BP OIL

ENVIRONMENTAL PROTECTION

95 APR 27 PM 1:46

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

LOP 3878

April 25, 1995

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 April 3, 1995** for the above referenced facility.

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

Respectfully,

Scott T. Hooton
Environmental Resources Management
Group Leader

STH:mu msword\ERM11132

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

Hydro Environmental Technologies Inc., 2363 Mariner Square Drive, Suite 243, Alameda, CA 94501

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. 10-024-05-003

Prepared for:

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

Prepared by:

Alisto Engineering Group
1777 Oakland Boulevard, Suite 200
Walnut Creek, California

April 3, 1995

Brady Nagle
Project Manager

Dan Salaices
Registered Geologist

REGISTERED GEOLOGIST
DANIEL J.
SALAICES
No. 5162
STATE OF CALIFORNIA

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-024-05-003

April 3, 1995

INTRODUCTION

This report presents the results and findings of the January 26, 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 in 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 in Figure 2. The results of groundwater analysis are shown in 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 AVENUE, 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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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-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	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	—	—	—	—	—	—	—

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH AVENUE, 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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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-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

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BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH AVENUE, 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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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-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

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH AVENUE, 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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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-8	03/07/91	165.74	18.72	—	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	—	—	—	—	—	—	—	—	—	—

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH AVENUE, 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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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-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	—	—	—	—	—	—	—

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH AVENUE, 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 (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	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
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

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
DO	Dissolved oxygen
ppb	Parts per billion
ppm	Parts per million
—	Not analyzed/available/applicable/measurable
ND	Not detected above reported detection limit
ANA	Anametrix, Inc.
PACE	Pace, 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) Inaccessible due to car parked over well.

(e) Travel blank.

