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SEP 26 1995

GROUNDWATER MONITORING AND SAMPLING REPORT

ENVIRONMENTAL WEST
WEST COAST REGIONAL OFFICE

BP Oil Company Service Station No. 11104
1716 Webster Street
Alameda, California

Project No. 10-155-05-001

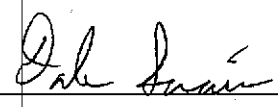
Prepared for:

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

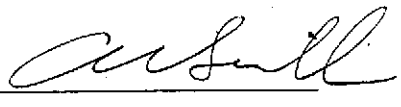
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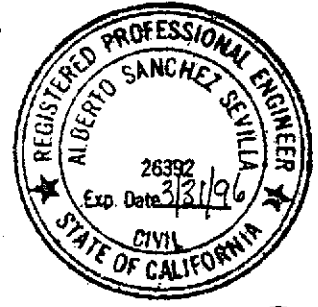
September 15, 1995



Dale Swain
Project Manager



Al Sevilla, P.E.
Principal



GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11104
1716 Webster Street
Alameda, California

Project No. 10-155-01-005

September 15, 1995

INTRODUCTION

This report presents the results and findings of the July 12, 1995 groundwater sampling and groundwater monitoring conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11104, 1716 Webster Street, Alameda, 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. 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.



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11104
 1716 WEBSTER STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-155

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LAB
MW-1	07/21/92	11.98	5.91	6.07	34000	7000	1700	2500	6900	---	---
MW-1	10/20/92	11.98	6.66	5.32	---	---	---	---	---	---	---
MW-1	03/05/93	11.98	4.56	7.42	---	---	---	---	---	---	---
MW-1	04/01/93	11.98	4.57	7.41	---	---	---	---	---	---	---
MW-1	07/09/93	11.98	5.25	6.73	77000	15000	1400	2100	7400	---	PACE
QC-1	(c) 07/09/93	11.98	---	---	79000	16000	1500	2200	7700	---	PACE
MW-1	10/08/93	11.98	6.01	5.97	42000	7100	270	2700	4700	---	PACE
MW-1	01/06/94	11.98	6.24	5.74	45000	12000	4300	3000	6700	---	PACE
MW-1	04/26/94	11.98	5.26	6.72	39000	6500	500	1600	1200	6.3	PACE
MW-1	07/25/94	11.98	5.60	6.38	38000	6300	240	1500	1100	1.7	PACE
MW-1	10/13/94	11.98	6.15	5.83	25000	6300	130	1300	830	2.3	PACE
QC-1	(c) 10/13/94	11.98	---	---	25000	7300	120	1200	740	---	PACE
MW-1	01/17/95	11.98	4.19	7.79	7800	3100	1100	460	850	7.9	ATI
QC-1	(c) 01/17/95	11.98	---	---	8400	3100	1200	470	1000	---	ATI
MW-1	03/31/95	11.98	4.48	7.50	37000	8700	6900	1200	4500	6.4	ATI
QC-1	(c) 03/31/95	11.98	---	---	40000	6900	7300	1300	5000	---	ATI
MW-1	05/01/95	11.98	4.39	7.59	---	---	---	---	---	---	---
MW-1	07/12/95	11.98	5.02	6.96	29000	7000	300	1500	3900	7.2	ATI
QC-1	(c) 07/12/95	---	---	---	29000	6600	360	1500	3900	---	ATI
MW-2	07/21/92	12.98	6.44	6.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
MW-2	10/20/92	12.98	7.39	5.59	---	---	---	---	---	---	---
MW-2	03/05/93	12.98	4.91	8.07	---	---	---	---	---	---	---
MW-2	04/01/93	12.98	4.92	8.06	---	---	---	---	---	---	---
MW-2	07/09/93	12.98	5.60	7.38	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-2	10/08/93	12.98	6.50	6.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-1	(c) 10/08/93	12.98	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-2	01/06/94	12.98	6.25	6.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-2	04/26/94	12.98	5.73	7.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.5	PACE
MW-2	07/25/94	12.98	6.07	6.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4	PACE
MW-2	10/13/94	12.98	6.80	6.18	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4	PACE
MW-2	01/17/95	12.98	5.10	7.88	---	---	---	---	---	---	---
MW-2	03/31/95	12.98	4.69	8.29	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	7.3	ATI
MW-2	05/01/95	12.98	5.23	7.75	---	---	---	---	---	---	---
MW-2	07/12/95	12.98	5.40	7.58	---	---	---	---	---	---	---
MW-3	(d) 07/21/92	13.38	7.07	6.31	ND<50	0.95	ND<0.5	ND<0.5	ND<0.5	---	---
MW-3	10/20/92	13.38	8.06	5.32	---	---	---	---	---	---	---
MW-3	03/05/93	13.38	5.16	8.22	---	---	---	---	---	---	---
MW-3	04/01/93	13.38	5.25	8.13	---	---	---	---	---	---	---
MW-3	07/09/93	13.38	5.80	7.58	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	10/08/93	13.38	7.17	6.21	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	01/06/94	13.38	6.94	6.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	04/26/94	13.38	6.18	7.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.1	PACE
MW-3	07/25/94	13.38	6.67	6.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.2	PACE
MW-3	10/13/94	13.38	7.43	5.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1	PACE
MW-3	01/17/95	13.38	5.07	8.31	---	---	---	---	---	---	---
MW-3	03/31/95	13.38	4.03	9.35	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	6.6	ATI
MW-3	05/01/95	13.38	4.94	8.44	---	---	---	---	---	---	---
MW-3	07/12/95	13.38	5.80	7.58	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11104
 1716 WEBSTER STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-155

