

Fax: 510-547-5043 Phone: 510-450-6000

93 OCT 14 PM 12: 15

October 13, 1993

Scott Seery
Alameda County Department
of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621-1426

Re: Shell Service Station
WIC #204-6852-0703
1285 Bancroft Avenue
San Leandro, California 94577
WA Job #81-423-203

Dear Mr. Seery:

This letter describes recently completed and anticipated activities at the Shell service station referenced above (Figure 1). This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 265.d. Included below are descriptions and results of activities performed in the third quarter 1993 and proposed work for the fourth quarter 1993.

Third Ouarter 1993 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the three site wells. BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.
- Weiss Associates (WA) compiled the ground water elevation and analytic data (Tables 1 and 2) and prepared a ground water elevation contour map (Figure 2).

Anticipated Fourth Ouarter 1993 Activities:

WA will submit a report presenting the results of the fourth quarter 1993 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results and a ground water elevation contour map.

93 OCT 14 PM 12: 15

Please call if you have any questions or comments.

Sincerely,

Weiss Associates

J. Michael Asport Technical Assistant

N. Scott MacLeod, R.G. Project Geologist

JMA/NSM:jma

J:\SHELL\400\423QMOC3.WP2

Attachments: A - Ground Water Monitoring Report and Analytic Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 5278, Concord, California 94520-9998
Lester Feldman, California Regional Water Quality Control Board - San Francisco Bay
Region, 2101 Webster Street, Oakland, California 94612

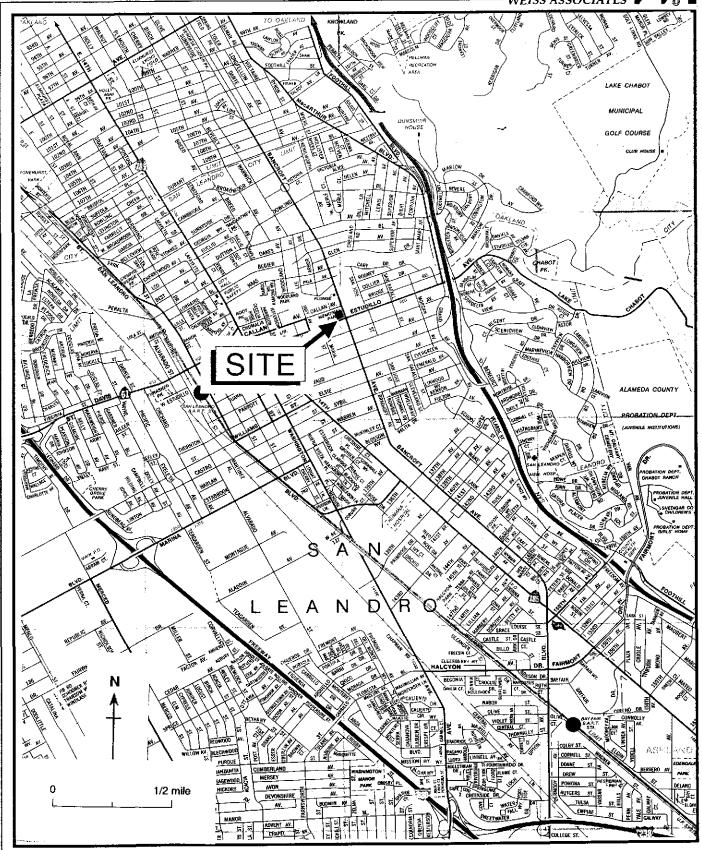


Figure 1. Site Location Map - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

