Weiss Associates Environmental and Geologic Services

5500 Shellmound Street, Emeryville, CA 94608-2411 Fax: 510-547-5043 Phone: **510-450-6000**

[redacted]

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 #81-422-104

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 [redacted] quarter 1994 and proposed work for the second quarter 1994.

First Quarter 1994 Activities:

- Weiss Associates (WA) is in the process of securing right of entry agreements to conduct an offsite subsurface investigation at the site.
- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells. BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.
- WA compiled ground water elevation and analytic data (Tables 1 and 2), prepared a ground water elevation contour map (Figure 2) and prepared distribution maps for total petroleum hydrocarbons as gasoline (TPH-G) and benzene in ground water (Figures 3 and 4).

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Anticipated Second Quarter 1994 Activities:

- The subsurface investigation outlined in our December 7, 1993 workplan is in progress.
- WA will submit a report presenting the results of second quarter 1994 ground water sampling and depth measurements. The report will include tabulated chemical analytic results, a ground water elevation contour map and TPH-G and benzene distribution maps.

Discussion of Results:

The ground water flow direction has returned to its southward direction. Because the hydraulic gradient is relatively flat, about 0.005 ft/ft, such direction changes may be expected. However, we will continue to monitor the ground water levels to assess whether there are consistent flow direction trends over time.

Please call if you have any questions.

Sincerely,
Weiss Associates

John Wolf
Technical Assistant

REGISTERED GEOLOGIST
JAMES W. CARMODY
No. EG 1576
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