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LAB
MW-4	03/05/93	11.80	4.81	6.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
MW-4	04/01/93	11.80	4.80	7.00	---	---	---	---	---	---	---
MW-4	07/09/93	11.80	5.54	6.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-4	10/08/93	11.80	6.28	5.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-4	01/06/94	11.80	5.82	5.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-4	04/26/94	11.80	5.50	6.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.4	PACE
MW-4	07/25/94	11.80	5.83	5.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	PACE
MW-4	10/13/94	11.80	6.26	5.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.7	PACE
MW-4	01/17/95	11.80	4.19	7.61	---	---	---	---	---	---	---
MW-4	03/31/95	11.80	3.96	7.84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	7.1	ATI
MW-4	05/01/95	11.80	4.49	7.31	---	---	---	---	---	---	---
MW-4	07/12/95	11.80	5.16	6.64	---	---	---	---	---	---	---
MW-5	04/01/93	11.62	4.77	6.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
MW-5	07/09/93	11.62	5.40	6.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-5	10/08/93	11.62	5.87	5.75	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-5	01/06/94	11.62	5.75	5.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-5	04/26/94	11.62	5.49	6.13	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.1	PACE
MW-5	07/25/94	11.62	5.69	5.93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.6	PACE
MW-5	10/13/94	11.62	6.03	5.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.0	PACE
MW-5	01/17/95	11.62	4.74	6.88	---	---	---	---	---	---	---
MW-5	03/31/95	11.62	4.58	7.04	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	7.1	ATI
MW-5	05/01/95	11.62	4.79	6.83	---	---	---	---	---	---	---
MW-5	07/12/95	11.62	5.32	6.30	---	---	---	---	---	---	---
RW-1	01/06/94	11.84	5.59	6.25	23000	3800	210	840	2100	---	PACE
QC-1 (c)	01/06/94	---	---	---	24000	3700	210	830	2000	---	PACE
RW-1	04/26/94	11.84	5.21	6.63	24000	3500	120	800	1700	6.4	PACE
QC-1 (c)	04/26/94	---	---	---	22000	3300	110	700	1700	---	PACE
RW-1	07/25/94	11.84	5.52	6.32	31000	4800	290	1100	1700	5.5	PACE
QC-1 (c)	07/25/94	---	---	---	28000	4400	240	960	1400	---	PACE
RW-1	10/13/94	11.84	6.05	5.79	20000	4200	46	990	440	6.8	PACE
RW-1	01/17/95	11.84	4.02	7.82	9600	1500	65	300	2700	7.7	ATI
RW-1	03/31/95	11.84	3.81	8.03	16000	1500	780	370	2000	7.8	ATI
RW-1	05/01/95	11.84	4.21	7.63	---	---	---	---	---	---	---
RW-1	07/12/95	11.84	4.93	6.91	22000	3700	150	950	2800	7.2	ATI

