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Reviewed 10-25-93

SOB

October 15, 1993

Scott O. Seery
Alameda County Department
of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621-1426

Re: Shell Service Station
WIC #204-6852-1404
1784 150th Avenue
San Leandro, California 94578
WA Job #81-422-203

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 Quarter 1993 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths monthly 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 ground water elevation and analytic data (Tables 1 and 2), prepared a ground water elevation contour map (Figure 2) and prepared isoconcentration contour maps for total petroleum hydrocarbons as gasoline and benzene in ground water (Figures 3 and 4).

Anticipated Fourth Quarter 1993 Activities:

- BTS will collect water samples from all site wells and measure ground water depths monthly in each well.
- WA will submit a report presenting the results of fourth quarter 1993 ground water sampling and depth measurements. The report will include tabulated chemical analytic results, a ground water elevation contour map and isoconcentration contour maps.

Conclusions and Recommendations:

WA is currently investigating locations for offsite investigation. The investigation workplan and schedule will be submitted under separate cover.

Scott O. Seery
October 15, 1993

3

Weiss Associates 

Please call if you have any questions.



Sincerely,
Weiss Associates

A handwritten signature in black ink, appearing to read "J. Michael Asport".

J. Michael Asport
Technical Assistant

A handwritten signature in black ink, appearing to read "N. Scott MacLeod".

N. Scott MacLeod, R.G.
Project Geologist

JMA/NSM:jma

J:\SHELL\400\422QMSE3.WP

Attachments: Figures
 Table
 A - BTS' Ground Water Monitoring 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, Suite 500, Oakland, California 94612
 Eileen Hughes, California Department of Toxic Substances Control, 700 Heinz Avenue,
 Building "F" Suite 200, Berkeley CA, 94710

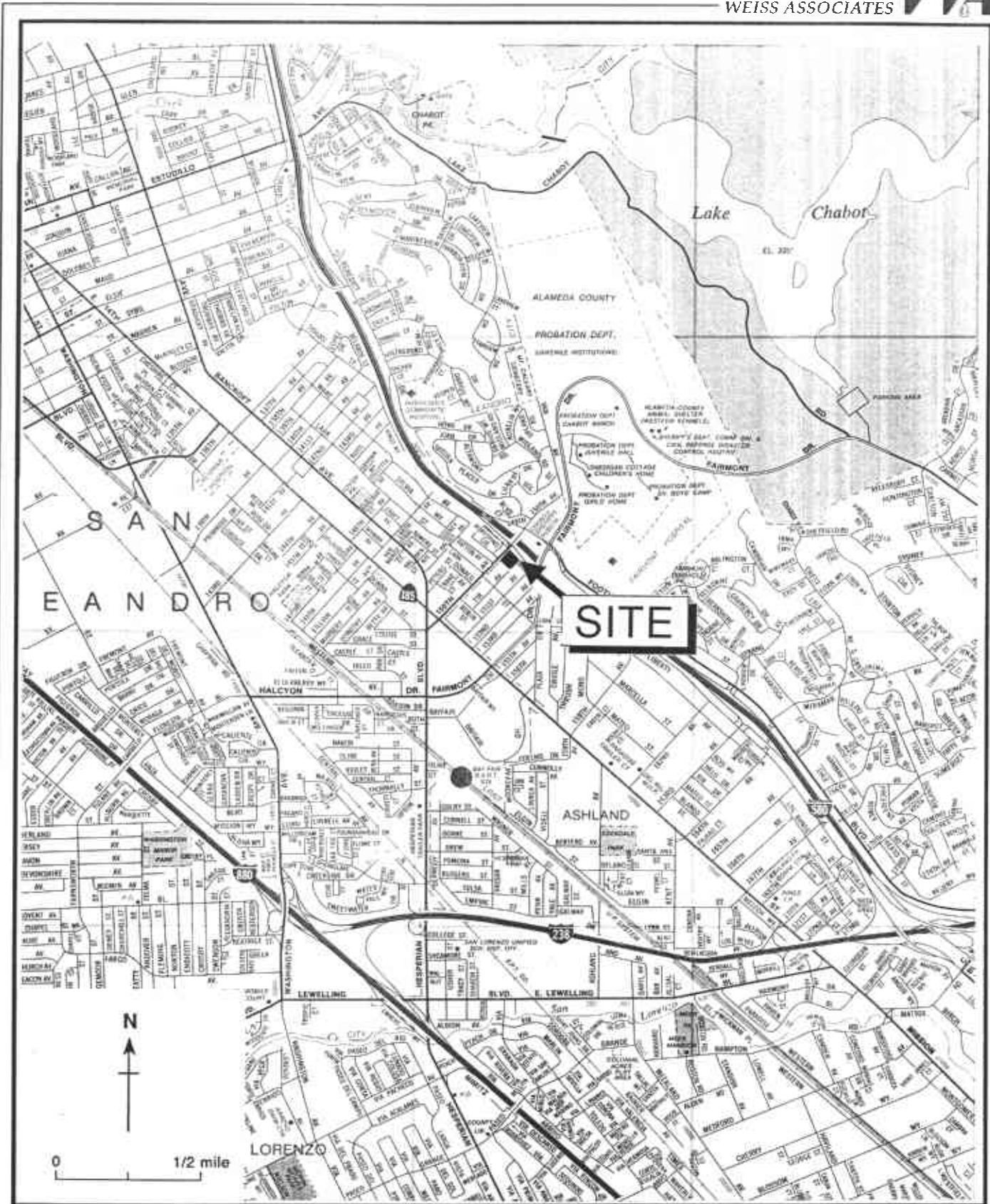


Figure 1. Site Location Map - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