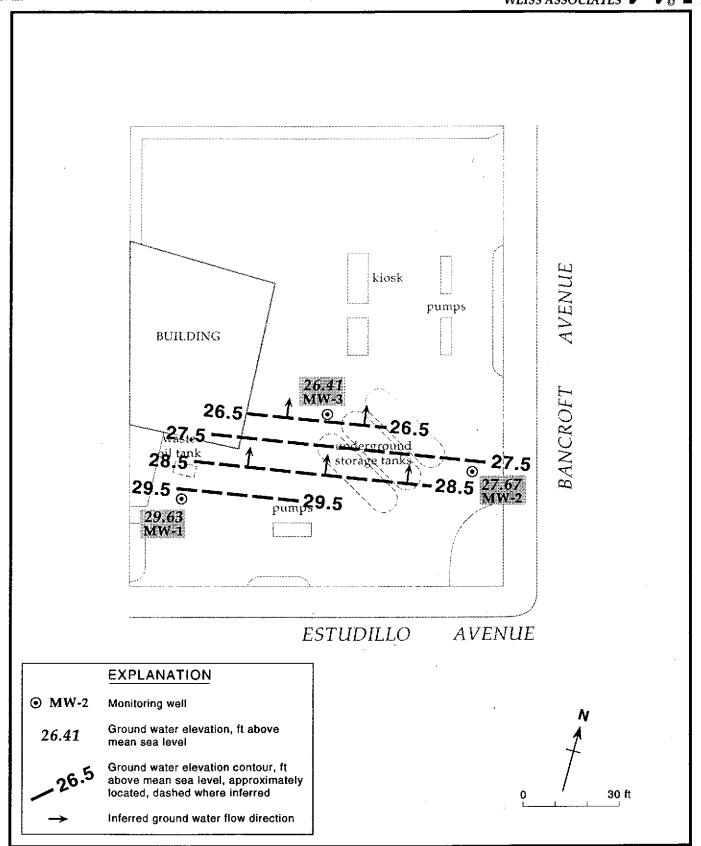


Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - September 9, 1993 - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Table 1. Ground Water Elevations, Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-1	03/13/90	66.29	42.65	23.64
	06/12/90		43.14	23.15
	09/13/90		44.71	21.58
	12/18/90		45.23	21.06
	03/07/91		43.32	22.97
	06/07/91		42.18	24.11
	09/17/91		44.85	21.44
	03/01/92		41.56	24.73
	06/03/92		40.74	25.55
	09/01/92		43.05	23.24
	12/07/92		44.19	22.10
	03/01/93		34.96	31.33
	06/22/93		36.75	29.54
	09/09/93		39.36	26.93
MW-2	03/01/92	66.91	41.57	25.34
	06/03/92		40.56	26.35
	09/01/92		42.94	23.97
	12/07/92		44.13	22.78
	03/01/93		34.82	32.09
	06/22/93		36.64	30.27
	09/09/93		39.24	27.67
MW-3	03/01/92	66.31	42.00	24.31
	06/03/92		44.30	22.01
	09/01/92		43.62	22.69
	12/07/92		44,77	21.54
	03/01/93		35.50	30.81
	06/22/93		37.30	29.01
	09/09/93		39,90	26.41

ell	Date	Depth to Water	TPH-G	TPH-D	В	E	т	X
	Sampled	(ft)	<		parts per bi	llion (μg/L)		>
r f	09/17/91	44.85	50 ⁴	160 ^b		-0 E	-0 F	-A F
237	03/01/92	41.56	<50		<0.5	<0.5	<0.5	<0.5
	06/03/92	40.74	<50	<50 	<0.5	<0.5	<0.5	<0.5
	09/01/92	43.05	<50		0.8	0.9	<0.5	<0.5
	12/07/92	44.19	68		<0.5 <0.5	5.3 <0.5	5.8 0.8	7.2
	03/01/93	34.96	< 50		<0.5	<0.5 <0.5	<0.5	1.2 <0.5
	03/01/93 ^{dup}	J4.70	<50		<0.5	<0.5	<0.5	<0.5
	06/22/93	36,75	<50_		<0.5			
	00/22/73	39,36			20.5	<0.5	<0.5	<0.5 <0.5
sčs. · ·					*****			
	03/01/92	41.57	910	<50	11	50	5.2	140
1000 J. Mar.	06/03/92	40.56	1,400		33	150	16	240
	09/01/92 09/01/92 ^{dup}	42.94	230		5.2	15	4.1	19
			320		5.6	18	5	220
	12/07/92	44.13	240		1,5	9.5	1.3	9.9
	12/07/92 ^{dup}		<50		1.7	13	1	12
	03/01/93	34.82	230	•••	260	27	310	66
	06/20/95	36.64	220					Big.
	06/22/73°C		1800 B		3			3
		39.24				8.2	3.0	
		39.24				749		70
	03/01/92	42.00	<50	<50	<0.5	<0.5	<0.5	<0.5
類奏	06/03/92	44.30	<50		<0.5	<0.5	<0.5	<0.5
	09/01/92	43.62	<50		<0.5	1.1	<0.5	3.2
	12/07/92	44.77	52		<0.5	<0.5	<0.5	0.5
	03/01/93	35.50	<50		<0.5	<0.5	<0.5	<0.5
	06/22/93	37.30	<50	***	<0.5	<0.5	<0.5	<0.5
	CONTRACT	39.90	10	***	0,00	<0.5	<0.5	<0.5
	00 /04 /00			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************			_
iler ank	09/01/92		<50 -50	•••	<0.5	<0.5	<0.5	1_
BINK	12/07/92		<50		<0.5	<0.5	<0.5	<0.5
ip	09/17/91		<50		<0.5	<0.5	<0.5	<0.5
enk	03/01/92		<50		<0.5	<0.5	<0.5	<0.5
	06/03/92		<50		<0.5	<0.5	<0.5	<0.5
	09/01/92		<50		<0.5	<0.5	<0.5	<0.5
	12/07/92		<50		<0.5	<0.5	<0.5	<0.5
	03/01/93		<50		<0.5	<0.5	<0.5	<0.5
	06/22/93		<50	***	<0.5	<0.5	<0.5	<0.5
	09/09/93		-50		40.5	<0.5	<0.5	<0.5

