Weiss Associates Environmental and Geologic Services

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

December 15, 1994

Juliet Shin
Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway
Suite 250
Alameda, CA 94502-6577

94 DEC 20 PM 4:14

Re: Shell Service Station
WIC #204-0072-0502
2160 Otis Drive
Alameda, California
WA Job #81-0429-104

Dear Ms. Shin:

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 2652.d. Included below are descriptions and results of activities performed in the fourth quarter 1994 and proposed work for the first quarter 1995.

Fourth Quarter 1994 Activities:

- On November 1st, Blaine Tech Services, Inc., (BTS) of San Jose, California measured depths to ground water in all three wells. Due to confusion of the sampling, and analytical protocols by the sampling consultant, BTS also collected ground water samples for analyses of hydrocarbons, volatile organics, and total dissolved solids (TSD) on October 11th and November 1st and 11th. BTS's reports describing the sampling activities including the ground water analytic report are included as Attachments A.

- Weiss Associates (WA) compiled the ground water elevation data and the laboratory analytic results (Tables 1, 2A and 2B) and prepared a ground water elevation contour map (Figure 2).

Anticipated First Quarter 1995 Activities:

- WA will submit a report presenting the results of the first quarter 1995 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, ground water elevations and a ground water elevation contour map.

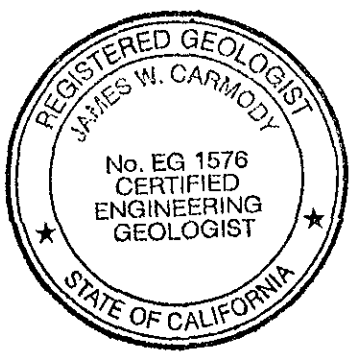
Conclusions and Recommendations

TDS concentrations were measured in ground water from wells MW-1 and MW-2 at 6,900 ppm and 20,400 ppm, respectively.

WA will continue with the sampling frequency presented in earlier monitoring reports. However, the elevated TDS concentrations may affect future activities at this site. These concentrations are much greater than the threshold value considered safe for "potable" water use. Therefore, ground water beneath the site cannot be considered a drinking water source.

Petroleum hydrocarbons and volatile organic compounds were not detected in ground water samples collected from wells S-1 and MW-1, but were detected at relatively dilute concentrations in the ground water from well MW-2. These concentrations are less than those detected at well MW-2 for the third quarterly monitoring event.

Please call if you have any questions.



Sincerely,
Weiss Associates

J. Michael Asport
Staff Scientist I

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

Attachments: A - BTS's Ground Water Monitoring Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 4023, Concord, CA 94524
Tom Callaghan, Water Quality Control Board, San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, CA 94612