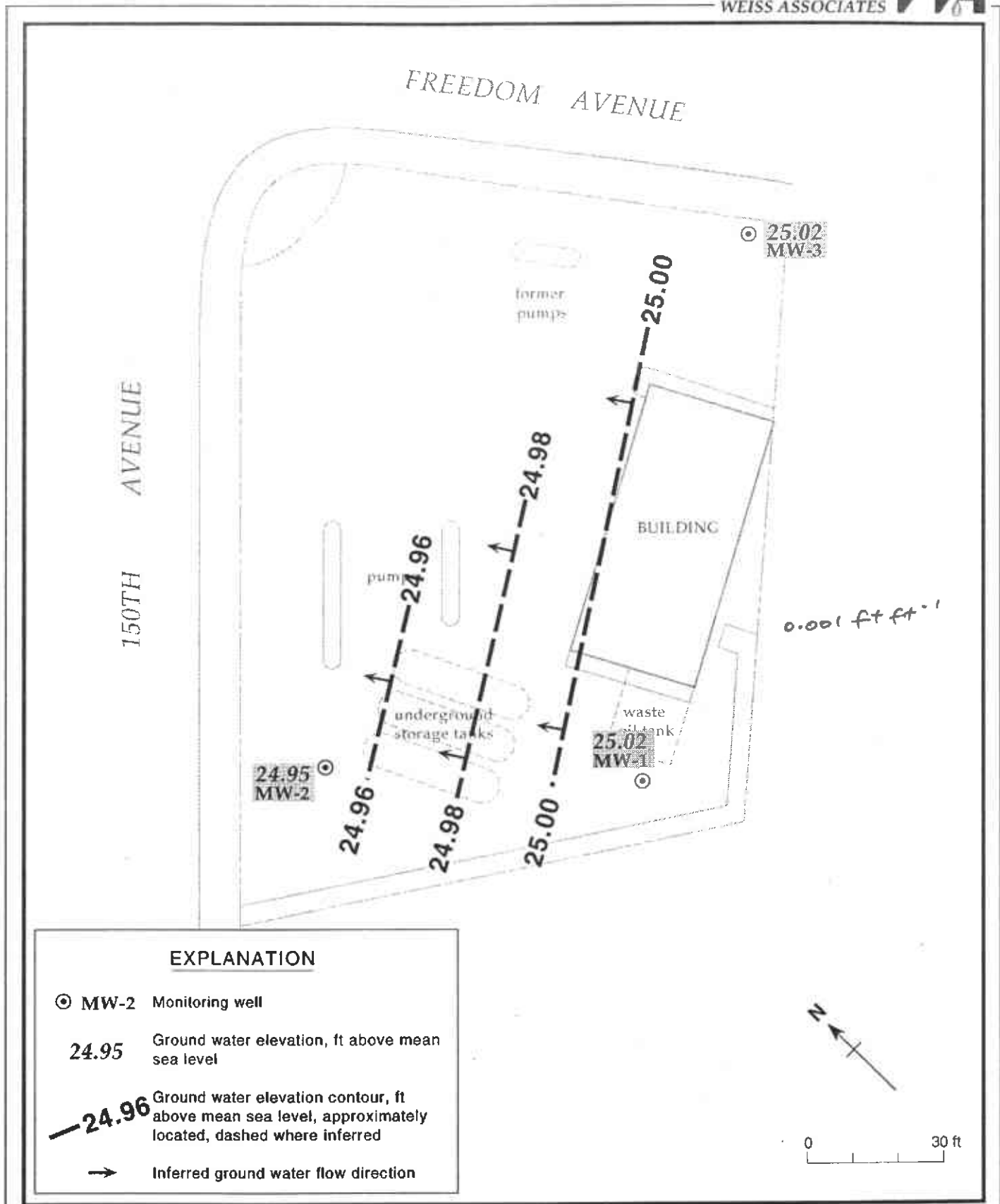


Figure 2. Monitoring Well Locations and Ground Water Elevations Contours - September 10, 1993 - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

