STID 3105

BP OIL

BP Oil Company
Bldg. B, Suite 100
33305 First Way South
Federal Way, Washington 98003-6529
(206) 838-2121

92 JU 1:25

July 13, 1992

Mr. Rafat Shahid
Alameda County Health Agency
80 Swan Way, Room 200
Oakland, California 94621

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

Dear Mr. Shahid:

Attached please find our Quarterly Ground Water Monitoring and Sampling report for the above referenced facility.

Please call me at (206)394-5243 with any questions regarding this submission.

Respectfully,

P. J. DeSantis
V.M.

Peter J. DeSantis
Environmental Resources Management

PJD:vlm COVERLTR

cc: Dave Baker, Mobil Oil Corporation
Eddy So, California Regional Water Quality Control Board
Hugh Murphy, Hayward Fire Department
Site file

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

Prepared for

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

Project No. 10-022

Prepared by

Alisto Engineering Group
1000 Burnett Avenue, Suite 420
Concord, California

July 1, 1992

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-022

[redacted]

INTRODUCTION

This report presents the results and findings of the June 8, 1992 quarterly groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Service Station No. 11127, located at 5425 Martin Luther King, Jr. Way, Oakland, California. A site vicinity map is shown in Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the guidelines and procedures of the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), and the Alameda County Health Agency (ACHA).

Prior to purging and sampling, the ground water level in each well was measured from a permanent mark on the top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to ground water and the top of casing elevation data were used to calculate the ground water elevation within each well in reference to mean sea level. The survey data and ground water elevation measurements collected to date are presented in Table 1.

Prior to sample collection, each well was purged of three casing volumes, while recording field readings of pH, temperature, and electrical conductivity. Ground water samples for laboratory analysis were collected by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were carefully transferred from the bailer into the appropriate clean glass containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of the monitoring and laboratory analyses of the groundwater samples for this and previous quarters are summarized in Table 1. A map showing the concentration of petroleum hydrocarbon constituents detected in groundwater samples is presented as Figure 2. Laboratory reports and the chain of custody record are presented in Appendix B.

SUMMARY OF FINDINGS

The findings of the June 8, 1992 ground water monitoring and sampling event are summarized below:

- No free product as sheen was detected in any of the two monitoring wells.
- Dissolved-phase petroleum hydrocarbon constituents were detected in both of the monitoring wells at concentrations up to 470 parts per billion (ppb) total petroleum hydrocarbons as gasoline (TPH-G), with no detectable concentrations of benzene or toluene.
- Analysis of groundwater samples from MW-2 detected 6.6 ppb of 1,1-Dichloroethane (1,1-DCA) and 4.2 ppb of 1,1,1-Trichloroethane (1,1,1-TCA).

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION 11127
5425 MARTIN LUTHER KING, JR. WAY, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-022

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPH-D (ppb)	1,1-DCA	1,2-DCA	1,1,1-TCA	LAB
MW-1	08/28/91	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	[redacted]	6.7	0.7	11	170	---	---	---	---	SUP
MW-1	06/08/92	82.35	10.25	72.10		ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<0.5	ND<0.5	ND<0.5	ANA
MW-2	08/29/91	83.49	11.56	71.93	950	ND<0.3	ND<0.3	17	50	66	ND	ND	ND	
MW-2	11/20/91	83.49	11.25	72.24	1400	0.3	ND<0.3	32	90	ND<50	ND	0.8	0.7	
MW-2	02/28/92	83.49	9.02	74.47	[redacted]	4.2	1.8	47	360	70	ND	ND	4.1	SUP
MW-2	06/08/92	83.49	11.37	72.12		ND<0.5	ND<0.5	7.7	12	---	6.6	ND<0.5	4.2	ANA

ABBREVIATIONS:

TPH-G	Total Petroleum Hydrocarbons as Gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Xylenes
TPH-D	Total Petroleum Hydrocarbons as Diesel
1,1-DCA	1,1-Dichloroethane
1,2-DCA	1,2-Dichloroethane
1,1,1-TCA	1,1,1-Trichloroethane
(ppb)	Parts per Billion
ND	Not detected above reported detection limits
ANA	Anametrix, Inc.
SUP	Superior Analytical Laboratory