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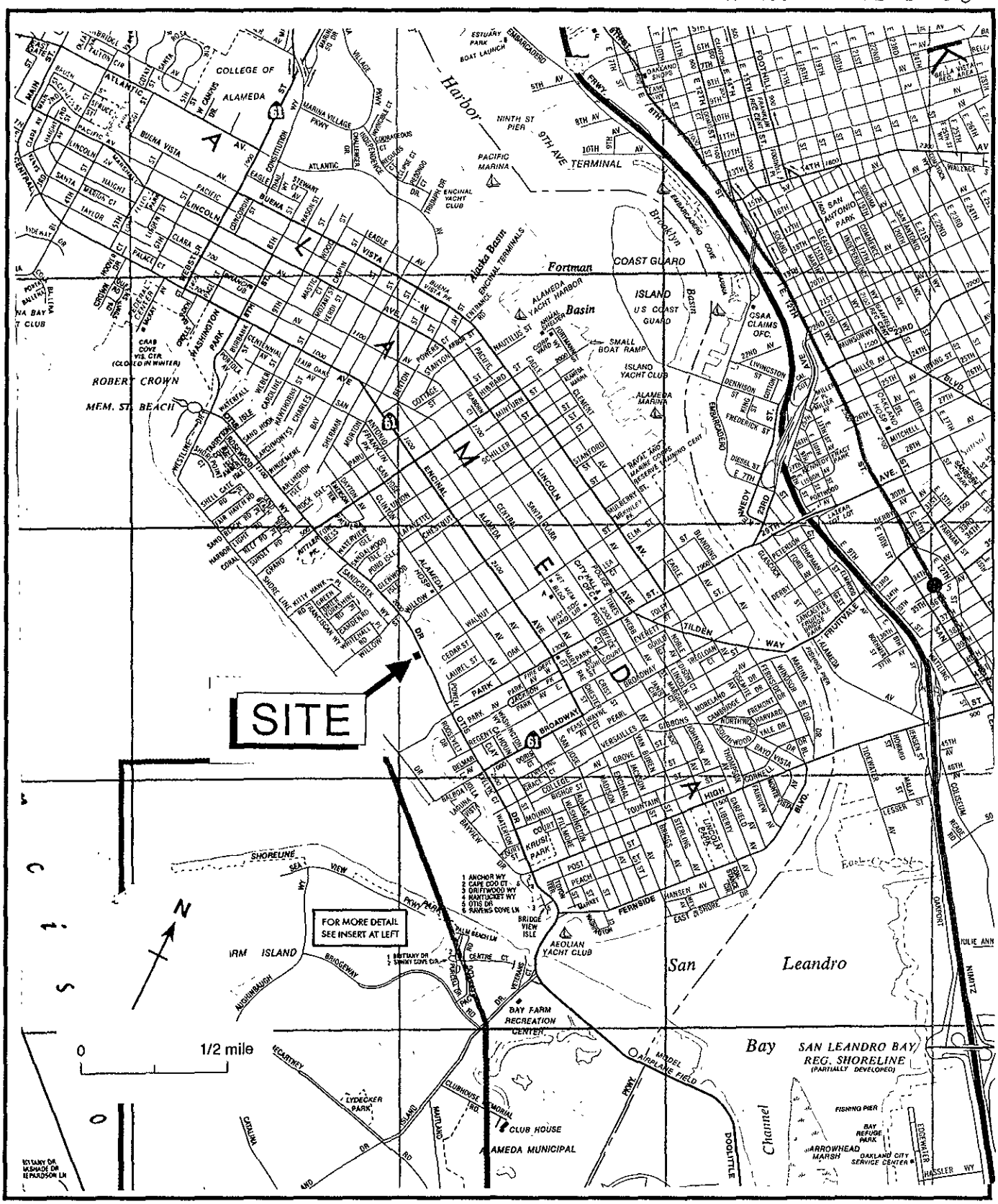

Figure 1. Site Location Map - Shell Service Station, WIC# 204-0072-0502, 2160 Otis Drive, Alameda, CA