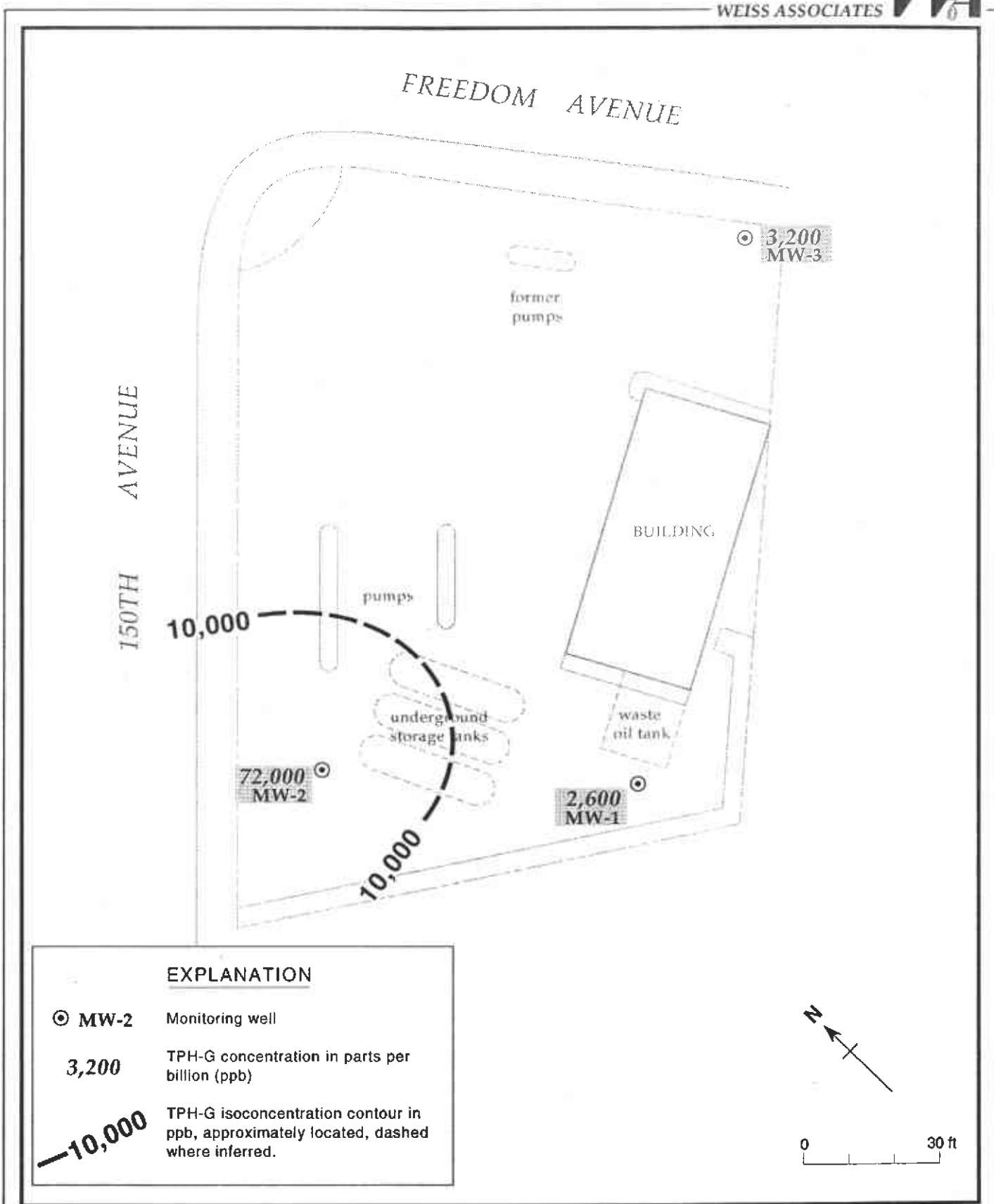


Figure 3. TPH-G Concentrations in Ground Water - September 10, 1993 - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