Table 2A. Analytical Results for Ground Water - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015

TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015

B = Benzene by EPA Method 8020

E = Ethylbenzene by EPA Method 8020

T = Toluene by EPA Method 8020

X = Xylenes by EPA Method 8020

dup = Duplicate sample

NE = Not established

DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water

--- = Not analyzed

<n = Not detected at detection limits of n ppm</pre>

Notes:

a = Result due to a non-gasoline hydrocarbon compound

b = Result due to a non-diesel hydrocarbon compound

* The concentrations reported as appoline and a discrete peak not indicated at passion.

d = DTSC recommended action level; MCL not established

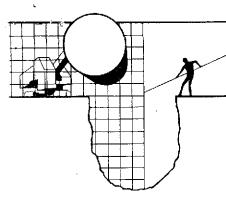
Well	Date	Depth to	TCE	TOG	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE
ID	Sampled	Vater	<		parts p	er billion (μg/L)		
154-1	03/08/90	42.65		<10,000	35	6.3	***	
	06/12/90	43.14		<10,000	1.9	63		
	09/13/90	44.71		<10,000	26	9		
	12/18/90	45.23	•••	<10,000	<0.4	5.3		
	03/07/91	43.32			23	3.7		
	06/07/91	42.18		•••	21	6.6		
	09/17/91	44.85			23	7.4		
	03/01/92	41,56	<0.4		21	6.3		<0.4
	06/03/92	40.74	17	•••	<0.5	6.7	<0.5	<0.5
	09/01/92	43.05	12		<0.5	5.8	<0.5	<0.5
	12/07/92	44.19	<0.5		17	9	<0.5	<0.5
	03/01/93	34.96	<0.5		22	13	<0.5	<0.5
	03/01/93 ^{dup}		<0.5		22	13	<0.5	<0.5
	06/23/93	36,75	<0.5		.18	8	<0.5	<0.5
	09/09/93	39.36	<0.5			106.5	<0.5	<0.5
	03/01/92	41.57	<0.4		11	8.9	***	<0.4
Section 1	06/03/92	40.56	7.4		<0.5	<0.5	0.76	6.3
	09/01/92	42.94	8.4		<0.5	9.1	<0.5	<0.5
	09/01/92 ^{dup}	42.94	8.4		<0.5	8.1	<0.5	<0.5
	12/07/92	44.13	<0.5		10	10		
	12/07/92 ^{dup}	44.13	<0.5		10	9	<0.5 <0.5	<0.5
	03/01/93	34.82	<0.5		<0.5	-		<0.5
	06/22/93	36.64	<0.5			<0.5	<0.5	<0.5
	06/22/93 ^{dup}	36.64	<0.5	•••	13 12	7.9	<0.5 -0.5	<0.5
	09/09/93	39,24			16	6.9	<0.5	<0.5
			<0.5					<0.5
	09/09/93	39.24	<0.5	***				<0.5
H\$-3	03/01/92	42.00	<0.4		8.8	2.4	•••	<0.4
	06/03/92	44.30	3	***	<0.5	1.5	<0.5	<0.5
	09/01/92	43.62	8.8		<0.5	2.3	<0.5	<0.5
	12/07/92	44.77	<0.5		10	3	<0.5	<0.5
	03/01/93	35.50	<0.5		9.2	9.4	<0.5	<0.5
	06/22/93	37.30	<0.5	* 	7.8	9.6	<0.5	<0.5
	09/09/93	39.90	<0.5	•			<0.5	<0.25
Bailer	09/01/92		<0.5	***	<0.5	<0.5	<0.5	<0.5
Blank	12/07/9 2		<0.5		<0.5	<0.5	<0.5	<0.5
Trip	09/01/92		<0.5		<0.5	<0.5	<0.5	<0.5
Blank	12/07/92 ^a		<0.5		<0.5	<0.5	<0.5	<0.5
	03/01/93		<0.5		<0.5	<0.5	<0.5	<0.5
	06/22/93 ^b		<0.5		<0.5	<0.5	<0.5	<0.5
	,				.415		10.5	-0.5
DTSC MCLs			5	NE	5	NE	6	10

