



**BP OIL**

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

April 26, 1995

*LOP  
5878*

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 March 17, 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

ENVIRONMENTAL  
PROGRAMS  
55 APR 27 AM 9:27

MAR 28 1995

**GROUNDWATER MONITORING AND SAMPLING REPORT**

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

**BP OIL CO.**  
ENVIRONMENTAL DEPT.  
11132 ST COAST REGIONAL OFFICE

**Project No. 10-024-05-002**

**Prepared for:**

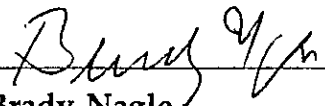
**BP Oil Company**  
Environmental Resources Management  
295 S.W. 41st Street  
Building 13, Suite N  
Renton, Washington

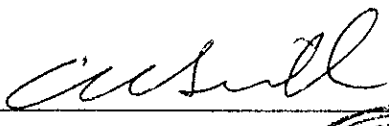
**Prepared by:**

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

95 APR 27 AM 9:27  
ENVIRONMENTAL  
11132 ST COAST REGIONAL OFFICE

**March 17, 1995**

  
\_\_\_\_\_  
**Brady Nagle**  
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. 10-024-05-002

March 17, 1995

## INTRODUCTION

This report presents the results and findings of the December 23, 1994 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, and electrical conductivity. 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-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-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	--	--	--	--	--	--	--

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<1	1.7	PACE
QC-1 (c)	12/23/94	--	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	--	PACE
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	--	--	--	--	--	--	--

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-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-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	--	--	--	--	--	--	--

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-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	—	—	—	—	—	—	—

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	--	--	--	--	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-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	--	--	--	--	--	--	--



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
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<1	—	PACE

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
PACE	Pace Inc.
ANA	Anamatrix, 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) Not sampled due to an abandoned vehicle parked over well.
- (e) Travel blank.

