BP OIL

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

July 15, 1996

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502

RE: BP OIL FACILITY #11127
5425 Martin Luther King, Jr. Way
Oakland, CA

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED MARCH 19, 1996** for the above referenced facility. Plans for the following quarter include additional groundwater monitoring.

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

Respectfully,

Scott T. Hooton
Environmental Resources Management
Corrective Action Manager

STH:sb msword\ERM11105

cc: Mr. Eddy So, CRWQCB, San Francisco Bay Region, 2101 Webster Street, Suite 200, Oakland, CA 94612

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

Mr. Larry Silva, TOSCO Northwest CO, 601 Union Street, Suite 2500, Seattle, WA 98101

Site File

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11127
5425 Martin Luther King, Jr. Way
Oakland, California

Project No. 10-022-05-002

Prepared for:

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

Prepared by:

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

March 19, 1996

Ken Simas
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11127
5425 Martin Luther King, Jr. Way
Oakland, California

Project No. 10-022-05-002

March 19, 1996

INTRODUCTION

This report presents the results and findings of the January 17 and 19, 1996 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11127, 5425 Martin Luther King, Jr. Way, Oakland, California. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference 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 Tables 1 and 2. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown on Figure 2. The results of groundwater analysis are shown on Figure 3. The laboratory report and chain of custody record are presented in Appendix B.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11127
5425 MARTIN LUTHER KING, JR. WAY, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-022

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TOG (ug/l)	MTBE (ug/l)	DO (ug/l)	LAB
MW-1	08/29/91	82.35	10.54	71.81	ND<50	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---
MW-1	11/20/91	82.35	10.24	72.11	55	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---
MW-1	02/28/92	82.35	8.17	74.18	400	---	6.7	0.7	11	170	---	---	---	SUP
MW-1	06/08/92	82.35	10.25	72.10	250	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
MW-1	09/03/92	82.35	10.68	71.67	160	---	1.2	3.8	1.7	5.4	---	---	---	ANA
QC-1 (c)	09/03/92	---	---	---	190	---	0.7	2.6	1.3	5.2	---	---	---	ANA
MW-1	11/12/92 (d)	82.35	10.22	72.13	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-1 (c)	11/12/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-1	02/05/93	82.35	8.77	73.58	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-1 (c)	02/05/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-1	08/16/93	82.35	10.25	72.10	300	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-1	03/14/94	82.35	9.53	72.82	130	---	ND<0.5	ND<0.5	0.8	2.7	---	---	---	PACE
MW-1	12/15/94	82.35	7.88	74.47	---	---	---	---	---	---	---	---	---	---
MW-1	07/06/95	82.35	10.84	71.51	---	---	---	---	---	---	---	---	---	---
MW-1	01/17/96	82.35	9.46	72.89	---	---	---	---	---	---	---	---	---	---
MW-1	01/19/96	---	---	---	410	---	ND<2.5	ND<2.5	ND<2.5	ND<5.0	---	1500	7.1	ATI
MW-2	08/29/91	83.49	11.56	71.93	950	66	ND<0.3	ND<0.3	17	50	---	---	---	---
MW-2	11/20/91	83.49	11.25	72.24	1400	ND<50	0.3	ND<0.3	32	90	---	---	---	---
MW-2	02/28/92	83.49	9.02	74.47	2300	70	4.2	1.8	47	360	---	---	---	SUP
MW-2	06/08/92	83.49	11.37	72.12	470	---	ND<0.5	ND<0.5	7.7	12	---	---	---	ANA
MW-2	09/03/92	83.49	11.81	71.68	530	---	1.6	3.5	23	46	---	---	---	ANA
MW-2	11/12/92	83.48	11.27	72.21	250	88	ND<0.5	ND<0.5	5.0	10	ND<5000	---	---	PACE
MW-2	02/05/93	83.48	9.85	73.63	330	ND<50	0.7	ND<0.5	3.6	15	---	---	---	PACE
MW-2	08/16/93	83.48	11.33	72.15	270	---	ND<0.5	ND<0.5	ND<0.5	19	---	---	---	PACE
MW-2	03/14/94	83.48	10.80	72.68	ND<50	ND<50	ND<0.5	ND<0.5	0.6	3.1	ND<5000	---	---	PACE
QC-1 (c)	03/14/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-2	12/15/94	83.48	8.66	74.82	79	ND<50	ND<0.5	0.6	1.3	1.6	ND<5000	---	6.2	PACE
QC-1 (c)	12/15/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-2	07/06/95	83.48	11.12	72.36	120	160	ND<0.50	ND<0.50	0.52	ND<1.0	ND<50	---	7.4	ATI
QC-1 (c)	07/06/95	---	---	---	87	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
MW-2	01/17/96	83.48	9.76	73.72	---	---	---	---	---	---	---	---	---	---
MW-2	01/19/96	---	---	---	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	200	ND<5.0	7.3	ATI
MW-3	11/12/92	84.96	12.24	72.72	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-3	02/05/93	84.96	10.95	74.01	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-3	08/16/93	84.96	12.46	72.50	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-3	03/14/94	84.96	11.61	73.35	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-3	12/15/94	84.96	10.08	74.88	---	---	---	---	---	---	---	---	---	---
MW-3	07/06/95	84.96	11.93	73.03	---	---	---	---	---	---	---	---	---	---
MW-3	01/17/96	84.96	10.54	74.42	---	---	---	---	---	---	---	---	---	---
MW-3	01/19/96	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11127
5425 MARTIN LUTHER KING, JR. WAY, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-022