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11104
 1716 WEBSTER STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-155

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LAB
QC-2	(a) 07/09/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2	(a) 10/08/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2	(a) 01/06/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2	(a) 04/26/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2	(a) 07/25/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2	(a) 10/13/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2	(a) 01/17/95	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	ATI
QC-2	(a) 03/31/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	ATI
QC-2	(a) 07/12/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	ATI

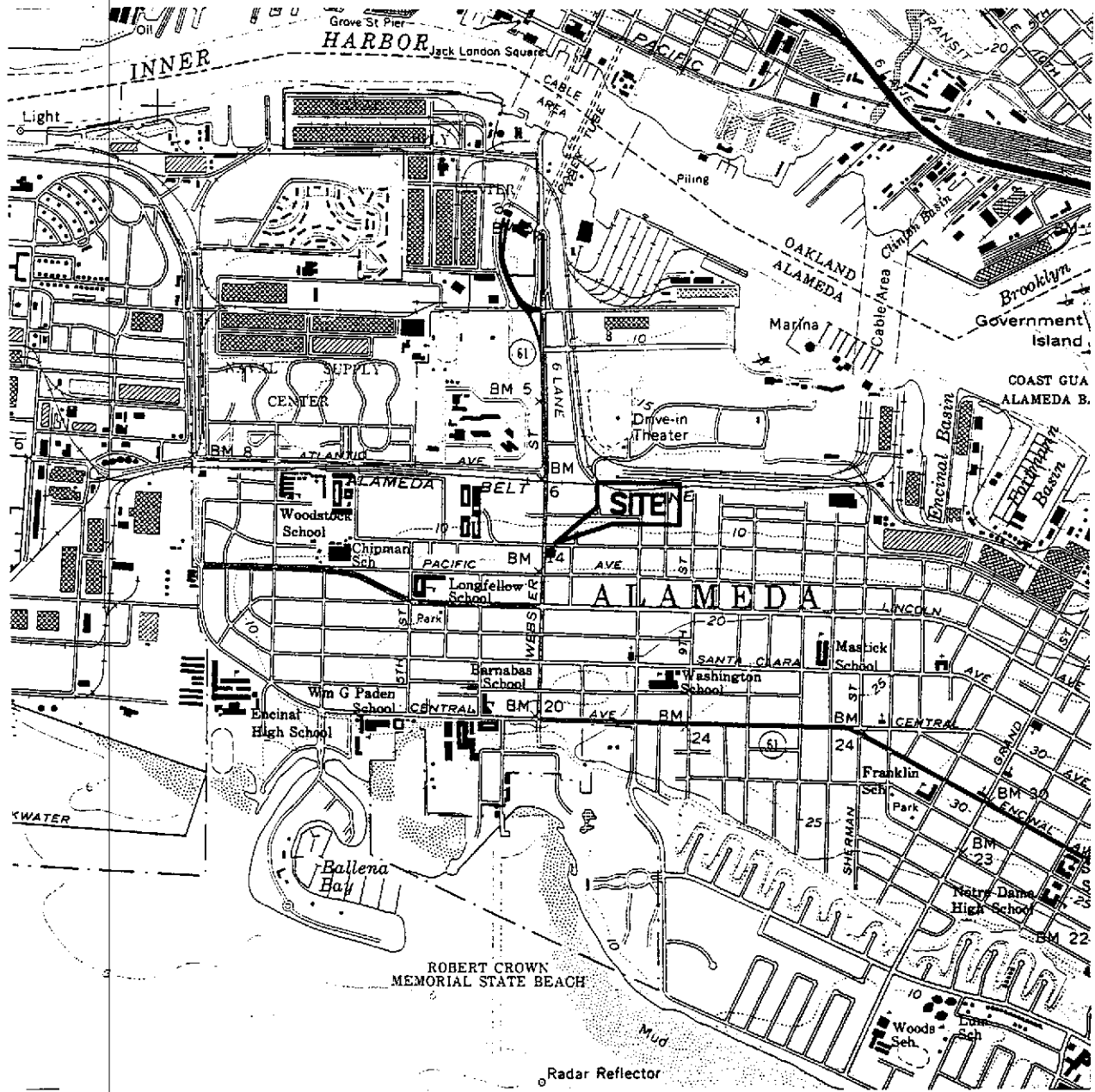
ABBREVIATIONS:

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 applicable/available/analyzed/measured
ND	Not detected above reported detection limit
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.

