.37	21.15	---	17.23
C-3	09/17/97	38.37	22.41	---	15.96
C-3	12/10/97	38.37	22.26	---	16.11

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-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-4	06/11/97	36.49	18.34	---	18.15
C-4	09/17/97	36.49	21.46	---	15.03
C-4	12/10/97	36.49	16.65	---	19.84
C-5	07/14/92	38.50	28.00	---	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
C-5	06/11/97	38.50	21.60	---	16.90
C-5	09/17/97	38.50	27.83	---	10.67
C-5	12/10/97	38.50	21.00	---	17.50
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-6	06/11/97	35.40	23.76	---	11.64
C-6	09/17/97	35.40	24.74	---	10.66
C-6	12/10/97	35.40	24.65	---	10.75

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-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-7	06/11/97	35.19	28.05	---	7.14
C-7	09/17/97	35.19	29.00	---	6.19
C-7	12/10/97	35.19	29.26	---	5.93
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-8	06/11/97	34.68	28.81	---	5.87
C-8	09/17/97	34.68	29.36	---	5.32
C-8	12/10/97	34.68	29.80	---	4.88
C-9	03/17/97	30.68	27.56	---	3.12
C-9	06/11/97	30.68	28.27	---	2.41
C-9	09/17/97	30.68	28.63	---	2.05
C-9	12/10/97	30.68	29.43	---	1.25

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: Blaine Tech Services Inc.

F:\0\10-014\CHEVRON.WQ2

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-1	06/11/97	38.31	10.69	27.62
S-1	09/17/97	38.31	10.26	28.05
S-1	12/11/97	38.31	6.96	31.35
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-2	06/11/97	38.79	10.18	28.61
S-2	09/17/97	38.79	9.90	28.89
S-2	12/11/97	38.79	8.27	30.52
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
S-3	06/11/97	37.33	9.26	28.07
S-3	09/17/97	37.33	9.62	27.71
S-3	12/11/97	37.33	7.34	29.99

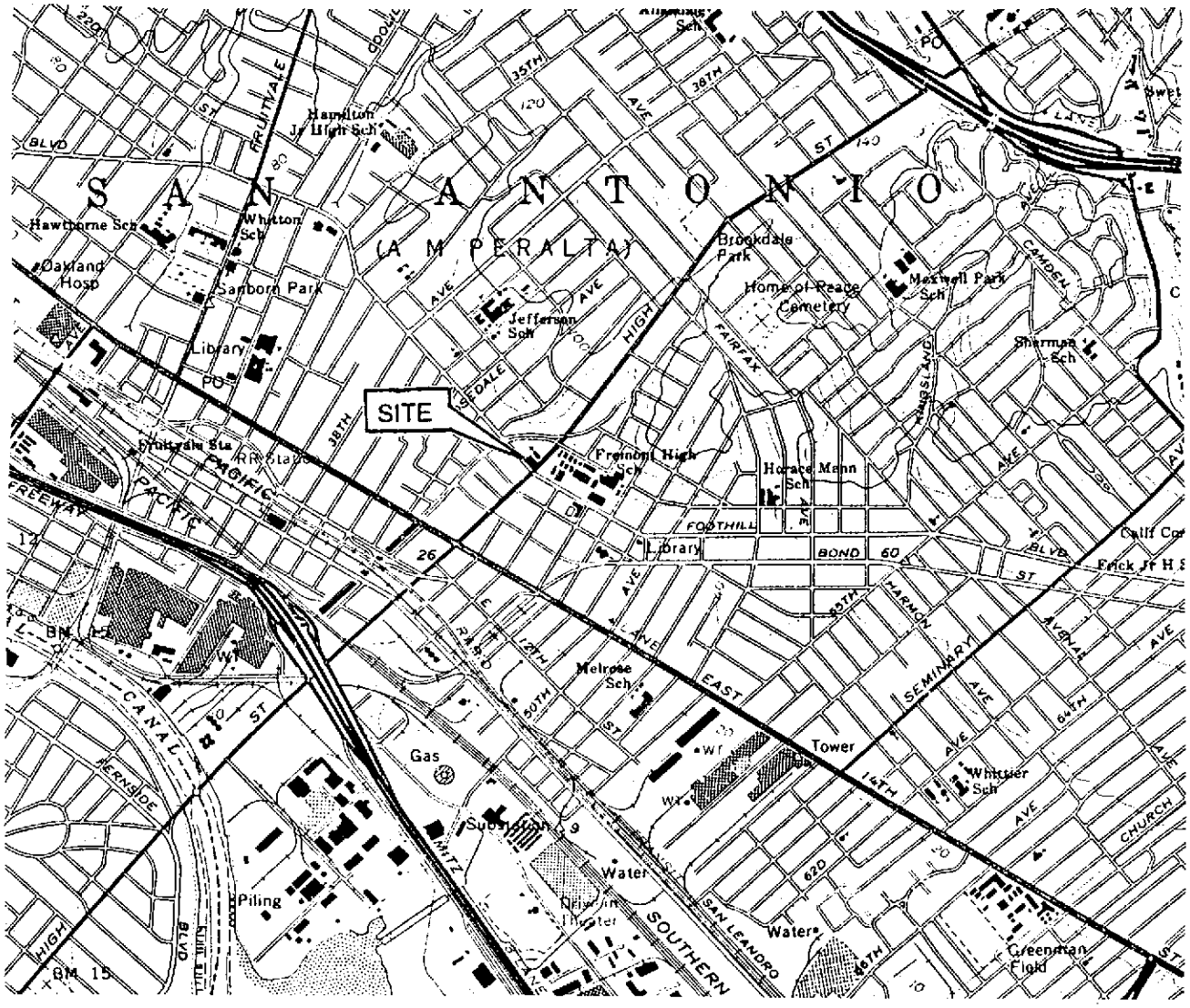
NOTES:

(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: Weiss Associates and Blaine Tech.

F:\0\10-014\SHELL.WQ2



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

N

0 1000' 2000'

FIGURE 1

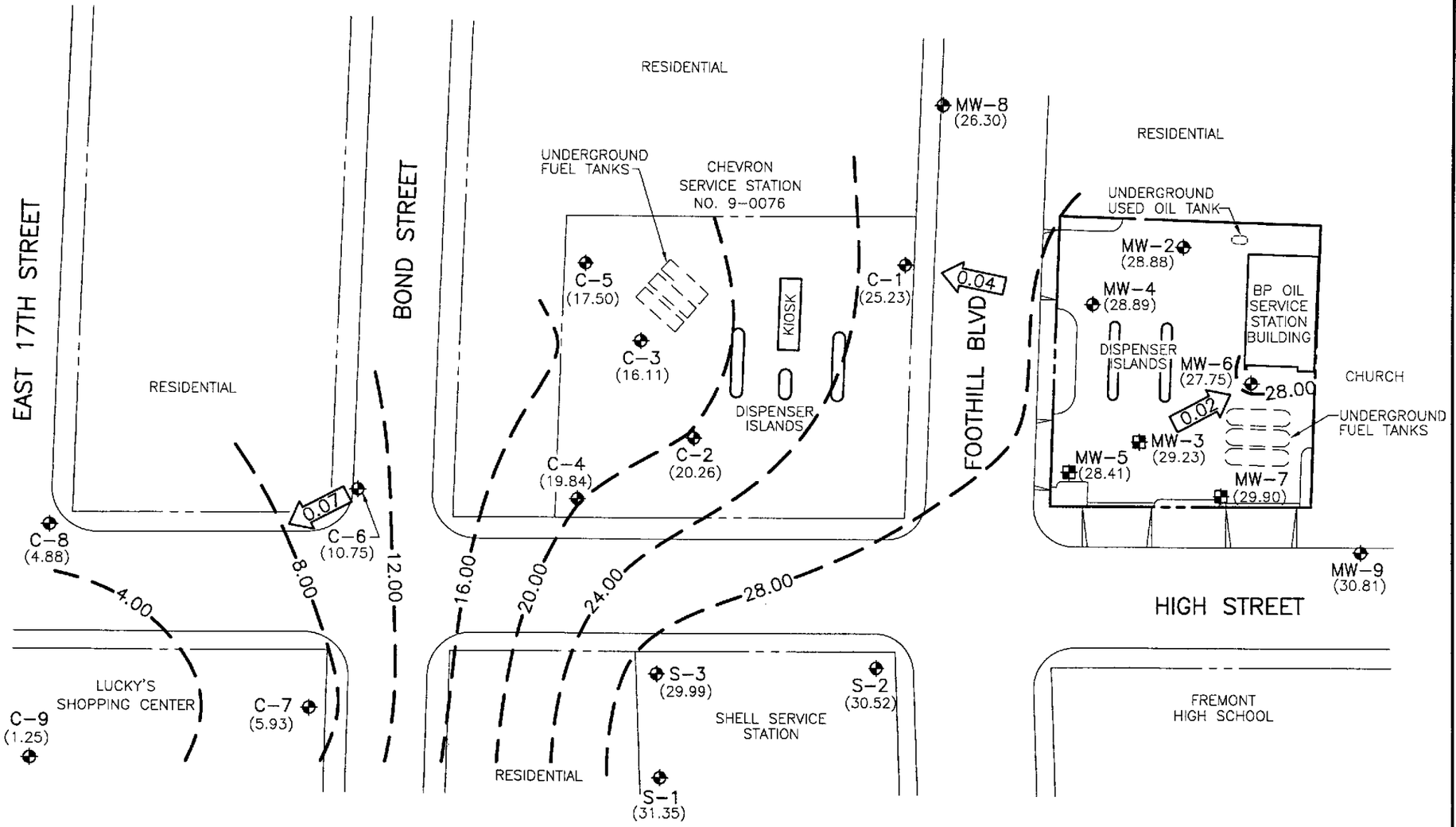
SITE VICINITY MAP

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

PROJECT NO. 10-014

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10D14B---.DWG 5-26-93 RKM 1=1



N

0 60 120

SCALE IN FEET

LEGEND

- GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- (27.75) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 28.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL=4.00 FEET)
- 0.02 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