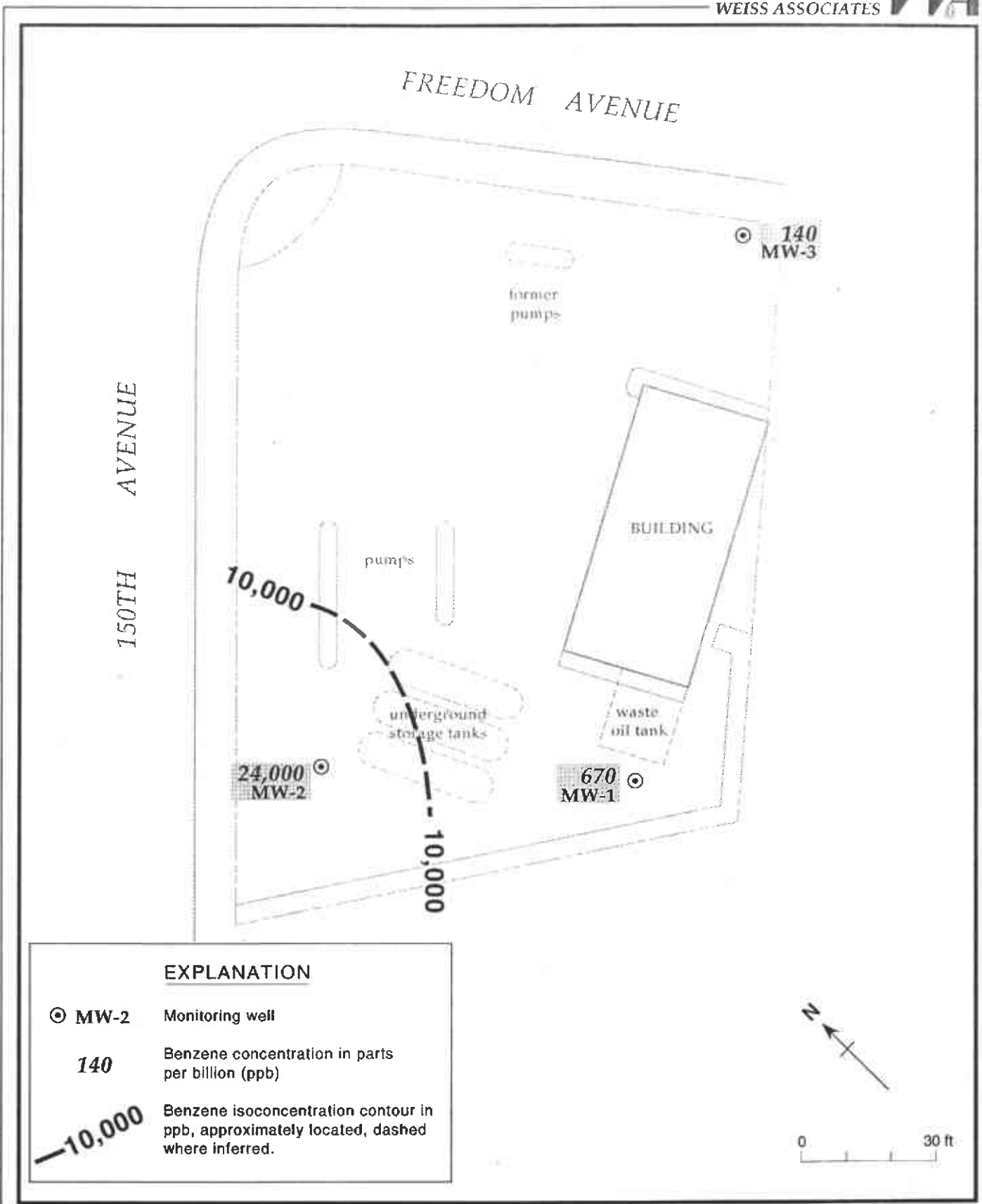


Figure 4. Benzene Concentrations in Ground Water - September 10, 1993 - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

TABLE 1. Ground Water Elevations - Shell Service Station WIC #204-6852-1404, 1784 150th 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	03/08/90	49.13	25.29	23.84
	06/12/90		25.85	23.28
	09/13/90		27.49	21.64
	12/18/90		27.41	21.72
	03/07/91		25.79	23.34
	06/07/91		25.64	23.49
	09/17/91		27.54	21.59
	12/09/91		27.81	21.32
	02/13/92		25.57	23.56
	02/24/92		22.83	26.30
	02/27/92		23.09	26.04
	03/01/92		23.26	25.87
	06/03/92		24.64	24.49
	09/01/92		26.74	22.39
	10/06/92		27.18	21.95
	11/11/92		27.99	21.14
	12/04/92		27.14	21.99
	01/22/93		20.09	29.04
	02/10/93		24.26	24.87
	03/03/93		20.50	28.63
05/11/93	21.70	27.43		
06/17/93	22.42	26.71		
	09/10/93		24.11	25.02
MW-2	02/13/92	45.83	22.22	23.61
	02/24/92		19.61	26.22
	02/27/92		19.92	25.91
	03/01/92		21.11	24.72
	06/03/92		21.58	24.25
	09/01/92		23.46	22.37
	10/06/92		23.99	21.84
	11/11/92		24.25	21.58
	12/04/92		23.89	21.94
	01/22/93		17.03	28.80
	02/10/93		18.08	27.75
	03/03/93		17.28	28.55
	05/11/93		18.41	27.42
	06/17/93		19.06	26.77
			09/10/93	

-- Table 1 continues on next page --

TABLE 1. Ground Water Elevations - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-3	02/13/92	51.97	27.97	24.00
	02/24/92		25.60	26.37
	02/27/92		25.88	26.09
	03/01/92		26.00	25.97
	06/03/92		27.70	24.27
	09/01/92		29.46	22.51
	10/06/92		30.01	21.96
	11/11/92		30.26	21.71
	12/04/92		29.93	22.04
	01/22/93		22.76	29.21
	02/10/93		21.40	30.57
	03/03/93		23.08	28.89
	05/11/93		24.51	27.46
	06/17/93		25.21	26.76
	09/10/93		26.95	25.02