E:\010-024-03-004

TABLE 2 - PRODUCT REMOVAL STATUS

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

ALISTO PROJECT NO. 10-024

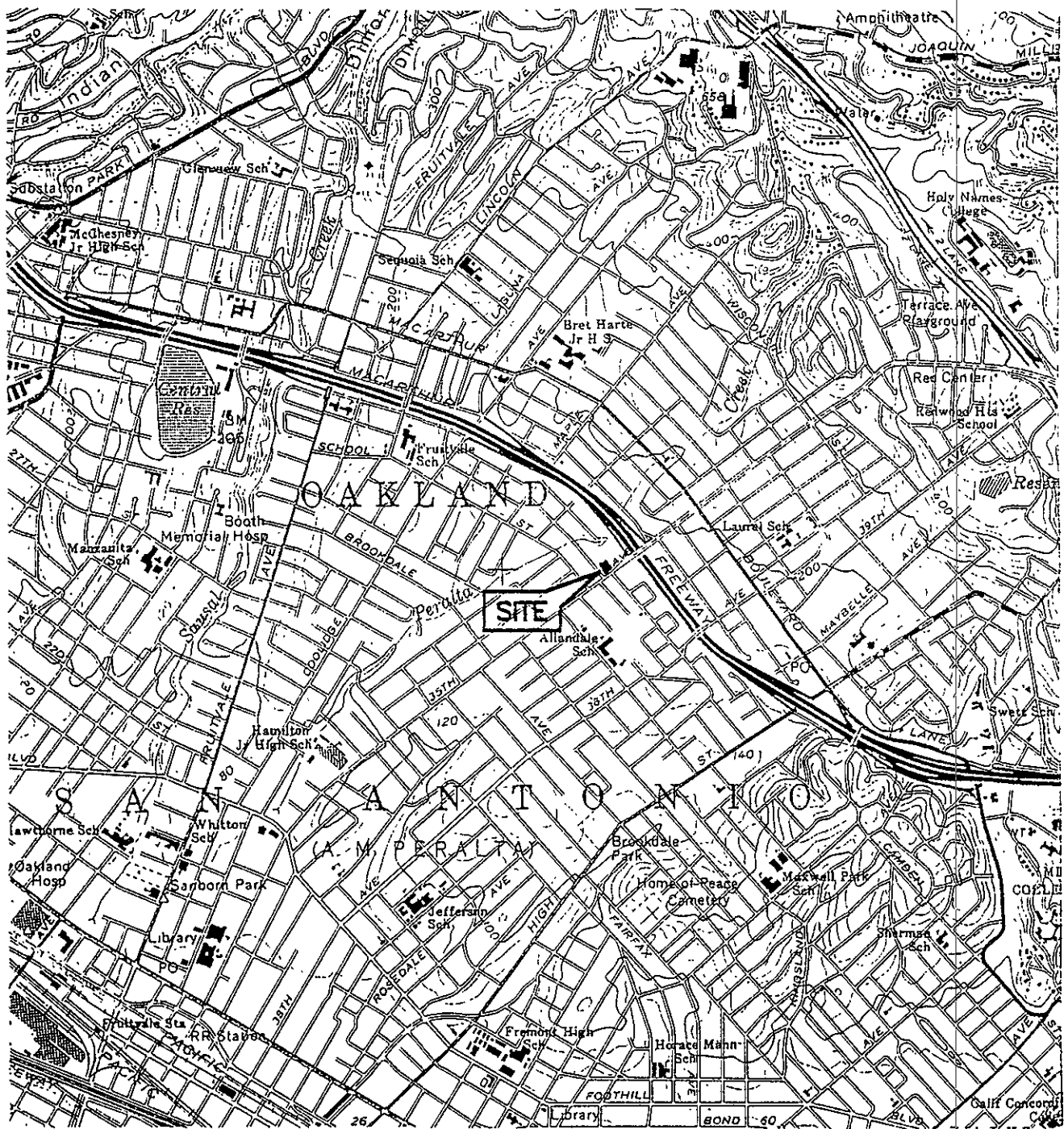
WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-1	01/26/95	0.20	0.20
MW-2	09/29/93	0.10	0.10
	10/05/93	0.10	0.20
	10/14/93	0.10	0.30
	10/20/93	0.25	0.55
	11/02/93	0.10	0.65
	12/07/93	0.05	0.70
	12/17/93	<0.01	0.70
	12/23/93	0.30	1.00
	01/12/94	0.05	1.05
	02/02/94	0.01	1.06
	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

TABLE 2 - PRODUCT REMOVAL STATUS

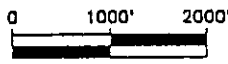
BP OIL COMPANY SERVICE STATION NO. 11132  
3201 35TH STREET, OAKLAND, CALIFORNIA

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
	MW-10	09/07/93	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.