<u>Abbreviations</u>:

Notes:

- a = Sample contained 0.014 mg/L of 1,3-Dichlorobenzene.
- b = Although 1.4 ppb methylene chloride was detected in one of the ground water samples from well MW-2, the laboratory indicated that this was within normal laboratory background concentrations.

ATTACHMENT A GROUND WATER MONITORING REPORT AND ANALYTIC REPORT



BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE SAN JOSE, CA 95133 (408) 995-5535 FAX (408) 293-8773

October 1, 1993

Shell Oil Company P.O. Box 5278 Concord, CA 94520-9998

Attn: Daniel T. Kirk

SITE: Shell WIC #204-6852-0703 1285 Bancroft Avenue San Leandro, California

QUARTER: 3rd quarter of 1993

QUARTERLY GROUNDWATER SAMPLING REPORT 930909-L-2

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in reponse to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a TABLE OF WELL GAUGING DATA. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

STANDARD PROCEDURES

Evacuation

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be removed in cases where the well dewaters and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California.

Free Product Skimmer

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such sites is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

Sample Containers

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

Sampling

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Anametrix, Inc. in San Jose, California. Anametrix, Inc. is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1234.

Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/lpn

attachments: table of well gauging data

chain of custody

certified analytical report

cc: Weiss Associates

5500 Shellmound Street Emeryville, CA 94608-2411

ATTN: Michael Apsort

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Services,
ech
Blaine T

DEPTH TO WELL BOTTOM		97.70	59.17	27.97
DEPTH TO WATER		37,30	39.24	39.90
VOLUME OF IMMISCIBLES REMOVED		ı	ł	ì
THICKNESS OF IMMISCIBLES LIQUID ZONE		ı	•	1
DEPTH TO FIRST IMMISCIBLES LIGUID (FPZ)		NONE	NONE	NONE
QUALITATIVE OBSERVATIONS		•	ı	1
MEASUREMENT REFERENCED TO	9	<u>2</u>	1 00	10 C
DATA COLLECTION DATE	9	6/6/63	6/6/63	6/6/63
WELL I.D.	į	MW-1	MW-2	MW-3

*Sample DUP was a duplicate sample takem from well MW-2.

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<i>:</i>	Sample ID	Dale	\$ludge	Sall	Woler		onls.	표	폺	37.6	20 >	16.	Ö	77		Asb	Ç	Pre	õ			COMMENIS
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1961 Concourse Drive Suite E San Jose, CA 95131 Tel: 408-432-8192 Fax: 408-432-8198

MR. JIM KELLER BLAINE TECH 985 TIMOTHY DRIVE SAN JOSE, CA 95133 Workorder # : 9309138
Date Received : 09/10/93

Project ID : 204-6852-0703

Purchase Order: MOH-B813

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

ANAMETRIX ID	CLIENT SAMPLE ID
9309138- 1	MW-1
9309138- 2	MW-2
9309138- 3	MW-3
9309138- 4	EB
9309138- 5	DUP
9309138- 6	TB

This report consists of 16 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

Date

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

MR. JIM KELLER BLAINE TECH

985 TIMOTHY DRIVE SAN JOSE, CA 95133 Workorder # : 9309138
Date Received : 09/10/93
Project ID : 204-6852-0703
Purchase Order: MOH-B813
Department : GC

Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9309138- 1	MW-1	WATER	09/09/93	8010
9309138- 2	MW-2	WATER	09/09/93	8010
9309138- 3	MW-3	WATER	09/09/93	8010
9309138- 4	EB	WATER	09/09/93	8010
9309138- 5	DUP	WATER	09/09/93	8010

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

MR. JIM KELLER BLAINE TECH

985 TIMOTHY DRIVE SAN JOSE, CA 95133 Workorder # : 9309138

Date Received : 09/10/93 Project ID : 204-6852-0703

Purchase Order: MOH-B813

Department : GC Sub-Department: VOA

QA/QC SUMMARY :

- The amount of methylene chloride reported in sample EB is within normal laboratory background levels.

GC/VOA- PAGE

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

Project ID Sample ID : 204-6852 : MW-1

: WATER **latrix**

Date Sampled : 9/9/93
Date Analyzed : 9/15/93
Instrument ID : HP24

9309138-01 Anametrix ID Analyst

Supervisor

1.0 Dilution Factor:

Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND] U
74-87-3	Chloromethane	j 1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50	ND-	U
76-13-1	Trichlorotrifluoroethane	.50	ND	ĮŪ
75-35-4	1,1-Dichloroethene	.50	ND	ĮΨ
75-09 - 2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50 ⁻	ND	U
156-59-2	cis-1,2-Dichloroethene	j .50	ND	្រុប
67-66-3	Chloroform	.50	. 6.5	<u> </u>
71-55-6	1,1,1-Trichloroethane	.50	ND	ĮŪ
56-23-5	Carbon tetrachloride	.50		U
107-06-2	1,2-Dichloroethane	.50	ND	ַ ט
79-01-6	Trichloroethene	.50	ND	U
78-87 - 5	1,2-Dichloropropane	1	ND	וַע
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	ĮŪ
10061-01-5	cis-1,3-Dichloropropene	j .50	ND	ĺυ
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	j .50	ND	Ū
127-18-4	Tetrachloroethene	.50	174	
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	ĮŪ
75-25 - 2	Bromoform	į .50	ND	Ū
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
54 1- 73-1	1,3-Dichlorobenzene	1.0	1	ĮÜ
106-46-7	1,4-Dichlorobenzene	1.0	ND	ĺΩ
95-50-1	1,2-Dichlorobenzene	1.0	ND	ប

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 601 ANAMETRIX, INC. (408)432-8192

Project ID : 204-6852 Sample ID : MW-2

Anametrix ID : 9309138-02

Analyst : mf Supervisor THI

Matrix : WATER
Date Sampled : 9/9/93
Date Analyzed : 9/15/93
Instrument ID : HP24

Dilution Factor : Conc. Units : ug/L

1.0

CAS No. COMPOUND NAME	REPORTING	3.040777777	1
	LIMIT	AMOUNT DETECTED	Q
75-71-8 74-87-3 75-01-4 74-83-9 75-00-3 75-69-4 76-13-1 75-35-4 75-09-2 Methylene chloride 156-60-5 1,1-Dichloroethane 156-59-2 67-66-3 71-55-6 107-06-2 107-06-2 17-01-6 78-87-5 75-27-4 10061-01-5 10061-01-5 10061-02-6 179-00-5 179-00-5 179-00-5 179-00-5 179-01-6 108-90-7 75-25-2 179-34-5 171-20ichloroethane 172-11chloroethane 172-11chloroethane 172-11chloroethane 172-11chloroethane 172-11chloroethane 173-11chloroethane 174-8-1 175-25-2 175-25-2 175-25-2 175-25-2 175-25-2 175-25-2 175-25-1 106-46-7 175-10-10-10-10-10-10-10-10-10-10-10-10-10-	1.0 1.0 .50 .50 .50 .50 .50 .50 .50 .50 .50	ND N	מממממ ממממממממ מממממממממ

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 601 ANAMETRIX, INC. (408)432-8192