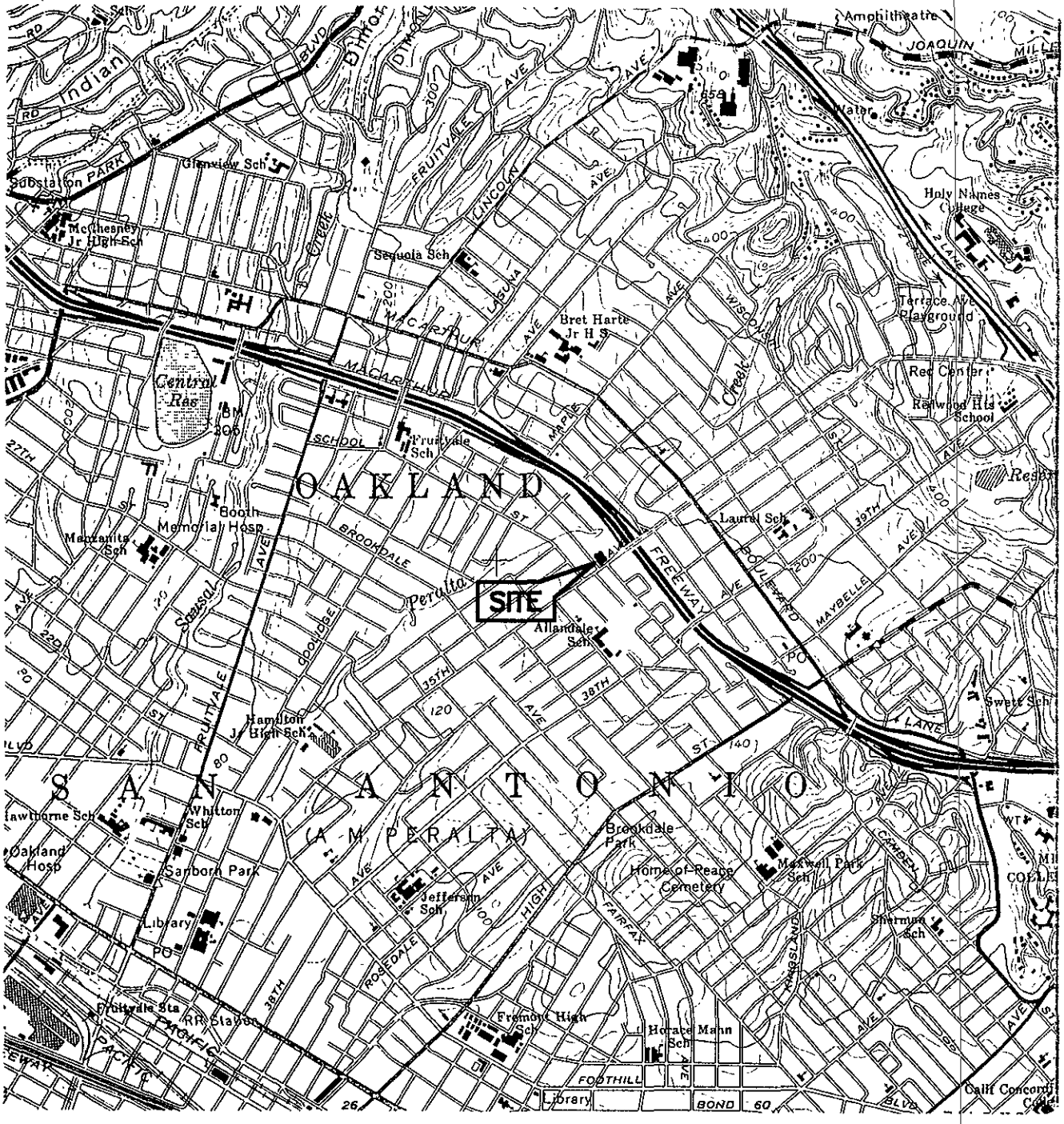
E:\D\10-024-05-003

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
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
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
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
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



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

N

0 1000' 2000'