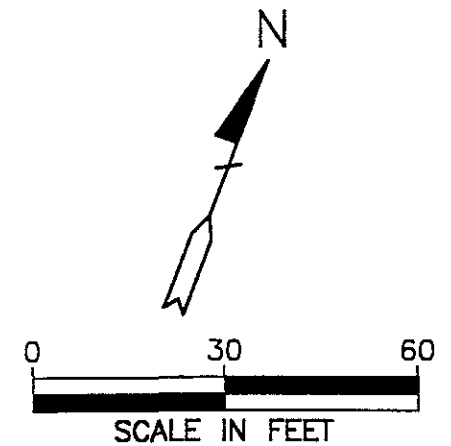
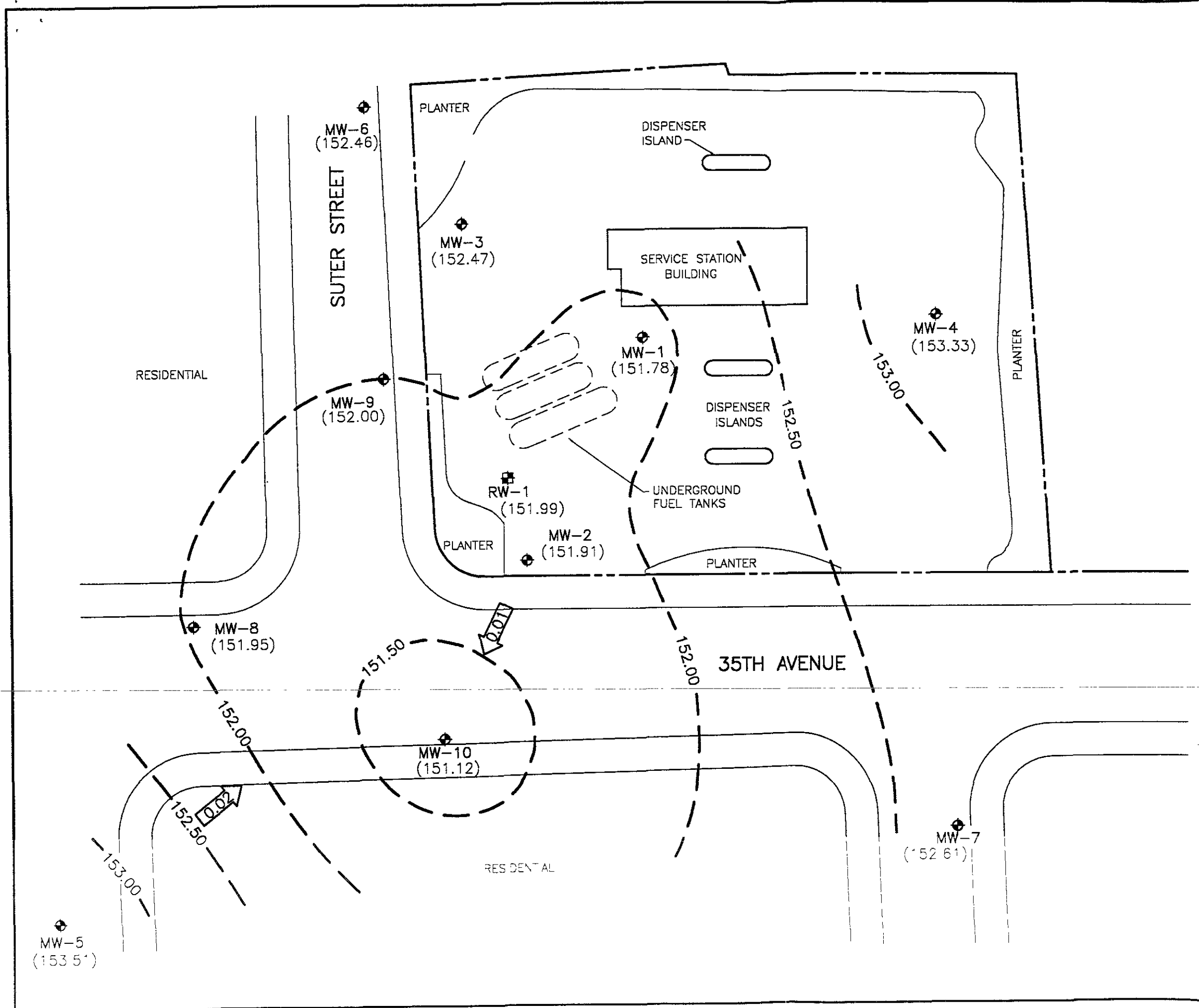
**FIGURE 1**

