BP OIL

3878

BP Oil Company
Environmental Resources Management
Building 13, Suite N
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667
Fax No· (206) 251-0736

December 16, 1996

96 DEC 27 PM 3:04
ENVIRONMENTAL PROTECTION

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway Room 250
Oakland CA 94621

RE: BP OIL FACILITY #11132
3201 - 35th Street
Oakland, CA

Dear Ms Hugo:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED SEPTEMBER 18, 1996** for the above referenced facility. Plans for the following quarter include additional groundwater monitoring and product recovery.

If you should have any questions regarding this site, I may be reached at (206) 251-0689.

Respectfully,

Scott T. Hooton
Environmental Resources Management
Corrective Action Manager

STH:sb msword\ERM11132

cc: Mr. Eddy So, California Regional Water Quality Control Board, San Francisco Bay Region, 2101 Webster St. Suite 500, Oakland CA 94612

Mr. Brady Nagle, Alisto Engineering Group, 1777 Oakland Blvd., Suite 200, Walnut Creek, CA 94596

TOSCO Northwest, 601 Union Street, Suite 2500, Seattle WA 98101

Site File

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11132
3201 35th Street
Oakland, California

Project No. 10-024-09-001

Prepared for:

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

Prepared by:

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

September 18, 1996

Ken Simas
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11132
3201 35th Street
Oakland, California

Project No. 10-024-09-001

September 18, 1996

INTRODUCTION

This report presents the results and findings of the July 23, 1996 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11132, 3201 35th Street, 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 relative 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.

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.

FREE PRODUCT MONITORING AND RECOVERY

Product recovery canisters have been installed in Monitoring Wells MW-1, MW-2, MW-8, MW-9, and MW-10 to recover liquid-phase product. Product thicknesses measured during this and previous monitoring events are presented in Table 1. The volume of free product recovered from the wells is presented in Table 2.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-1	07/09/90	169.75	---	0.22	---	---	---	---	---	---	---	---	---
MW-1	12/21/90	169.75	---	0.58	---	---	---	---	---	---	---	---	---
MW-1	03/07/91	169.75	20.59	---	---	---	---	---	---	---	---	---	---
MW-1	06/27/91	169.75	---	0.18	---	---	---	---	---	---	---	---	---
MW-1	09/27/91	169.75	---	0.27	---	---	---	---	---	---	---	---	---
MW-1	12/18/91	169.75	---	0.28	---	---	---	---	---	---	---	---	---
MW-1	04/01/91	169.75	16.51	0.15	153.35	---	---	---	---	---	---	---	---
MW-1	07/03/92	169.75	22.30	0.27	147.65	---	---	---	---	---	---	---	---
MW-1	10/05/92	169.75	23.98	0.24	145 95	---	---	---	---	---	---	---	---
MW-1	01/13/93	169.75	17.03	0.24	152.90	---	---	---	---	---	---	---	---
MW-1	04/23/93	169.75	18.10	0.42	151.97	---	---	---	---	---	---	---	---
MW-1	07/12/93	169.75	22.02	0.49	148.10	---	---	---	---	---	---	---	---
MW-1	10/21/93	169.75	25.12	1.09	145.45	---	---	---	---	---	---	---	---
MW-1	01/21/94	169.75	23.02	0.76	147.30	---	---	---	---	---	---	---	---
MW-1	04/20/94	169.75	24.54	1.80	146.56	---	---	---	---	---	---	---	---
MW-1	08/01/94	169.75	24.11	0.35	145.90	---	---	---	---	---	---	---	---
MW-1	12/23/94	169.75	18.19	0.29	151 78	---	---	---	---	---	---	---	---
MW-1	01/26/95	169 75	16.25	1.10	154 33	---	---	---	---	---	---	---	---
MW-1	06/08/95	169.75	22.92	1.20	147.73	---	---	---	---	---	---	---	---
MW-1	08/22/95	169.75	24.45	0.85	145.94	---	---	---	---	---	---	---	---
MW-1	10/27/95	169.75	25.41	0.69	144.86	---	---	---	---	---	---	---	---
MW-1	01/25/96	169.75	18.20	1.40	152.60	---	---	---	---	---	---	---	---
MW-1	04/19/96	169.75	19.06	1.22	151.61	---	---	---	---	---	---	---	---
MW-1	07/23/96	169 75	22.98	0.89	147.44	---	---	---	---	---	---	---	---
MW-2	07/09/90	168.14	---	0 10	---	---	---	---	---	---	---	---	---
MW-2	12/21/90	168.14	---	0.48	---	---	---	---	---	---	---	---	---
MW-2	03/07/91	168.14	19.18	---	---	---	---	---	---	---	---	---	---
MW-2	06/27/91	168.14	---	0.19	---	---	---	---	---	---	---	---	---
MW-2	09/27/91	168 14	---	0.15	---	---	---	---	---	---	---	---	---
MW-2	12/18/91	168 14	---	0.36	---	---	---	---	---	---	---	---	---
MW-2	04/01/91	168.14	15.21	0.10	153.01	---	---	---	---	---	---	---	---
MW-2	07/03/92	168.14	20.93	0 03	147.23	---	---	---	---	---	---	---	---
MW-2	10/05/92	168 14	22 74	0.21	145.56	---	---	---	---	---	---	---	---
MW-2	01/13/93	168.14	15.55	0.02	152.61	---	---	---	---	---	---	---	---
MW-2	04/23/93	168.14	16.54	0 21	151.76	---	---	---	---	---	---	---	---
MW-2	07/12/93	168.14	20.46	0 06	147.73	---	---	---	---	---	---	---	---
MW-2	10/21/93	168.14	24.91	0.31	143 46	---	---	---	---	---	---	---	---
MW-2	01/21/94	168.14	21.20	---	146.94	---	---	---	---	---	---	---	---
MW-2	04/20/94	168.14	22 44	---	145.70	1800	140	370	54	290	1.7	1.7	PACE
MW-2	08/01/94	168.14	22.24	0.04	145 93	---	---	---	---	---	---	---	---
MW-2	12/23/94	168.14	16 25	0 03	151.91	---	---	---	---	---	---	---	---
MW-2	01/26/95	168.14	14 55	0.39	153.88	---	---	---	---	---	---	---	---
MW-2	06/08/95	168.14	21.18	0.43	147.28	---	---	---	---	---	---	---	---
MW-2	08/22/95	168.14	22.76	0.36	145.65	---	---	---	---	---	---	---	---
MW-2	10/27/95	168.14	23 61	0.30	144.76	---	---	---	---	---	---	---	---
MW-2	01/25/96	168.14	15.95	0.15	152 30	---	---	---	---	---	---	---	---
MW-2	04/19/96	168 14	17.33	0.07	150 86	---	---	---	---	---	---	---	---
MW-2	07/23/96	168.14	21.25	0.05	146.93	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-3	07/09/90	167.17	---	---	---	140	5 3	4 6	2.0	3.8	—	—	---
MW-3	12/21/90	167.17	---	—	—	0.19	100	6.0	0.9	27	---	—	—
MW-3	03/07/91	167.17	17.40	—	149.77	0.4	69	22	6.1	57	---	—	—
MW-3	06/27/91	167.17	---	—	---	380	28	26	13	46	—	—	---
MW-3	09/27/91	167.17	—	—	—	0.07	7.9	ND	0.4	1.1	---	—	—
MW-3	12/18/91	167.17	—	—	—	0.26	34	24	0.8	28	---	—	—
MW-3	04/01/91	167.17	13.69	---	153 48	ND	ND	ND	ND	ND	—	---	---
MW-3	07/03/92	167.17	19.59	—	147 58	71	9 4	0.9	5.0	13	—	---	ANA
MW-3	10/05/92	167.17	21.22	—	145.95	67	5.1	1.1	6.1	8.1	—	—	ANA
QC-1 (c)	10/05/92	—	—	—	---	ND<50	2.2	ND<0.5	1.5	2.8	—	—	ANA
MW-3	01/13/93	167.17	13.63	—	153.54	830	50	34	42	89	—	—	PACE
MW-3	04/23/93	167.17	15.02	—	152.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-1 (c)	04/23/93	—	—	—	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-3	07/12/93	167.17	19.16	—	148.01	250	12	4.2	12	16	---	---	PACE
MW-3	10/21/93	167.17	21.81	—	145.36	52	4.4	1.4	4.7	3.3	—	—	PACE
QC-1 (c)	10/21/93	—	—	—	---	65	7.4	1.0	6.9	4.2	—	—	PACE
MW-3	01/21/94	167.17	19.94	—	147.23	57	3.0	3.4	3.6	9.0	—	---	PACE
MW-3	04/20/94	167.17	20.24	---	146.93	600	26	23	33	88	---	1.8	PACE
MW-3	08/01/94	167.17	20.74	---	146.43	99	6 2	1.1	4.5	5.2	---	1.4	PACE
QC-1 (c)	08/01/94	---	---	---	---	120	7 7	1.6	5.9	6.7	—	---	PACE
MW-3	12/23/94	167.17	14.70	—	152.47	ND<50	ND<0.5	0.78	ND<0.5	ND<0.5	—	1.7	PACE
QC-1 (c)	12/23/94	---	---	—	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-3	01/26/95	167.17	12.89	—	154.28	190	16	0 5	35	24	---	6.6	ATI
MW-3	06/08/95	167.17	19.95	---	147.22	330	21	4 0	34	32	—	7.0	ATI
MW-3	08/22/95	167.17	21.41	---	145.76	150	14	ND<0.50	ND<0.50	1.6	—	6.6	ATI
MW-3	10/27/95	167 17	22.43	—	144.74	—	—	---	---	—	—	---	---
MW-3	10/30/95	—	—	—	—	51	2.4	ND<0 50	ND<0.50	ND<1.0	ND<5.0	6.9	ATI
MW-3	01/25/96	167.17	14.03	---	153.14	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	5.1	—	CEI
MW-3	04/19/96	167.17	15 26	—	151 91	460	55	4	33	63	ND<10	9.4	SPL
MW-3	07/23/96	167.17	19 19	—	147.98	ND<50	ND<0.5	ND<0.5	ND<0 5	ND<0.5	ND<10	9.2	SPL
MW-4	07/09/90	170.36	—	—	—	ND	ND	ND	ND	ND	—	---	---
MW-4	12/21/90	170.36	—	—	—	ND	ND	ND	ND	0.8	---	—	—
MW-4	03/07/91	170.36	20.72	—	149.64	ND	2 2	3 8	1.5	2.8	---	—	—
MW-4	06/27/91	170.36	---	---	—	ND	6 3	1.8	0.4	1.0	—	---	---
MW-4	09/27/91	170.36	—	—	—	ND	ND	ND	ND	ND	---	—	—
MW-4	12/18/91	170.36	—	—	---	ND	ND	ND	ND	ND	—	—	---
MW-4	04/01/91	170.36	17.49	---	152 87	ND	ND	ND	ND	ND	—	—	---
MW-4	07/03/92	170.36	22.16	—	148.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	ANA
MW-4	10/05/92	170.36	23.38	---	146.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	ANA
MW-4	01/13/93	170.36	17.58	---	152.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-4	04/23/93	170.36	15.72	—	154.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-4	07/12/93	170.36	21.74	---	148.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	PACE
MW-4	10/21/93	170.36	23.84	—	146.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0 5	—	—	PACE
MW-4	01/21/94	170.36	22 42	—	147.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	---	PACE
MW-4	04/20/94	170.36	22 66	—	147.70	ND<50	ND<0.5	ND<0 5	ND<0 5	ND<0.5	—	2.2	PACE
MW-4	08/01/94	170.36	23.01	---	147.35	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	---	1.9	PACE
MW-4	12/23/94	170.36	17.03	—	153.33	—	—	—	---	---	—	—	—
MW-4	01/26/95	170.36	17.42	—	152.94	ND<50	ND<0.5	ND<0 5	ND<0 5	ND<1	---	7 5	ATI
MW-4	06/08/95	170.36	21.55	—	148.81	—	—	---	---	---	—	---	---
MW-4	08/22/95	170.36	23.47	—	146.89	ND<50	ND<0.50	ND<0 50	ND<0.50	ND<1.0	---	6.4	ATI
MW-4	10/27/95	170.36	24 50	---	145.86	—	—	---	---	—	—	—	---
MW-4	01/25/96	170.36	18 74	—	151.62	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	58	—	CEI
MW-4	04/19/96	170.36	18.63	—	151.73	---	---	---	—	—	—	---	---
MW-4	07/23/96	170.36	22.56	---	147.80	—	—	—	---	---	—	—	---