NOTES:

- (a) Top of casing elevations surveyed in reference to USGS benchmark (14,108 feet above mean sea level) at northwest corner of Webster Street and Pacific Avenue.
- (b) Groundwater elevations in feet above mean sea level.
- (c) Blind duplicate.
- (d) Sample also analyzed for cadmium, nickel, chromium, lead, and zinc. None were detected above the reported detection limit.
- (e) Travel blank.

E:\010\155-5-1.WQ2



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

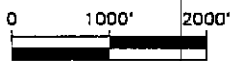


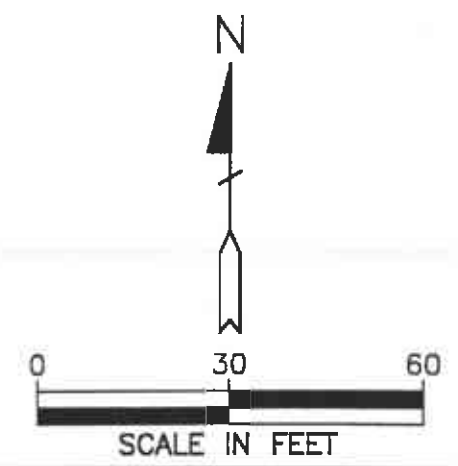
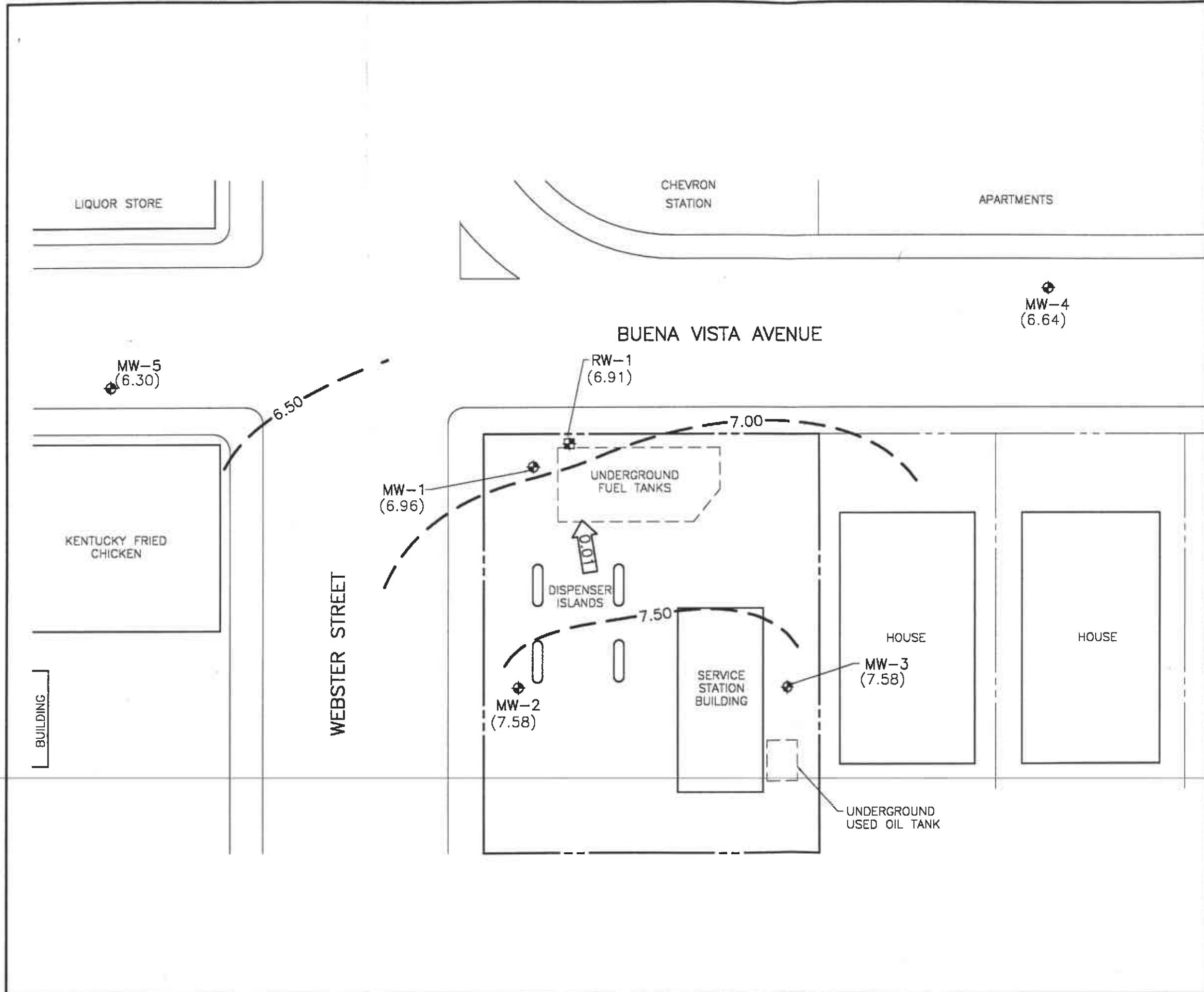
FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11104
 1716 WEBSTER STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-155