**SITE VICINITY MAP**

BP OIL SERVICE STATION NO. 11132  
 3201 35TH STREET  
 OAKLAND, CALIFORNIA  
 PROJECT NO. 10-024

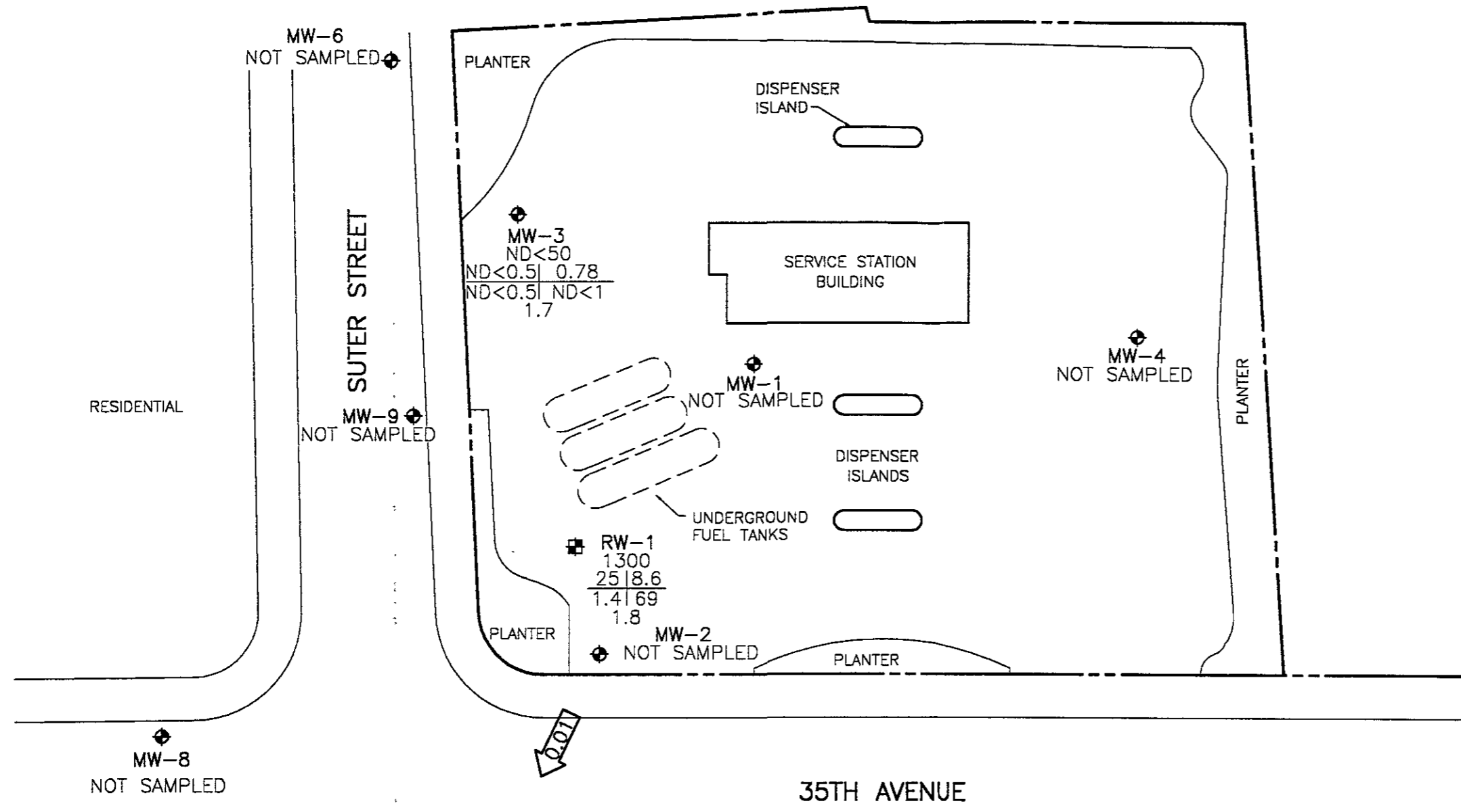


**ALISTO ENGINEERING GROUP**  
 WALNUT CREEK, CALIFORNIA



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
  - ⊕ GROUNDWATER RECOVERY WELL
  - (153.33) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 153.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-0.50 FOOT)
  - ← 0.01 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

**FIGURE 2**  
**POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP**  
 DECEMBER 23, 1994  
 BP OIL SERVICE STATION NO. 11132  
 3201 35TH STREET  
 OAKLAND, CALIFORNIA  
 PROJECT NO. 10-024



**LEGEND**

- ◆ GROUNDWATER MONITORING WELL
- ⊕ GROUNDWATER RECOVERY WELL
- TPH-G  
B | T  
E | X  
DO
- 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
- ← 0.01 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

**FIGURE 3**  
**CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER**  
 DECEMBER 23, 1994  
 BP OIL SERVICE STATION NO. 11132  
 3201 35TH STREET  
 OAKLAND, CALIFORNIA  
 PROJECT NO. 10-024