NOTES:

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

(b) In feet above Mean Sea Level

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

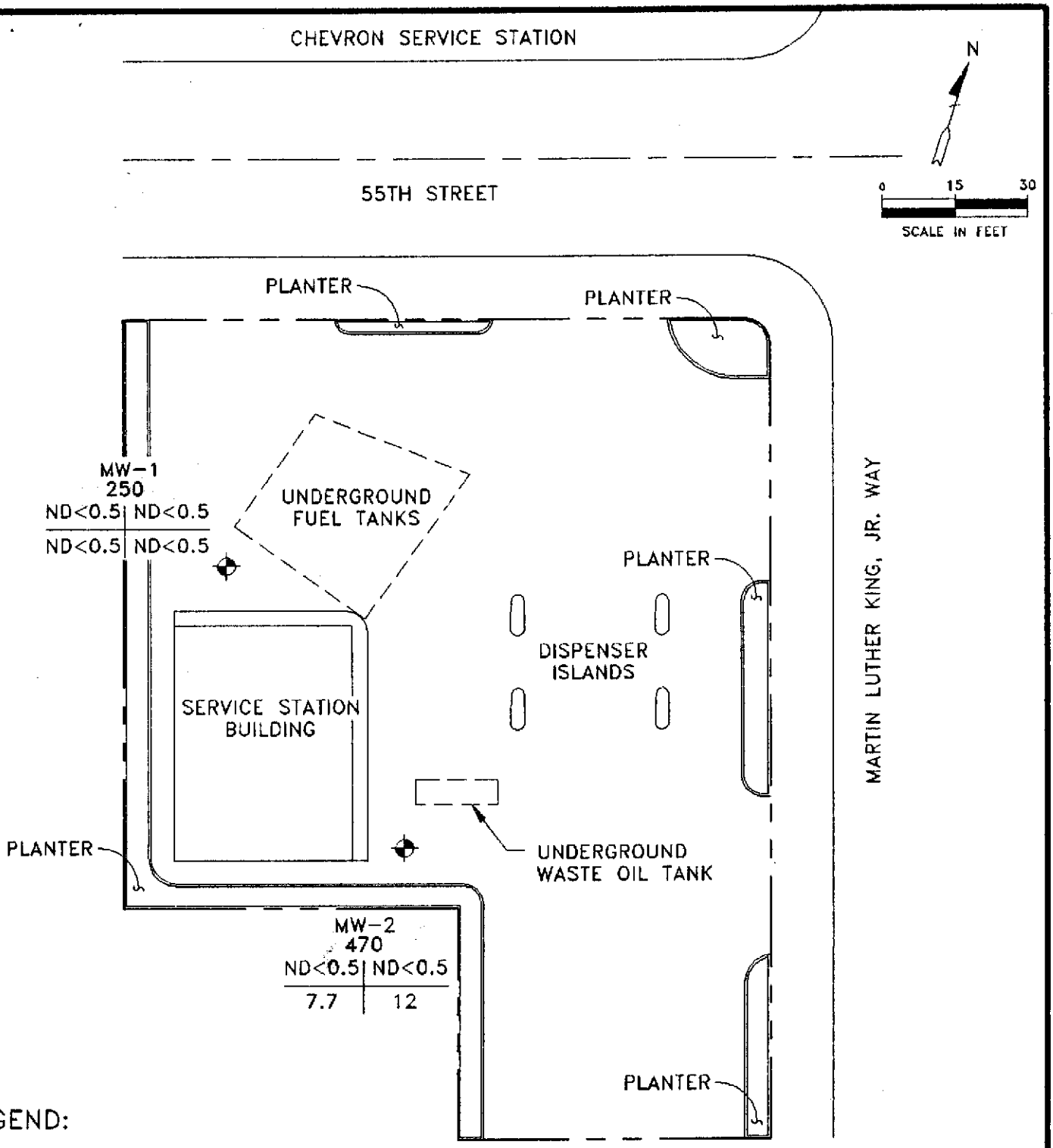
FIGURE 1

SITE VICINITY MAP

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

ALISTO PROJECT NO. 10-022

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA



LEGEND:

⊕	GROUNDWATER MONITORING WELL
TPH-G / B T / E X	CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION (PPB)
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT

FIGURE 3

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUNDWATER (JUNE 8, 1992)

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

PROJECT NO. 10-022

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

R11127-2.DWG 5-26-92 JWB 1=30

APPENDIX A

WATER SAMPLING FORMS

BIRCH TECHNICAL SERVICES
116 LIBERTY STREET
SANTA CRUZ, CALIFORNIA
(408) 459-0718

GROUND-WATER SAMPLING FORM

Well Number: MW-1

Well Type: ☒ Monitor ☐ Extraction ☐ Other:

Well Material: ☒ PVC ☐ Steel ☐ Other

Sampled By: Don Birch

Job Number: 10-022

Location: 5425 Martin Luther King

Date: 6/8/92 Oakland

WELL PURGING

PURGE VOLUME
Casing diameter(ID in inches): ☐ 2" ☒ 4" ☐ 6" ☐ Other

Total Depth of Well (BOW) 27.55 Initial Water level: 10.25 Time 16:40

Total Volume Purged: 35 Time Elapsed: 15m

Water Level after purging: NM Time:

Purge Volume:

27.55 (total depth) − 10.25 (water level) = 17.30 × 0.65 (Well Vol. Fac.) = 11.25 × 3 (# of vol. to purge) = 33.75 gallons (calculated purge volume)

Well Volume Factors:

Well Casing ID (inches)	(Vol. Factor)
2.0	0.1632
3.0	0.3672
4.0	0.6528
4.5	0.826
6.0	1.469

PURGE METHOD ☒ Honda Pump ☐ Bailer ☐ Dedicated Pump ☐ Other

PARAMETER EQUIPMENT CALIBRATION:

pH meter #9112 Time: 1420 Solution pH 4.00 4 at 71 °C pH 10.00 10 at 71 °C
Other solution: 7 - 7 at 71 °C

Conductivity meter #9117 Time: 1420

Water Level Meter # 10337

WELL SAMPLING PARAMETERS:

Gallons Removed	Time	Temp. C	pH	Cond. (umhos/cm)
0	1708	69.5	7.39	9.11
10	1714	68.6	7.02	9.43
20	1716	69.1	6.93	9.95
30	1721	71.4	6.79	9.83
35	1723	71.2	6.79	9.71

SAMPLING METHOD: Time Sampled: 17:20

☒ Bailer ☐ Bladder Pump ☐ Other

COMMENTS: Well checked for product prior to purging - none observed.

SAMPLES COLLECTED INCLUDING QC SAMPLES			
ANALYSIS REQUIRED	No. of	Container type	Preservatives
EPA 8240			
EPA 8270			
EPA 8010/8020			
TPH - G/BTEX	3	VOA	HCl
METALS:			
INORGANICS:			
EPA-601	3	VOA	—

BIRCH TECHNICAL SERVICES
116 LIBERTY STREET
SANTA CRUZ, CALIFORNIA
(408) 459-0718

GROUND-WATER SAMPLING FORM

Well Number: MW-2

Well Type: ☒ Monitor ☐ Extraction ☐ Other:

Well Material: ☒ PVC ☐ Steel ☐ Other

Sampled By: DAN BIECH

Job Number: 10-022
Location: BP 11127
Date: 6-8-92

WELL PURGING

PURGE VOLUME

Casing diameter(ID in inches): ☐ 2" ☐ 4" ☒ 6" ☐ Other

Total Depth of Well (BOW) ~~11.37~~ 26.81 Initial Water level: 11.37 Time: 16:45

Total Volume Purged: 30 Time Elapsed: 8

Water Level after purging: NM Time:

Purge Volume:

~~11.37~~ 26.81 (total depth) − ~~11.20~~ 11.37 (water level) = 15.44 × .65 (Well Vol. Fac.) = 10.0 × 3 (# of vol. to purge) = 30 gallons (calculated purge volume)

Well Volume Factors:

Well Casing ID (inches)	(Vol. Factor)
2.0	0.1632
3.0	0.3672
4.0	0.6528
4.5	0.826
6.0	1.469

PURGE METHOD ☒ Honda Pump ☐ Bailer ☐ Dedicated Pump ☐ Other

PARAMETER EQUIPMENT CALIBRATION:

pH meter #912 Time: 1420 Solution pH 4.00 4 at 71 °C pH 10.00 10 at 71 °C
Other solution: 7 - 7 at 71 °C
Conductivity meter # 912 Time: 1420

Water Level Meter # 10337

WELL SAMPLING PARAMETERS:

Gallons Removed	Time	Temp. C	pH	Cond. (umhos/cm)
0	17:48	67.8	6.80	6.25
10	17:50	68.0	6.73	6.05
20	17:52	67.9	6.68	5.87
30	17:55	67.5	6.63	5.74

SAMPLING METHOD: Time Sampled: 6:20

☒ Bailer ☐ Bladder Pump ☐ Other

COMMENTS:

Well checked for product prior to purging - None observed.

SAMPLES COLLECTED INCLUDING QC SAMPLES			
ANALYSIS REQUIRED	No. of	Container type	Preservatives
EPA 8240			
EPA 8270			
EPA 8010/8020			
TPH - G/BTEX	3	VOA's	HCl
METALS:			
INORGANICS:			
EPA 601	3	VOA's	—

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

REPORT

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9206130
Date Received : 06/08/92
Project ID : 10-022
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9206130- 1	MW-1
9206130- 2	MW-2

This report consists of 11 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

6-22-92
Date

ANAMETRIX REPORT DESCRIPTION
GC

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anametrix ID number.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers

Anametrix uses several data qualifiers (Q) in it's report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9206130
Date Received : 06/08/92
Project ID : 10-022
Purchase Order: N/A
Department : GC
Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9206130- 1	MW-1	WATER	06/08/92	8010
9206130- 2	MW-2	WATER	06/08/92	8010

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9206130
Date Received : 06/08/92
Project ID : 10-022
Purchase Order: N/A
Department : GC
Sub-Department: VOA

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Corinne Tham 6/22/92
Department Supervisor Date

Michelle Young 6/22/92
Chemist Date

DESCRIPTIONS FOR SPECIFIC COMPOUNDS ANALYZED

EPA METHOD 601/8010

CAS #	COMPOUND NAME	ABBREVIATED NAME
74-87-3	Chloromethane	Chloromethane
74-83-9	Bromomethane	Bromoethane
75-71-8	Dichlorodifluoromethane	Freon 12
75-01-4	Vinyl Chloride	Vinyl Chloride
75-00-3	Chloroethane	Chloroethane
75-09-2	Methylene Chloride	Methylene Chlor
75-69-4	Trichlrofluoromethane	Freon 11
75-35-4	1,1-Dichloroethene	1,1-DCE
75-34-3	1,1-Dichloroethane	1,1-DCA
156-59-2	Cis-1,2-Dichloroethene	Cis-1,2-DCE
156-60-5	Trans-1,2-Dichloroethene	Trans-1,2-DCE
67-66-3	Chloroform	Chloroform
76-13-1	Trichlorotrifluoroethane	Freon 113
107-06-2	1,2-Dichloroethane	1,2-DCA
71-55-6	1,1,1-Trichloroethane	1,1,1-TCA
56-23-5	Carbon Tetrachloride	Carbon Tet
75-27-4	Bromodichloromethane	BromodichloroMe
78-87-5	1,2-Dichloropropane	1,2-DCPA
10061-02-6	Trans-1,3-Dichloropropene	Trans-1,3-DCPE
79-01-6	Trichloroethene	TCE
124-48-1	Dibromochloromethane	DibromochloroMe
79-00-5	1,1,2-Trichloroethane	1,1,2-TCA
10061-01-5	Cis-1,3-Dichloropropene	Cis-1,3-DCPE
110-75-8	2-Chloroethylvinylether	Chloroethylvinl
75-25-2	Bromoform	Bromoform
127-18-4	Tetrachloroethene	PCE
79-34-5	1,1,2,2-Tetrachloroethane	PCA
108-90-7	Chlorobenzene	Chlorobenzene
95-50-1	1,2-Dichlorobenzene	1,2-DCB
541-73-1	1,3-Dichlorobenzene	1,3-DCB
106-46-7	1,4-Dichlorobenzene	1,4-DCB
352-33-0	p-Chlorofluorobenzene	Chlorofluoroben