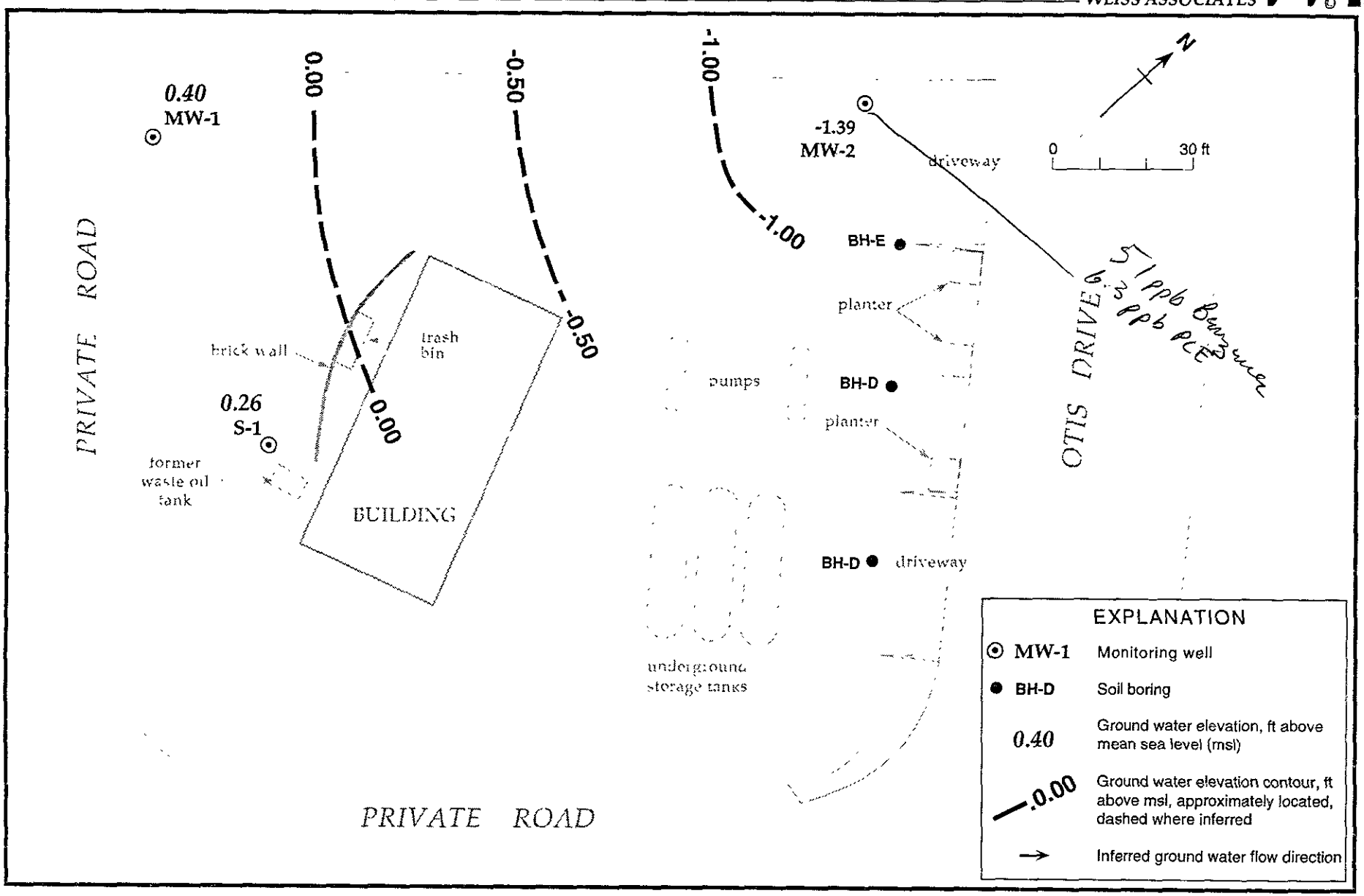

Figure 2. Monitoring Well Locations, Soil Boring Locations and Ground Water Elevation Contours - November 1, 1994 - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California

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Table 1. Ground Water Elevations - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-1	04/11/90	6.00	5.23	0.77
	07/10/90		5.40	0.60
	10/09/90		5.61	0.39
	01/17/91		5.66	0.34
	04/09/91		4.96	1.04
	07/10/91		5.52	0.48
	10/09/91		5.70	0.30
	01/24/92		5.51	0.49
	04/23/92		5.14	0.86
	07/01/92		4.48	1.52
	10/02/92		5.80	0.20
	01/05/93		5.34	0.66
	04/08/93		4.62	1.38
	07/20/93		5.20	0.80
	10/15/93		4.37	1.63
	01/07/94		5.26	0.74
	04/13/94		5.01	0.99
	07/26/94		5.38	0.62
	08/18/94		5.40	0.60
	11/01/94		**5.60**	**0.40**
MW-2	04/11/90	3.29	4.51	-1.22
	07/10/90		4.61	-1.32
	10/09/90		4.74	-1.45
	01/17/91		4.73	-1.44
	04/09/91		4.09	-0.80
	07/10/91		4.66	-1.37
	10/09/91		4.81	-1.52
	01/24/92		4.66	-1.37
	04/23/92		4.51	-1.22
	07/01/92		4.57	-1.28
	10/02/92		4.80	-1.51
	01/05/93		4.39	-1.1
	04/08/93		4.15	-0.86
	07/20/93		4.40	-1.11
	10/15/93		5.41	-2.12
	01/07/94		4.34	-1.05
	04/13/94		4.29	-1.00
	07/26/94		4.56	-1.27
	11/01/94		**4.68**	**-1.39**
S-1	09/11/90	5.10	4.29	0.81
	04/11/90		4.00	1.10
	07/10/90		4.25	0.85

-- Table 1 continues on next page --

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	10/09/90		4.46	0.64
	01/17/91		4.53	0.57
	04/09/91		4.20	0.90
	07/10/91		4.42	0.68
	10/09/91		4.87	0.23
	01/24/92		4.90	0.20
	04/23/92		4.66	0.44
	07/01/92		4.85	0.25
	10/02/92		4.80	0.30
	01/05/93		5.38	-0.28
	04/08/93		3.69	1.41
	07/20/93		4.20	0.90
	10/15/93		4.38	0.72
	01/07/94		4.19	0.91
	04/17/94		4.03	1.07
	07/26/94		4.76	0.34
	11/01/94		**4.84**	**0.26**