Anametrix ID : 9309138-03 Analyst : 9309138-03 : 204-6852

Project ID Sample ID Matrix : MW-3 : WATER Supervisor

Date Sampled : 9/9/93
Date Analyzed : 9/15/93
Instrument ID : HP24 Dilution Factor : Conc. Units : ug/L 1.0

CAS No. COMPOUND NAME REPORTING LIMIT DETECTED Q					
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 Trichlorofluoromethane .50 ND U 75-35-4 Trichloroethene .50 ND U 75-34-3 1,1-Dichloroethene .50 ND U 75-34-3 1,1-Dichloroethane .50 ND U 156-59-2 cis-1,2-Dichloroethene .50 ND U 67-66-3 Chloroform .50 ND U 71-55-6 1,1,1-Trichloroethane .50 ND U 56-23-5 Carbon tetrachloride .50 ND U 107-06-2 1,2-Dichloropropane .50 ND U 78-87-5 1,2-Dichloropropane .50 ND U 75-27-4 Bromodichloromethane .50	CAS No.	COMPOUND NAME			Ď
100 40 / 1/4 Dichiologonache	75-71-8 74-87-3 75-01-4 74-83-9 75-00-3 75-69-4 76-13-1 75-35-4 75-09-2 156-60-5 75-34-3 156-59-2 67-66-3 71-55-6 56-23-5 107-06-2 79-01-6 78-87-5 75-27-4 110-75-8 10061-01-5 10061-02-6 79-00-5 127-18-4 124-48-1 108-90-7 75-25-2 79-34-5 541-73-1	Dichlorodifluoromethane Chloromethane Vinyl chloride Bromomethane Chloroethane Trichlorofluoromethane Trichlorotrifluoroethane 1,1-Dichloroethene Methylene chloride trans-1,2-Dichloroethene 1,1-Dichloroethane cis-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon tetrachloride 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane 2-Chloroethylvinylether cis-1,3-Dichloropropene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene	1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	的复数形式 5.3 第55章 第55章 第55章 第55章 第55章 第55章 第55章 第55章	ממממם מממממממממ מממממממממ
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ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010 ANAMETRIX, INC. (408)432-8192

: 9309138-04 : W Anametrix ID : 204-6852

roject ID ample ID Analyst : EB :TM Supervisor Matrix : WATER

Date Sampled : 9/9/93
Date Analyzed : 9/15/93
Enstrument ID : HP24 Dilution Factor :

Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	ĮŪ
74-83-9	Bromomethane	i .50 i	ND	ĮŪ
75-00 - 3	Chloroethane	.50	ND	U
75-69 - 4	Trichlorofluoromethane	j .50 j	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ИD	∤ U
75-35-4	1,1-Dichloroethene	.50	ND	ĮŪ
75 - 09-2	Methylene chloride	i 1.0	2.2	
156-60-5	trans-1,2-Dichloroethene	-j .50	ND	Įΰ
75-34-3	1,1-Dichloroethane	-j .50	ND	U
156-59-2	cis-1,2-Dichloroethene	.50	ND	ĮŪ
67-66-3	Chloroform	.50	ND	ĮΨ
71-55-6	1,1,1-Trichloroethane	.50	ND	ĮŪ
56-23-5	Carbon tetrachloride	j .50	ND	l n
107-06-2	1,2-Dichloroethane	.50	ND	ļŪ
79-01-6	Trichloroethene	.50	•	ĺΩ
78-87-5	1,2-Dichloropropane	[.50	•	ĮŪ
75-27-4	Bromodichloromethane	[.50		ĺΩ
110-75-8	2-Chloroethylvinylether	[] 1.0	ND	ĺΩ
L0061-01-5	cis-1.3-Dichloropropene	_i .50	ND	וַע
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	ĮŪ
127-18-4	Tetrachloroethene	.50	I ИD	U
124-48-1	Dibromochloromethane	.50	I ND	ប្រ
108-90-7	Chlorobenzene	_j .50	ND	ĮÜ
75-25-2	Bromoform	_[.50	ND	ĮÜ
79-34-5	1,1,2,2-Tetrachloroethane	<u> </u>	ND	Į U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	_i 1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	ប

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 601 ANAMETRIX, INC. (408)432-8192