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TOG (ug/l)	MTBE (ug/l)	DO (ug/l)	LAB
MW-4	11/12/92	82.70	10.44	72.26	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-4	02/05/93	82.70	9.14	73.56	92	---	0.7	ND<0.5	ND<0.5	1.2	---	---	---	PACE
MW-4	08/16/93	82.70	10.57	72.13	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-1 (c)	08/16/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-4	03/14/94	82.70	9.70	73.00	220	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-4	12/15/94	82.70	8.39	74.31	---	---	---	---	---	---	---	---	---	---
MW-4	07/06/95	82.70	10.03	72.67	---	---	---	---	---	---	---	---	---	---
MW-4	01/17/96	82.70	8.67	74.03	---	---	---	---	---	---	---	---	---	---
MW-4	01/19/96	---	---	---	71	---	2.6	ND<0.50	ND<0.50	ND<1.0	---	170	7.0	ATI
QC-1 (c)	01/19/96	---	---	---	68	---	2.4	ND<0.50	ND<0.50	ND<1.0	---	200	7.0	ATI
QC-2 (e)	09/03/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
QC-2 (e)	11/12/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (e)	02/05/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (e)	08/16/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (e)	03/14/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (e)	12/15/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (e)	07/06/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2 (e)	01/19/96	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	ND<5.0	---	ATI

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
TOG	Total oil and grease
MTBE	Methyl tert butyl ether
DO	Dissolved oxygen
ug/l	Parts per billion
ND	Not detected above reported detection limit
---	Not analyzed\applicable\measured
SUP	Superior Analytical Laboratory
ANA	Anametrix, Inc.
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.

NOTES:

(a) Top of casing elevations surveyed in reference to the City of Oakland Benchmark No. 1967, on the curb at the southwest corner of Martin Luther King, Jr. Way and 55th Street.

(b) Groundwater elevations in feet above mean sea level.

(c) Blind duplicate.

(e) Travel blank.

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TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11127
5425 MARTIN LUTHER KING, JR. WAY, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-022

WELL ID	DATE OF SAMPLING/ MONITORING	1,1-DCA (ug/l)	1,2-DCA (ug/l)	1,1-DCE (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	Chloroform (ug/l)	LAB
MW-1	08/29/91	---	---	---	---	---	---	---
MW-1	11/20/91	---	---	---	---	---	---	---
MW-1	02/28/92	---	---	---	---	---	---	SUP
MW-1	06/08/92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ANA
MW-1	09/03/92	---	---	---	---	---	---	ANA
MW-1	11/12/92	---	---	---	---	---	---	PACE
MW-1	02/05/93	---	---	---	---	---	---	PACE
MW-1	08/16/93	---	---	---	---	---	---	PACE
MW-1	03/14/94	---	---	---	---	---	---	PACE
MW-1	12/15/94	---	---	---	---	---	---	---
MW-1	07/06/95	---	---	---	---	---	---	---
MW-1	01/17/96	---	---	---	---	---	---	---
MW-1	01/19/96	---	---	---	---	---	---	ATI
MW-2	08/29/91	ND	ND	ND	ND	ND	---	---
MW-2	11/20/91	ND	0.8	ND	0.7	ND	---	---
MW-2	02/28/92	ND	ND	ND	4.1	ND	---	SUP
MW-2	06/08/92	6.6	ND<0.5	ND<0.5	4.2	ND<0.5	---	ANA
MW-2	09/03/92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ANA
MW-2	11/12/92	ND<0.5	0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-2	02/05/93	ND<0.5	0.9	ND<0.5	8.3	ND<0.5	---	PACE
MW-2	08/16/93	---	---	---	---	---	---	PACE
MW-2	03/14/94	0.8	0.7	ND	1.3	ND	---	PACE
MW-2	12/15/94	ND<0.5	ND<0.5	ND<0.5	4.8	ND<0.5	2.3	PACE
MW-2	07/06/95	0.28	0.24	ND	0.47	ND	ND<0.20	ATI
MW-2	01/17/96	---	---	---	---	---	---	---
MW-2	01/19/96	1.3	ND<0.20	0.65	18	0.42	ND<0.20	ATI

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11127
5425 MARTIN LUTHER KING, JR. WAY, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-022

WELL ID	DATE OF SAMPLING/ MONITORING	1,1-DCA (ug/l)	1,2-DCA (ug/l)	1,1-DCE (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	Chloroform (ug/l)	LAB
MW-3	11/12/92	---	---	---	---	---	---	PACE
MW-3	02/05/93	---	---	---	---	---	---	PACE
MW-3	08/16/93	---	---	---	---	---	---	PACE
MW-3	03/14/94	---	---	---	---	---	---	PACE
MW-3	12/15/94	---	---	---	---	---	---	---
MW-3	07/06/95	---	---	---	---	---	---	---
MW-3	01/17/96	---	---	---	---	---	---	---
MW-3	01/19/96	---	---	---	---	---	---	---
MW-4	11/12/92	---	---	---	---	---	---	PACE
MW-4	02/05/93	---	---	---	---	---	---	PACE
MW-4	08/16/93	---	---	---	---	---	---	PACE
MW-4	03/14/94	---	---	---	---	---	---	PACE
MW-4	12/15/94	---	---	---	---	---	---	---
MW-4	07/06/95	---	---	---	---	---	---	---
MW-4	01/17/96	---	---	---	---	---	---	---
MW-4	01/19/96	---	---	---	---	---	---	ATI

ABBREVIATIONS:

1,1-DCA	1,1-Dichloroethane
1,2-DCA	1,2-Dichloroethane
1,1-DCE	1,1-Dichloroethene
1,1,1-TCA	1,1,1-Trichloroethane
PCE	Tetrachloroethene
ug/l	Parts per billion
ND	Not detected above reported detection limit
---	Not analyzed\applicable\measured
SUP	Superior Analytical Laboratory
ANA	Anametrix, Inc.
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.