mh/3428 - 10MH

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 10-022
Sample ID : MW-1
Matrix : WATER
Date Sampled : 6/ 8/92
Date Analyzed : 6/18/92
Instrument ID : HP15

Anametrix ID : 9206130-01
Analyst :
Supervisor :

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	.50	ND	U
156-60-5	Trans-1,2-DCE	1.0	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	6.6	
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	4.2	
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	.50	ND	U
10061-01-5	Cis-1,3-DCPE	1.0	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	.50	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 10-022
Sample ID : MW-2
Matrix : WATER
Date Sampled : 6/ 8/92
Date Analyzed : 6/18/92
Instrument ID : HP15

Anametrix ID : 9206130-02
Analyst : [illegible]
Supervisor : [illegible]

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 10-022
Sample ID : VBLANK
Matrix : WATER
Date Sampled : 0/ 0/ 0
Date Analyzed : 6/18/92
Instrument ID : HP15

Anametrix ID : 15B0618H01
Analyst :
Supervisor :

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 10-022
Matrix : LIQUID

Anametrix ID : 9206130
Analyst :
Supervisor :

	SAMPLE ID	SU1	SU2	SU3
1	VBLANK	97		
2	MW-1	97		
3	MW-2	98		
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

	QC LIMITS
SU1 = CHLOROFLUOROBEN	(51-136)

* Values outside of Anametrix QC limits

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9206130
Date Received : 06/08/92
Project ID : 10-022
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9206130- 1	MW-1	WATER	06/08/92	TPHg/BTEX
9206130- 2	MW-2	WATER	06/08/92	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9206130
Date Received : 06/08/92
Project ID : 10-022
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as gasoline for sample MW-1 is primarily due to the presence of a heavier petroleum product, possibly diesel or kerosene.

Cheryl Balman 6/24/92
Department Supervisor Date

Reggie Davison 6/22/92
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9206130
Matrix : WATER
Date Sampled : 06/08/92

Project Number : 10-022
Date Released : 06/20/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-1 -01	Sample I.D.# MW-2 -02	Sample I.D.# BU1801E2 BLANK
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	7.7	ND
Total Xylenes	0.5	ND	12	ND
TPH as Gasoline	50	250	470	ND
% Surrogate Recovery		81%	98%	103%
Instrument I.D.		HP4	HP4	HP4
Date Analyzed		06/18/92	06/18/92	06/18/92
RLMF		1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Davison 6/22/92
Analyst / Date

Supervisor 6/20/92
Date

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E. San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

9206130 (2) (10) 19.45

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
10-022	BP 11127

Send Report Attention of:	Report Due	Verbal Due
BRADY NAGLE	6/23/92	6/23/92

	Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH-G/BTEX	Type of Analysis: EPA 601	Condition of Samples	Initial
(1)	MW-1	6/8/92	1730		W		6	VOA's	X	X	Samples received cold bubbles in 1 VOA MW-1	
(2)	MW-2	6/8/92	1820		W		6	VOA's	X	X		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Daniel Wick	6/8/92 1910	Michele D'Aguilar	6/8/92 1910
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by Lab:	Date/Time

Remarks: NORMAL TURNAROUND

COMPANY: AUSTO ENGINEERING GROUP
ADDRESS:
PHONE : FAX : 510 798 4099