Anametrix ID : 9309138-05 : 204-6852

Project ID Sample ID Analyst : DUP Supervisor : WATER :TMI Matrix

Date Sampled : 9/9/93 Date Analyzed : 9/15/93 Instrument ID : HP24 Dilution Factor : 1.0

Conc. Units : ug/L

			<u></u>	,
CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	QQ
75-71-8 74-87-3 75-01-4 74-83-9 75-00-3 75-69-4 76-13-1 75-35-4 75-09-2 156-60-5 75-34-3 156-59-2 67-66-3 71-55-6 56-23-5 107-06-2 79-01-6 78-87-5 75-27-4 110-75-8 10061-01-5 10061-02-6 79-00-5 127-18-4 124-48-1 108-90-7 75-25-2 79-34-5 541-73-1 106-46-7 95-50-1	Dichlorodifluoromethane Chloromethane Vinyl chloride Bromomethane Chloroethane Trichlorofluoromethane Trichlorotrifluoroethane 1,1-Dichloroethene Methylene chloride trans-1,2-Dichloroethene 1,1-Dichloroethane cis-1,2-Dichloroethene Chloroform 1,1,1-Trichloroethane Carbon tetrachloride 1,2-Dichloroethane Trichloroethane Trichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane 2-Chloroethylvinylether cis-1,3-Dichloropropene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene	1.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50	1.1 7.3 1.2 1.2 1.3 1.3 1.3 1.3 1.3	ממחמחמת ממחמחתמחמח מחחחתמחחח

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

: METHOD BLK Anametrix ID : 204-68 Project ID

Analyst : W : B0915 Sample ID Supervisor : WATER **Matrix**

Date Sampled : 0/0/0
Date Analyzed : 9/15/93
[Instrument ID : HP24 Dilution Factor : Conc. Units : ug/L 1.0

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	 Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	j .50 j	ИD	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	ĺΩ
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ИD	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50	ND	U
156-59-2	cis-1,2-Dichloroethene	.50	ИD	U
67-66 - 3	Chloroform	.50	ИD	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	j .50	ND	ΙŪ
107-06-2	1,2-Dichloroethane	_j .50	ND	U
79-01-6	Trichloroethene	[. 50	ND	ĮŪ
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	- -50	ND	Ü
10061-02-6	trans-1,3-Dichloropropene	[.50	ND	U
79-00-5	1,1,2-Trichloroethane	_j .50	ND	U
127-18-4	Tetrachloroethene	[i .50	ND	ប្រ
124-48-1	Dibromochloromethane	[j .50	ND	ĮŪ
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	ĬΩ
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	וַט
95-50-1	1,2-Dichlorobenzene	1.0	ND	Ŭ

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

Project ID : 204-6852 Matrix : LIQUID Anametrix ID: 9309138
Analyst: Supervisor: TM

[SAMPLE ID	SU1	SU2	SU3
1	B0915	100		
2	MW-1	96		
3	MW-2	91	i	
4	MW-3	92		i — i
5	EB	91		i — i
6	DUP	93	·	i
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QC LIMITS
----SU1 = Chlorofluorobenzene (51-136)

* Values outside of Anametrix QC limits

LABORATORY CONTROL SAMPLE EPA METHOD 601/8010 ANAMETRIX, INC. (408)432-8192

Project/Case : LABORATORY CONTROL SAMPLE

Anametrix I.D.: WOQ91593

Analyst

Matrix : WATER SDG/Batch : N/A

Date analyzed: 09/15/93

Supervisor : TM \
Instrument I.D.: HP24

COMPOUND	SPIKE AMOUNT (ug/L)	AMOUNT RECOVERED (ug/L)	PERCENT RECOVERY	%RECOVERY LIMITS
FREON 113 1,1-DICHLOROETHENE trans-1,2-DICHLOROETHENE 1,1-DICHLOROETHANE cis-1,2-DICHLOROETHENE 1,1,1-TRICHLOROETHANE TRICHLOROETHENE TETRACHLOROETHENE CHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 1,2-DICHLOROBENZENE	10 10 10 10 10 10 10 10 10 10	8.4 8.9 9.3 10.4 9.6 9.8 9.4 9.6 9.9 9.5 9.5	84% 89% 93% 104% 96% 98% 94% 96% 95% 96%	34 - 128 63 - 133 55 - 145 49 - 121 66 - 168 72 - 143 63 - 147 60 - 133 70 - 148 49 - 139 70 - 133 69 - 140

^{*} Limits based on data generated by Anametrix, Inc., August, 1992.