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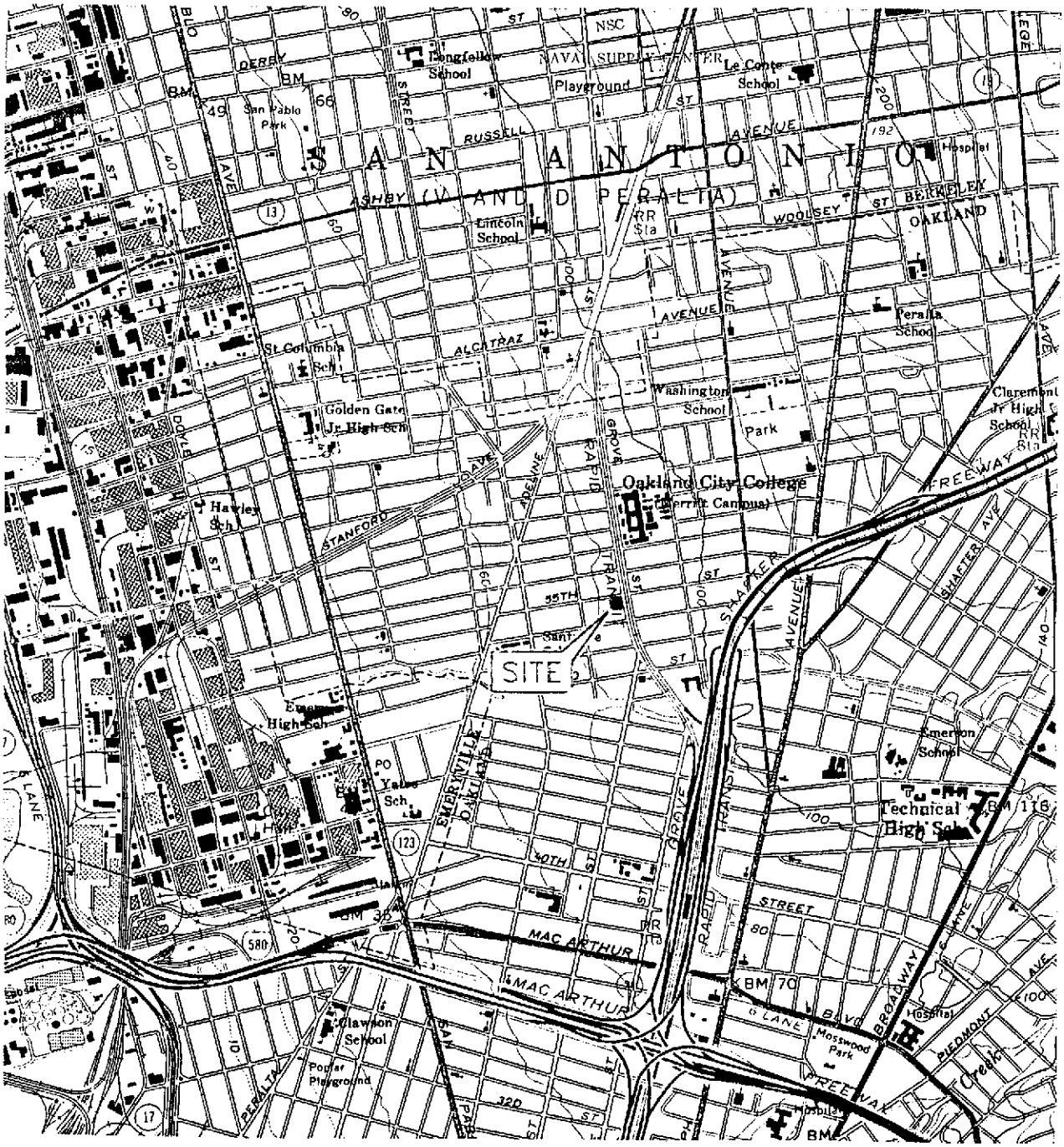


SOURCE:
USGS MAP, OAKLAND WEST QUADRANGLE, CALIFORNIA. 7.5 MINUTE SERIES. 1959. PHOTOREVISED 1980.

N

0 1000' 2000'