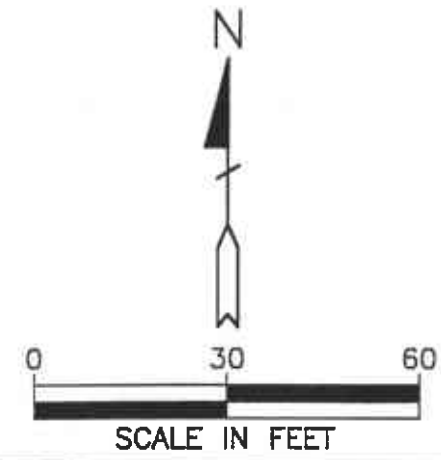
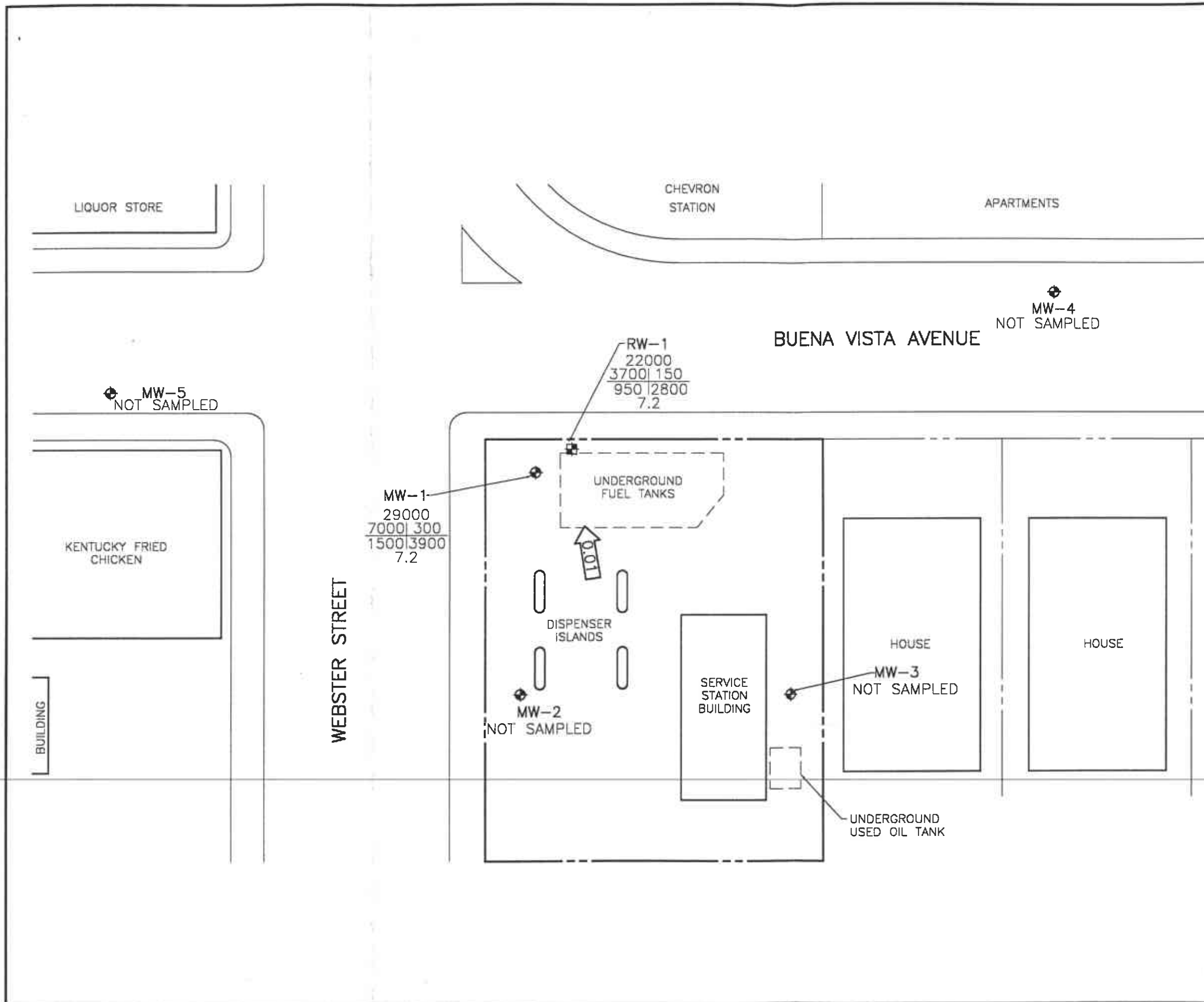
ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - ⊠ GROUNDWATER RECOVERY WELL
 - (7.58) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 7.50 - 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
JULY 12, 1995
 BP OIL SERVICE STATION NO. 11104
 1716 WEBSTER STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-155