FIGURE 1

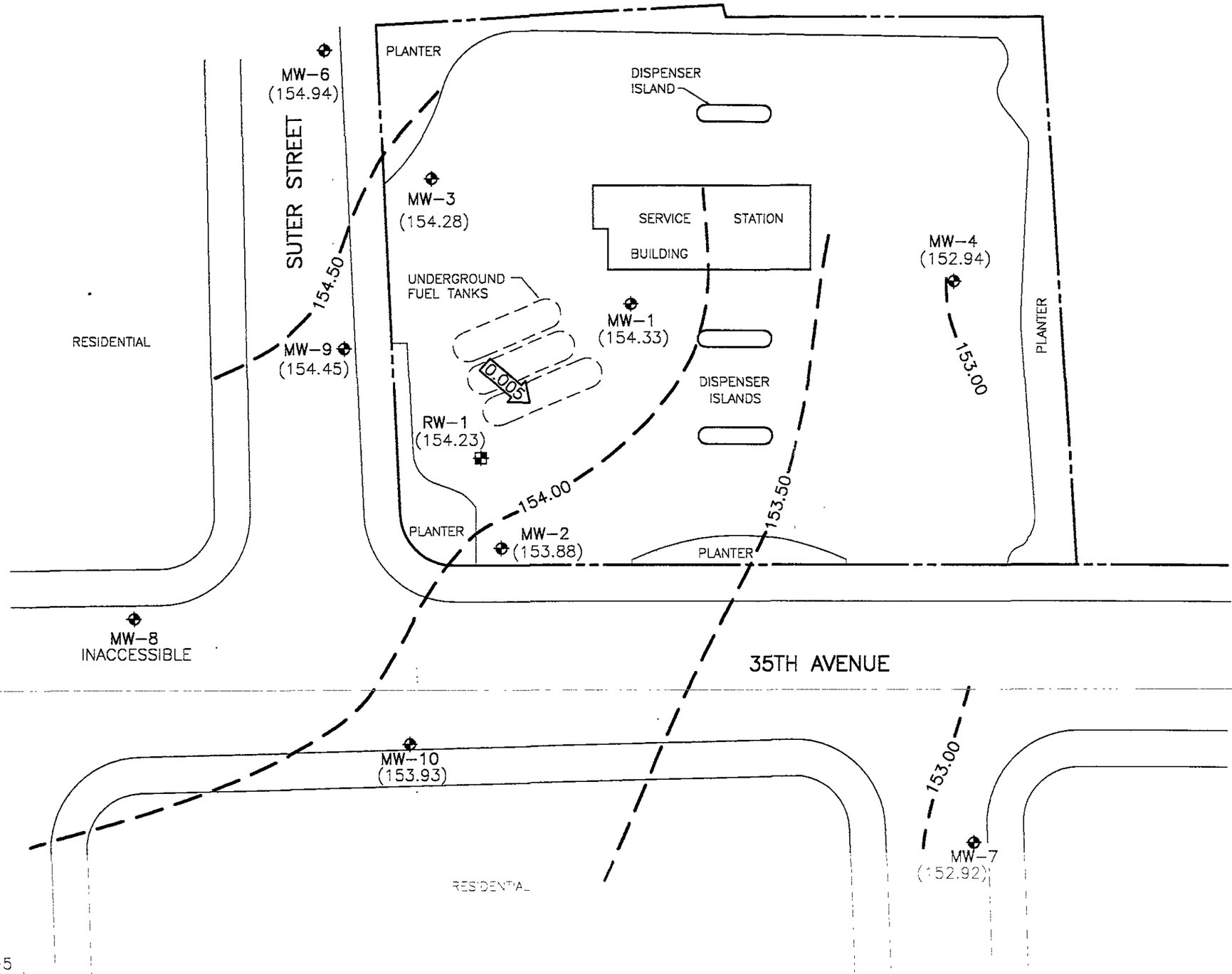
SITE VICINITY MAP

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

PROJECT NO. 10-024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

100249--.DWG 2-28-94 RKW 1-1



N

0 30 60

SCALE IN FEET

LEGEND

- ◆ GROUNDWATER MONITORING WELL
- ◆ GROUNDWATER RECOVERY WELL
- (152.92) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 153.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.50 FOOT)
- 0.005 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