FIGURE 1

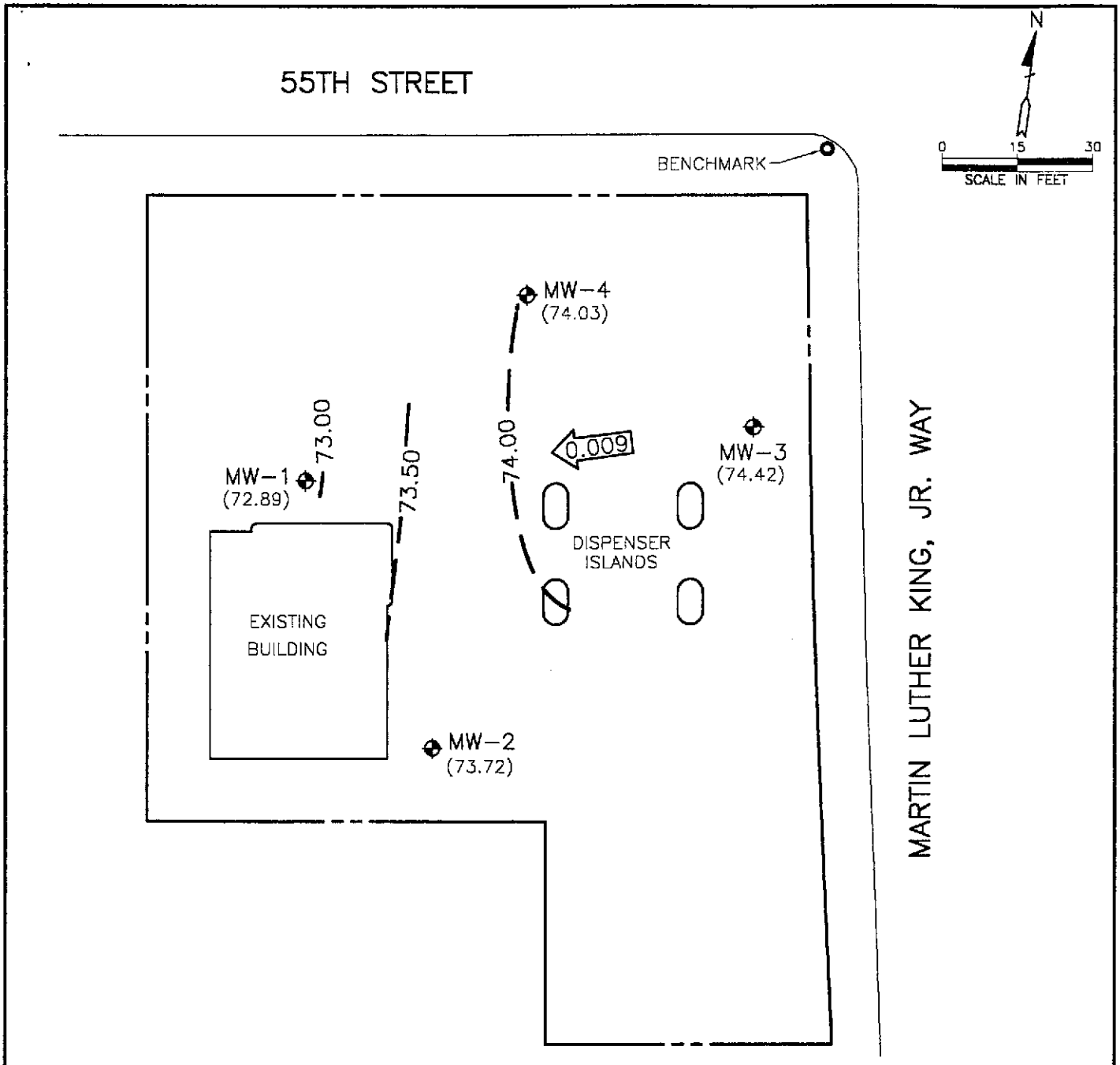
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11127
5425 MARTIN LUTHER KING, JR. WAY
OAKLAND, CALIFORNIA

PROJECT NO. 10-022

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10022B---DWG 10-21-93 RKM 1-1



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- (72.89) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 73.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL—0.50 FOOT)
- 0.009 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