James W. Carmody, C.E.G.
Senior Project Hydrogeologist

JAW/JWC:jaw

J:\SHELL\400\422QMAPR4.WP

Attachments: 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

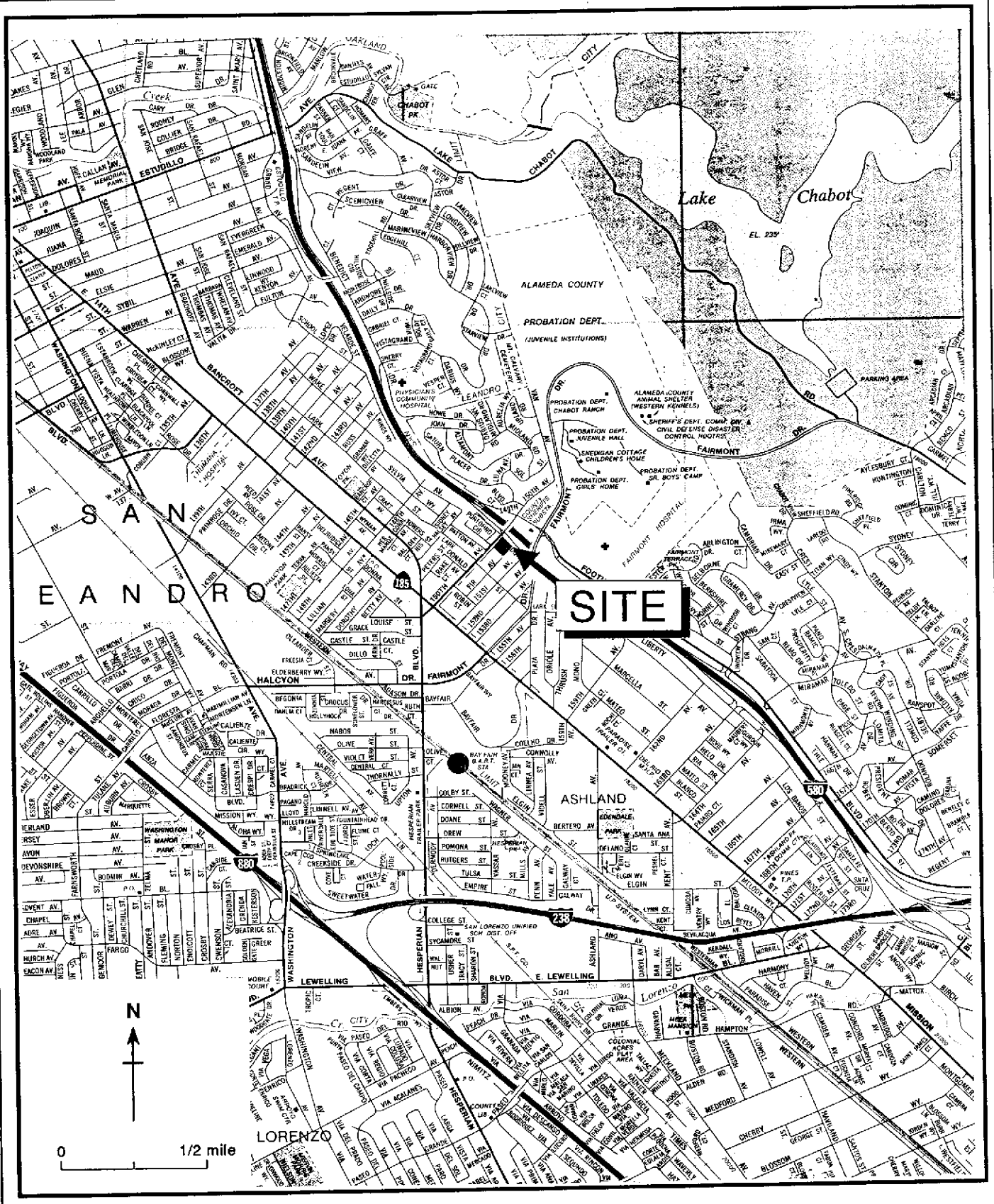
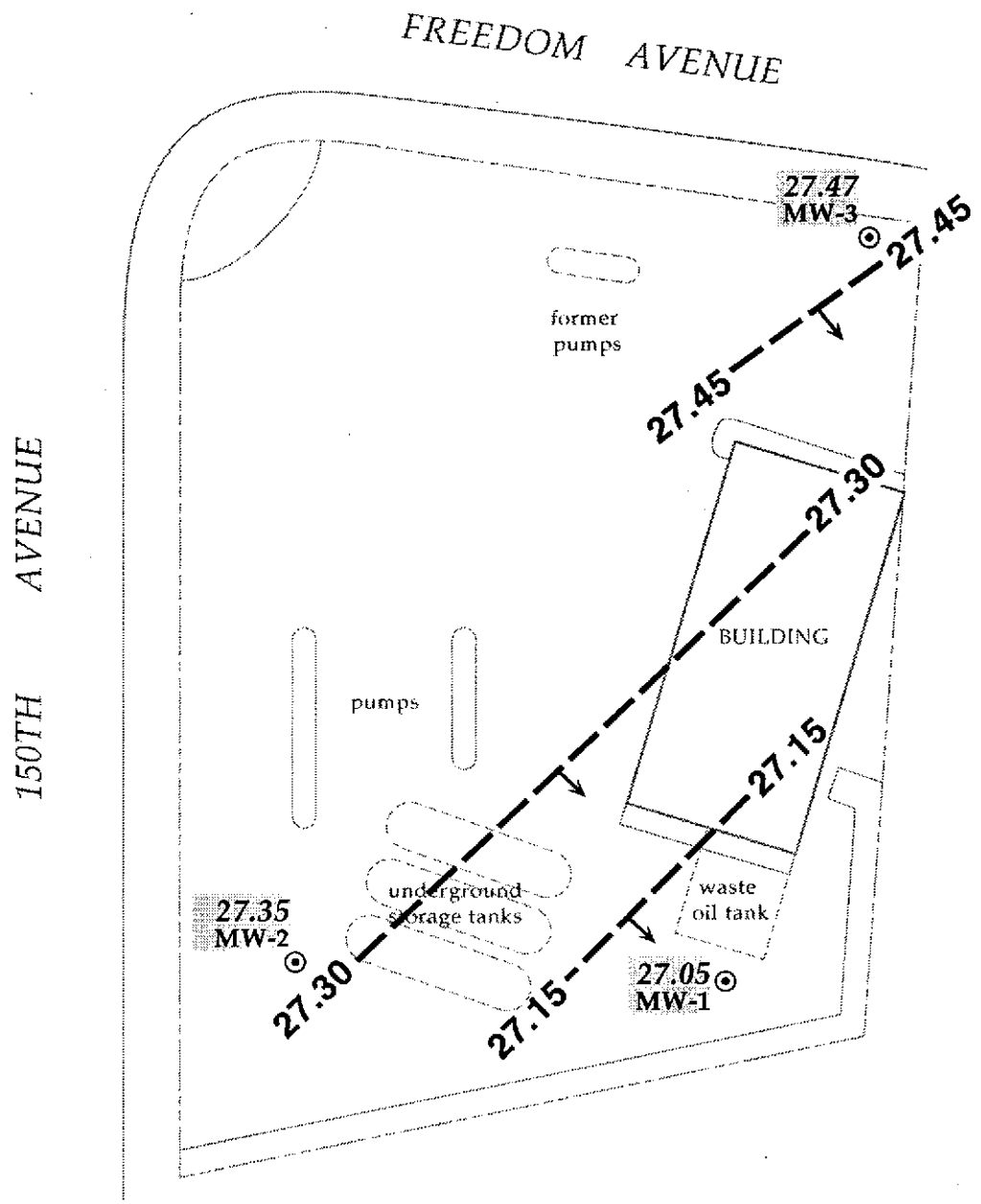