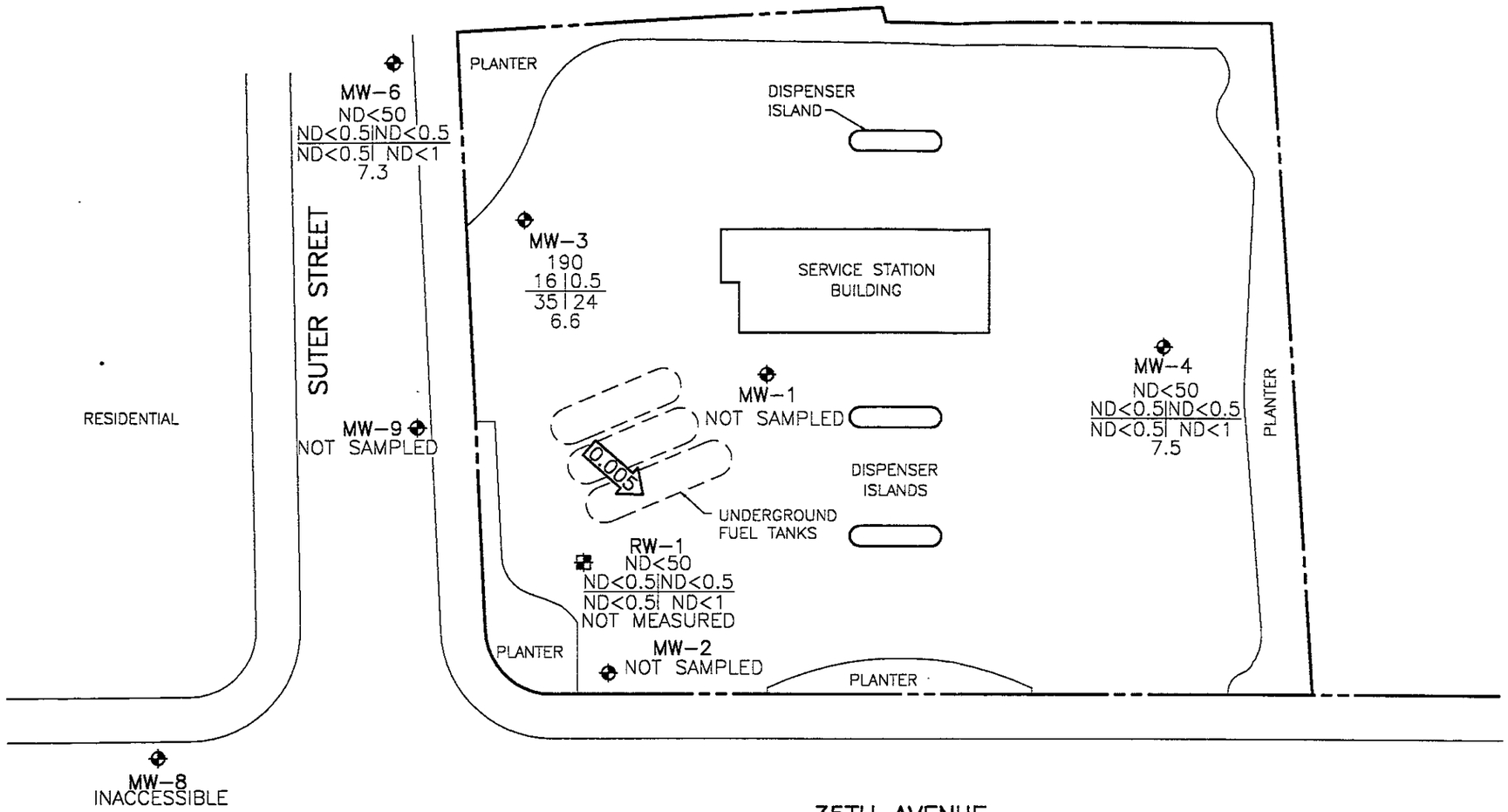
JANUARY 26, 1995

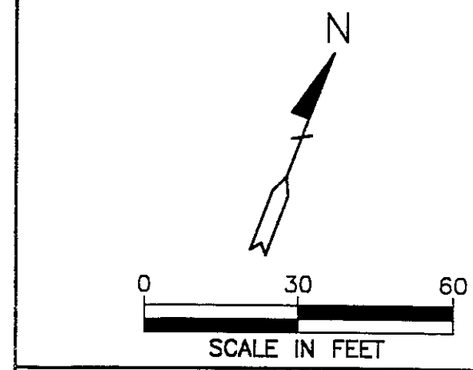
BP OIL SERVICE STATION NO. 11132
3201 35TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 10–024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10024 ■ DWG 7 21 95 RKW 1-30





LEGEND

⊕	GROUNDWATER MONITORING WELL
⊞	GROUNDWATER RECOVERY WELL
TPH-G / B | T / E | X / DO	CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION, 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
⇦ 0.005	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JANUARY 26, 1995

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

PROJECT NO. 10-024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10024I M DWG 2-21-95 JKW 1=30

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

ENGINEERING GROUP
1777 OAKLAND BLVD, STE 200
WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

5

Groundwater Sampling

Date: 1/26/95 Project No. 10-024-05-003
Day: M T W (Th) F Facility No. 11132
Barometric pres. 759 Temp. 61°F Address 3201 35th St, Oakland CA
SAMPLER: DC

Well ID	SAMPLE #	WATER / time	Well ID	SAMPLE #	WATER / time	Well ID	SAMPLE	WATER / time
MW-4	S-1	17.42/1101	RW-1	S-6	13.78/1131	MW-1	not pg3	16.25/1158
MW-6	S-2	10.46/1108	MW-9	not pg3	11.85/1137			
MW-7	S-3	14.69/1114	MW-8	pg3 inaccessible	-/—			
MW-3	S-4	12.89/1118	MW-2	not pg3	14.55/1143			
MW-5	S-5	11.25/1125	MW-10	not pg3	13.68/1152			

FIELD INSTRUMENT CALIBRATION DATA

Ph METER Hydac 4.00 ____ 7.00 ✓ 10.00 ✓ TIME 1230 TEMPERATURE COMPENSATED (Y) N
TURBIDI METER ____ 5.0 NTU STANDARD ✓ OTHER ____
CONDUCTIVITY METER Hydac 10,000 ✓ OTHER ____

I cm Dometer 0 sam 0.4 @ 1215

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.	
MW-4	17.42	2"	OK	⌀	Y (N)	4	1235	65.4	7.80	0.46	6.7	O EPA 601 ____
						8	1239	65.6	7.49	0.47		O TPH-G/BTEX ~~ifca~~
						10.25	1241	65.7	7.42	0.49	7.5	O TPH Diesel ____
												O TOG 5520 ____

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.
38.74 - 17.42 = 21.32 x .16 = 3.41 x 3 = 10.23
Purge Method: (X) Surface Pump ODisp.Tube OWinch ODisp. Bailer(s) ___ OSys Port
Comments:
Time/Sample 1243 / S-1