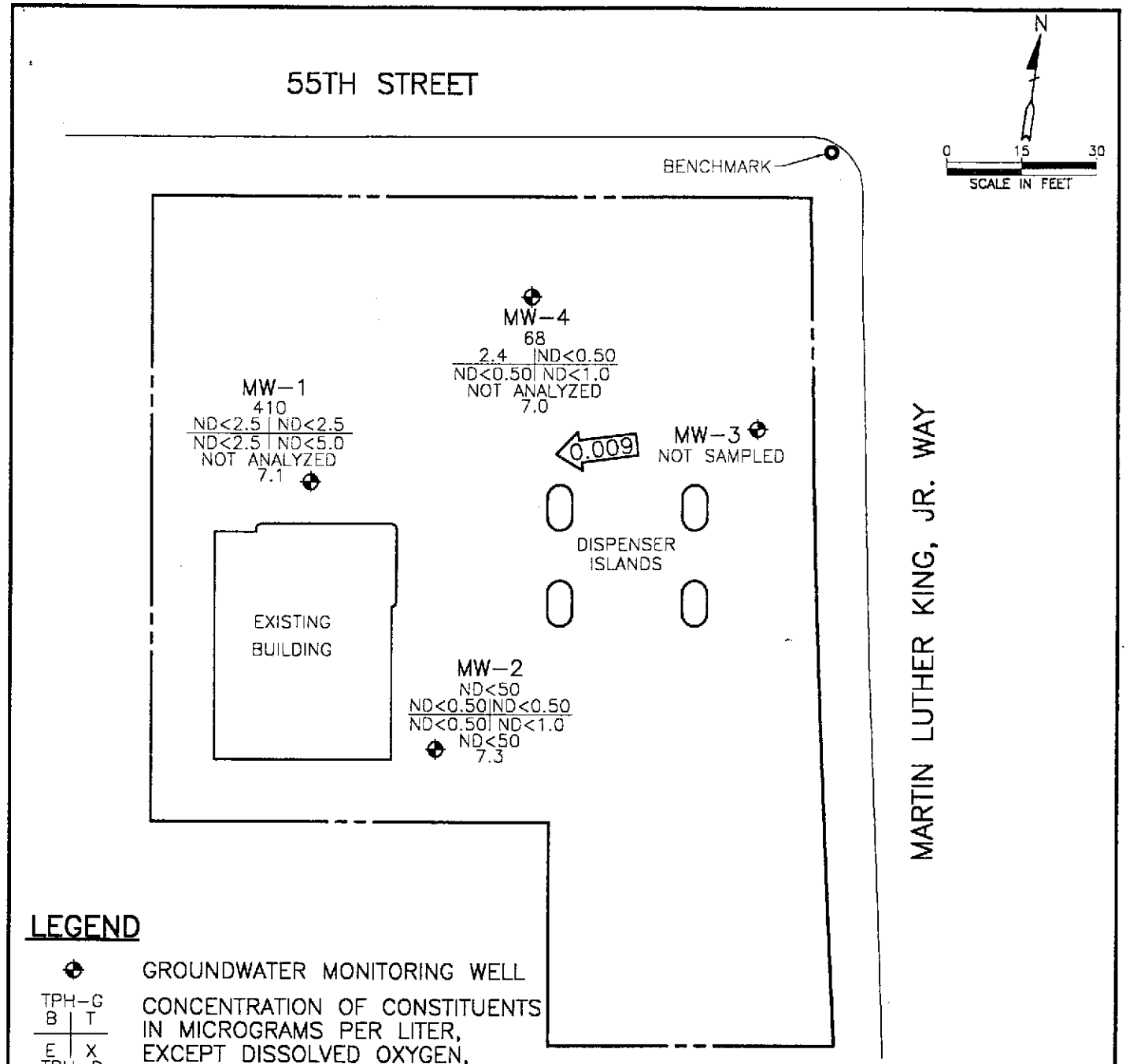
JANUARY 17, 1996

BP OIL SERVICE STATION NO. 11127
5425 MARTIN LUTHER KING, JR. WAY
OAKLAND, CALIFORNIA

PROJECT NO. 10—022

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10022D-0.DWG 3-12-96 RCW 1=30



LEGEND

⊕	GROUNDWATER MONITORING WELL
TPH-G / B | T / E | X / TPH-D / DO	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER, EXCEPT DISSOLVED OXYGEN, WHICH IS IN PARTS PER MILLION
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
TPH-D	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
DO	DISSOLVED OXYGEN
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
0.009	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JANUARY 19, 1996

BP OIL SERVICE STATION NO. 11127
5425 MARTIN LUTHER KING, JR. WAY
OAKLAND, CALIFORNIA

PROJECT NO. 10-022

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10022E-0.DWG 11-12-96 RKW 1=30

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

ENGINEERING GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

Ø Groundwater Sampling

Date: 11/17/96 Monitored 11/19/96 Sampled Project No. 10-022-05-002

Day: Wed. Fri Station No. 1127

Weather: Cloudy Address Oakland, CA

SAMPLER: LVS

Well ID	SAMPLE#	WATER	DEPTH	Well ID	SAMPLE #	WATER	DEPTH	Well ID	SAMPLE	WATER DEPTH
MW-1	S-1	9.46						* QC-1	MW-4	
MW-2	S-2	9.76						* QC-2	TB	
MW-3	N/S	10.54								
MW-4	S-3	8.67								

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-1	9.46	4"	OK	Ø	Ø	12	1410	63.1	7.43	1.17 ms	6.9
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.			24		62.6	7.27	1.09 ms	
27.55 - 9.46 = 18.09 x .65 = 11.76 x 3 = 35.28						35.5	1433	62.4	7.22	1.07 ms	7.1

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

Comments:

O EPA 601_____
Ø TPH-G/BTEX HCl
O TPH Diesel____
O TOG 5520 __
Time Sampled: 1440

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-2	9.76	4"	OK	Ø	Ø	11	1457	64.2	7.32	871 µs	7.3
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.			22		63.3	7.19	863 µs	
26.81 - 9.76 = 17.05 x .65 = 11.08 x 3 = 33.24						33.5	1517	63.1	7.09	852 µs	7.3

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

Comments:

Ø EPA 601 HCl
Ø TPH-G/BTEX HCl
Ø TPH Diesel____
Ø TOG 5520 __
Time Sampled: 1520

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-4	8.67	2"	OK	Ø	Ø	3	1531	64.1	7.47	910 µs	6.8
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.			5.5		63.6	7.21	870 µs	
24.75 - 8.67 = 16.08 x .16 = 2.57 x 3 = 7.71						8	1543	63.1	7.18	866 µs	7.0

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

Comments: QC-1 Dup S-4 from this well

O EPA 601_____
Ø TPH-G/BTEX HCl
O TPH Diesel____
O TOG 5520 __
Time Sampled: 1550

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge=	PurgeVol.								

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

Comments:

O EPA 601_____
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 __
Time Sampled:

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.: 601178

February 05, 1996

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

Project Name: BP SITE #11127/OAKLAND, CA
Project # : G602100/10-022-05/002

Attention: BRADY NAGLE

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

Date Received	Quantity	Matrix
January 20, 1996	5	WATER

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

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

BHARAT VANDRA
PROJECT MANAGER

SAMPLE CROSS REFERENCE

Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

Report Date: February 05, 1996
ATI I.D. : 601178

ATI #	Client Description	Matrix	Date Collected
1	S-1	WATER	19-JAN-96
2	S-2	WATER	19-JAN-96
3	S-3	WATER	19-JAN-96
4	S-4	WATER	19-JAN-96
5	S-5	WATER	19-JAN-96

---TOTALS---

Matrix	# Samples
WATER	5

ATI STANDARD DISPOSAL PRACTICE

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

ANALYTICAL SCHEDULE

Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002 ATI I.D.: 601178
Project Name: BP SITE #11127/OAKLAND, CA

