BP OIL

BP Oil Company
Environmental Resources Management
Building 13, Suite N
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667
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3878

July 15, 1996

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 February 1, 1996** for the above referenced facility. Plans for the following quarter include additional groundwater monitoring and product removal.

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

Mr. Larry Silva, 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. 10-024-08-002

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

February 1, 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. 10-024-08-002

February 1, 1996

INTRODUCTION

This report presents the results and findings of the October 27 and 30, 1995 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	24.46	0.85	145 94	--	--	--	--	--	--	--	--
MW-1	10/27/95	169 75	25.41	0.69	144.86	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--

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	18	—	—	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-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 (d)	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 (d)	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 (d)	10/27/95	170.36	24.50	—	145 86	—	—	—	—	—	—	—	—

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-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	180	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-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 (e)	03/07/91	165 40	---	---	---	---	---	---	---	---	---	---	---
MW-6 (e)	06/27/91	165 40	---	---	---	---	---	---	---	---	---	---	---
MW-6 (e)	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 (d)	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 (d)	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 (d)	10/27/95	165 40	20.39	---	145 01	---	---	---	---	---	---	---	---

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 (d)	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 (d)	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 (d)	10/27/95	167.61	22.53	—	145.08	—	—	—	—	—	—	—	—
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 (d)	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	—	—	—	—	—	—	—	—

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	05/27/91	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-10	03/07/91	167.01	18.09	—	148.92	1.6	120	190	32	230	—	—	—
MW-10	05/27/91	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	19.06	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	—	—	—	—	—	—	—	—

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
QC-2 (f)	10/05/92	—	—	—	—	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	—	—	ANA
QC-2 (f)	01/13/93	—	—	—	—	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (f)	04/23/93	—	—	—	—	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (f)	07/12/93	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (f)	10/21/93	—	—	—	—	ND<50	ND<0.5	ND<0 5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (f)	01/21/94	—	—	—	—	ND<50	ND<0.5	2 1	ND<0.5	2 1	—	—	PACE
QC-2 (f)	04/20/94	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (f)	04/20/94	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (f)	12/23/94	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	ATI
QC-2 (f)	01/26/95	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	—	—	ATI
QC-2 (f)	06/08/95	—	—	—	—	ND<50	ND<0 50	ND<0 50	ND<0 50	ND<1.0	—	—	ATI
QC-2 (f)	08/22/95	—	—	—	—	ND<50	ND<0 50	ND<0.50	ND<0 50	ND<1.0	—	—	ATI
QC-2 (f)	10/30/95	—	—	—	—	ND<50	ND<0 50	ND<0.50	ND<0 50	ND<1.0	ND<5 0	—	ATI

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
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.

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) Monitoring well sampled semi-annually.

(e) Inaccessible due to car parked over well

(f) Travel blank.