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.	
MW-6	10.46	2"	OK	⌀	Y (N)	4	1305	62.2	7.41	0.44	6.9	O EPA 601 ____
						8	1308	62.4	7.41	0.43		O TPH-G/BTEX ~~ifca~~
						11.5	1312	63.6	7.39	0.43	7.3	O TPH Diesel ____
												O TOG 5520 ____

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.
34.42 - 10.46 = 23.96 x .16 = 3.83 x 3 = 11.5
Purge Method: (X) Surface Pump ODisp.Tube OWinch ODisp. Bailer(s) ___ OSys Port
Comments:
Time/ Sample 1315 / S-2

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.	
MW-7	14.69	2"	OK	⌀	Y (N)	3	1330	62.5	7.39	0.61	7.6	O EPA 601 ____
						6	1333	63.7	7.40	0.61		O TPH-G/BTEX ____
						9.5	1336	64.2	7.42	0.61	7.0	O TPH Diesel ____
												O TOG 5520 ____

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.
34.49 - 14.69 = 19.80 x .16 = 3.17 x 3 = 9.5
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ___ OSys Port
Comments:
Time /Sample 1340 / S-3

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING GROUP
1777 OAKLAND BLVD, STE 200
WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

⊗ Groundwater Sampling

Date: 1/26/95 Project No. 10-024-05-003
Day: Thur Station No. 11132
Weather: Overcast Address 3201 35th Ave, Oakland, CA
SAMPLER: DC

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-3	12.89	2"	OK	ϕ	ϕ	4	1410	64.4	7.70	0.53	6.8	O EPA 601 ⊗ TPH-G/BTEX H+
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.			7	1413	66.2	7.61	0.51		O TPH Diesel
34.58 - 12.89 = 21.69 x .16 = 3.47 x 3 = 10.41						10.5	1416	66.9	7.58	0.50	6.6	O TOG 5520
Purge Method: ⊗Surface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												Time Sampled
Comments:												1420 / S-4

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-5	11.25	2"	OK	ϕ	ϕ	3	1427	62.2	7.16	0.59	5.9	O EPA 601 ⊗ TPH-G/BTEX H+
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.			6	1430	63.4	7.11	0.56		O TPH Diesel
30.89 - 11.25 = 19.64 x .16 = 3.14 x 3 = 9.43						9.5	1433	63.9	7.09	0.55	5.9	O TOG 5520
Purge Method: ⊗Surface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												Time Sampled
Comments:												1435 / S-5

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-1	13.78	6"	OK	ϕ	ϕ							O EPA 601 ⊗ TPH-G/BTEX H+
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									O TPH Diesel
38.41												O TOG 5520
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ⊗Sys Port												Time Sampled
Comments: QC-1 from this well (S-7)												1445 / S-6

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-4	11.95	2"	OK	11.72	0.13							O EPA 601 O TPH-G/BTEX
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									O TPH Diesel
Nm												O TOG 5520
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												Time Sampled
Comments: PRS had .10 gal FP, 1/4 gal of H2O												NOT

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-2	14.55	2"	OK	14.16	0.39							O EPA 601 O TPH-G/BTEX
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									O TPH Diesel
Nm												O TOG 5520
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												Time Sampled
Comments: PRS had 1/4 gal of H2O (FP (75% was FP)												NOT

ALISTO

ENGINEERING
GROUP
1777 OAKLAND BLVD, STE 200
WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

Groundwater Sampling

Date: 1/26/95 Project No. 10-021-05-003
Day: Thur Station No. 11132
Weather: Overcast Address 3201 35th St, Oakland, CA
SAMPLER: DX

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.	
MW-10	13.68	2"	OK	12.88	0.80							O EPA 601 O TPH-G/BTEX O TPH Diesel O TOG 5520 Time Sampled
Total Depth - Water Level = NM	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												
Comments: PPRS had 1/4 gall of H2O & FP (50% H2O, 50% FP)												

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.	
MW-7	16.25	2"	OK	15.15	1.10							O EPA 601 O TPH-G/BTEX O TPH Diesel O TOG 5520 Time Sampled
Total Depth - Water Level = NM	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												
Comments: PPRS had 1/4 gall of H2O & FP (80% FP)												

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.	
												O EPA 601 O TPH-G/BTEX O TPH Diesel O TOG 5520 Time Sampled
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:												

* MW-8 was inaccessable due to a car parked directly on the well

- MW-9, 2, 10, 1 were not sampled due to Free product in well

≅ 5 galls were bailed from MW-1, ≅ 3 gallons of FP, & 2 gallons of water.