Analysis	Technique/Description
EPA 413.2 (OIL & GREASE)	INFRARED SPECTROMETER
EPA 601 (HALOGENATED VOLATILE ORGANICS)	GC/ELECTROLYTIC CONDUCTIVITY DETECTOR
MOD EPA 8015-CDOHS (FUEL HYDROCARBONS: C7-C24)	GC/FLAME IONIZATION DETECTOR
MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)	GC/FLAME ION./PHOTO IONIZATION DETECTOR

GENERAL CHEMISTRY RESULTS

Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002 ATI I.D.: 601178
Project Name: BP SITE #11127/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Received
2	S-2	WATER	19-JAN-96	20-JAN-96

Parameter	Units	2
OIL AND GREASE	MG/L	0.2

GENERAL CHEMISTRY - QUALITY CONTROL

DUP/MS

Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002 ATI I.D. : 601178
Project Name: BP SITE #11127/OAKLAND, CA

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
OIL AND GREASE	601177-02	MG/L	0.2	0.2	0	5.1	5.0	98

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

GENERAL CHEMISTRY - QUALITY CONTROL

BLANK SPIKE

Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002 ATI I.D. : 601178
Project Name: BP SITE #11127/OAKLAND, CA

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
OIL AND GREASE	61093	MG/L	<0.05	4.7	5.0	94

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

GAS CHROMATOGRAPHY RESULTS

Test : EPA 601 (HALOGENATED VOLATILE ORGANICS)
Client : ALISTO ENGINEERING ATI I.D. : 601178
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
2	S-2	WATER	19-JAN-96	N/A	29-JAN-96	1.00

Parameter	Units	2
BROMODICHLOROMETHANE	UG/L	<0.20
BROMOFORM	UG/L	<1.0
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.20
CHLOROBENZENE	UG/L	<0.50
CHLOROETHANE	UG/L	<1.0
CHLOROFORM	UG/L	<0.20
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.20
1,2-DICHLOROBENZENE	UG/L	<0.50
1,3-DICHLOROBENZENE	UG/L	<0.50
1,4-DICHLOROBENZENE	UG/L	<0.50
DICHLORODIFLUOROMETHANE	UG/L	<1.0
1,1-DICHLOROETHANE	UG/L	1.3
1,2-DICHLOROETHANE	UG/L	<0.20
1,1-DICHLOROETHENE	UG/L	0.65
CIS-1,2-DICHLOROETHENE	UG/L	<0.20
TRANS-1,2-DICHLOROETHENE	UG/L	<0.20
1,2-DICHLOROPROPANE	UG/L	<0.20
CIS-1,3-DICHLOROPROPENE	UG/L	<0.20
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.20
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.50
TETRACHLOROETHENE	UG/L	0.42
1,1,1-TRICHLOROETHANE	UG/L	18D
1,1,2-TRICHLOROETHANE	UG/L	<0.20
TRICHLOROETHENE	UG/L	<0.20
TRICHLOROFLUOROMETHANE	UG/L	<2.0
VINYL CHLORIDE	UG/L	<0.20
SURROGATES		
BROMOFLUOROBENZENE (ELCD)	%	97
BROMOFLUOROBENZENE (PID)	%	100

D COMPOUND IDENTIFIED IN AN ANALYSIS AT SECONDARY DILUTION OF 2X ON 30-JAN-96

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : EPA 601 (HALOGENATED VOLATILE ORGANICS)
Blank I.D. : 37946
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 29-JAN-96
Dil. Factor : 1.00

Parameters	Units	Results
BROMODICHLOROMETHANE	UG/L	<0.20
BROMOFORM	UG/L	<1.0
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.20
CHLOROBENZENE	UG/L	<0.50
CHLOROETHANE	UG/L	<1.0
CHLOROFORM	UG/L	<0.20
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.20
1,2-DICHLOROBENZENE	UG/L	<0.50
1,3-DICHLOROBENZENE	UG/L	<0.50
1,4-DICHLOROBENZENE	UG/L	<0.50
DICHLORODIFLUOROMETHANE	UG/L	<1.0
1,1-DICHLOROETHANE	UG/L	<0.20
1,2-DICHLOROETHANE	UG/L	<0.20
1,1-DICHLOROETHENE	UG/L	<0.20
CIS-1,2-DICHLOROETHENE	UG/L	<0.20
TRANS-1,2-DICHLOROETHENE	UG/L	<0.20
1,2-DICHLOROPROPANE	UG/L	<0.20
CIS-1,3-DICHLOROPROPENE	UG/L	<0.20
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.20
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.50
TETRACHLOROETHENE	UG/L	<0.20
1,1,1-TRICHLOROETHANE	UG/L	<0.20
1,1,2-TRICHLOROETHANE	UG/L	<0.20
TRICHLOROETHENE	UG/L	<0.20
TRICHLOROFLUOROMETHANE	UG/L	<2.0
VINYL CHLORIDE	UG/L	<0.20
SURROGATES		
BROMOFLUOROBENZENE (ELCD)	%	85
BROMOFLUOROBENZENE (PID)	%	93

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Test : EPA 601 (HALOGENATED VOLATILE ORGANICS)
MSMSD # : 81556
Client : ALISTO ENGINEERING

Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 30-JAN-96
Sample Matrix : WATER
REF I.D. : 601177-02

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
CHLOROBENZENE	UG/L	<0.50	4.0	3.6	90	3.4	85	6
CHLOROFORM	UG/L	<0.20	2.0	1.8	90	1.8	90	0
1,1-DICHLOROETHENE	UG/L	<0.20	2.0	1.7	85	1.7	85	0
TETRACHLOROETHENE	UG/L	1.4	2.0	3.3	95	3.0	80	10
TRICHLOROETHENE	UG/L	<0.20	2.0	1.9	95	1.9	95	0