-- Table 1 continues on next page --

TABLE 2. Analytic Results for Ground Water - Shell Service Station WIC #204-6852-0703, 1784 150th Avenue, San Leandro, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	parts per billion (ug/l)				
						B	E	T	X	1,2-DCA
MW-1	03/08/90	25.29	510	120 ^a	<10,000	1.5	<0.5	0.8	5.4	12
	06/12/90	25.85	390	100 ^a	<10,000	86	0.7	1.3	6.2	<0.4
	09/13/90	27.49	100	130 ^a	<10,000	56	2.4	0.75	2.8	<0.4 ^b
	12/18/90	27.41	480	<50 ^a	<10,000	54	3.3	1.7	3.7	5.3
	03/07/91	25.79	80	<50 ^a	---	266	1.2	<0.5	<1.5	6.7
	06/07/91	25.64	510	<50 ^a	---	130	6.1	3.8	11	7.9
	09/17/91	27.54	330	120 ^{ac}	---	67	3	<0.5	2.2	6
	12/09/91	27.81	140 ^d	80	---	<0.5	1.7	<0.5	4.7	5.4
	03/01/92	23.36	<50	<50	---	<0.5	<0.5	<0.5	<0.5	3
	06/03/92	24.64	1,500	---	---	520	72	180	230	3
	09/01/92	26.74	130	---	---	16	1.8	1.4	3.4	1.3 ^e
	12/04/92	27.14	150	---	---	360	1.8	0.7	2.1	3.3
	03/03/93	20.50	<50	---	---	1.5	<0.5	<0.5	<0.5	0.76
	06/17/93	22.42	1,600	---	---	340	120	120	440	3
	09/10/93 ^{det}	24.11	2,600	---	---	670	310	340	730	2.3
MW-2	02/24/92	19.61	17,000	2,700 ^e	---	6,200	550	1,600	1,900	200
	03/01/92	21.11	86,000	1,000 ^e	---	30,000	2,300	34,000	16,000	82
	06/03/92	21.58	87,000	---	---	28,000	2,000	18,000	10,000	<50
	09/01/92	23.46	110,000	---	---	21,000	1,900	13,000	7,800	83 ^h
	12/04/92	23.89	42,000	---	---	15,000	960	2,400	2,900	100
	03/03/93	17.28	160,000	---	---	36,000	32,000	3,800	21,000	7.7
	03/03/93 ^h	---	150,000	---	---	31,000	20,000	3,100	14,000	16
	06/17/93	19.06	65,000	---	---	34,000	3,200	15,000	11,000	37
	06/17/93 ^h	19.06	62,000	---	---	28,000	2,700	14,000	10,000	36
	09/10/93 ^{det}	20.88	72,000	---	---	24,000	2,300	16,000	11,000	28.0
09/10/93 ^{det}	20.88	71,000	---	---	23,000	2,300	15,000	10,000	27.0	
MW-3	02/24/92	25.60	4,500	1,300 ^e	---	97	78	<5	18	9.1
	03/01/92	26.00	2,200	440	---	69	<0.5	<0.5	<0.5	13
	06/03/92	27.70	4,100	---	---	13	44	72	65	16
	09/01/92	29.46	1,900	---	---	20	5.5	6.8	<5	19
	09/01/92 ⁱ	29.46	1,900	---	---	21	3.4	6.6	<5	21
	12/04/92	29.93	2,400	---	---	8.2	<5	<5	<5	16
	12/04/92 ⁱ	29.93	2,100	---	---	11	5.7	<0.5	<0.5	18
	03/03/93	23.08	5,100	---	---	63	75	61	150	3.3
	06/17/93	25.21	4,000	---	---	94	82	140	150	23
	09/10/93	26.95	3,200	---	---	140	12.5	12.5	12.5	20.0
Trip Blank	03/08/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	06/12/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	12/18/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	03/07/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---

-- Table 2 continues on next page --

Weiss Associates



TABLE 2. Analytic Results for Ground Water - Shell Service Station WIC #204-6852-0703, 1784 150th Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	parts per billion (ug/l)				
						B	E	T	X	1,2-DCA
	06/07/91	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	09/17/91	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	12/09/91	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/24/92	<50	---	---	---	<0.5	0.6	2.5	2.2	---
	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	<0.5
	12/04/92	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5 ^j
	03/03/93	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5
	06/17/93	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5
	09/10/93	<0.05	---	---	---	<0.5	<0.5	<0.5	<0.5	---
Bailer	03/08/90	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
Blank	09/01/92	<50	---	---	---	<0.5	<0.5	0.7	<0.5	<0.5
	12/04/92	60	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5 ^j
DTSC MCLs			NE	NE	NE	1	680	100 ^k	1,750	500

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
 POG = Petroleum oil and grease by American Public Health Association Standard Method 503E or 5520F
 B = Benzene by EPA Method 8020
 E = Ethylbenzene by EPA Method 8020
 T = Toluene by EPA Method 8020
 X = Xylenes by EPA Method 8020
 1,2-DCA = 1,2-Dichloroethane by EPA Method 601
 --- = Not analyzed
 <n = Not detected above method detection limit of n ppb
 DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
 NE = Not established