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

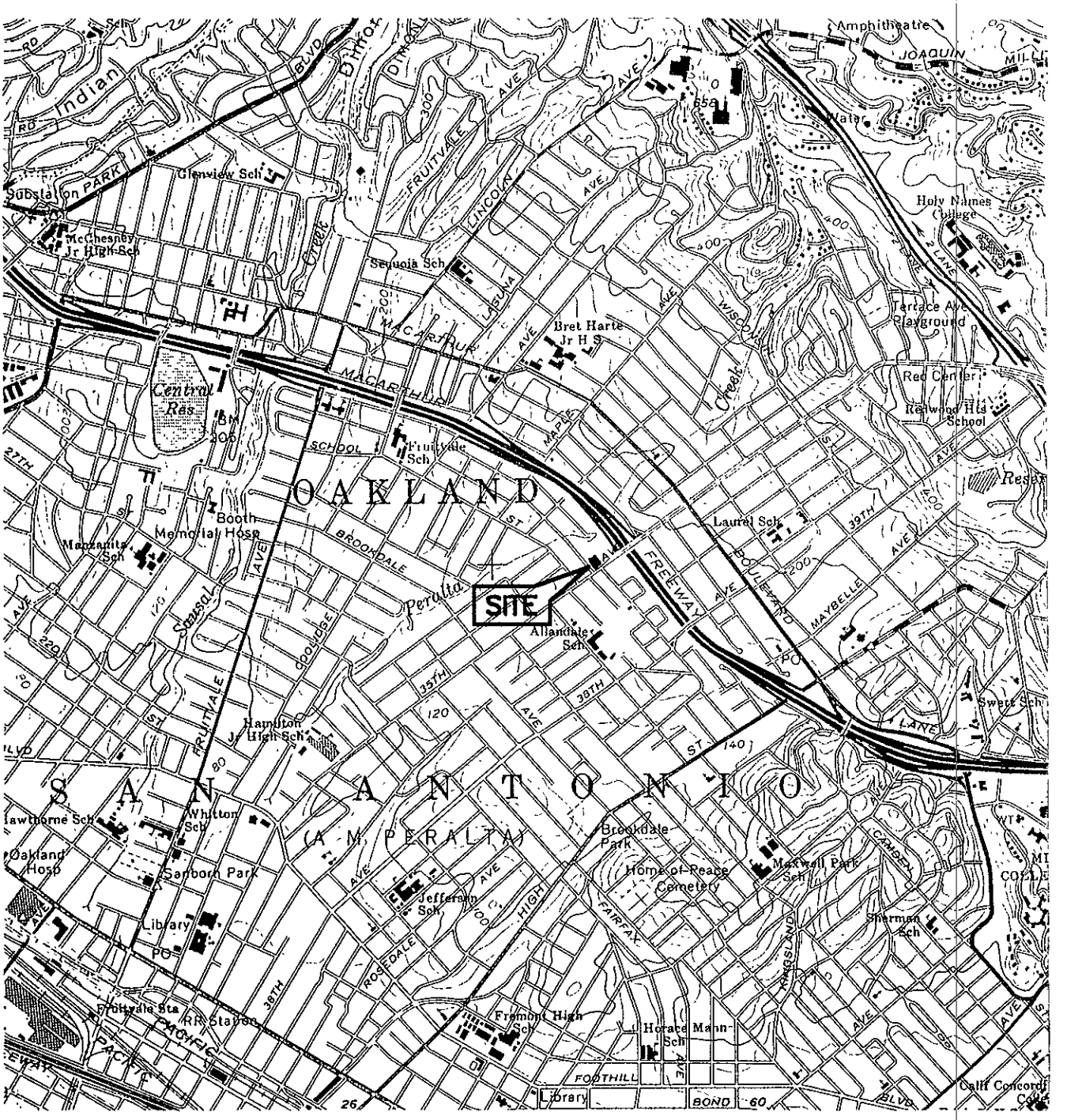
ALISTO PROJECT NO. 10-024

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
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
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

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	<0.001	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