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

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : EPA 601 (HALOGENATED VOLATILE ORGANICS)
Blank Spike #: 61215
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name : BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 29-JAN-96
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
CHLOROBENZENE	UG/L	<0.50	3.9	4.0	98
CHLOROFORM	UG/L	<0.20	2.0	2.0	100
1,1-DICHLOROETHENE	UG/L	<0.20	2.0	2.0	100
TETRACHLOROETHENE	UG/L	<0.20	1.8	2.0	90
TRICHLOROETHENE	UG/L	<0.20	1.9	2.0	95

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

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS: C7-C24)
Client : ALISTO ENGINEERING ATI I.D. : 601178
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
2	S-2	WATER	19-JAN-96	22-JAN-96	23-JAN-96	1.00

Parameter	Units	2
FUEL HYDROCARBONS	MG/L	<0.05
HYDROCARBON RANGE		-
HYDROCARBONS QUANTITATED USING		-
SURROGATES		
BIS(2-ETHYLHEXYL)PHTHALATE	%	108

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
Blank I.D. : 37901
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: 22-JAN-96
Date Analyzed : 23-JAN-96
Dil. Factor : 1.00

Parameters	Units	Results
FUEL HYDROCARBONS	MG/L	<0.05
HYDROCARBON RANGE		-
HYDROCARBONS QUANTITATED USING		-
SURROGATES		
BIS(2-ETHYLHEXYL)PHTHALATE	%	106

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS)
MSMSD # : 81413
Client : ALISTO ENGINEERING

Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: 22-JAN-96
Date Analyzed : 23-JAN-96
Sample Matrix : WATER
REF I.D. : REAGENT WATER

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
FUEL HYDROCARBONS	MG/L	<0.05	1.0	1.0	100	1.0	100	0

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

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)
Client : ALISTO ENGINEERING ATI I.D. : 601178
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	S-1	WATER	19-JAN-96	N/A	31-JAN-96	5.00
2	S-2	WATER	19-JAN-96	N/A	02-FEB-96	1.00
3	S-3	WATER	19-JAN-96	N/A	31-JAN-96	1.00

Parameter	Units	1	2	3
METHYL T-BUTYL ETHER	UG/L	1500	<5.0	170
BENZENE	UG/L	<2.5	<0.50	2.6
TOLUENE	UG/L	<2.5	<0.50	<0.50
ETHYLBENZENE	UG/L	<2.5	<0.50	<0.50
XYLENES (TOTAL)	UG/L	<5.0	<1.0	<1.0
FUEL HYDROCARBONS	UG/L	410	<50	71
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE
SURROGATES				
TRIFLUOROTOLUENE	%	97	89	100

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)
Client : ALISTO ENGINEERING ATI I.D. : 601178
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	S-4	WATER	19-JAN-96	N/A	31-JAN-96	1.00
5	S-5	WATER	19-JAN-96	N/A	30-JAN-96	1.00

Parameter	Units	4	5
METHYL T-BUTYL ETHER	UG/L	200	<5.0
BENZENE	UG/L	2.4	<0.50
TOLUENE	UG/L	<0.50	<0.50
ETHYLBENZENE	UG/L	<0.50	<0.50
XYLENES (TOTAL)	UG/L	<1.0	<1.0
FUEL HYDROCARBONS	UG/L	68	<50
HYDROCARBON RANGE		C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE
SURROGATES			
TRIFLUOROTOLUENE	%	95	90

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank I.D. : 37955
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 30-JAN-96
Dil. Factor : 1.00

Parameters	Units	Results
METHYL T-BUTYL ETHER	UG/L	<5.0
BENZENE	UG/L	<0.50
TOLUENE	UG/L	<0.50
ETHYLBENZENE	UG/L	<0.50
XYLENES (TOTAL)	UG/L	<1.0
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
SURROGATES		
TRIFLUOROTOLUENE	%	98

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank I.D. : 37971
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 31-JAN-96
Dil. Factor : 1.00

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

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank I.D. : 37974
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 02-FEB-96
Dil. Factor : 1.00

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

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
MSMSD # : 81574
Client : ALISTO ENGINEERING

Project # : G602100/10-022-05/002
Project Name: BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 30-JAN-96
Sample Matrix : WATER
REF I.D. : 601175-01

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
BENZENE	UG/L	<0.50	5.0	4.6	92	5.0	100	8
TOLUENE	UG/L	<0.50	5.0	4.5	90	5.0	100	11

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

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank Spike #: 61225
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name : BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 30-JAN-96
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BENZENE	UG/L	<0.50	5.4	5.0	108
TOLUENE	UG/L	<0.50	5.5	5.0	110

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

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank Spike #: 61243
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name : BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 31-JAN-96
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BENZENE	UG/L	<0.50	5.0	5.0	100
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

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank Spike #: 61246
Client : ALISTO ENGINEERING
Project # : G602100/10-022-05/002
Project Name : BP SITE #11127/OAKLAND, CA

ATI I.D. : 601178
Date Extracted: N/A
Date Analyzed : 02-FEB-96
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BENZENE	UG/L	<0.50	5.3	5.0	106
TOLUENE	UG/L	<0.50	5.4	5.0	108