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BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-5	07/09/90	165.14	—	—	—	280	200	210	46	290	—	—	—
MW-5	12/21/90	165.14	—	—	—	0.69	300	34	8.4	39	—	—	—
MW-5	03/07/91	165.14	16.60	—	148.54	ND	17	0.9	0.7	1 6	—	—	—
MW-5	06/27/91	165.14	—	—	—	330	120	10	12	8	—	—	—
MW-5	09/27/91	165.14	—	—	—	0.73	230	16	20	22	—	—	—
MW-5	12/18/91	165.14	—	—	—	ND	ND	ND	ND	ND	—	—	—
MW-5	04/01/91	165.14	11.99	—	153.15	800	250	54	11	60	—	—	—
MW-5	07/03/92	165.14	18 65	—	146.49	150	36	ND<0.5	ND<0.5	1.1	—	—	ANA
MW-5	10/05/92	165.14	20.32	—	144.82	270	79	4	1.7	2.9	—	—	ANA
MW-5	01/13/93	165.14	13.03	—	152.11	160	59	6.0	1.8	7.6	—	—	PACE
MW-5	04/23/93	165.14	13.51	—	151.63	8700	440	96	35	136	—	—	PACE
MW-5	07/12/93	165.14	18.06	—	147.08	250	57	2 9	2.1	6.0	—	—	PACE
MW-5	10/21/93	165.14	20.41	—	144.73	210	82	1 5	ND<0.5	1.4	—	—	PACE
MW-5	01/21/94	165.14	18.86	—	146.28	110	36	1.2	ND<0.5	0.7	—	—	PACE
MW-5	04/20/94	165 14	17.30	—	147.84	690	230	4.5	1.6	11	—	1.3	PACE
MW-5	08/01/94	165 14	17.53	—	147.61	170	44	1.6	0.9	2.7	—	0.9	PACE
MW-5	12/23/94	165 14	11.63	—	153.51	630	180	1.9	0.66	1.9	—	1.4	PACE
MW-5	01/26/95	165.14	11.25	—	153 89	160	68	ND<0.5	ND<0.5	22	—	5.9	ATI
MW-5	06/08/95	165.14	16.80	—	148.34	2000	630	58	61	180	—	6.5	ATI
QC-1 (c)	06/08/95	—	—	—	—	1700	560	51	55	170	—	—	ATI
MW-5	08/22/95	165.14	19.02	—	146.12	3700	1100	18	27	59	—	7.3	ATI
MW-5	10/27/95	165.14	20.94	—	144.20	—	—	—	—	—	—	—	—
MW-5	10/30/95	—	—	—	—	6500	2200	55	180	270	ND<250	7.5	ATI
MW-5	01/25/96	165.14	13 30	—	151.84	590	37	0.70	ND<0.50	ND<1.0	ND<5.0	—	CEI
QC-1 (c)	01/25/96	—	—	—	—	540	37	0.66	ND<0 50	ND<1.0	ND<5.0	—	CEI
MW-5	04/19/96	165.14	13.63	—	151.51	1500	470	38	49	210	ND<50	8.1	SPL
MW-5	07/23/96	165.14	17.61	—	147.53	140	4 6	ND<0.5	ND<0.5	ND<0.5	ND<10	8.0	SPL
MW-6	07/09/90	165.40	—	—	—	ND	ND	ND	ND	ND	—	—	—
MW-6	12/21/90	165.40	—	—	—	0.17	2.6	7.0	4.9	26	—	—	—
MW-6 (d)	03/07/91	165.40	—	—	—	—	—	—	—	—	—	—	—
MW-6 (d)	06/27/91	165 40	—	—	—	—	—	—	—	—	—	—	—
MW-6 (d)	09/27/91	165.40	—	—	—	—	—	—	—	—	—	—	—
MW-6	12/18/91	165.40	—	—	—	ND	1.3	22	ND	2.7	—	—	—
MW-6	04/01/91	165.40	11.79	—	153.61	ND	ND	ND	ND	ND	—	—	—
MW-6	07/03/92	165.40	17.77	—	147.63	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	ANA
MW-6	10/05/92	165.40	19.46	—	145.94	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0 5	—	—	ANA
MW-6	01/13/93	165.40	11.34	—	154.06	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	04/23/93	165.40	12.92	—	152.48	ND<50	ND<0 5	ND<0 5	ND<0.5	ND<0 5	—	—	PACE
MW-6	07/12/93	165.40	17.36	—	148.04	ND<50	ND<0 5	ND<0.5	ND<0.5	0.7	—	—	PACE
MW-6	10/21/93	165.40	19.98	—	145.42	ND<50	ND<0 5	ND<0 5	ND<0.5	ND<0 5	—	—	PACE
MW-6	01/21/94	165.40	18.10	—	147.30	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<0 5	—	—	PACE
MW-6	04/20/94	165 40	18 68	—	146.72	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<0 5	—	2.0	PACE
MW-6	08/01/94	165.40	18.90	—	146.50	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	—	1.5	PACE
MW-6	12/23/94	165.40	12.94	—	152.46	—	—	—	—	—	—	—	—
MW-6	01/26/95	165 40	10 46	—	154.94	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<1	—	7.3	ATI
MW-6	06/08/95	165.40	16.84	—	148.56	—	—	—	—	—	—	—	—
MW-6	08/22/95	165.40	19.48	—	145 92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	6.7	ATI
MW-6	10/27/95	165.40	20.39	—	145.01	—	—	—	—	—	—	—	—
MW-6	01/25/96	165.40	12.24	—	153.16	ND<50	ND<0.50	ND<0.50	ND<0 50	ND<1.0	9 9	—	CEI
MW-6	04/19/96	165.40	13.90	—	151.50	—	—	—	—	—	—	—	—
MW-6	07/23/96	165.40	17.83	—	147.57	—	—	—	—	—	—	—	—