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

FIGURE 1

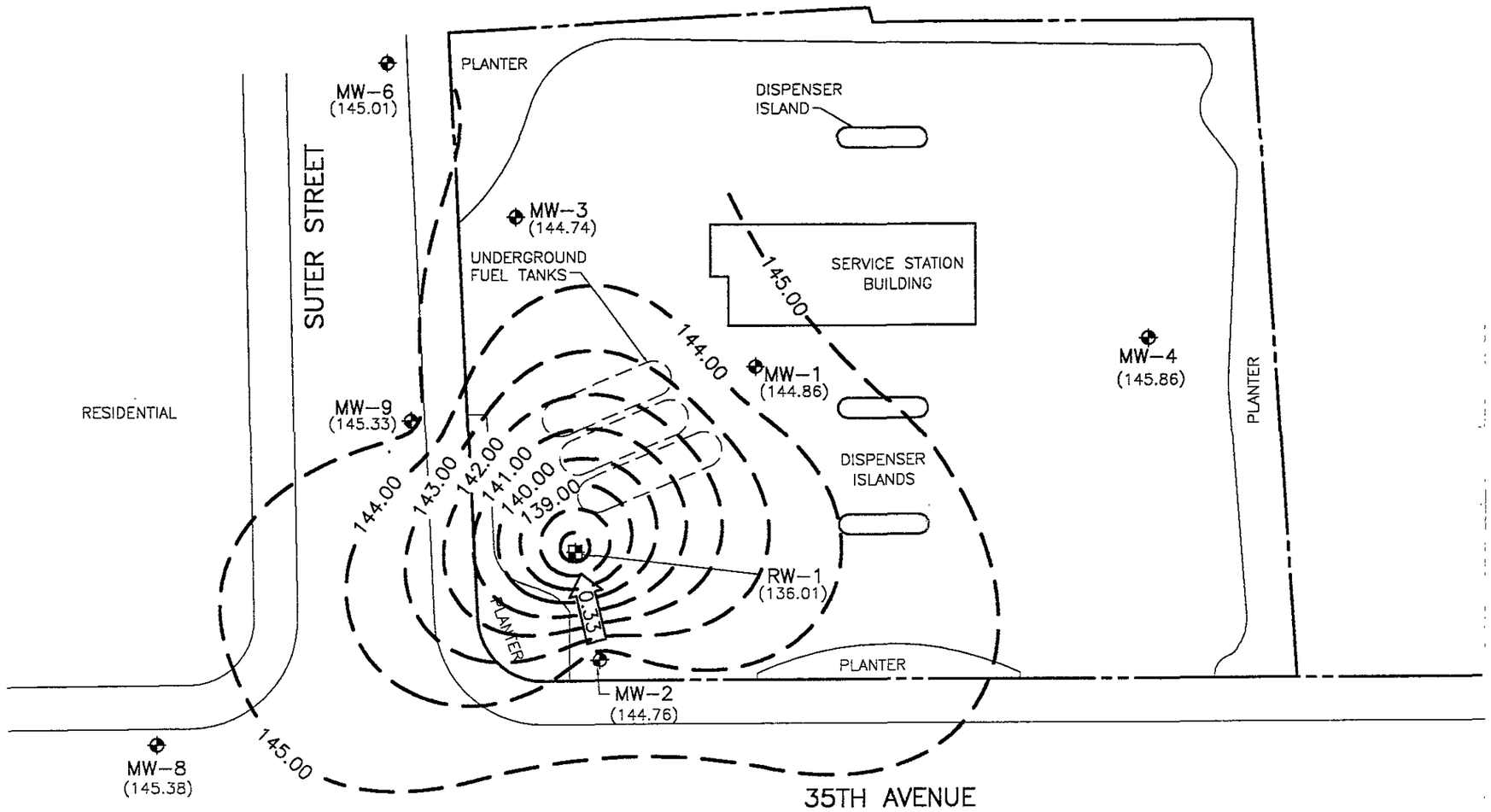
SITE VICINITY MAP

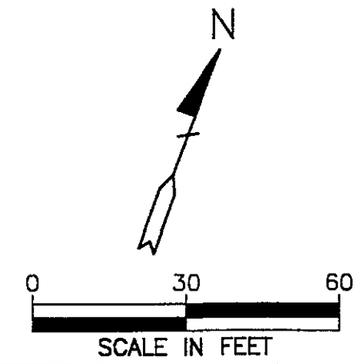
BP OIL SERVICE STATION NO. 11132
3201 35TH STREET
OAKLAND, CALIFORNIA

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
- (144.20) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 145.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–1.00 FOOT)
- 0.33 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