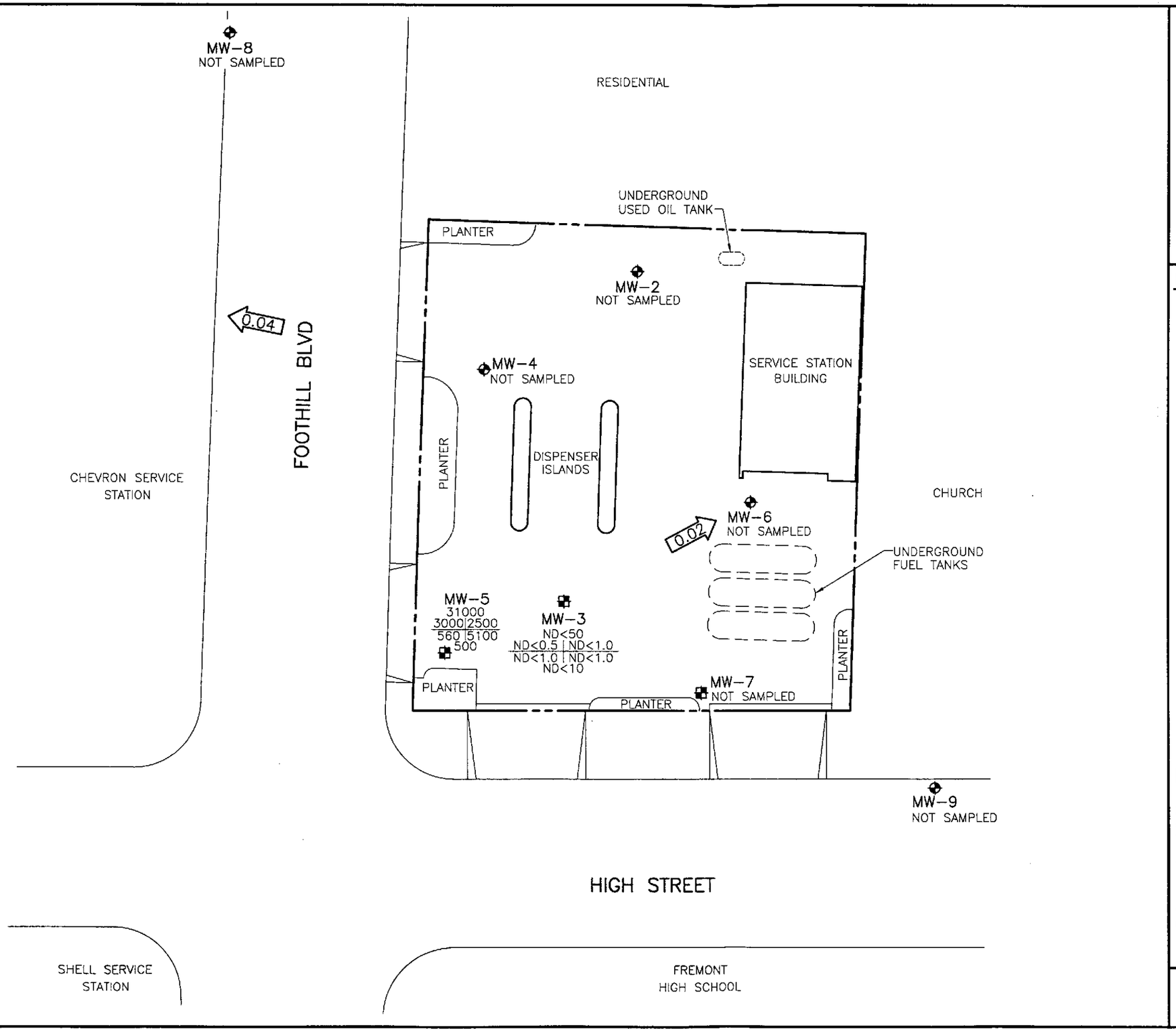
DECEMBER 10, 1997

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

PROJECT NO. 10-014

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

100140-X.DWG 2-5-98 RKW 1=60



N

0 30 60

SCALE IN FEET

LEGEND

◆	GROUNDWATER MONITORING WELL
■	GROUNDWATER RECOVERY 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

DECEMBER 10, 1997

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

PROJECT NO. 10-014

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10014E-1.DWG 2-5-98 Rev 1=30

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 FAX295-1823

Project No. 10-014-08-002 Date: 12/10/97
Address 4280 Foothill Blvd Day: M T W TH F
Contract No. H176522 City: Oakland
Station No. BP 11109 Sampler: CReinhart

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-2		2"	30.10	12.34	0	10:40	Not Sampled Replace cap lock
MW-3	5'-2	4"	31.80	10.90	0	10:50	
MW-4		4"	34.28	11.22	0	10:12	Not Sampled Box needs repair-concrete
MW-5	5'-1,5-3	4"	NM	10.78	0.06	10:42	Duplicate this well, Approx 0.10 gal FP removed
MW-6		4"	34.28	13.84	0	10:46	Not Sampled Box needs repair, concrete 13.84 DTW
MW-7		6"	33.42	10.42	0	10:20	Not Sampled
MW-8		2"	29.71	11.88	0	10:04	Not Sampled
MW-9		2"	29.31	10.44	0	10:34	Not Sampled