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-7	07/09/90	167.61	---	---	---	ND	ND	ND	ND	ND	---	---	---
MW-7	12/21/90	167.61	---	---	---	ND	ND	ND	ND	ND	---	---	---
MW-7	03/07/91	167.61	19.04	---	148.57	ND	ND	0.4	0.3	2.4	---	---	---
MW-7	06/27/91	167.61	---	---	---	70	17	4	0.8	2.2	---	---	---
MW-7	09/27/91	167.61	---	---	---	ND	0.4	ND	ND	0.4	---	---	---
MW-7	12/18/91	167.61	---	---	---	ND	0.7	2.9	0.8	3.3	---	---	---
MW-7	04/01/91	167.61	15.18	---	152.43	ND	ND	ND	ND	ND	---	---	---
MW-7	07/03/92	167.61	20.28	---	147.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-7	10/05/92	167.61	21.56	---	146.05	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	---	---	ANA
MW-7	01/13/93	167.61	15.41	---	152.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	04/23/93	167.61	15.84	---	151.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	07/12/93	167.61	19.84	---	147.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	10/21/93	167.61	21.61	---	146.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	01/21/94	167.61	20.49	---	147.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-1 (c)	01/21/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	04/20/94	167.61	20.54	---	147.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	1.5	PACE
MW-7	08/01/94	167.61	20.99	---	146.62	ND<50	0.7	ND<0.5	ND<0.5	ND<0.5	---	1.9	PACE
MW-7	12/23/94	167.61	15.00	---	152.61	---	---	---	---	---	---	---	---
MW-7	01/26/95	167.61	14.69	---	152.92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	7.0	ATI
MW-7	06/08/95	167.61	19.87	---	147.74	---	---	---	---	---	---	---	---
MW-7	08/22/95	167.61	21.49	---	146.12	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.4	ATI
MW-7	10/27/95	167.61	22.53	---	145.08	---	---	---	---	---	---	---	---
MW-7	01/25/96	167.61	17.21	---	150.40	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	CEI
MW-7	04/19/96	167.61	17.09	---	150.52	---	---	---	---	---	---	---	---
MW-7	07/23/96	167.61	21.02	---	146.59	---	---	---	---	---	---	---	---
MW-8	03/07/91	165.74	16.72	---	149.02	2.7	780	450	64	310	---	---	---
MW-8	06/27/91	165.74	---	---	---	12000	3400	1100	240	750	---	---	---
MW-8	09/27/91	165.74	---	---	---	41	5700	5200	1100	4300	---	---	---
MW-8	12/18/91	165.74	---	---	---	3.2	990	150	120	250	---	---	---
MW-8	04/01/91	165.74	12.54	---	153.20	15000	3600	2600	410	1900	---	---	---
MW-8	07/03/92	165.74	18.78	---	146.96	72000	19000	32000	3000	15000	---	---	ANA
MW-8	10/05/92	165.74	20.48	0.01	145.27	---	---	---	---	---	---	---	---
MW-8	01/13/93	165.74	12.87	0.01	152.88	---	---	---	---	---	---	---	---
MW-8	04/23/93	165.74	13.90	SHEEN	151.84	---	---	---	---	---	---	---	---
MW-8	07/12/93	165.74	18.30	SHEEN	147.44	---	---	---	---	---	---	---	---
MW-8	10/21/93	165.74	21.91	0.95	144.54	---	---	---	---	---	---	---	---
MW-8	01/21/94	165.74	19.12	0.03	146.64	---	---	---	---	---	---	---	---
MW-8	04/20/94	165.74	19.28	0.03	146.48	26000	1700	4100	960	4000	---	1.1	PACE
MW-8	08/01/94	165.74	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/23/94	165.74	13.81	0.03	151.95	---	---	---	---	---	---	---	---
MW-8	01/26/95	165.74	---	---	---	---	---	---	---	---	---	---	---
MW-8	06/08/95	165.74	17.82	0.29	148.14	---	---	---	---	---	---	---	---
MW-8	08/22/95	165.74	19.41	0.20	146.48	---	---	---	---	---	---	---	---
MW-8	10/27/95	165.74	20.47	0.14	145.38	---	---	---	---	---	---	---	---
MW-8	01/25/96	165.74	13.35	0.22	152.56	---	---	---	---	---	---	---	---
MW-8	04/19/96	165.74	14.40	0.20	151.49	---	---	---	---	---	---	---	---
MW-8	07/23/96	165.74	18.35	0.14	147.50	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-9	03/07/91	166.20	16.79	—	149.41	7.1	220	4	2.4	2400	—	—	—
MW-9	06/27/91	166.20	—	—	—	3600	520	400	85	310	—	—	—
MW-9	09/27/91	166.20	—	—	—	3.2	720	150	50	180	—	—	—
MW-9	12/18/91	166.20	—	—	—	ND	2.5	1.1	0.3	5.8	—	—	—
MW-9	04/01/91	166.20	12.89	—	153.31	12000	2000	2600	360	1600	—	—	—
MW-9	07/03/92	166.20	18.89	—	147.31	5700	17000	840	230	800	—	—	ANA
MW-9	10/05/92	166.20	20.52	—	145.68	1400	440	17	14	100	—	—	ANA
MW-9	01/13/93	166.20	12.92	—	153.28	11000	1200	1700	340	1400	—	—	PACE
QC-1 (c)	01/13/93	—	—	—	0.00	11000	1200	1600	330	1300	—	—	PACE
MW-9	04/23/93	166.20	14.08	—	152.12	24000	2800	4500	730	3400	—	—	PACE
MW-9	07/12/93	166.20	18.44	—	147.76	13000	1400	1100	360	1400	—	—	PACE
QC-1 (c)	07/12/93	—	—	—	—	10000	1200	900	310	1200	—	—	PACE
MW-9	10/21/93	166.20	21.81	0.89	145.06	—	—	—	—	—	—	—	—
MW-9	01/21/94	166.20	19.28	—	146.92	—	—	—	—	—	—	—	—
MW-9	04/20/94	166.20	19.72	—	146.48	43000	2800	6800	1300	7900	—	1.7	PACE
QC-1 (c)	04/20/94	—	—	—	—	45000	2700	6800	1200	8200	—	—	PACE
MW-9	08/01/94	166.20	20.18	0.05	146.06	—	—	—	—	—	—	—	—
MW-9	12/23/94	166.20	14.22	0.02	152.00	—	—	—	—	—	—	—	—
MW-9	01/26/95	166.20	11.85	0.13	154.45	—	—	—	—	—	—	—	—
MW-9	06/08/95	166.20	18.33	0.80	148.47	—	—	—	—	—	—	—	—
MW-9	08/22/95	166.20	19.95	0.01	146.26	—	—	—	—	—	—	—	—
MW-9	10/27/95	166.20	20.88	0.01	145.33	—	—	—	—	—	—	—	—
MW-9	01/25/96	166.20	13.84	0.07	152.41	—	—	—	—	—	—	—	—
MW-9 (d)	04/19/96	166.20	—	—	—	—	—	—	—	—	—	—	—
MW-9	07/23/96	166.20	18.84	0.03	147.38	—	—	—	—	—	—	—	—
MW-10	03/07/91	167.01	18.09	—	148.92	1.6	120	190	32	230	—	—	—
MW-10	06/27/91	167.01	—	—	—	12000	7300	500	150	300	—	—	—
MW-10	09/27/91	167.01	—	—	—	57	12000	7200	1400	4600	—	—	—
MW-10	12/18/91	167.01	—	—	—	5.3	2500	120	36	79	—	—	—
MW-10	04/01/91	167.01	13.92	—	153.09	ND	ND	ND	ND	ND	—	—	—
MW-10	07/03/92	167.01	19.92	—	147.09	8600	5100	1300	180	690	—	—	ANA
MW-10	10/05/92	167.01	21.92	0.19	145.23	—	—	—	—	—	—	—	—
MW-10	01/13/93	167.01	14.43	0.03	152.60	—	—	—	—	—	—	—	—
MW-10	04/23/93	167.01	15.26	0.06	151.80	—	—	—	—	—	—	—	—
MW-10	07/12/93	167.01	19.78	0.45	147.57	—	—	—	—	—	—	—	—
MW-10	10/21/93	167.01	22.90	0.69	144.63	—	—	—	—	—	—	—	—
MW-10	01/21/94	167.01	20.25	0.06	146.81	—	—	—	—	—	—	—	—
MW-10	04/20/94	167.01	20.74	—	146.27	100000	12000	24000	2400	14000	—	1.0	PACE
MW-10	08/01/94	167.01	22.00	0.28	145.22	—	—	—	—	—	—	—	—
MW-10	12/23/94	167.01	16.08	0.25	151.12	—	—	—	—	—	—	—	—
MW-10	01/26/95	167.01	13.68	0.80	153.93	—	—	—	—	—	—	—	—
MW-10	06/08/95	167.01	19.08	0.75	148.49	—	—	—	—	—	—	—	—
MW-10	08/22/95	167.01	20.73	0.70	146.81	—	—	—	—	—	—	—	—
MW-10	10/27/95	167.01	21.69	0.63	145.79	—	—	—	—	—	—	—	—
MW-10	01/25/96	167.01	15.05	0.81	152.57	—	—	—	—	—	—	—	—
MW-10	04/19/96	167.01	16.26	0.58	151.19	—	—	—	—	—	—	—	—
MW-10	07/23/96	167.01	20.18	0.62	147.30	—	—	—	—	—	—	—	—