MW-5  
 630  
 180  
 0.66  
 1.4

MW-3  
 ND<50  
 ND<0.5 | 0.78  
 ND<0.5 | ND<1  
 1.7

RW-1  
 1300  
 25 | 8.6  
 1.4 | 69  
 1.8

MW-5  
 630  
 180  
 0.66  
 1.4

10024T-1.DWG 2 15 95 BRW 1:30

**APPENDIX A**  
**WATER SAMPLING FIELD SURVEY FORMS**

# ALISTO ENGINEERING GROUP GROUNDWATER MONITORING

Client: BP  
 Alisto Project No: 10-024-05  
 Service Station No: 1132

Date: 12/23/94  
 Field Personnel: LB  
 Site Address: Carle, La

**FIELD ACTIVITY:**

Groundwater Monitoring  
 Groundwater Sampling  
 Well Development

**QUALITY CONTROL SAMPLES:**

(S-4)  
 MW-3 QC-1 Sample Duplicate (Well ID)  
 QC-2 Trip Blank (S-5)  
 QC-3 Rinsate Blank

Well ID	Well Diam	Order Measured/ Sampled	Total Depth	Depth to Water	Depth to Product	Product Thick-ness	Comments
4 MW-1	2"	11	NM	18.19	17.90	.29	FP
13 MW-2	2"	9	NM	16.25	16.22	.03	FP
5-1 MW-3	2"	4	34.58	14.70	∅	∅	
T MW-4	2"	1	NM	17.03	↓	↑	Semi Annual
5-3 MW-5	2"	5	30.89	11.63	↓	↓	
T MW-6	2"	2	NM	12.94	↓	↓	Semi Annual
F MW-7	2"	3	↓	15.00	↓	↓	Semi Annual
13 MW-8	2"	8	↓	13.81	13.78	.03	FP
13 MW-9	2"	7	↓	14.22	14.20	.02	FP
13 MW-10	2"	10	↓	16.08	15.83	.25	FP
5-2 RW-1	6"	6	38.41	16.02	∅	∅	

Notes:

---



---



---



---



# 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: 12/23/94 Project No. 10-024-05  
Day: Fri. Station No. 11132  
Weather: Cloudy Address Oakland, Ca  
SAMPLER: LCB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-1	18.19	2"	OK	17.90	.29							<input type="checkbox"/> EPA 601
Total Depth - Water Level =												<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TPH Diesel
Comments: <u>Bailed 5 gal TF / .05 gal FP</u>												<input type="checkbox"/> TOG 5520
												Time Sampled
												<u>N/S</u>
MW-2	16.25	2"	OK	16.22	.03							<input type="checkbox"/> EPA 601
Total Depth - Water Level =												<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TPH Diesel
Comments: <u>Bailed 4 gal TF / 1 oz FP</u>												<input type="checkbox"/> TOG 5520
												Time Sampled
												<u>N/S</u>
MW-4	17.03	2"	OK	∅	∅							<input type="checkbox"/> EPA 601
Total Depth - Water Level =												<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TPH Diesel
Comments: <u>Semi Annual / Not Sampled</u>												<input type="checkbox"/> TOG 5520
												Time Sampled
												<u>N/S</u>
MW-6	12.94	2"	OK	∅	∅							<input type="checkbox"/> EPA 601
Total Depth - Water Level =												<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TPH Diesel
Comments: <u>Semi Annual / Not Sampled</u>												<input type="checkbox"/> TOG 5520
												Time Sampled
												<u>N/S</u>
MW-7	15.00	2"	OK	∅	∅							<input type="checkbox"/> EPA 601
Total Depth - Water Level =												<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TPH Diesel
Comments: <u>Semi Annual / Not Sampled</u>												<input type="checkbox"/> TOG 5520
												Time Sampled
												<u>N/S</u>