101550-01.DWG 8-18-95 8:00 1 of 30



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- ◆ GROUNDWATER RECOVERY WELL
- TPH-G
B | T
E | X
DO
CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER, EXCEPT DISSOLVED OXYGEN, WHICH IS IN PARTS PER MILLION
- TPH-G
B
T
E
X
DO
ND
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B
T
E
X
DO
ND
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
JULY 12, 1995
 BP OIL SERVICE STATION NO. 11104
 1716 WEBSTER STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-155

10103E-02W/C B-16-93 RWK 11-93

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

Project No.

10-155-5-001

Date:

7/12/95

Address

1716 Webster Street

Day:

MTWTF

Contract No.

Pending

City:

Alameda

Station No.

BP 11104

Sampler:

DC

WELL ID	SAMPLE ID	DEPTH TO WATER*	PRODUCT THICKNESS	TIME	COMMENTS:
MW-1	S-2	5.02 / 16.98	Φ	1200	repacked locks on all wells caps
MW-2	semi	5.40 / 15.84	↓	1141	
MW-3	semi	5.80 / 16.60		1137	
MW-4	semi	5.16 / 14.80		1152	
MW-5	semi	5.32 / 14.80		1132	
RW-1	S-1	4.93 / 21.61		↓	

FIELD INSTRUMENT CALIBRATION DATA

Ph METER Hydac 4.00 7.00 10.00 _____ TEMPERATURE COMPENSATED N TIME 1215

D.O. METER ICM ZERO d.O. SOLUTION BAROMETRIC PRESSURE 764 TEMP 71°F WEATHER overcast

CONDUCTIVITY METER Hydac 10,000 TURBIDITY METER _____ 5.0 NTU _____ OTHER _____

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Irridense	Gal.	Time	Temp *F	pH	E.C.	D.O.		
MW-1	4.93	6"	repacked	Φ	Y	(N)	25	1226	67.6	6.76	0.83	6.7	<input type="radio"/> EPA 601 _____	
Total Depth - Water Level =							50	1234	66.7	6.85	0.78		<input checked="" type="radio"/> TPH-G/BTEX <u>Hyd</u>	
21.61 - 4.93 = 16.68 x 1.47 = 24.51 x 3 = 73.56							74	1241	66.2	6.92	0.78	7.2	<input type="radio"/> TPH Diesel _____	
Purge Method: <input checked="" type="checkbox"/> Surface Pump ODisp. Tube OWinch ODisp. Baller(s) OSys Port													<input type="radio"/> TOG 5520 _____	
Comments:													TIME/SAMPLE ID	
													1245 / S-1	
MW-1	5.02	2"	repacked	Φ	Y	(N)	2	1252	73.0	7.28	0.82	7.5	<input type="radio"/> EPA 601 _____	
Total Depth - Water Level =							4	1254	75.2	7.25	0.80		<input checked="" type="radio"/> TPH-G/BTEX <u>Hyd</u>	
16.88 - 5.02 = 11.86 x 1.6 = 1.90 x 3 = 5.69							5.75	1256	74.5	7.26	0.79	7.2	<input type="radio"/> TPH Diesel _____	
Purge Method: <input checked="" type="checkbox"/> Surface Pump ODisp. Tube OWinch ODisp. Baller(s) OSys Port													<input type="radio"/> TOG 5520 _____	
Comments:													TIME/SAMPLE ID	
XC-1 from this well (S-3)														1300 / S-2

* - stands for Total depth of well; which is next to depth to water column.

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.: 507080

August 03, 1995

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

Project Name: BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA
Project # : G317830/10-155-5-001


Attention: BILL HOWELL

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

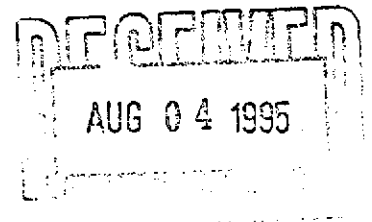
<u>Date Received</u>	<u>Quantity</u>	<u>Matrix</u>