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
RW-1	07/09/90	168.01	---	1.21	---	---	---	---	---	---	---	---	---
RW-1	12/21/90	168.01	---	0.01	---	---	---	---	---	---	---	---	---
RW-1	03/07/91	168.01	17.62	SHEEN	150.39	---	---	---	---	---	---	---	---
RW-1	06/27/91	168.01	---	0.04	---	---	---	---	---	---	---	---	---
RW-1	09/27/91	168.01	---	0.02	---	---	---	---	---	---	---	---	---
RW-1	12/18/91	168.01	---	0.02	---	---	---	---	---	---	---	---	---
RW-1	04/01/91	168.01	14.40	0.11	153.69	---	---	---	---	---	---	---	---
RW-1	07/03/92	168.01	20.66	SHEEN	147.35	---	---	---	---	---	---	---	---
RW-1	10/05/92	168.01	23.34	0.08	144.73	---	---	---	---	---	---	---	---
RW-1	01/13/93	168.01	16.59	0.05	151.46	---	---	---	---	---	---	---	---
RW-1	04/23/93	168.01	16.17	0.18	151.98	---	---	---	---	---	---	---	---
RW-1	07/12/93	168.01	20.18	0.06	147.88	---	---	---	---	---	---	---	---
RW-1	10/21/93	168.01	25.70	0.56	142.73	---	---	---	---	---	---	---	---
RW-1	01/21/94	168.01	21.24	0.40	147.07	---	---	---	---	---	---	---	---
RW-1	04/20/94	168.01	32.20	---	135.81	---	---	---	---	---	---	---	---
RW-1	08/01/94	168.01	21.70	---	146.31	29000	580	950	300	7800	---	1.1	PACE
RW-1	12/23/94	168.01	16.02	---	151.99	1300	25	8.6	1.4	69	---	1.8	PACE
RW-1	01/26/95	168.01	13.78	---	154.23	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
QC-1 (c)	01/26/95	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
RW-1	06/08/95	168.01	20.05	---	147.96	1300	130	ND<1.0	ND<1.0	36	---	---	ATI
RW-1	08/22/95	168.01	21.74	---	146.27	3300	230	13	4.9	280	---	6.6	ATI
QC-1 (c)	08/22/95	---	---	---	---	2800	210	9.3	4.3	250	---	---	ATI
RW-1	10/27/95	168.01	32.00	---	136.01	---	---	---	---	---	---	---	---
RW-1	10/30/95	---	---	---	---	230	1.4	ND<1.0	ND<1.0	ND<2.0	650	6.9	ATI
QC-1 (c)	10/30/95	---	---	---	---	240	1.6	ND<1.0	ND<1.0	ND<2.0	630	---	ATI
RW-1	01/25/96	168.01	15.41	---	152.60	15000	3400	930	330	2500	5300	---	CEI
RW-1	04/19/96	168.01	16.83	---	151.18	35000	5500	3300	1700	9400	14000	7.6	SPL
QC-1 (c)	04/19/96	---	---	---	---	33000	5600	3200	1700	8800	15000	---	SPL
RW-1	07/23/96	168.01	20.76	---	147.25	46000	3600	2300	900	5100	36000	7.4	SPL
QC-1 (c)	07/23/96	---	---	---	---	47000	3700	2500	930	5300	35000	---	SPL
QC-2 (e)	10/05/92	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (e)	01/13/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (e)	04/23/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (e)	07/12/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (e)	10/21/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (e)	01/21/94	---	---	---	---	ND<50	ND<0.5	2.1	ND<0.5	2.1	---	---	PACE
QC-2 (e)	04/20/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (e)	04/20/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (e)	12/23/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ATI
QC-2 (e)	01/26/95	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
QC-2 (e)	06/08/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (e)	08/22/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (e)	10/30/95	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (e)	01/25/96	---	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	CEI
QC-2 (e)	04/19/96	---	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

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)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB

ABBREVIATIONS:

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

NOTES:

(a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level.