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

MR. JIM KELLER BLAINE TECH

985 TIMOTHY DRIVE SAN JOSE, CA 95133 Workorder # : 9309138
Date Received : 09/10/93
Project ID : 204-6852-0703
Purchase Order: MOH-B813
Department : GC

Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9309138- 1	MW-1	WATER	09/09/93	TPHgBTEX
9309138- 2	MW-2	WATER	09/09/93	TPHgBTEX
9309138- 3	MW-3	WATER	09/09/93	трндвтех
9309138- 4	EB	WATER	09/09/93	ТРНдВТЕХ
9309138- 5	DUP	WATER	09/09/93	TPHgBTEX
9309138- 6	ТВ	WATER	09/09/93	TPHgBTEX

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

MR. JIM KELLER BLAINE TECH 985 TIMOTHY DRIVE SAN JOSE, CA 95133

Workorder # : 9309138 Date Received: 09/10/93
Project ID: 204-6852-0703
Purchase Order: MOH-B813
Department: GC

Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as gasoline for samples MW-1 and MW-3 are primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.

Department Supervisor

um Buch 9.20 93

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

Anametrix W.O.: 9309138 Project Number: 204-6852-0703

Matrix : WATER Date Released : 09/20/93

Date Sampled : 09/09/93

	Reporting Limit	Sample I.D.# MW-1	Sample I.D.# MW-2	Sample I.D.# MW-3	Sample I.D.# EB	Sample I.D.# DUP
COMPOUNDS	(ug/L)	-01 	-02	-03	-04 	-05
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline	0.5 0.5 0.5 0.5 50	16 5.2 2.0 ND 200	18 4.5 16 12 260	5.0 ND ND ND 50	ND ND ND ND	16 3.9 14 9.1 210
<pre>% Surrogate Rec Instrument I.! Date Analyzed RLMF</pre>	D	106% HP21 09/14/93 1	103% HP21 09/14/93	109% HP21 09/14/93 1	109% HP21 09/14/93 1	108% HP21 09/15/93 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 (Dilution).

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%.

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

Charlesh Burch 9.21.93
Analyst Date

Chengl Balmer 4/21/43
Supervisor Date

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

Anametrix W.O.: 9309138 Project Number: 204-6852-0703

Matrix : WATER Date Released : 09/20/93

Date Sampled: 09/09/93

	Reporting Limit	Sample I.D.# TB	Sample I.D.# BS1401E2	Sample I.D.# BS1501E2	
COMPOUNDS	(ug/L)	- 06	BLANK	BLANK	
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline % Surrogate Rece Instrument I.I Date Analyzed RLMF		ND ND ND ND ND 106% HP21 09/15/93	ND ND ND ND ND 101% HP21 09/14/93	ND ND ND ND ND 101% HP21 09/15/93	
				•	

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 (Dilution).

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%.

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

Analyst Buch 9-20-93

Chery Bulmer 9/20/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT EPA METHOD 5030 WITH GC/PID ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE Anametrix I.D. : MS1403E3

Matrix : WATER Analyst : WM8

Date Sampled: N/A Supervisor: U5
Date Analyzed: 09/15/93 Date Released: 09/17/93

Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene Toluene Ethylbenzene TOTAL Xylenes	20.0 20.0 20.0 20.0	26.5 21.0 20.6 22.1	133% 105% 103% 111%	52-133 57-136 56-139 56-141
P-BFB			107%	61-139

^{*} Limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT EPA METHOD 5030 WITH GC/PID ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE Anametrix I.D.: MS1501E3

Matrix : WATER
Date Sampled : N/A
Date Analyzed : 09/15/93 Analyst : @MB

Supervisor : 65
Date Released : 09/17/93
Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene Toluene Ethylbenzene TOTAL Xylenes	20.0 20.0 20.0 20.0 20.0	17.2 18.3 18.1 19.4	86% 92% 91% 97%	52-133 57-136 56-139 56-141
P-BFB			107%	61-139

^{*} Limits established by Anametrix, Inc.