Figure 1. Site Location Map - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California



EXPLANATION

⊙ MW-1	Monitoring well
27.05	Ground water elevation, ft above mean sea level
27.15	Ground water elevation contour, ft above mean sea level, approximately located, dashed where inferred
→	Inferred ground water flow direction

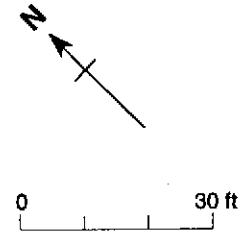


Figure 2. Monitoring Well Locations and Ground Water Elevations Contours - March 3, 1994 - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

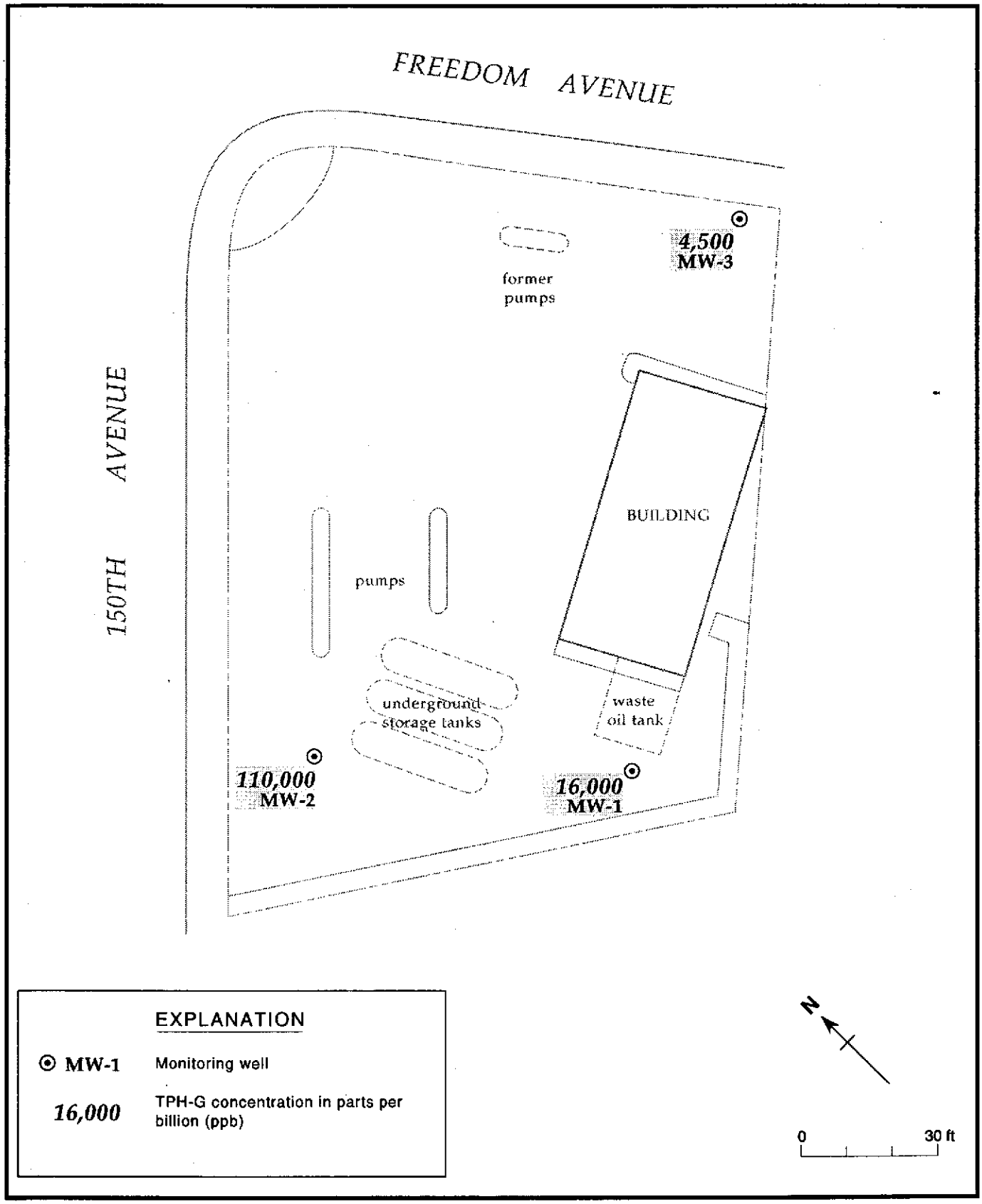


Figure 3. Monitoring Well Locations and TPH-G Concentrations in Ground Water - March 3, 1994 - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

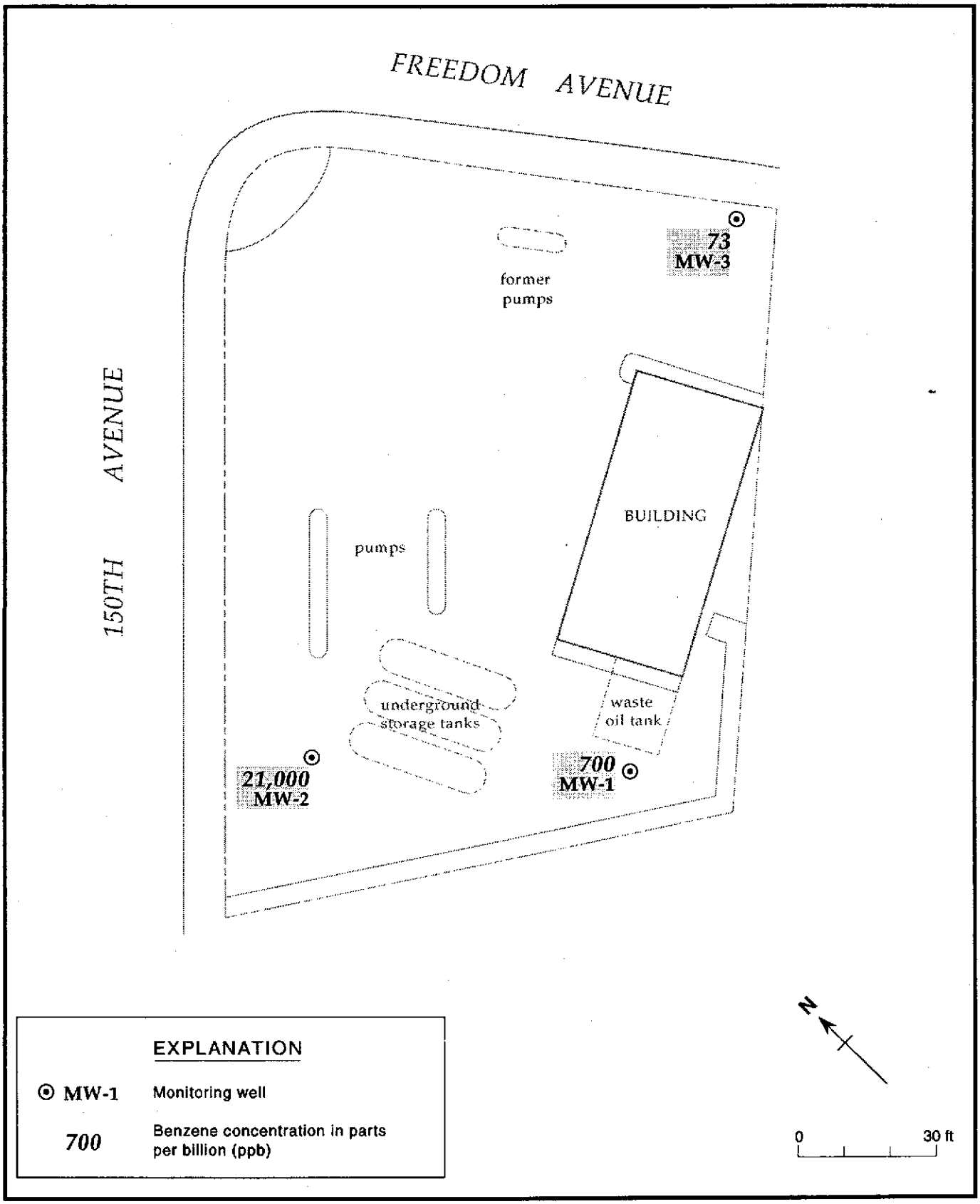


Figure 4. Monitoring Well Locations and Benzene Concentrations in Ground Water - March 3, 1994 - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