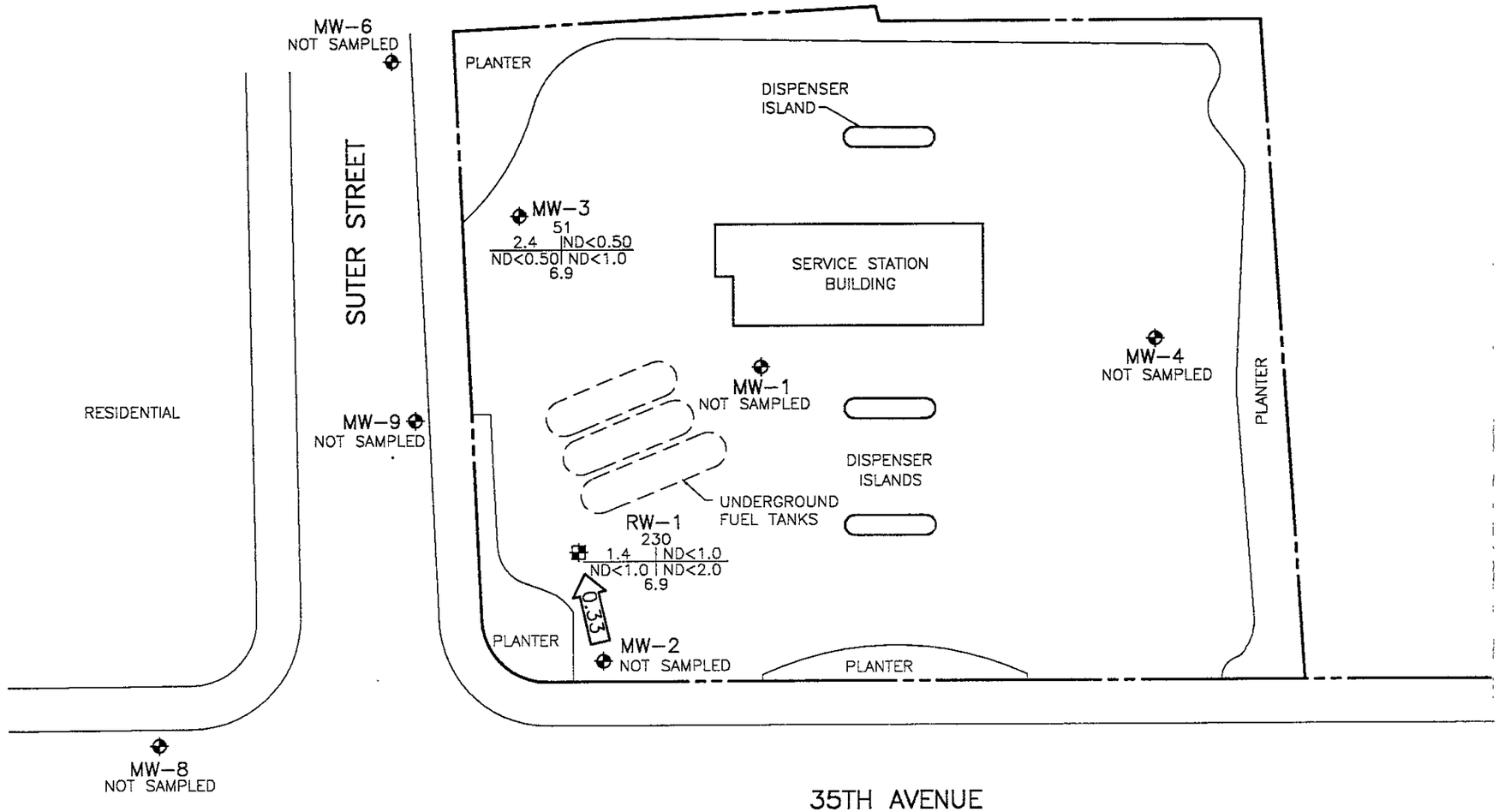
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

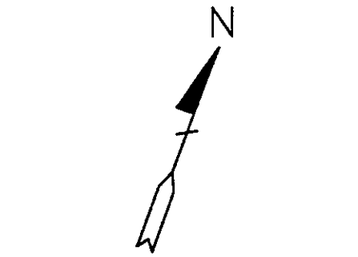
OCTOBER 27, 1995

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

PROJECT NO. 10–024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA





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
0.33	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

OCTOBER 30, 1995

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

PROJECT NO. 10-024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

10/30/95 Resampled

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201

Project No. 10-024-08-002 Date: 10/27/95 Monitored
Address 3201 35th Street Day: (M) T W TH (F)
Contract No. G602109 City: Oakland
Station No. BP 11132 Sampler: LB