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

(c) Blind duplicate.

(d) Well inaccessible.

(e) Travel blank.

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TABLE 2 - PRODUCT REMOVAL STATUS
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

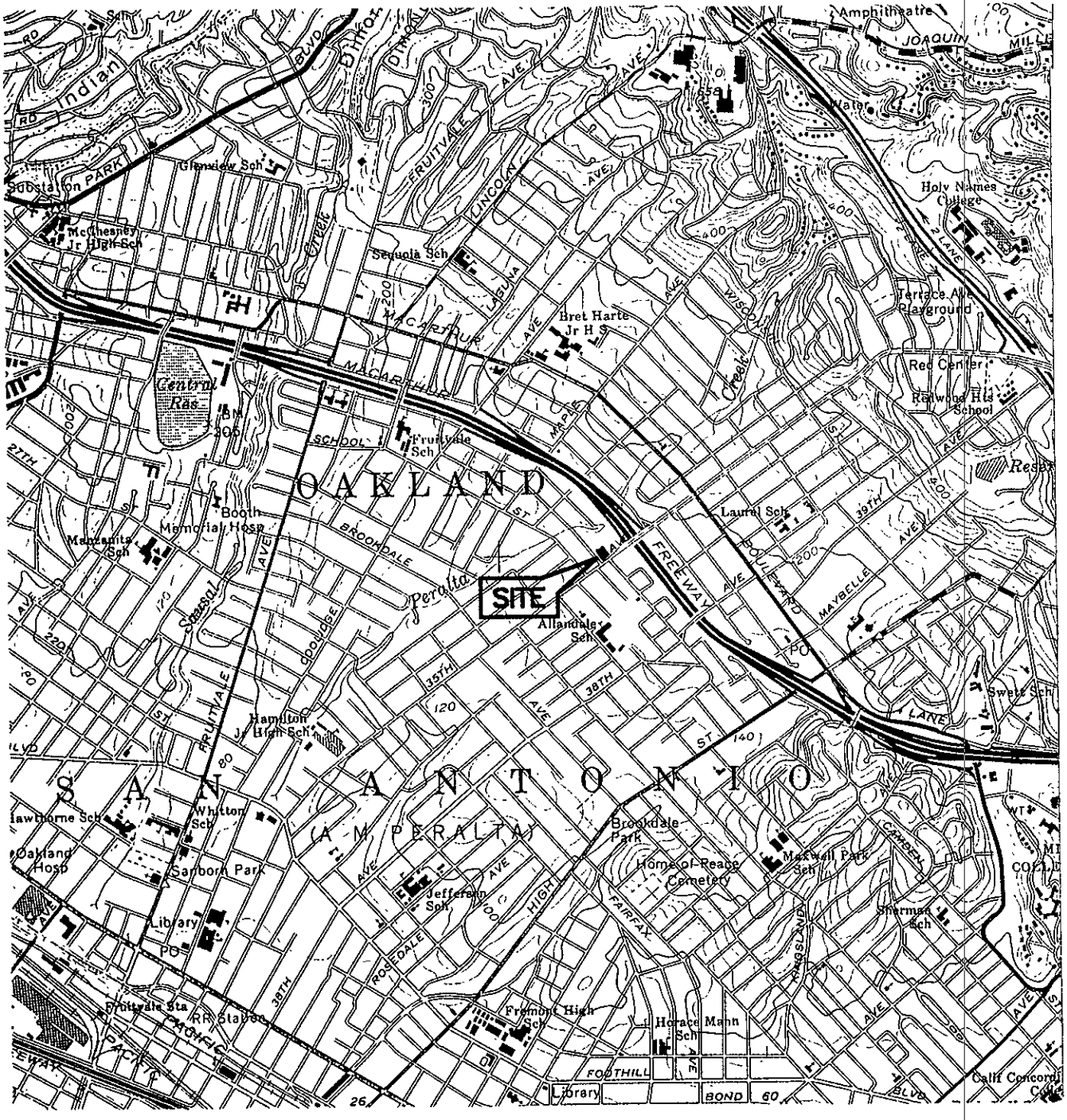
ALISTO PROJECT NO. 10-024

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-1	01/26/95	3.00	3.00
	06/08/95	0.60	3.60
	06/28/95	0.10	3.70
	08/22/95	0.15	3.85
	10/30/95	0.11	3.96
	01/25/96	1.00	4.96
	02/16/95	0.08	5.04
	04/19/96	0.75	5.79
	07/23/96	0	5.79
MW-2	09/29/93	0.10	0.10
	10/05/93	0.10	0.20
	10/14/93	0.10	0.30
	10/20/93	0.25	0.55
	11/02/93	0.10	0.65
	12/07/93	0.05	0.70
	12/17/93	<0.01	0.70
	12/23/93	0.30	1.00
	01/12/94	0.05	1.05
	02/02/94	0.01	1.06
	02/11/94	0.01	1.07
	03/18/94	<0.01	1.07
	10/26/94	0.76	1.83
	11/12/94	0.08	1.91
	12/12/94	0.03	1.94
	01/26/95	0.19	2.13
	06/08/95	Sheen	2.13
	06/28/95	0.05	2.18
	08/22/95	0.10	2.28
	10/30/95	0.05	2.33
	01/25/96	Sheen	2.33
	02/16/95	0.04	2.37
	04/19/96	0.01	2.38
	07/23/96	0	2.38
MW-8	11/02/93	0.25	0.25
	11/10/93	0.10	0.35
	11/16/93	0.10	0.45
	11/23/93	0.10	0.55
	11/30/93	0.10	0.65
	12/17/93	<0.01	0.65
	12/23/93	<0.01	0.65
	01/12/94	0.01	0.66
	02/02/94	0.05	0.71
	02/11/94	0.08	0.79
	02/18/94	<0.01	0.79
	03/18/94	0.01	0.80
	04/27/94	<0.01	0.80
	05/27/94	<0.01	0.80
	10/26/94	0.10	0.90
	11/12/94	0.02	0.92
	12/12/94	0.01	0.93
	06/08/95	Sheen	0.93
	08/22/95	0.05	0.98
	10/30/95	0.02	1.00
	01/25/96	0.05	1.05
	02/16/95	0.01	1.06
	04/19/96	0.25	1.31
	07/23/96	0	1.31

TABLE 2 - PRODUCT REMOVAL STATUS
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-9	11/02/93	0.10	0.10
	11/10/93	0.10	0.20
	11/16/93	0.10	0.30
	12/23/93	<0.01	0.30
	01/12/94	0.01	0.31
	01/20/93	0.05	0.36
	02/02/94	0.05	0.41
	02/11/94	0.01	0.42
	02/18/94	<0.01	0.42
	03/18/94	0.10	0.52
	10/26/94	0.15	0.67
	11/12/94	<0.01	0.67
	12/12/94	<0.01	0.67
	01/26/95	0.10	0.77
	06/28/95	<0.01	0.77
	08/22/95	<0.01	0.77
	10/30/95	<0.01	0.77
	01/25/96	<0.01	0.77
	02/16/95	<0.01	0.77
	04/19/96	<0.01	0.77
	07/23/96	0	0.77
MW-10	09/07/93	0.10	0.10
	09/14/93	0.10	0.20
	09/29/93	0.10	0.30
	10/05/93	1.60	1.90
	10/14/93	2.10	4.00
	10/20/93	1.00	5.00
	10/27/93	1.00	6.00
	11/02/93	0.30	6.30
	11/10/93	0.20	6.50
	11/16/93	0.10	6.60
	11/23/93	0.10	6.70
	11/30/93	0.30	7.00
	12/07/93	0.20	7.20
	12/17/93	0.30	7.50
	12/23/93	<0.01	7.50
	01/04/94	0.01	7.51
	01/12/94	0.01	7.52
	01/20/94	0.20	7.72
	02/02/94	0.01	7.73
	02/11/94	0.01	7.74
	02/18/94	0.20	7.94
	05/27/94	<0.01	7.94
	10/26/94	0.60	8.54
	11/12/94	0.43	8.97
	12/12/94	0.26	9.23
	01/26/95	0.13	9.36
	06/28/95	0.10	9.46
	08/22/95	0.15	9.61
	10/30/95	0.10	9.71
	01/25/96	0.25	9.96
	02/16/95	0.10	10.06
	04/19/96	0.50	10.56
	07/23/96	0	10.56