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
	12/13/93		23.73	25.40
	03/03/94		**22.08**	**27.05**
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

-- 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)
	09/10/93		20.88	24.95
	12/13/93		20.42	25.41
	03/03/94		**18.48**	**27.35**
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
	12/13/93		26.52	25.45
	03/03/94		**24.50**	**27.47**

-- 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	B	E	T	X	1,2-DCA
			<--------			parts per billion (ug/l)				-------->
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[a,c]	---	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	24.11	2,600	---	---	670	310	340	730	2.3
	12/13/93	23.73	11,000	---	---	470	380	320	2,300	6.3
	03/03/94	**22.08**	**16,000**	---	---	**700**	**480**	**690**	**3,200**	---
MW-2	02/24/92	19.61	17,000	2,700[c]	---	6,200	550	1,600	1,900	200
	03/01/92	21.11	86,000	1,000[g]	---	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[f]	20.88	72,000	---	---	24,000	2,300	16,000	11,000	28.0
	09/10/93[dup,f]	20.88	71,000	---	---	23,000	2,300	15,000	10,000	27.0
	12/13/93	20.42	19,000	---	---	5,400	680	4,900	3,100	<0.5
	12/13/93[dup]		17,000	---	---	6,200	720	5,500	3,500	3.4
	03/03/94	**18.48**	**110,000**	---	---	**21,000**	**2000**	**24,000**	**13,000**	---
	03/03/94[dup]	**18.48**	**93,000**	---	---	**19,000**	**1,800**	**22,000**	**12,000**	---
MW-3	02/24/92	25.60	4,500	1,300[c]	---	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
	12/13/93	26.52	6,200	---	---	<12.5	<12.5	<12.5	<12.5	13
	03/03/94	**24.50**	**4,500**	---	---	**73**	**<5**	**<5**	**<5**	---

-- Table 2 continues on next page --

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	B	E	T	X	1,2-DCA
			<----------parts per billion (ug/l)---------->							
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	---
	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		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	12/13/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.5[k]
	03/03/94		**<50**	---	---	**<0.5**	**<0.5**	**<0.5**	**<0.5**	---
Bailer Blank	03/08/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	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[l]	1,750	5.0

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 500 ppb
b = Tetrachloroethene (PCE) detected at 24 ppb by EPA Method 601; DTSC MCL for PCE = 5 ppb
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-dichloroebenze was greater than 25%
f = The MW-2 and Dup samples each contained 1.6 ppb of methylene chloride which is within normal laboratory background levels.
g = Diesel result is due to a petroleum hydrocarbon 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 14 and 10 µg/L 1,3-dichloroebenzene, respectively
k = 1.4 µg/L Chloroethene detected in equipment blank, trip blank not analyzed
l = DTSC recommended action level for drinking water; MCL not established

-- Table 2 continues on next page --

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

March 27, 1994

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:
1st quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940303-L-3

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 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

ecovered 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/mla

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	3/3/94	TOC	SHEEN/ODOR	--	--	--	22.08	44.54
MW-2 *	3/3/94	TOC	ODOR	NONE	--	--	18.48	44.26
MW-3	3/3/94	TOC	--	NONE	--	--	24.50	41.52

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

1497 9403102 (18)

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD Serial No: 940303-L3

Date: 3/3/94 Page 1 of 1

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:

Sampled by: [signature]

Printed Name: LAD BOWER

LAB: Anametrix

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	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			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
(1) MW-1	3/3			X		3						X								
(2) MW-2				X		3						X								
(3) MW-3				X		3						X								
(4) DUP.				X		3						X								
(5) E.B.				X		3						X							PLACE EB	ON HOLD
(6) T.B.	↓			X		2						X								

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
[signature]	LAD BOWER	3/4/94	1400	[signature]	Paul Lowdermilk	3/4/94	1432
[signature]	Paul Lowdermilk	3/4/94	1650	[signature]	Brandy C. Falcon	3/4/94	1650
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

CHECK ONE (1) BOX ONLY — CT/DT — TURN AROUND TIME

- Quarterly Monitoring [X] 6441 — 24 hours [ ]
- Site Investigation [ ] 6441 — 48 hours [ ]
- Soil Closure/Disposal [ ] 6442 — 10 days [X] (Normal)
- Water Closure/Disposal [ ] 6443 — Other [ ]
- Soil/Air Rem. or Sys. O & M [ ] 6452
- Water Rem. or Sys. O & M [ ] 6453
- Other [ ]

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

Inchcape Testing Services
Anametrix 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 # : 9403102
Date Received : 03/04/94
Project ID : 204-6852-1404
Purchase Order: MOH-B813

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9403102- 1	MW-1
9403102- 2	MW-2
9403102- 3	MW-3
9403102- 4	DUP
9403102- 5	E.B.
9403102- 6	T.B.