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

SIGNATURE PAGE

Reviewed by: Melissa L. Pope
ATI Project Manager

Client:	BP OIL COMPANY RENTON, WASHINGTON
Project Name:	BP SITE #11132
Project Number:	10-024-05-003
Project Location:	3201 35TH ST., OAKLAND, CA
Accession Number:	501711
Project Manager:	BILL HOWELL (ALISTO, CA), SCOTT HOOTON (BP OIL)
Sampled By:	DAVID COSSIK

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: CA-LUFT BETX AND TPH C6-C10 RANGE

Accession:	501711
Client:	BP OIL COMPANY
Project Number:	10-024-05-003
Project Name:	BP SITE #11132
Project Location:	3201 35TH ST., OAKLAND, CA
Department:	SEMI-VOLATILE FUELS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 501711
Client: BP OIL COMPANY
Project Number: 10-024-05-003
Project Name: BP SITE #11132
Project Location: 3201 35TH ST., OAKLAND, CA
Test: CA-LUFT BETX AND TPH C6-C10 RANGE
QC Level: N

Sample Number: 001 Client Sample Id: S-1
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	ND	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	89	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	78	63-135	
ANALYST	INITIALS	KS		

Comments:

Sample Number: 002 Client Sample Id: S-2
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	ND	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	81	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	78	63-135	
ANALYST	INITIALS	KS		

Comments:

Sample Number: 003 Client Sample Id: S-3
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	ND	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	86	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	76	63-135	
ANALYST	INITIALS	KS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 501711
Client: BP OIL COMPANY
Project Number: 10-024-05-003
Project Name: BP SITE #11132
Project Location: 3201 35TH ST., OAKLAND, CA
Test: CA-LUFT BETX AND TPH C6-C10 RANGE
QC Level: N

Sample Number: 004 Client Sample Id: S-4
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	16	0.5	
TOLUENE	UG/L	0.5	0.5	
ETHYLBENZENE	UG/L	35	0.5	
XYLENES (TOTAL)	UG/L	24	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	0.19	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	82	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	76	63-135	
ANALYST	INITIALS	KS		

Comments:

Sample Number: 005 Client Sample Id: S-5
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	68	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	22	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	0.16	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	102	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	65	63-135	
ANALYST	INITIALS	KS		

Comments:

Sample Number: 006 Client Sample Id: S-6
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	ND	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	78	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	75	63-135	
ANALYST	INITIALS	KS		

Comments:

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 501711
Client: BP OIL COMPANY
Project Number: 10-024-05-003
Project Name: BP SITE #11132
Project Location: 3201 35TH ST., OAKLAND, CA
Test: CA-LUFT BETX AND TPH C6-C10 RANGE
QC Level: N

Sample Number: 007 Client Sample Id: S-7
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	ND	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	87	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	74	63-135	
ANALYST	INITIALS	KS		

Comments:

Sample Number: 008 Client Sample Id: S-8
Analysis Method: 5030 / 8020 / 8015 / SW846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	ND	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	91	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	79	63-135	
ANALYST	INITIALS	KS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - MULTIPLE"

Accession:	501711
Client:	BP OIL COMPANY
Project Number:	10-024-05-003
Project Name:	BP SITE #11132
Project Location:	3201 35TH ST., OAKLAND, CA
Test:	CA-LUFT BETX AND TPH C6-C10 RANGE
QC Level:	N

Client Id:	Lab Id:	Matrix:	Date/Time Sampled:	Date Received:
S-1	001	WATER	26-JAN-95 1243	27-JAN-95
S-2	002	WATER	26-JAN-95 1315	27-JAN-95
S-3	003	WATER	26-JAN-95 1340	27-JAN-95
S-4	004	WATER	26-JAN-95 1420	27-JAN-95
S-5	005	WATER	26-JAN-95 1435	27-JAN-95
S-6	006	WATER	26-JAN-95 1445	27-JAN-95
S-7	007	WATER	26-JAN-95 N/S	27-JAN-95
S-8	008	WATER	26-JAN-95 N/S	27-JAN-95