July 13, 1995	4	WATER

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


ALAN J. KLEINSCHMIDT
LABORATORY MANAGER



Client : ALISTO ENGINEERING
Project # : G317830/10-155-5-001
Project Name: BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

Report Date: August 03, 1995
ATI I.D. : 507080

ATI #	Client Description	Matrix	Date Collected
1	S-1 1245	WATER	12-JUL-95
2	S-2 1300	WATER	12-JUL-95
3	S-3	WATER	12-JUL-95
4	S-4	WATER	12-JUL-95

---TOTALS---

<u>Matrix</u>	<u># Samples</u>
WATER	4

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 **Technologies, Inc.**

ANALYTICAL SCHEDULE

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Client : ALISTO ENGINEERING
Project # : G317830/10-155-5-001
Project Name: BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

ATI I.D.: 507080

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. : 507080
 Project # : G317830/10-155-5-001
 Project Name: BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	S-1 1245	WATER	12-JUL-95	N/A	25-JUL-95	50.00
2	S-2 1300	WATER	12-JUL-95	N/A	26-JUL-95	100.00
3	S-3	WATER	12-JUL-95	N/A	26-JUL-95	100.00

Parameter	Units	1	2	3		
BENZENE	UG/L	3700	7000	6600		
TOLUENE	UG/L	150	300	380		
ETHYLBENZENE	UG/L	950	1500	1500		
XYLENES (TOTAL)	UG/L	2800	3900	3900		
FUEL HYDROCARBONS	UG/L	22000	29000	29000		
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12		
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE		
<u>SURROGATES</u>						
TRIFLUOROTOLUENE	%	102	98	98		



GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)
 Client : ALISTO ENGINEERING ATI I.D. : 507080
 Project # : G317830/10-155-5-001
 Project Name: BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	S-4	WATER	12-JUL-95	N/A	26-JUL-95	1.00

Parameter	Units	4
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
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	95



GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE) ATI I.D. : 507080
Blank I.D. : 36163 Date Extracted: N/A
Client : ALISTO ENGINEERING Date Analyzed : 25-JUL-95
Project # : G317830/10-155-5-001 Dil. Factor : 1.00
Project Name: BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

Parameters	Units	Results
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
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	101



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

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Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank I.D. : 36169
Client : ALISTO ENGINEERING
Project # : G317830/10-155-5-001
Project Name: BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

ATI I.D. : 507080
Date Extracted: N/A
Date Analyzed : 26-JUL-95
Dil. Factor : 1.00

Parameters	Units	Results
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
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	98



GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
 Blank Spike #: 57823
 Client : ALISTO ENGINEERING
 Project #: G317830/10-155-5-001
 Project Name : BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