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME SAMPLED	COMMENTS:
MW-1	N/S	2"	N/M	25.41	.69		FP DTP = 24.72
MW-2	N/S		N/M	23.61	3.0		FP DTP = 23.31
MW-3	S-1		34.58	22.43	Ø	1245	
MW-4	SEMI		N/M	24.50			N/S
MW-5	S-2		30.88	20.94		1335	
MW-6	SEMI		N/M	20.39			N/S
MW-7	SEMI			22.53			N/S
MW-8	N/S			20.47	.14		FP DTP = 20.33
MW-9	N/S			20.88	.01		FP DTP = 20.87
MW-10	N/S			21.69	.63		FP DTP = 21.06
RW-1	S-3	4"	38.41	32.00	Ø	1435	System is operating

FIELD INSTRUMENT CALIBRATION DATA

Ph METER Tam 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME 0800

D.O. METER Tam ZERO d.O. SOLUTION 0 BAROMETRIC PRESSURE 760 TEMP 65 WEATHER Clear

CONDUCTIVITY METER Tam 10,000 to TURBIDITY METER _____ 5.0 NTU _____ OTHER _____

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-3	22.43	2"	OK	Ø	Y (N)	2	1210	64.2	7.27	812 µS	7.1
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			4		63.4	7.14	793 µS	
34.58 - 22.43 = 12.15	X .16 = 1.94	X3 = 5.72				6	1237	62.7	7.09	788 µS	6.9
Purge Method: OSurface Pump ODisp.Tube OWinch X Disp. Bailer(s) 1 OSys Port											
Comments:											

O EPA 601 _____
X TPH-G/BTEX HCl
O TPH Diesel _____
O TOG 5520 _____
TIME/SAMPLE ID 10/30/95
~~1245~~ Resampled 1607

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-5	20.94	2"	Replaced	Ø	Y (N)	2	1315	65.7	7.31	1197 µS	7.7
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			4		64.1	7.11	1142 µS	
30.88 - 19.02 = 11.86	X .16 = 1.90	X3 = 5.70				6	1330	63.3	7.07	1138 µS	7.5
Purge Method: OSurface Pump ODisp.Tube OWinch X Disp. Bailer(s) 1 OSys Port											
Comments:											

O EPA 601 _____
X TPH-G/BTEX HCl
O TPH Diesel _____
O TOG 5520 _____
TIME/SAMPLE ID 10/30/95
~~1335~~ Resampled 1633

ALISTO

Field Report / Sampling Data Sheet

10/30/95 Resampled

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No. 10-024-08-002 Date: 10/27/95 Monitored
Address 3201 35th Street Day: (M) T W TH F
Contract No. G602109 City: Oakland
Station No. BP 11132 Sampler: LS

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
Rw-1	32.00	4"	OK	Ø	Y (N)	4	1400	64.0	7.59	900µs	6.9
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			8		63.3	7.37	832µs	
38.41-32.00=6.41x.65=4.17x3=12.51						12.75	1425	62.5	7.32	827µs	6.9
Purge Method: OSurface Pump ODisp.Tube OWinch XDisp. Bailer(s) 3 OSys Port											
Comments: QC-1 Dup from this well (S-4)											

O EPA 601____
X TPH-G/BTEX HCl
O TPH Diesel____
O TOG 5520 ___

TIME/SAMPLE ID
~~1435~~ Resampled 10/30/95 1659

QC-1 = S-4

QC-2 = S-5

MW-1 Serviced PPRS — Bailed 2 gal TF, .11 gal FP
MW-2 — Bailed 1 gal TF, .05 gal FP
MW-8 — Bailed 1 gal TF, .02 gal FP
MW-9 — Bailed 1 gal TF, < .001 gal FP
MW-10 — Bailed 1.5 gal TF, .10 gal FP

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

Analytical**Technologies,** Inc. Corporate Offices 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 511020

November 15, 1995

ALISTO ENGINEERING
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK, CA 94598

Project Name: BP SITE#11132/OAKLAND, CA
Project # : G602109/10-024-08/002

Attention: BRADY NAGLE

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
November 01, 1995	5	WATER

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.