FIELD INSTRUMENT CALIBRATION DATA

pH METER Hydrolab 4.00 NM 7.00 7.02 10.00 10.0 TEMPERATURE COMPENSATED (Y) N TIME 10:50

D.O. METER Luo ZERO d.O. SOLUTION 0.0 BAROMETRIC PRESSURE NM TEMP 65° WEATHER clear

CONDUCTIVITY METER Hydrolab 10,000 Qpw TURBIDITY METER ✓ 5.0 NTU ✓ OTHER

LEAK DETECTOR: ✓ ALARM MODE ✓ 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	10.90	4"	pump	0	Y (N)	20	11:30	21.2	7.18	1.11	3.24
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			22	11:34	21.2	7.21	1.14	3.20
36.80 - 10.90 = 20.2	x 0.65 = 13.5	x3 =	40			24	11:36	21.2	7.19	1.11	3.21

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

Comments: End purge, parameters stable

- O EPA 601
- ⊘ TPH-G/BTEX MTBE
- O TPH Diesel
- O TOG 5520

TIME/SAMPLE ID
14:50 S-2

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. 10-014-08-002 Date: 12/10/97
Address 4280 Foothill Blvd Day: M T W TH F
Contract No. H176522 City: Oakland
Station No. BP 11109 Sampler: Cleinheinz

Well ID	Depth to Wate	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-5	10.79	4"	pump	0.06	(Y) N	22	12:20	23.1	7.71	1.21	1.8
						24	12:25	23.1	7.70	1.22	1.7
						26	12:30	23.1	7.78	1.21	1.9

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
32 - 10.79 = 21.22 x 0.05 = 13.8 x 3 = 41

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments: End purge parameters stable

- O EPA 601 ____
- X TPH-G/BTEX MTBE
- O TPH Diesel ____
- O TOG 5520 ____

TIME/SAMPLE ID
14:20 5-1
14:30 5-3 dup/pc

Product removed: Approx 0.10 gallon FP removed

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

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

December 23, 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 December 12, 1997. The samples were assigned to Certificate of Analysis No.(s) 9712674 and analyzed for all parameters as listed on the chain of custody.

Any data flag or quality control exception associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s).

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

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

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: 97-12-674

Approved for Release by:

for: James P. Adams, Client Services Manager

Date: 12-23-97

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. H9-9712674-01

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

P.O.# H176522, COC#070709
DATE: 12/23/97

PROJECT: #11109, 4280 Foothill
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-014-8-2
MATRIX: WATER
DATE SAMPLED: 12/10/97 14:20:00
DATE RECEIVED: 12/12/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	500	250 P	µg/L
Benzene	3000	12 P	µg/L
Toluene	2500	25 P	µg/L
Ethylbenzene	560	25 P	µg/L
Total Xylene	5100	25 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	147MI		
4-Bromofluorobenzene	95		
Method 8020A***			
Analyzed by: MF			
Date: 12/21/97			
Gasoline Range Organics	31	1.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	88		
California LUFT Manual for Gasoline			
Analyzed by: MF			
Date: 12/21/97 09:10:00			

(P) - Practical Quantitation Limit MI - Matrix interference.

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. H9-9712674-02

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

P.O.# H176522, COC#070709
DATE: 12/23/97

PROJECT: #11109, 4280 Foothill
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-2

PROJECT NO: 10-014-8-2
MATRIX: WATER
DATE SAMPLED: 12/10/97 14:50:00
DATE RECEIVED: 12/12/97

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	100		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: MF			
Date: 12/21/97			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	77		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: MF			
Date: 12/20/97 01:31:00			

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. H9-9712674-03

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

P.O.# H176522, COC#070709
DATE: 02/25/98

PROJECT: #11109, 4280 Foothill
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-014-8-2
MATRIX: WATER
DATE SAMPLED: 12/10/97 14:30:00
DATE RECEIVED: 12/12/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Benzene	2900	100 P	µg/L
Toluene	2500	250 P	µg/L
Ethylbenzene	440	250 P	µg/L
Total Xylene	4800	250 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	123		
4-Bromofluorobenzene	93		
Fluorobenzene			
Method 8020A***			
Analyzed by: MF			
Date: 12/20/97			
Gasoline Range Organics	37	12 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	76		
4-Bromofluorobenzene	103		
California LUFT Manual for Gasoline			
Analyzed by: MF			
Date: 12/20/97 09:43:00			