Notes:

a = No total petroleum hydrocarbons as motor oil detected above modified EPA Method 8015 detection limit of 0.5 ppm
 b = Tetrachloroethene (PCE) detected at 0.024 ppm by EPA Method 601; DTSC MCL for PCE = 0.005 ppm
 c = Result is due to hydrocarbon compounds lighter than diesel
 d = Result due to a non-gasoline hydrocarbon compound
 e = In the matrix spike/matrix spike duplicate of sample MW-1, the RPD for Freon 113 and 1,3-dichlorobenzene was greater than 25%
 f = The amount of methylene chloride reported is within normal laboratory background levels.
 g = Diesel result is due to a petroleum hydrogen that is lighter than diesel
 h = Sample MW-2 was diluted 1:100 for EPA Method 8010 due to the interfering hydrocarbon peaks
 i = Duplicate sample
 j = The trip and field blank samples from 12/04/92 contained 0.014 and 0.010 mg/L 1,3-dichlorobenzene, respectively
 k = DTSC recommended action level for drinking water; MCL not established



ATTACHMENT A
GROUND WATER MONITORING REPORT AND ANALYTIC REPORT

September 29, 1993

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

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-6852-1404
1784 150th Avenue
San Leandro, California

QUARTER:
3rd quarter of 1993

QUARTERLY GROUNDWATER SAMPLING REPORT 930910-L-2

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response 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 dewateres 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.

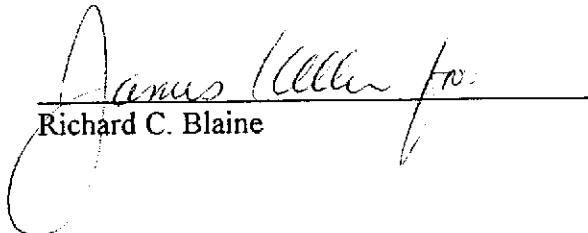
Objective Information Collection

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 Asport

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	9/10/93	TOC	--	NONE	--	--	24.11	44.69
MW-2 *	9/10/93	TOC	ODOR	NONE	--	--	20.88	44.45
MW-3	9/10/93	TOC	--	NONE	--	--	26.95	41.67

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 9/10/93
Page | of |

Site Address: 1784 150th Avenue, San Leandro
WIC#: 204-6852-1404
Shell Engineer: Dan Kirk
Phone No.: (510) 675-6168
Fax #: 675-6160
Consultant Name & Address: Blaine Tech Services, Inc., 985 Timothy Drive San Jose, CA 95133
Consultant Contact: Jim Keller
Phone No.: (408) 995-5535
Fax #: 293-8773
Comments:

Analysis Required

LAB: Anametrix

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
Quarterly Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Clarity/Disposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Clarity/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Sam. of Sys. O & M <input type="checkbox"/>	6452	NOTE: Hally Lab as soon as Possible of 24/48 hr. TAT.
Water Sam. of Sys. O & M <input type="checkbox"/>	6453	
Other <input type="checkbox"/>		

Sampled by: *Zol Bower*
Printed Name: LAD B OLVER

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	EPA 601	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
																				1 MW-1
2 MW-2				X		6					X	X								
3 MW-3				X		6					X	X								
4 DUP				X		6					X	X								
5 E.B.				X		6					X	X								
6 T.B.				X		2					X									

- ①
- ②
- ③
- ④
- ⑤
- ⑥

Relinquished By (signature): <i>Zol Bower</i>	Printed Name: LAD B OLVER	Date: 9/13/93 Time: 1:15	Received (signature): <i>Benny S. Garizosa</i>	Printed Name: BENNY S. GARIZOSA	Date: 9/13/93 Time: 1:15
Relinquished By (signature): <i>Benny S. Garizosa</i>	Printed Name: BENNY S. GARIZOSA	Date: 9/13/93 Time: 1:40	Received (signature): <i>Maria Parajas</i>	Printed Name: Maria Parajas	Date: 9/13/93 Time: 1:40
Relinquished By (signature):	Printed Name:	Date:	Received (signature):	Printed Name:	Date:



Inchcape Testing Services

Anamatrix Laboratories

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 # : 9309149
 Date Received : 09/13/93
 Project ID : 204-6852-1404
 Purchase Order: MOH-B813

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

ANAMATRIX ID	CLIENT SAMPLE ID
9309149- 1	MW-1
9309149- 2	MW-2
9309149- 3	MW-3
9309149- 4	DUP
9309149- 5	E.B.
9309149- 6	T.B.

This report consists of 19 pages not including the cover letter, and is organized in sections according to the specific Anamatrix 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 Anamatrix 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.

Anamatrix 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 Anamatrix.