# ALISTO

## Field Report / Sampling Data Sheet

ENGINEERING  
GROUP

Groundwater Sampling

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

Date: 12/23/94 Project No. 10-024-05  
Day: Fri. Station No. 11132  
Weather: Cloudy Address Oakland, CA  
SAMPLER: LCB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.				
Mw-9	14.22	2"	OK	14.20	.02							<input type="checkbox"/> EPA 601			
Total Depth - Water Level =						x Well Vol. Factor =						x #vol. to Purge =		PurgeVol.	<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												<input type="checkbox"/> TPH Diesel			
Comments: <u>Bailed 2 gal TF / &lt; 1.02 FP</u>												<input type="checkbox"/> TOG 5520			
												Time Sampled			
												<u>N/S</u>			
Mw-10	16.08	2"	OK	15.83	.25							<input type="checkbox"/> EPA 601			
Total Depth - Water Level =						x Well Vol. Factor =						x #vol. to Purge =		PurgeVol.	<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												<input type="checkbox"/> TPH Diesel			
Comments: <u>Bailed 4 gal TF / .05 gal FP</u>												<input type="checkbox"/> TOG 5520			
												Time Sampled			
												<u>N/S</u>			
												<input type="checkbox"/> EPA 601			
Total Depth - Water Level =						x Well Vol. Factor =						x #vol. to Purge =		PurgeVol.	<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												<input type="checkbox"/> TPH Diesel			
Comments:												<input type="checkbox"/> TOG 5520			
												Time Sampled			
												<input type="checkbox"/> EPA 601			
Total Depth - Water Level =						x Well Vol. Factor =						x #vol. to Purge =		PurgeVol.	<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												<input type="checkbox"/> TPH Diesel			
Comments:												<input type="checkbox"/> TOG 5520			
												Time Sampled			

# ALISTO

## Field Report / Sampling Data Sheet

ENGINEERING  
GROUP

Groundwater Sampling

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

Date: 12/20/94 Project No. 10-024-05  
Day: Fri Station No. 1132  
Weather: Cloudy Address Oakland, Ca  
SAMPLER: LB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
Rw-1	16.02	6"	OK	Ø	Ø	34	1215	65.9	7.11	725	2.2	<input type="checkbox"/> EPA 601
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.						68		66.2	6.96	730		<input checked="" type="checkbox"/> TPH-G/BTEX HCL
38.41 - 16.02 = 22.39 x 1.47 = 32.91 x 3 = 98.73						99	1240	65.6	6.88	732	1.8	<input type="checkbox"/> TPH Diesel
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Baller(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TOG 5520
Comments:												Time Sampled

1240 / S-2 1245

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-3	14.70	2"	OK	Ø	Ø	3	1256	66.7	7.16	715	1.9	<input type="checkbox"/> EPA 601
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.						6		64.6	7.03	612		<input checked="" type="checkbox"/> TPH-G/BTEX HCL
34.58 - 14.70 = 19.88 x 1.16 = 3.18 x 3 = 9.54						9.75	1312	65.3	6.96	607	1.7	<input type="checkbox"/> TPH Diesel
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Baller(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TOG 5520
Comments: QC-1 Dup From this well												Time Sampled

1320 / S-1

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-5	11.63	2"	Replaced	Ø	Ø	3	1330	66.2	7.22	592	1.2	<input type="checkbox"/> EPA 601
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.						6		65.6	7.09	579		<input checked="" type="checkbox"/> TPH-G/BTEX HCL
30.89 - 11.63 = 19.26 x 1.16 = 3.08 x 3 = 9.24						9.5	1350	64.9	7.00	573	1.4	<input type="checkbox"/> TPH Diesel
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Baller(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TOG 5520
Comments: Replaced 2" Cap + Lock												Time Sampled

1400 / S-3

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-8	3.81	2"	OK	13.78	.03							<input type="checkbox"/> EPA 601
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.												<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Baller(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TPH Diesel
Comments: Failed 4 gal TF / < 102 FP												<input type="checkbox"/> TOG 5520
												Time Sampled

N/S

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp *F	pH	E.C.	D.O.	
												<input type="checkbox"/> EPA 601
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.												<input type="checkbox"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Baller(s) <input type="checkbox"/> OSys Port												<input type="checkbox"/> TPH Diesel
Comments:												<input type="checkbox"/> TOG 5520
												Time Sampled