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 501711
Client: BP OIL COMPANY
Project Number: 10-024-05-003
Project Name: BP SITE #11132
Project Location: 3201 35TH ST., OAKLAND, CA
Test: CA-LUFT BETX AND TPH C6-C10 RANGE
QC Level: N

Lab Id:	Batch Id:	Blank Id:	Dryweight %	Extraction Date:	Analysis Date:
001	GRW009	B	N/A	N/A	08-FEB-95
002	GRW008	B	N/A	N/A	08-FEB-95
003	GRW008	B	N/A	N/A	08-FEB-95
004	GRW008	B	N/A	N/A	08-FEB-95
005	GRW008	B	N/A	N/A	08-FEB-95
006	GRW008	B	N/A	N/A	08-FEB-95
007	GRW008	B	N/A	N/A	08-FEB-95
008	GRW008	B	N/A	N/A	08-FEB-95

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 501711
Client: BP OIL COMPANY
Project Number: 10-024-05-003
Project Name: BP SITE #11132
Project Location: 3201 35TH ST., OAKLAND, CA
Test: CA-LUFT BETX AND TPH C6-C10 RANGE

Client Sample Id:	Parameter:	Unit:	Result:
S-4	BENZENE	UG/L	16
	TOLUENE	UG/L	0.5
	ETHYLBENZENE	UG/L	35
	XYLENES (TOTAL)	UG/L	24
	TOTAL PETROLEUM HYDROCARBON	MG/L	0.19
S-5	BENZENE	UG/L	68
	XYLENES (TOTAL)	UG/L	22
	TOTAL PETROLEUM HYDROCARBON	MG/L	0.16

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Common notation for Organic reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
D = DILUTED OUT
UG = MICROGRAMS
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/M3 = MILLIGRAM PER CUBIC METER.
PPMV = PART PER MILLION BY VOLUME.
MG/KG = PARTS PER MILLION.
MG/L = PARTS PER MILLION.
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

ND = NOT DETECTED ABOVE REPORTING LIMIT.

RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

ATI/GC/FID
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

ATI/GC/FIX
ATI GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

ATI/GC/FPD
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

ATI/GC/PID
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

ATI/GC/TCD
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

LJT = LISA THOMASON
DGH = DARREL HALSELL
TLH = TARA HELTON
KW = KAREN WADSWORTH
MV = MONIQUE VERHEYDEN
SW = STEVE WILHITE
JMP = JACKIE PRICE
SJF = STEVE FILOROMO
PL = PAUL LESCHENSKY
RW = ROBERT WOLFE
BV = BEN VAUGHN
KS = KENDALL SMITH

BP

501711

CHAIN OF CUSTODY

No. 052527 Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering	ADDRESS: 1777 Oakland Blvd #200	CITY: Walnut Creek	STATE: CA	ZIP CODE: 94596	
BP SITE NUMBER: 11132	BP CORNER ADDRESS/CITY: 3201 35th St, Oakland CA			CONSULTANT PROJECT NUMBER: 10-021-05-003	
CONSULTANT PROJECT MANAGER: Bill Howell	PHONE NUMBER: (510) 295 1650	FAX NUMBER: (510) 295 1823		CONSULTANT CONTRACT NUMBER: 6317872	
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, WA	PHONE NUMBER:		FAX NO:	
LAB CONTACT: Diana Spence	LABORATORY ADDRESS: Pensacola, FL	PHONE NUMBER: 904-474-1001		FAX NO.:	
SAMPLED BY (Please Print Name): David Cosack	SAMPLED BY (Signature): [signature]	SHIPMENT DATE:		SHIPMENT METHOD: Courier	
				AIRBILL NUMBER:	

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

ANALYSIS REQUIRED

SAMPLE DESCRIPTION (time)	COLLECTION DATE / COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	TPH GAS BTEX									COMMENTS
S-1 1243	1/26/95	H2O	2	VOA		X									
S-2 1315	↓	↓	↓	↓		↓									
S-3 1340	↓	↓	↓	↓		↓									
S-4 1420	↓	↓	↓	↓		↓									
S-5 1435	↓	↓	↓	↓		↓									
S-6 1445	↓	↓	↓	↓		↓									
S-7 —	↓	↓	↓	↓		↓									
S-8 —	↓	↓	↓	↓		↓									

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
[signature] Alisto			Sally A. Wells / ATI	1/27/95	0912	

CLV-16722

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