Sarah Schoen, Ph.D.
 Laboratory Director

09/23/93
 Date



ANAMATRIX 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 Anamatrix 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

Anamatrix uses several data qualifiers (Q) in its 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 reported amount 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. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9309149
Date Received : 09/13/93
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9309149- 1	MW-1	WATER	09/10/93	8010
9309149- 2	MW-2	WATER	09/10/93	8010
9309149- 3	MW-3	WATER	09/10/93	8010
9309149- 4	DUP	WATER	09/10/93	8010
9309149- 5	E.B.	WATER	09/10/93	8010

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

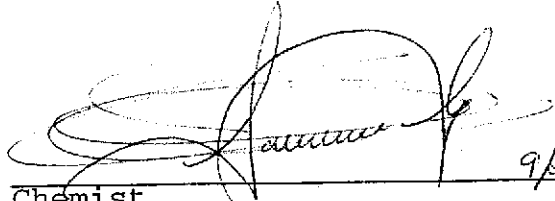
MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9309149
Date Received : 09/13/93
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: VOA

QA/QC SUMMARY :

- The amount of methylene chloride reported in samples MW-1, MW-2, DUP and E.B. is within normal laboratory background levels.

Tarhi Memarzadeh 9/22/93
Department Supervisor Date

 9/23/93
Chemist Date

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

Project ID : 204-6852
 Sample ID : MW-1
 Matrix : WATER
 Date Sampled : 9/10/93
 Date Analyzed : 9/20/93
 Instrument ID : AD14

Anamatrix ID : 9309149-01
 Analyst : ZY
 Supervisor : TM
 Dilution Factor : 1.0
 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	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	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	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-Dichloroethane	.50	2.3	U
79-01-6	Trichloroethene	.50	ND	U
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	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	U

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

Project ID : 204-6852
 Sample ID : MW-2
 Matrix : WATER
 Date Sampled : 9/10/93
 Date Analyzed : 9/21/93
 Instrument ID : HP24

Anamatrix ID : 9309149-02
 Analyst : *z*
 Supervisor : *TT*
 Dilution Factor : 1.0
 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	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	1.5	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	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-Dichloroethane	.50	28.	U
79-01-6	Trichloroethene	.50	ND	U
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	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	U

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

Project ID : 204-6852
 Sample ID : MW-3
 Matrix : WATER
 Date Sampled : 9/10/93
 Date Analyzed : 9/21/93
 Instrument ID : HP24

Anamatrix ID : 9309149-03
 Analyst : *[Signature]*
 Supervisor : *[Signature]*
 Dilution Factor : 1.0
 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	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	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	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-Dichloroethane	.50	20.	U
79-01-6	Trichloroethene	.50	ND	U
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	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	U

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

Project ID : 204-6852
Sample ID : DUP
Matrix : WATER
Date Sampled : 9/10/93
Date Analyzed : 9/21/93
Instrument ID : HP24

Anamatrix ID : 9309149-04
Analyst :
Supervisor : TM
Dilution Factor : 1.0
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	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	1.6	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	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-Dichloroethane	.50	27.	U
79-01-6	Trichloroethene	.50	ND	U
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	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	U

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

Project ID : 204-6852
 Sample ID : E.B.
 Matrix : WATER
 Date Sampled : 9/10/93
 Date Analyzed : 9/21/93
 Instrument ID : HP24

Anamatrix ID : 9309149-05
 Analyst : *FA*
 Supervisor : *FA*
 Dilution Factor : 1.0
 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	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	1.6	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	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-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
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	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	U

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

Project ID : 204-68
 Sample ID : B0920
 Matrix : WATER
 Date Sampled : 0/ 0/ 0
 Date Analyzed : 9/20/93
 Instrument ID : AD14

Anamatrix ID : METHOD BLK
 Analyst :
 Supervisor :
 Dilution Factor : 1.0
 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	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	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	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-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
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	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	U

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

Project ID : 204-68
 Sample ID : B0921
 Matrix : WATER
 Date Sampled : 0/ 0/ 0
 Date Analyzed : 9/21/93
 Instrument ID : HP24

Anamatrix ID : METHOD BLK
 Analyst : *[Signature]*
 Supervisor : *[Signature]*
 Dilution Factor : 1.0
 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	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	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	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-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
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	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	1.0	ND	U
106-46-7	1,4-Dichlorobenzene	1.0	ND	U
95-50-1	1,2-Dichlorobenzene	1.0	ND	U

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

Project ID : 204-6852
 Matrix : LIQUID

Anamatrix ID : 9309149
 Analyst : *TL*
 Supervisor : *TR*

	SAMPLE ID	SU1	SU2	SU3
1	B0921	97		
2	MW-2	98		
3	MW-3	100		
4	DUP	96		
5	E.B.	101		
6				
7				
8				
9				
10				
11				
12				
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23				
24				
25				
26				
27				
28				
29				
30				

QC LIMITS

SU1 = Chlorofluorobenzene (51-136)