GARY STEWART
VOLATILES SUPERVISOR

for ALAN J. KLEINSCHMIDT
LABORATORY MANAGER

SAMPLE CROSS REFERENCE

Client : ALISTO ENGINEERING
Project # : G602109/10-024-08/002
Project Name: BP SITE#11132/OAKLAND, CA

Report Date: November 15, 1995
ATI I.D. : 511020

ATI #	Client Description	Matrix	Date Collected
1	S-1	WATER	30-OCT-95
2	S-2	WATER	30-OCT-95
3	S-3	WATER	30-OCT-95
4	S-4	WATER	30-OCT-95
5	S-5	WATER	30-OCT-95

---TOTALS---

Matrix	# Samples
WATER	5

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ANALYTICAL SCHEDULE

Client : ALISTO ENGINEERING
Project # : G602109/10-024-08/002
Project Name: BP SITE#11132/OAKLAND, CA

ATI I.D.: 511020

Analysis	Technique/Description
MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)	GC/FLAME ION./PHOTO IONIZATION DETECTOR

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)
Client : ALISTO ENGINEERING ATI I.D. : 511020
Project # : G602109/10-024-08/002
Project Name: BP SITE#11132/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	S-1	WATER	30-OCT-95	N/A	13-NOV-95	1.00
2	S-2	WATER	30-OCT-95	N/A	13-NOV-95	50.00
3	S-3	WATER	30-OCT-95	N/A	13-NOV-95	2.00

Parameter	Units	1	2	3
METHYL T-BUTYL ETHER	UG/L	<5.0	<250	650
BENZENE	UG/L	2.4	2200	1.4
TOLUENE	UG/L	<0.50	55	<1.0
ETHYLBENZENE	UG/L	<0.50	180	<1.0
XYLENES (TOTAL)	UG/L	<1.0	270	<2.0
FUEL HYDROCARBONS	UG/L	51	6500	230
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLONE
SURROGATES				
TRIFLUOROTOLUENE	%	94	95	103

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)
Client : ALISTO ENGINEERING ATI I.D. : 511020
Project # : G602109/10-024-08/002
Project Name: BP SITE#11132/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	S-4	WATER	30-OCT-95	N/A	13-NOV-95	2.00
5	S-5	WATER	30-OCT-95	N/A	13-NOV-95	1.00

Parameter	Units	4	5
METHYL T-BUTYL ETHER	UG/L	630	<5.0
BENZENE	UG/L	1.6	<0.50
TOLUENE	UG/L	<1.0	<0.50
ETHYLBENZENE	UG/L	<1.0	<0.50
XYLENES (TOTAL)	UG/L	<2.0	<1.0
FUEL HYDROCARBONS	UG/L	240	<50
HYDROCARBON RANGE		C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE
SURROGATES			
TRIFLUOROTOLUENE	%	98	95

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank I.D. : 37331
Client : ALISTO ENGINEERING
Project # : G602109/10-024-08/002
Project Name: BP SITE#11132/OAKLAND, CA

ATI I.D. : 511020
Date Extracted: N/A
Date Analyzed : 13-NOV-95
Dil. Factor : 1.00

Parameters	Units	Results
METHYL T-BUTYL ETHER	UG/L	<5.0
BENZENE	UG/L	<0.50
TOLUENE	UG/L	<0.50
ETHYLBENZENE	UG/L	<0.50
XYLENES (TOTAL)	UG/L	<1.0
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
SURROGATES		
TRIFLUOROTOLUENE	%	97

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
MSMSD # : 79945
Client : ALISTO ENGINEERING

Project # : G602109/10-024-08/002
Project Name: BP SITE#11132/OAKLAND, CA

ATI I.D. : 511020
Date Extracted: N/A
Date Analyzed : 13-NOV-95
Sample Matrix : WATER
REF I.D. : 511020-01