**APPENDIX B**

**LABORATORY REPORT AND CHAIN OF CUSTODY RECORD**

DATE: 01/11/95

PAGE: 1

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

PACE Project Number: 70128  
 Client Project ID: BP11132/10-024-05

Attn: Mr. Bill Howell  
 Phone: (510)295-1650

PACE Sample No: 7010218 Date Collected: 12/23/94  
 Client Sample ID: S-1 Date Received: 12/27/94

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	12/28/94	CA LUFT	LMD		
Benzene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	71-43-2	
Toluene	0.78	ug/L	0.5	12/28/94	CA LUFT	LMD	108-88-3	1
Ethyl Benzene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	100-41-4	
Xylene (Total)	ND	ug/L	1	12/28/94	CA LUFT	LMD	1330-20-7	
a.a.a-Trifluorotoluene (S)	104	%		12/28/94	CA LUFT	LMD	2164-17-2	
4-Bromofluorobenzene (S)	87	%		12/28/94	CA LUFT	LMD	460-00-4	

**REPORT OF LABORATORY ANALYSIS**

DATE: 01/11/95

PAGE: 2

PACE Project Number: 70128

Client Project ID: BP11132/10-024-05

PACE Sample No: 7010226

Date Collected: 12/23/94

Client Sample ID: S-2

Date Received: 12/27/94

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	1300	ug/L	50	12/28/94	CA LUFT	LMD		
Benzene	25	ug/L	0.5	12/28/94	CA LUFT	LMD	71-43-2	
Toluene	8.6	ug/L	0.5	12/28/94	CA LUFT	LMD	108-88-3	
Ethyl Benzene	1.4	ug/L	0.5	12/28/94	CA LUFT	LMD	100-41-4	
Xylene (Total)	69	ug/L	1	12/28/94	CA LUFT	LMD	1330-20-7	
a,a,a-Trifluorotoluene (S)	99	%		12/28/94	CA LUFT	LMD	2164-17-2	
4-Bromofluorobenzene (S)	98	%		12/28/94	CA LUFT	LMD	460-00-4	

**REPORT OF LABORATORY ANALYSIS**

DATE: 01/11/95

PAGE: 3

PACE Project Number: 70128

Client Project ID: BP11132/10-024-05

PACE Sample No: 7010234

Date Collected: 12/23/94

Client Sample ID: S-3

Date Received: 12/27/94

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	630	ug/L	50	12/28/94	CA LUFT	LMD		
Benzene	180	ug/L	0.5	12/28/94	CA LUFT	LMD	71-43-2	
Toluene	1.9	ug/L	0.5	12/28/94	CA LUFT	LMD	108-88-3	
Ethyl Benzene	0.66	ug/L	0.5	12/28/94	CA LUFT	LMD	100-41-4	
Xylene (Total)	1.9	ug/L	1	12/28/94	CA LUFT	LMD	1330-20-7	
a,a,a-Trifluorotoluene (S)	117	%		12/28/94	CA LUFT	LMD	2164-17-2	
4-Bromofluorobenzene (S)	90	%		12/28/94	CA LUFT	LMD	460-00-4	

**REPORT OF LABORATORY ANALYSIS**

DATE: 01/11/95  
 PAGE: 4

PACE Project Number: 70128  
 Client Project ID: BP11132/10-024-05

PACE Sample No: 7010242 Date Collected: 12/23/94  
 Client Sample ID: S-4 Date Received: 12/27/94

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	12/28/94	CA LUFT	LMD		
Benzene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	71-43-2	
Toluene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	108-88-3	
Ethyl Benzene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	100-41-4	
Xylene (Total)	ND	ug/L	1	12/28/94	CA LUFT	LMD	1330-20-7	
a,a,a-Trifluorotoluene (S)	103	%		12/28/94	CA LUFT	LMD	2164-17-2	
4-Bromofluorobenzene (S)	88	%		12/28/94	CA LUFT	LMD	460-00-4	