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

N

0 1000' 2000'

FIGURE 1

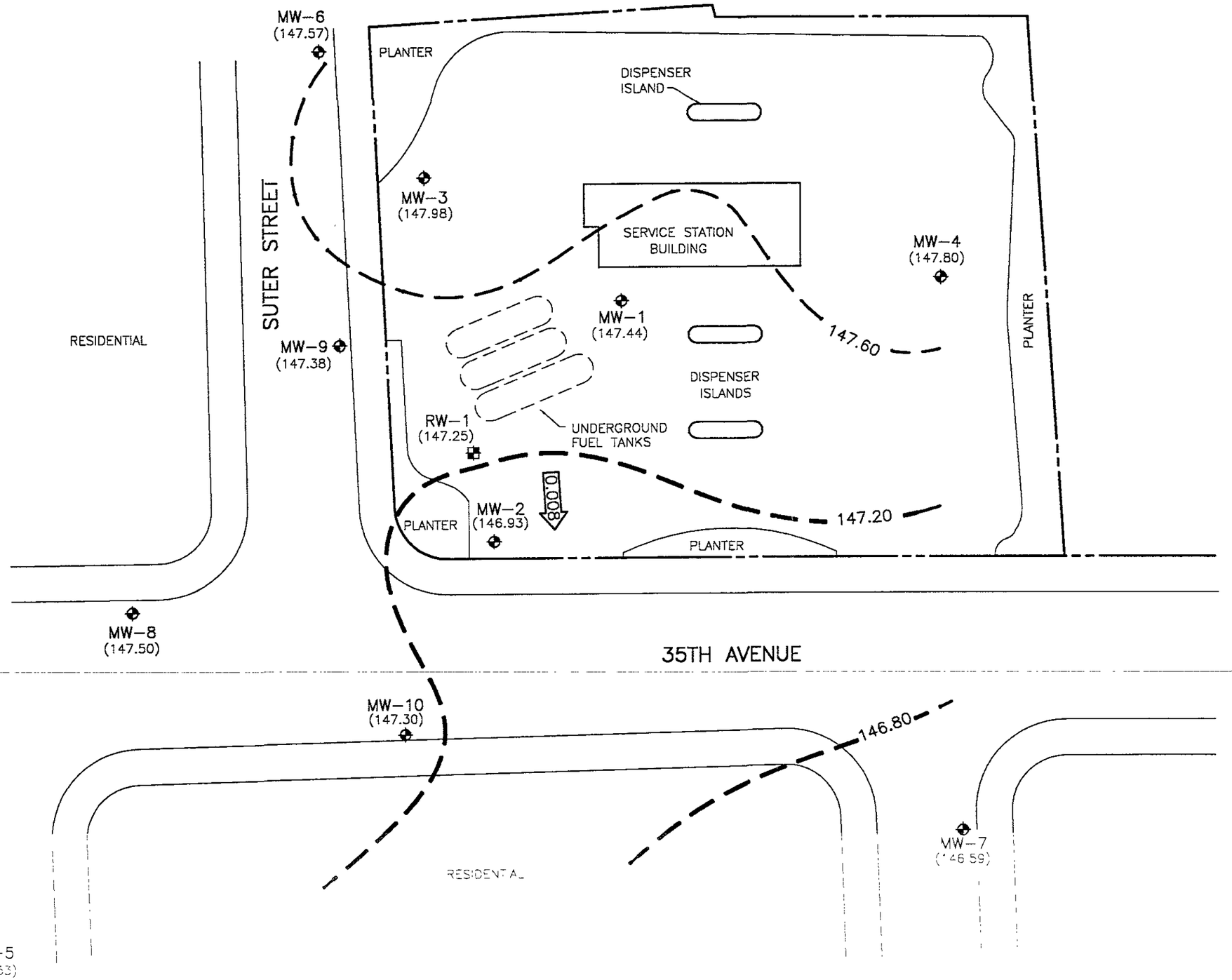
SITE VICINITY MAP

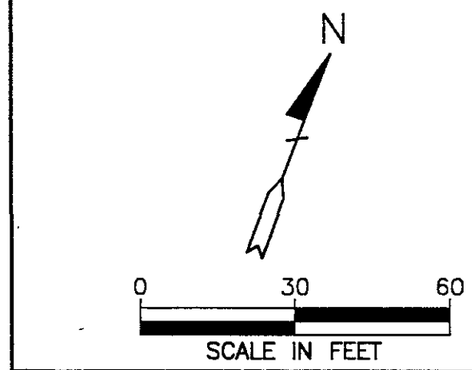
BP OIL SERVICE STATION NO. 11132
3201 35TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 10-024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10024B---.DWG 2-28-94 RKW 1=1





LEGEND

- GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- (146.93) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 147.20 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.40 FOOT)
- 0.008 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