(P) - Practical Quantitation Limit

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

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

QUALITY CONTROL

DOCUMENTATION

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

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

Matrix: Aqueous
Units: µg/L

Batch Id: HP_S971221144000

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	44	88.0	72 - 128
Benzene	ND	50	43	86.0	61 - 119
Toluene	ND	50	43	86.0	65 - 125
EthylBenzene	ND	50	43	86.0	70 - 118
O Xylene	ND	50	44	88.0	72 - 117
M & P Xylene	ND	100	88	88.0	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	22	110	19	95.0	14.6	20	39 - 150
BENZENE	3.5	20	28	122	20	82.5	38.6 *	21	32 - 164
TOLUENE	15	20	37	110	28	65.0	51.4 *	20	38 - 159
ETHYLBENZENE	8.9	20	31	110	23	70.5	43.8 *	19	52 - 142
O XYLENE	4.0	20	28	120	21	85.0	34.1 *	18	53 - 143
M & P XYLENE	3.4	40	52	122	38	86.5	34.1 *	17	53 - 144

Analyst: MF
Sequence Date: 12/21/97
SPL ID of sample spiked: 9712590-05A
Sample File ID: S_L3663A.TXO
Method Blank File ID:
Blank Spike File ID: S_L3647.TXO
Matrix Spike File ID: S_L3651.TXO
Matrix Spike Duplicate File ID: S_L3652.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): 9712590-10A 9712590-09A 9712590-12A 9712674-01A
9712590-06A 9712590-08A 9712590-07A 9712590-04A

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_S971220174200

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	72 - 128
Benzene	ND	50	45	90.0	61 - 119
Toluene	ND	50	44	88.0	65 - 125
EthylBenzene	ND	50	43	86.0	70 - 118
O Xylene	ND	50	44	88.0	72 - 117
M & P Xylene	ND	100	88	88.0	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	870	20	780	NC	790	NC	NC	20	39 - 150
BENZENE	ND	20	18	90.0	19	95.0	5.41	21	32 - 164
TOLUENE	ND	20	18	90.0	18	90.0	0	20	38 - 159
ETHYLBENZENE	ND	20	17	85.0	16	80.0	6.06	19	52 - 142
O XYLENE	ND	20	18	90.0	18	90.0	0	18	53 - 143
M & P XYLENE	ND	40	35	87.5	35	87.5	0	17	53 - 144

Analyst: MF
Sequence Date: 12/20/97
SPL ID of sample spiked: 9712676-05A
Sample File ID: S_L3624.TXO
Method Blank File ID:
Blank Spike File ID: S_L3615.TXO
Matrix Spike File ID: S_L3618.TXO
Matrix Spike Duplicate File ID: S_L3619.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):

9712482-27A 9712482-28A 9712482-29A 9712590-01A
9712590-02A 9712590-03A 9712676-04A 9712676-07A
9712676-08A 9712676-01A 9712674-02A 9712676-05A
9712676-06A 9712676-07A 9712676-08A

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

Matrix: Aqueous
Units: µg/L

Batch Id: HP_S971222093300

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	42	84.0	72 - 128
Benzene	ND	50	45	90.0	61 - 119
Toluene	ND	50	44	88.0	65 - 125
EthylBenzene	ND	50	43	86.0	70 - 118
O Xylene	ND	50	46	92.0	72 - 117
M & P Xylene	ND	100	89	89.0	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	2.1	20	20	89.5	20	89.5	0	20	39 - 150
Benzene	ND	20	19	95.0	19	95.0	0	21	32 - 164
Toluene	ND	20	19	95.0	19	95.0	0	20	38 - 159
EthylBenzene	ND	20	19	95.0	18	90.0	5.41	19	52 - 142
O Xylene	ND	20	19	95.0	19	95.0	0	18	53 - 143
M & P Xylene	ND	40	38	95.0	38	95.0	0	17	53 - 144