* Values outside of Anamatrix QC limits

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

Project ID : 204-6852
 Matrix : LIQUID

Anamatrix ID : 9309149
 Analyst :
 Supervisor :
 :TTA

	SAMPLE ID	SU1	SU2	SU3
1	B0920	75		
2	MW-1	68		
3				
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 = Chlorofluorobenzene (51-136)

* Values outside of Anamatrix QC limits

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

Sample I.D. : LABORATORY CONTROL SAMPLE
 Matrix : WATER
 SDG/Batch : N/A
 Date analyzed : 09/21/93

Anamatrix I.D. : W0092193
 Analyst : *ZS*
 Supervisor : *TN*
 Instrument I.D.: HP24

COMPOUND	SPIKE AMOUNT (ug/L)	AMOUNT RECOVERED (ug/L)	PERCENT RECOVERY	%RECOVERY LIMITS
Trichlorotrifluoroethane	10	8.5	85%	34 - 128
1,1-Dichloroethene	10	9.5	95%	63 - 133
trans-1,2-Dichloroethene	10	9.5	95%	55 - 145
1,1-Dichloroethane	10	10.6	106%	49 - 121
cis-1,2-Dichloroethene	10	9.8	98%	66 - 168
1,1,1-Trichloroethane	10	10.0	100%	72 - 143
Trichloroethene	10	9.8	98%	63 - 147
Tetrachloroethene	10	10.2	102%	60 - 133
Chlorobenzene	10	10.6	106%	70 - 148
1,3-Dichlorobenzene	10	10.2	102%	49 - 139
1,4-Dichlorobenzene	10	10.7	107%	70 - 133
1,2-Dichlorobenzene	10	10.9	109%	69 - 140

* Limits based on data generated by Anamatrix, Inc., August, 1992.

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

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

Workorder # : 9309149
Date Received : 09/13/93
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9309149- 1	MW-1	WATER	09/10/93	TPHgBTEX
9309149- 2	MW-2	WATER	09/10/93	TPHgBTEX
9309149- 3	MW-3	WATER	09/10/93	TPHgBTEX
9309149- 4	DUP	WATER	09/10/93	TPHgBTEX
9309149- 5	E.B.	WATER	09/10/93	TPHgBTEX
9309149- 6	T.B.	WATER	09/10/93	TPHgBTEX

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

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Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balmer 9/23/93
Department Supervisor Date

Peggie Dawson 9/23/93
Chemist Date

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

Anamatrix W.O.: 9309149
Matrix : WATER
Date Sampled : 09/10/93

Project Number : 204-6852-1404
Date Released : 09/23/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-1	Sample I.D.# MW-2	Sample I.D.# MW-3	Sample I.D.# DUP	Sample I.D.# E.B.
Benzene	0.5	670	24000	140	23000	ND
Toluene	0.5	340	16000	ND	15000	ND
Ethylbenzene	0.5	310	2300	ND	2300	ND
Total Xylenes	0.5	730	11000	ND	10000	ND
TPH as Gasoline	50	2600	72000	3200	71000	ND
% Surrogate Recovery		108%	111%	113%	111%	110%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		09/17/93	09/15/93	09/15/93	09/15/93	09/15/93
RLMF		10	500	25	500	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).

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

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

Reggie Dawson 9/23/93
Analyst Date

Cheryl Balmer 9/23/93
Supervisor Date

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

Anamatrix W.O.: 9309149
Matrix : WATER
Date Sampled : 09/10/93

Project Number : 204-6852-1404
Date Released : 09/23/93

Reporting Limit	Sample I.D.# T.B.	Sample I.D.# BS1501E2	Sample I.D.# BS1701E2
COMPOUNDS (ug/L)	-06	BLANK	BLANK
Benzene	0.5	ND	ND
Toluene	0.5	ND	ND
Ethylbenzene	0.5	ND	ND
Total Xylenes	0.5	ND	ND
TPH as Gasoline	50	ND	ND
% Surrogate Recovery	112%	101%	105%
Instrument I.D.	HP21	HP21	HP21
Date Analyzed	09/15/93	09/15/93	09/17/93
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 (Dilution).

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

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

Peggie Dawson 9/23/93
Analyst Date

Cheryl Balmer 9/23/93
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
 Matrix : WATER
 Date Sampled : N/A
 Date Analyzed : 09/15/93

Anamatrix I.D. : MS1501E3
 Analyst : RD
 Supervisor :
 Date Released : 09/23/93
 Instrument I.D.: HP21

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

* Limits established by Anamatrix, Inc.

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

Sample I.D. : LAB CONTROL SAMPLE
 Matrix : WATER
 Date Sampled : N/A
 Date Analyzed : 09/17/93

Anamatrix I.D. : MS1702E1
 Analyst : RD
 Supervisor :
 Date Released : 09/21/93
 Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (ug/L)	REC LCS (ug/L)	%REC LCS	% REC LIMITS
GASOLINE	500	510	102%	67-127
p-BFB			101%	61-139

* Quality control established by Anamatrix, Inc.