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
BENZENE	UG/L	2.4	5.0	7.6	104	7.2	96	5
TOLUENE	UG/L	<0.50	5.0	5.1	102	4.8	96	6

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank Spike #: 59984
Client : ALISTO ENGINEERING
Project # : G602109/10-024-08/002
Project Name : BP SITE#11132/OAKLAND, CA

ATI I.D. : 511020
Date Extracted: N/A
Date Analyzed : 13-NOV-95
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BENZENE	UG/L	<0.50	4.9	5.0	98
TOLUENE	UG/L	<0.50	4.9	5.0	98

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

ACCESSION #: 511020 INITIALS: LQ

ATI-SanDiego
SAMPLE CONDITION UPON RECEIPT CHECKLIST
(FOR RE-ACCESSIONS, COMPLETE #7 THRU #9)

1	Does this project require special handling according to NFESC Levels C, D, AFCEE or CLP protocols? If yes, complete a)and b) a) pH sample aliquoted: yes /no /na b) Either 1) Record Bottle Lot #'s: Or 2) Attach Sample Kit Request Form(s)	YES	(NO)
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD"on Item 11 below		
3	Are custody seals required for this project ?	YES	(N/A)
	a) are Custody Seals present on Cooler(s) ?	YES	(NO)
	If yes, are seals intact ?	YES	NO (NA)
	b) are Custody Seals present on the sample ?	YES	(NO)
	If yes, are seals intact ?	YES	NO (NA)
4	Is there a Chain-Of-Custody (COC)* per cooler ? if not, if a problem is found indicate which samples/test were in the affected cooler on the MCD.	(YES)	NO
5	Is the COC* complete per cooler ? Relinquished: (yes)/no Requested analysis: (yes)/no	(YES)	NO
6	Is the COC* in agreement with the samples received? # Samples: (yes)/no Sample ID's: (yes)/no Date sampled: (yes)/no Matrix: (yes)/no # containers: (yes)/no	(YES)	NO
7	Are the samples preserved correctly?	(YES)	NO
8	Is there enough sample for all the requested analyses?	(YES)	NO
9	Are all samples within holding times for the requested analyses?	(YES)	NO
10	Record cooler temperature. Contact PM if temperature is not 4°C ± 2°C.	3.0 °C c	
	Is ice present in cooler?	(YES)	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	(YES)	NO
12	Are samples requiring no headspace, headspace free? N/A	(YES)	NO
13	Are VOA 1st stickers required?	YES	(NO)
14	Are there special comments on the Chain of Custody which require client contact?	YES	(N/A)
15	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: _____

Was client contacted? yes / no

If yes, Date: _____ Name of Person contacted:

Describe actions taken or client instructions: _____

*Or other representative documents, letters, and/or shipping memos

BP

ATI #511020

CHAIN OF CUSTODY

No.075833 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
Alisto Engineering	1575 Treat Blvd #201	Walnut Creek	Ca	94598

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11132	Oakland, Ca	10-074-02/007

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
Brady Nagle	(510) 295-1650	295-1823	G612109

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.
Scott Hooton	Renton, WA	(206) 251-8258	--

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.
ATI	San Diego	(619) 458-9141	—

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
Larry Brenvanich	[signature]	10/31/95	Fed EX

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

ANALYSIS REQUIRED

AIRBILL NUMBER: 6608023646[illegible]3

SAMPLE DESCRIPTION	COLLECTION DATE / COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	TPH-G BTEX	MTBE								COMMENTS
S-1	10/30/95	W	2	HCL	01	X	X								
S-2	↓	↓	↓	↓	02	↓	↓								
S-3	↓	↓	↓	↓	03	↓	↓								
S-4	↓	↓	↓	↓	04	↓	↓								
S-5	↓	↓	↓	↓	05	↓	↓								

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	10/31/95	0800	P. Yelton	10/31/95	0805
P. Yelton	10/31/95	1500	[signature] /ATI	11/1/95	09:10

ADDITIONAL COMMENTS: COOLER #08 = 3.0°C

CLV-16722
PKG/50

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