Analyst: MF
Sequence Date: 12/22/97
SPL ID of sample spiked: 9712778-04A
Sample File ID: S_L4016.TXO
Method Blank File ID:
Blank Spike File ID: S_L4003.TXO
Matrix Spike File ID: S_L4010.TXO
Matrix Spike Duplicate File ID: S_L4011.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): 9712778-04A 9712674-03A

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** SPL BATCH QUALITY CONTROL REPORT **
Method Modified 8015A*** for Gasoline

Matrix: Aqueous
Units: mg/L

Batch Id: HP_S971221154900

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Range Organics	ND	1.0	1.1	110	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	ND	0.9	1.1	122	1.1	122	0	36	36 - 160

Analyst: MF
Sequence Date: 12/21/97
SPL ID of sample spiked: 9712717-05C
Sample File ID: SSL3673A.TX0
Method Blank File ID:
Blank Spike File ID: SSL3649.TX0
Matrix Spike File ID: SSL4007.TX0
Matrix Spike Duplicate File ID: SSL4008.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): 9712590-07A 9712590-10A 9712590-09A 9712717-01C 9712717-02C 9712717-03C 9712717-05C 9712717-06C 9712717-10C 9712717-09C 9712590-05A 9712590-12A 9712674-01A 9712590-06A 9712590-08A

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HOUSTON, TEXAS 77054
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** SPL BATCH QUALITY CONTROL REPORT **
California LUFT Manual for Gasoline

Matrix: Aqueous
Units: mg/L

Batch Id: HP_S971220020801

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	0.91	91.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.79	87.8	0.80	88.9	1.25	36	36 - 160

Analyst: MF
Sequence Date: 12/20/97
SPL ID of sample spiked: 9712548-04C
Sample File ID: SSL3591.TXO
Method Blank File ID:
Blank Spike File ID: SSL3583.TXO
Matrix Spike File ID: SSL3586.TXO
Matrix Spike Duplicate File ID: SSL3587.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): 9712675-01A 9712676-02A 9712676-03A 9712674-03A 9712674-02A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
12/12/97	1000

SPL Sample ID:
9712674

			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 #)	384871911	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
[signature]	12/12/97

9712674

CHAIN OF CUSTODY

No. 070709 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
ACCSTO ENGINEERING	1515 Treat Blvd Ste 201	Walnut Creek	CA	94598

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11109	4200 Foothill Oakland CA	10-014-8-2

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
Brady Nagle	510 295 1650	295 1823	H176522

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.
Scott Heaton	Renton WA	-	-

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.
		-	-

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
Chris Kemberman		12-11-97	Fed Ex

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

ANALYSIS REQUIRED

AIRBILL NUMBER: 384847911

SAMPLE DESCRIPTION	COLLECTION DATE / COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	TPH-G BTEX	TPH-D	COMMENTS
S-1	12/10/97 14:20	Water	3	VOA		X	X	
S-2	14:50		3			X	X	
S-3	14:30		2			X		
S-4	15:30		2			X		CCSTO

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
CCSTO	12/11/97		Patricia Lyeton	12/11/97	
Patricia Lyeton	12/11/97		Fed Ex	12/12/97	1000

ADDITIONAL COMMENTS: 2°C

CLV-16722
PKG/50

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

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

BP Site Number:	11109
ERM Contact:	H176522
Sampling Date:	12/10/97
Matrix Description:	Water
Date Final Report Received:	12/30/97, 2/19/98, AND 2/26/98
Laboratory & Location:	SPL, Houston, Texas

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

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

MTBE analysis in the blind duplicate sample (S-3) was not reported due to an incorrect dilution factor used in calculation of the results. An earlier sample was used to report TPH-G and BTEX, however, MTBE result was not used due to a carryover of MTBE from the previous sample.

Data Validation Completed by: Brady Nagle

(signature): _____

Date: 3/16/98