ATI I.D. : 507080
 Date Extracted: N/A
 Date Analyzed : 25-JUL-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	5.2	5.0	104

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



BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
 Blank Spike #: 57832
 Client : ALISTO ENGINEERING
 Project #: G317830/10-155-5-001
 Project Name : BP SITE#11104/1716 WEBSTER ST. ALAMEDA, CA

ATI I.D. : 507080
 Date Extracted: N/A
 Date Analyzed : 26-JUL-95
 Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BENZENE	UG/L	<0.50	5.2	5.0	104
TOLUENE	UG/L	<0.50	5.3	5.0	106

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

ACCESSION #: 507080

INITIALS: LM

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	<u>NO</u>	
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD" on Item 11 below		1	
3	Are custody seals required for this project ?	YES	<u>N/A</u>	
	a) are Custody Seals present on Cooler(s) ?	YES	<u>NO</u>	
	If yes, are seals intact ?	<u>N/A</u>	YES	NO
	b) are Custody Seals present on the sample ?	YES	<u>NO</u>	
	If yes, are seals intact ?	<u>N/A</u>	YES	NO
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.	<u>YES</u>	NO	
5	Is the COC complete per cooler ? Relinquished: <u>yes</u> /no Requested analysis: <u>yes</u> /no	<u>YES</u>	NO	
6	Is the COC in agreement with the samples received? # Samples: <u>yes</u> /no Sample ID's: <u>yes</u> /no Date sampled: <u>yes</u> /no Matrix: <u>yes</u> /no # containers: <u>yes</u> /no	<u>YES</u>	NO	
7	Are the samples preserved correctly?	<u>YES</u>	NO	
8	Is there enough sample for all the requested analyses?	<u>YES</u>	NO	
9	Are all samples within holding times for the requested analyses?	<u>YES</u>	NO	
10	Record cooler temperature. Contact PM if temperature is not 4°C ± 2°C.	2.0 °C		
	Is ice present in cooler?	<u>YES</u>	NO	
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	<u>YES</u>	NO	
12	Are samples requiring no headspace, headspace free? N/A	<u>YES</u>	NO	
13	Are VOA 1st stickers required?	YES	<u>NO</u>	
14	Are there special comments on the Chain of Custody which require client contact?	YES	<u>N/A</u>	
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



507080

CHAIN OF CUSTODY

No.055477

Page 1 of 1

CONSULTANT'S NAME <i>Alisto Engineers</i>		ADDRESS <i>1575 Trench Blvd</i>		CITY <i>Wahatchee</i>	STATE <i>CA</i>	ZIP CODE <i>94158</i>
BP SITE NUMBER <i>11104</i>	BP CORNER ADDRESS/CITY <i>1716 Webster St. Alameda CA</i>	CONSULTANT PROJECT NUMBER <i>10-155-315-001</i>				
CONSULTANT PROJECT MANAGER <i>Bill Howell</i>	PHONE NUMBER <i>(510) 295-1650</i>	FAX NUMBER <i>(510) 295-1705</i>	CONSULTANT CONTRACT NUMBER <i>Pending 6317830</i>			
BP CONTACT <i>Scott Hooten</i>	BP ADDRESS <i>Kenton WA</i>	PHONE NUMBER	FAX NO.			
LAB CONTACT <i>ATI Inc</i>	LABORATORY ADDRESS <i>San Diego CA</i>	PHONE NUMBER	FAX NO.			
SAMPLED BY (Please Print Name) <i>Dan Cusick</i>	SAMPLED BY (Signature) <i>[Signature]</i>	SHIPMENT DATE		SHIPMENT METHOD <i>Fed Ex</i>		

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER
1818 721134

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	PH	GAS	OTHER	COMMENTS
	COLLECTION TIME		NO.	TYPE (VOL.)	LAB SAMPLE #				
S-1	1245	7/12/15	100	2	100	01			
S-2	1300	↓	↓	↓	↓	02			
S-3	-	↓	↓	↓	↓	03			
S-4	-	↓	↓	↓	↓	04			

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>[Signature] Alisto</i>			<i>[Signature]</i>	<i>7/13/15</i>	<i>9:30 am</i>	<i>2.0°C</i>