This report consists of 7 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

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

Corinne Kham for
Doug Robbins
Laboratory Director

03/18/94
Date

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

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

Workorder # : 9403102
Date Received : 03/04/94
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
9403102- 1	MW-1	WATER	03/03/94	TPHgBTEX
9403102- 2	MW-2	WATER	03/03/94	TPHgBTEX
9403102- 3	MW-3	WATER	03/03/94	TPHgBTEX
9403102- 4	DUP	WATER	03/03/94	TPHgBTEX
9403102- 6	T.B.	WATER	03/03/94	TPHgBTEX

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

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

Workorder # : 9403102
Date Received : 03/04/94
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balmer 3/17/94
Department Supervisor Date

Chemist 03/17/94.
Date

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9403102 | Client Project ID : 204-6852-1404

Matrix : WATER | Units : ug/L

Compound Name	Method Reporting Limit*	Client ID MW-1 Lab ID 9403102-01	Client ID MW-2 Lab ID 9403102-02	Client ID MW-3 Lab ID 9403102-03	Client ID DUP Lab ID 9403102-04	Client ID T.B. Lab ID 9403102-06
Benzene	0.50	700	21000	73	19000	ND
Toluene	0.50	690	24000	<5	22000	ND
Ethylbenzene	0.50	480	2000	<5	1800	ND
Total Xylenes	0.50	3200	13000	<5	12000	ND
TPH as Gasoline	50	16000	110000	4500	93000	ND
Surrogate Recovery		103%	117%	134%	115%	114%
Instrument ID		HP12	HP12	HP12	HP12	HP12
Date Sampled		03/03/94	03/03/94	03/03/94	03/03/94	03/03/94
Date Analyzed		03/12/94	03/14/94	03/15/94	03/14/94	03/12/94
RLMF		100	500	10	500	1
Filename Reference		FPM10201.D	FRM10202.D	FTM10203.D	FRM10204.D	FPM10206.D

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

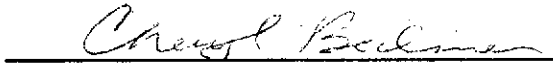
ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

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

03/18/94.

Analyst Date



3/18/94

Supervisor Date

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9403102 | Client Project ID : 204-6852-1404

Matrix : WATER | Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		METHOD BLANK	METHOD BLANK	METHOD BLANK		
Benzene	0.50	ND	ND	ND		
Toluene	0.50	ND	ND	ND		
Ethylbenzene	0.50	ND	ND	ND		
Total Xylenes	0.50	ND	ND	ND		
TPH as Gasoline	50	ND	ND	ND		
Surrogate Recovery		102%	136%	136%		
Instrument ID		HP12	HP12	HP12		
Date Sampled		N/A	N/A	N/A		
Date Analyzed		03/11/94	03/14/94	03/15/94		
RLMF		1	1	1		
Filename Reference		BM1101E1.D	BM1401E1.D	BM1501E1.D		

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

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

Analyst 03/17/94. Date

Supervisor Cheryl Balmer 3/17/94 Date

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP12
Matrix : LIQUID

Analyst : AP
Supervisor : on
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	84%	56-141
Surrogate Recovery		97%	61-139
Date Analyzed		03/12/94	
Multiplier		1	
Filename Reference		MM1102E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as BTEX
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP12
Matrix : LIQUID

Analyst : AP
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Benzene	20	110%	52-133
Toluene	20	120%	57-136
Ethylbenzene	20	125%	56-139
Total Xylenes	20	125%	56-141
Surrogate Recovery		107%	61-139
Date Analyzed		03/14/94	
Multiplier		1	
Filename Reference		MM1401E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP12
Matrix : LIQUID

Analyst : RC
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	76%	56-141
Surrogate Recovery		138%	61-139
Date Analyzed		03/16/94	
Multiplier		1	
Filename Reference		MM1503E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.