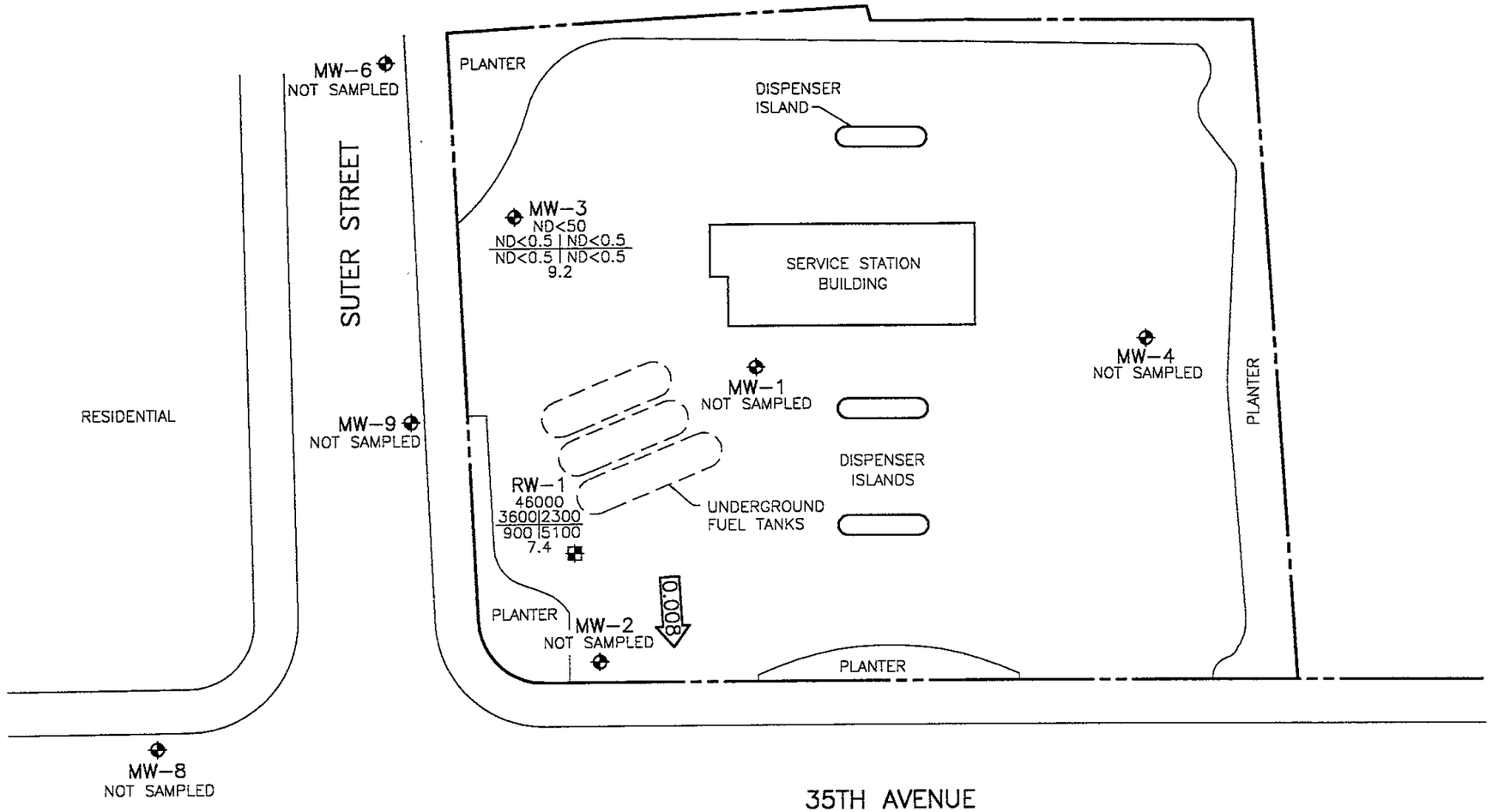
JULY 23, 1996

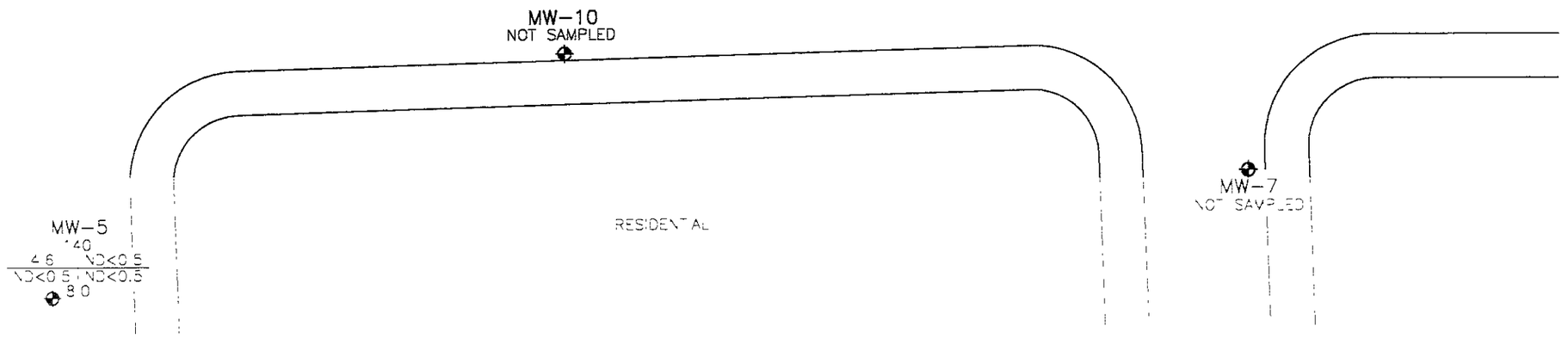
BP OIL SERVICE STATION NO. 11132
3201 35TH STREET
OAKLAND, CALIFORNIA

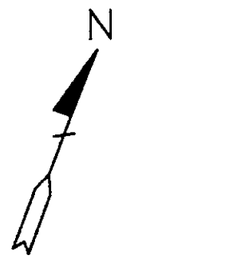
PROJECT NO. 10–024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10024 SMG 96 3 R DOC 1"=30'







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
⇦ 0.008	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JULY 23, 1996

BP OIL SERVICE STATION NO. 11132
3201 35TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 10-024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10024E SWG 96 5 1 MXD

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201

Project No. 10-024-09-001 Date: 7/23/96
Address 3201 35th Street Day: M T W TH F
Contract No. Pending City: Oakland
Station No. BP 11132 Sampler: LCB

DEPTH TO GROUNDWATER SUMMARY

	WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
X	MW-1	N/S	2"	N/M	22.98	.89	1223	DTP = 22.09'
X	MW-2	N/S		N/M	21.25	.05	1207	DTP = 21.20'
	MW-3	S-1		34.58	19.19	Ø	1145	
X	MW-4	N/S		N/M	22.56		1142	SEMI/JAN-JULY
	MW-5	S-2		30.88	17.61		1148	
X	MW-6	N/S		N/M	17.83		1130	SEMI/JAN-JULY
X	MW-7	N/S		N/M	21.02		1137	SEMI/JAN-JULY
X	MW-8	N/S		N/M	18.35	.14	1210	DTP = 18.21'
X	MW-9	N/S		N/M	18.84	.03	1200	DTP = 18.81'
X	MW-10	N/S		N/M	20.18	.62	1217	DTP = 19.56'
	RW-1	S-3	6"	38.41	20.76	Ø	1155	QC-1 Dup From this well

FIELD INSTRUMENT CALIBRATION DATA

pH METER Aqua check 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME
D.O. METER Aqua check ZERO d.O. SOLUTION 0 BAROMETRIC PRESSURE 760 TEMP 65 WEATHER clear
CONDUCTIVITY METER Aqua check 10,000 TURBIDITY METER 5.0 NTU OTHER X

Well ID	Depth to Wate	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-3	19.19	2"	OK	Ø	Y (N)	3	1330	68.1	7.62	729uS/cm	8.3
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			5		66.2	7.43	717uS	
34.58 - 19.19 = 15.39	X .16 = 2.46	X3 = 7.38				7.5	1340	65.7	7.38	710uS	9.2
Purge Method: OSurface Pump ODisp.Tube OWinch XDisp. Bailer(s) 1 OSys Port											
Comments:											

O EPA 601 ____
X TPH-G/BTEX HCl
O TPH Diesel ____
O TOG 5520 ____
TIME/SAMPLE ID: 1343

Well ID	Depth to Wate	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-5	17.61	2"	OK	Ø	Y (N)	2	1355	66.8	7.21	1.42mS	6.6
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			4		66.3	7.16	1.32 mS	
30.88 - 17.61 = 13.27	X .16 = 2.12	X3 = 6.36				6.5	1404	65.9	7.11	1.29mS	8.0
Purge Method: OSurface Pump ODisp.Tube OWinch XDisp. Bailer(s) 1 OSys Port											
Comments:											

X EPA 601 ____
X TPH-G/BTEX HCl
O TPH Diesel ____
O TOG 5520 ____
TIME/SAMPLE ID: 1408

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. 10-024-09-001
Address 3201 35th Street
Contract No. Pending
Station No. BP 11132
Sampler:

Date: 7/23/96
Day: M T W TH F
City: Oakland

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
RW-1	20.76	6"	ok	Ø	Y N (N circled)	25	1415	68.0	7.71	1.37 ms	8.2
						53		67.1	7.43	1.14 ms	
						78	1450	66.3	7.35	1.11 ms	7.4

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.
38.41 - 20.76 = 17.65 X 1.47 = 25.95 x3 = 77.85

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

Comments: QC-1 (S-4) From this well

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

TIME/SAMPLE ID: 1452

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.

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

Comments:

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

TIME/SAMPLE ID

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.

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

Comments:

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

TIME/SAMPLE ID

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.

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

Comments:

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

TIME/SAMPLE ID

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.

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

Comments:

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

TIME/SAMPLE ID

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

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

Southern Petroleum Laboratories, Inc.