**REPORT OF LABORATORY ANALYSIS**

DATE: 01/11/95

PAGE: 5

PACE Project Number: 70128

Client Project ID: BP11132/10-024-05

PACE Sample No: 7010259

Client Sample ID: S-5

Date Collected: 12/23/94

Date Received: 12/27/94

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	12/28/94	CA LUFT	LMD		
Benzene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	71-43-2	
Toluene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	108-88-3	
Ethyl Benzene	ND	ug/L	0.5	12/28/94	CA LUFT	LMD	100-41-4	
Xylene (Total)	ND	ug/L	1	12/28/94	CA LUFT	LMD	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%		12/28/94	CA LUFT	LMD	2164-17-2	
4-Bromofluorobenzene (S)	85	%		12/28/94	CA LUFT	LMD	460-00-4	

DATE: 01/11/95

PAGE: 6

PACE Project Number: 70128

Client Project ID: BP11132/10-024-05

PARAMETER FOOTNOTES

ND Not Detected  
PRL PACE Reporting Limit  
(S) Surrogate  
[1] Compound confirmed by secondary column.



**REPORT OF LABORATORY ANALYSIS**

QUALITY CONTROL DATA

DATE: 01/11/95

PAGE: 8

PACE Project Number: 70128

Client Project ID: BP11132/10-024-05

LABORATORY CONTROL SAMPLE & LCSD: 7010416 7010424

Parameter	Units	7010416		7010424		Spike		Footnotes
		Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Dup % Rec	RPD	
Benzene	ug/L	100	110	108	100	103	5	
Toluene	ug/L	100	110	111	100	105	6	
Ethyl Benzene	ug/L	100	110	112	110	106	6	
Xylene (Total)	ug/L	300	340	113	320	108	5	
a,a,a-Trifluorotoluene (S)				99		99		
4-Bromofluorobenzene (S)				101		102		

DATE: 01/11/95

PAGE: 9

PACE Project Number: 70128

Client Project ID: BP11132/10-024-05

QUALITY CONTROL DATA PARAMETER FOOTNOTES

The Quality Control Sample Final Results listed above have been rounded to reflect an appropriate number of significant figures. Consistent with EPA guidelines unrounded concentrations have been used to calculate % Rec and RPD values.

ND Not Detected  
PRL PACE Reporting Limit  
RPD Relative Percent Difference  
(S) Surrogate



70128

# CHAIN OF CUSTODY

No. 052507

Page 1 of 1

CONSULTANT'S NAME <b>Alisto Engineering</b>		ADDRESS <b>1777 Oakland Blvd #200 Walnut Creek Ca</b>		CITY <b>Ca</b>	STATE <b>Ca</b>	ZIP CODE <b>94564</b>
BP SITE NUMBER <b>11132</b>	BP CORNER ADDRESS/CITY <b>Oakland, Ca</b>			CONSULTANT PROJECT NUMBER <b>10-024-05</b>		
CONSULTANT PROJECT MANAGER <b>Bill Howell</b>		PHONE NUMBER <b>(510) 295-1650</b>	FAX NUMBER <b>295-1823</b>		CONSULTANT CONTRACT NUMBER <b>6317872</b>	
BP CONTACT <b>Scott Hooton</b>		BP ADDRESS <b>Renton, WA</b>		PHONE NUMBER		FAX NO.
LAB CONTACT <b>Pace</b>		LABORATORY ADDRESS <b>Novato, Ca</b>		PHONE NUMBER <b>(415) 883-6100</b>		FAX NO. <b>883-2673</b>
SAMPLED BY (Please Print Name) <b>Larry Buenvenida</b>		SAMPLED BY (Signature) <i>[Signature]</i>		SHIPMENT DATE		SHIPMENT METHOD <b>Courier</b>

TAT:  24 Hours  48 Hours  1 Week  Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	LAB SAMPLE #	COMMENTS
	COLLECTION TIME		NO.	TYPE (VOL.)			
S-1	12/23/14	W	3	HC		7010218	TPT#-19 TPT#-18 TPT#-17 TPT#-16 TPT#-15
S-2	↓	↓	↓	↓		7010226	
S-3	↓	↓	↓	↓		7010234	
S-4	↓	↓	↓	↓		7010242	
S-5	↓	↓	2	↓		7010259	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>[Signature]</i>	12/27/14	1310	<i>[Signature]</i> - Pace	12/27/14	1300	15/1
<i>[Signature]</i> - Pace	12/27	1445	<i>[Signature]</i> - Pace	12/27	1445	