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

CEIMIC CORPORATION
SAN DIEGO
FLAGS

INORGANICS

FLAG	MESSAGE DESCRIPTION
B	ABSOLUTE VALUE OF ANALYTE CONCENTRATION IS < CRDL BUT ≥ THE IDL
BB	RESULT BETWEEN IDL AND LOQ
D	POST DIGESTION SPIKE FOR GFAA OUTSIDE LIMITS AFTER 1:25 DILUTION. SAMPLE REPORTED AT ORIGINAL CONCENTRATION.
E	ESTIMATED VALUE DUE TO INTERFERENCE
M	DUPLICATE INJECTION PRECISION NOT MET
N	SPIKED SAMPLE RECOVERY NOT WITHIN CONTROL LIMITS
S	REPORTED VALUE WAS DETERMINED BY METHOD OF STANDARD ADDITIONS
U	COMPOUND WAS ANALYZED FOR BUT NOT DETECTED
W	POST DIGESTION SPIKE OUT OF CONTROL LIMITS; SAMPLE ABSORBANCE < 50% OF SPIKE ABSORBANCE FOR GF/AA
X	ABSOLUTE VALUE OF ANALYTE CONCENTRATION IS LESS THAN 3 TIMES THE MDL
*	DUPLICATE ANALYSIS NOT WITHIN CONTROL LIMITS
+	CORRELATION COEFFICIENT FOR MSA IS LESS THAN 0.995
*H	RESULTS OUTSIDE OF LIMITS DUE TO SAMPLE MATRIX INTERFERENCE
*Q	INSUFFICIENT SAMPLE FOR ANALYSIS
*R	DATA IS NOT USABLE
*V	SAMPLE RESULT IS >4X SPIKED CONCENTRATION, THEREFORE SPIKE IS NOT DETECTABLE
*Y	RESULT NOT ATTAINABLE DUE TO SAMPLE MATRIX INTERFERENCE
@C	*VARIABLE MESSAGE*
@H	DETECTION LIMIT ELEVATED DUE TO MATRIX INTERFERENCE
@Q	DETECTION LIMIT ELEVATED DUE TO LIMITED SAMPLE FOR ANALYSIS
@R	RPD LIMIT IS 67% FOR INORGANIC RESULTS LESS THAN TEN TIMES THE REPORTING DETECTION LIMIT
@S	RPD: ONE RESULT ABOVE AND ONE RESULT BELOW REPORTING LIMIT (RL). RESULT ABOVE SHOULD BE < 5 TIMES RL TO BE IN CONTROL.
@V	PRE-DIGEST SPIKE OUT OF LIMITS. POST DIGESTION SPIKE YIELDED ACCEPTABLE RESULTS
@W	DETECTION LIMIT ELEVATED DUE TO REDUCED SAMPLE WEIGHT
@Y	ION BALANCE OUTSIDE OF LABORATORY ACCEPTANCE LIMITS; REANALYSIS CONFIRMED ORIGINAL RESULT
@X	RESULTS VERIFIED BY REDIGESTION AND REANALYSIS

ACCESSION #: 601178 INITIALS: GM

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

1	Does this project require special handling according to NFESC Levels C, D, AFCEE or CLP protocols? If yes, complete a) and b) a) pH sample aliquoted: yes /no /na b) Either 1) Record Bottle Lot #'s: Or 2) Attach Sample Kit Request Form(s)	YES	(NO)
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD"on Item 11 below	1	
3	Are custody seals required for this project ?	YES	(N/A)
	a) are Custody Seals present on Cooler(s) ?	YES	(NO)
	If yes, are seals intact ? (NA)	YES	NO
	b) are Custody Seals present on the sample ?	YES	(NO)
	If yes, are seals intact ? (NA)	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.	(YES)	NO
5	Is the COC* complete per cooler ? Relinquished: (yes)/no Requested analysis: (yes)/no	(YES)	NO
6	Is the COC* in agreement with the samples received? # Samples: (yes)/no Sample ID's: (yes)/no Date sampled: (yes)/no Matrix: (yes)/no # containers: (yes)/no	(YES)	NO
7	Are the samples preserved correctly?	(YES)	NO
8	Is there enough sample for all the requested analyses?	(YES)	NO
9	Are all samples within holding times for the requested analyses?	(YES)	NO
10	Record cooler temperature. Contact PM if temperature is not 4°C ± 2°C.	2.0 °C	
	Is ice present in cooler?	(YES)	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	(YES)	NO
12	Are samples requiring no headspace, headspace free? N/A	(YES)	NO
13	Are VOA 1st stickers required?	YES	(NO)
14	Are there special comments on the Chain of Custody which require client contact?	YES	(N/A)
15	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: _____

Was client contacted? yes / no

If yes, Date: _____ Name of Person contacted:

Describe actions taken or client instructions: _____

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

601178

BP

CHAIN OF CUSTODY

No. 071184 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
Alisto Engineering	1575 Treat Blvd #201	W.C.	Ca	94598

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11127	Oakland, Ca	10-022-05/002

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
Brady Nagle	(510) 295-1650	295-1823	G602100

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.
Scott Hooton	Renton, WA		

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.
ATI	San Diego		

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
Larry Buenvenide	[signature]	1/19/96	Fed Express

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

AIRBILL NUMBER: 6680234750

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE / COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	TPH-G/BTEX	MTBE	TPH-G	TPH-D	TOG						COMMENTS
S-1	1/19/96	W	2	HCL VOAS	01	X	X									
S-2	↓	↓	8	↓	02	↓	↓	X	X	X						
S-3	↓	↓	2	↓	03	↓	↓									
S-4	↓	↓	↓	↓	04	↓	↓									
S-5	↓	↓	↓	↓	05	↓	↓									

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	1/19/96	1545	[signature] Alisto	1/19/96	1607
			[signature] ATI-SD	1/20/96	9:00

ADDITIONAL COMMENTS: 2.0°C

CLV-16722
PKG/50

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