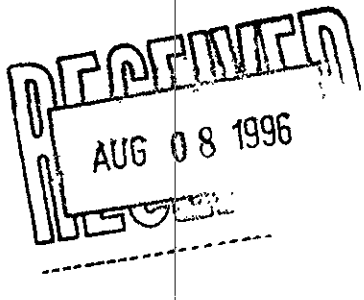
Certificate of Analysis Number: 96-07-C57

Approved for Release by:

Ed Fry, Project Manager — Date: 8/2/96

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. H9-9607C57-01

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Brady Nagle

P.O.# G-797457, COC#082716
DATE: 08/02/96

PROJECT: BP Oil #11132
SITE: Oakland, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-024-09-001
MATRIX: WATER
DATE SAMPLED: 07/23/96
DATE RECEIVED: 07/26/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	0.5 P	µg/L
Ethylbenzene	ND	0.5 P	µg/L
Total Xylene	ND	0.5 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: AA			
Date: 07/31/96			
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: AA			
Date: 07/31/96 06:41:00			

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. H9-9607C57-02

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Brady Nagle

P.O.# G-797457,COC#082716
DATE: 08/02/96

PROJECT: BP Oil #11132
SITE: Oakland, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-2

PROJECT NO: 10-024-09-001
MATRIX: WATER
DATE SAMPLED: 07/23/96
DATE RECEIVED: 07/26/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	4.6	0.5 P	µg/L
Toluene	ND	0.5 P	µg/L
Ethylbenzene	ND	0.5 P	µg/L
Total Xylene	ND	0.5 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: AA			
Date: 07/31/96			
Total Petroleum Hydrocarbons-Gasoline	0.14	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	73		
CA LUFT - Gasoline			
Analyzed by: AA			
Date: 07/31/96 07:09:00			

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

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

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

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

Certificate of Analysis No. H9-9607C57-03

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Brady Nagle

P.O.# G-797457, COC#082716
DATE: 08/02/96

PROJECT: BP Oil #11132
SITE: Oakland, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-024-09-001
MATRIX: WATER
DATE SAMPLED: 07/23/96
DATE RECEIVED: 07/26/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	36000	2500 P	µg/L
Benzene	3600	120 P	µg/L
Toluene	2300	120 P	µg/L
Ethylbenzene	900	120 P	µg/L
Total Xylene	5100	120 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	99		
4-Bromofluorobenzene	103		
METHOD 8020***			
Analyzed by: AA			
Date: 07/31/96			
Total Petroleum Hydrocarbons-Gasoline	46	12 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	89		
4-Bromofluorobenzene	73		
CA LUFT - Gasoline			
Analyzed by: AA			
Date: 07/31/96 08:34:00			

(P) - Practical Quantitation Limit

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

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

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

Certificate of Analysis No. H9-9607C57-04

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Brady Nagle

P.O.# G-797457,COC#082716
DATE: 08/02/96

PROJECT: BP Oil #11132
SITE: Oakland, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-4

PROJECT NO: 10-024-09-001
MATRIX: WATER
DATE SAMPLED: 07/23/96
DATE RECEIVED: 07/26/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	35000	2500 P	µg/L
Benzene	3700	120 P	µg/L
Toluene	2500	120 P	µg/L
Ethylbenzene	930	120 P	µg/L
Total Xylene	5300	120 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	99		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: AA			
Date: 07/31/96			
Total Petroleum Hydrocarbons-Gasoline	47	12 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	76		
CA LUFT - Gasoline			
Analyzed by: AA			
Date: 07/31/96 08:06:00			

(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_N960730075100

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	52	104	20 - 110
Benzene	ND	50	50	100	62 - 121
Toluene	ND	50	51	102	66 - 136
EthylBenzene	ND	50	52	104	70 - 136
O Xylene	ND	50	52	104	74 - 134
M & P Xylene	ND	100	100	100	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.	Recovery Range
MTBE	ND	20	21	105	22	110	4.65	20	39 - 150
BENZENE	ND	20	20	100	20	100	0	25	39 - 150
TOLUENE	ND	20	22	110	21	105	4.65	26	56 - 134
ETHYLBENZENE	ND	20	21	105	20	100	4.88	38	61 - 128
O XYLENE	ND	20	21	105	20	100	4.88	29	40 - 130
M & P XYLENE	ND	40	41	102	41	102	0	20	43 - 152

Analyst: AA
Sequence Date: 07/30/96
SPL ID of sample spiked: 9607C56-02A
Sample File ID: N_H6143.TX0
Method Blank File ID:
Blank Spike File ID: N_H6137.TX0
Matrix Spike File ID: N_H6140.TX0
Matrix Spike Duplicate File ID: N_H6141.TX0

* = Values Outside QC Range
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):

9607C56-02A	9607B51-04A	9607B51-01A	9607B51-06A
9607C36-04A	9607C61-01A	9607B80-02A	9607B80-06A
9607B30-03A	9607B30-04A	9607B15-04A	9607C42-01A
9607C42-02A	9607B28-03A	9607B15-03A	9607C57-01A
9607C57-02A	9607C87-01A	9607C57-04A	9607C57-03A

QC Officer

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

** SPL BATCH QUALITY CONTROL REPORT **
CA LUFT

Matrix: Aqueous
Units: mg/L

Batch Id: HP_N960730075110

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons-Gas	ND	1.0	1.1	110	50 - 150

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
PETROLEUM HYDROCARBONS-GAS	ND	0.9	0.91	101	0.91	101	0	50	50 - 150

Analyst: AA
Sequence Date: 07/31/96
SPL ID of sample spiked: 9607C87-02A
Sample File ID: NNH6185.TX0
Method Blank File ID:
Blank Spike File ID: NNH6179.TX0
Matrix Spike File ID: NNH6182.TX0
Matrix Spike Duplicate File ID: NNH6183.TX0

* = Values Outside QC Range
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: Temporary Limits
(***) = Source: Temporary Limits

SAMPLES IN BATCH(SPL ID): 9607C57-01A 9607C57-02A 9607C87-01A 9607C57-04A 9607C57-03A 9607C87-02A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

#9607C57 TO MLH 7/27

CHAIN OF CUSTODY

No. 082716 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: 11132	BP CORNER ADDRESS/CITY: Oakland, Ca			CONSULTANT PROJECT NUMBER: 10-024-09-001
CONSULTANT PROJECT MANAGER: Brady Nagle	PHONE NUMBER: (510) 295-1650		FAX NUMBER: 295-1823	CONSULTANT CONTRACT NUMBER: 6797457
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, WA		PHONE NUMBER: —	FAX NO: —
LAB CONTACT: SPL	LABORATORY ADDRESS: Texas		PHONE NUMBER: —	FAX NO.: —
SAMPLED BY (Please Print Name): Larry Brownewide	SAMPLED BY (Signature):		SHIPMENT DATE: 7/25/96	SHIPMENT METHOD: Fed EX
TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks			ANALYSIS REQUIRED	AIRBILL NUMBER: 940477848 2

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	J-TPH-D	J-BTEX	J-BTEX	COMMENTS
S-1	7/23/96	W	3	HCl	pH 2	X	X		
S-2					2				
S-3					2				
S-4					2				
S-5			2						NO S-5

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	7/23/96		Patricia Lyeton	7/24/96	0800
Patricia Lyeton	1430	7/25/96		7/26/96	1000

ADDITIONAL COMMENTS: POF 2c intact

CLV-16722
PKG/50

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

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
7/26/96	1445

SPL Sample ID:
9607C57

			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 #)	9404778482	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
Ruben Estrada Jr.	7/26/96

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

BP Site Number: 11132
ERM Contact: G797457
Sampling Date: 7/23/96
Matrix Desription: Groundwater ✓
Date Final Report Received: 8/8/96
Laboratory & Location: SPL - Texas

	Yes	No	NA
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 (ie. trip or equipment)?			X (1)
6. Are duplicate water samples within __%?	✓		
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/Comments: (1) Trip blank not submitted

Data Validation Completed by (print): Bill Hogewood
(signature): Bill Hogewood
Date: 9/12/96