Table 2A. Analytic Results for Ground Water - Petroleum Hydrocarbons - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California

Well ID (Sampling Frequency)	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	B	E	T	X	TDS
			<----------parts per billion (µg/L)---------->							
S-1	09/04/87		---	---	---	<5	<5	<5	<5	---
(Annually	09/11/89[a]	4.29	<50	<100	<1,000	<0.5	<1	<1	<3	---
1st Qtr)	04/11/90	4.00	<50	<50	<10,000	<0.5	<0.5	<0.5	<0.5	---
	07/10/90	4.25	<90	---	<10,000	<0.5	<0.5	<0.5	<0.5	---
	10/09/90	4.46	<50	---	<5,000	<0.5	<0.5	<0.5	<0.5	---
	01/17/91	4.53	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/09/91	4.20	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	07/10/91	4.42	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/09/91	4.87	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/24/92	4.90	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/23/92	4.66	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	07/01/92	4.85	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/02/92	5.80	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/05/93	5.38	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/07/94	4.19	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/07/94	4.19	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/01/94	**4.84**	**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**560,000**
MW-1	04/11/90	5.23	<50	<50	<10,000	<0.5	<0.5	<0.5	<0.5	---
(Annually	07/10/90	5.40	100	---	<10,000	<0.5	<0.5	<0.5	<0.5	---
1st Qtr)	10/09/90	5.61	<50	---	<5,000	<0.5	<0.5	<0.5	<0.5	---
	01/17/91	5.66	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/09/91	4.96	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	07/10/91	5.52	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/09/91	5.70	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/24/92	5.51	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/23/92	5.14	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	07/01/92	4.48	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/02/92	4.80	<50	---	---	<0.5	<0.5	<0.5	<0.5	---

-- Table 2A continues on next page --

Table 2A. Analytic Results for Ground Water - Petroleum Hydrocarbons - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California (continued)

Well ID (Sampling Frequency)	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	B	E	T	X	TDS
			<----------parts per billion (µg/L)---------->							
	01/05/93	5.34	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/05/93[dup]	5.34	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/07/94	5.26	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/18/94	5.40	<50	---	---	<0.5	<0.5	<0.5	<0.5	6,300,000
	10/11/94	**5.60**	**<50**	**<50**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**6,700,000**
MW-2	04/11/90	4.51	200[b]	220	<10,000	2.7	<0.5	0.5	2.4	---
(Quarterly)	07/10/90	4.61	570[b]	450	<10,000	150	<0.5	0.9	3.1	---
	10/09/90	4.74	190[b]	51	<5,000	55	<0.5	<0.5	<0.5	---
	01/17/91	4.73	350[b]	<50	---	51	<0.5	<0.5	<0.5	---
	04/09/91	4.09	---	<50	---	21	<5	<5	<5	---
	07/10/91	4.66	50[b]	<50	---	8.4	<0.5	<0.5	<0.5	---
	10/09/91	4.81	150	---	---	22	<0.5	<0.5	<0.5	---
	01/24/92	4.66	<50	---	---	4.8	<0.5	<0.5	<0.5	---
	04/23/92	4.51	<50	---	---	2.3	1.5	<0.5	<0.5	---
	07/01/92	4.57	130[c]	---	---	19	<0.5	<0.5	<0.5	---
	10/02/92	4.80	120[c]	---	---	7.8	<0.5	<0.5	<0.8	---
	01/05/93	4.39	200[c]	---	---	9.0	<0.5	0.6	1.8	---
	04/08/93	4.15	170[c]	---	---	9.6	<0.5	<0.5	1.6	---
	07/20/93	4.40	80[d]	---	---	16	1.3	1.4	6.1	---
	10/15/93	4.38	400[c]	---	---	37	0.6	1.1	4.7	---
	01/07/94	4.34	86[d]	---	<500	12	<0.5	<0.5	1.1	---
	04/13/94	4.29	<50	---	---	14	<0.5	<0.5	<0.5	---
	07/26/94	4.56	290	---	---	51	<0.5	<0.5	<0.5	12,800,000
	11/11/94	**4.68**	**<50**	**---**	**---**	**3.5**	**<0.5**	**<0.5**	**<0.5**	**20,400,000**
BH-C	12/17/92	5.0	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5	---
BH-D	12/17/92	5.0	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5	---

-- Table 2A continues on next page --

Table 2A. Analytic Results for Ground Water - Petroleum Hydrocarbons - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California (continued)

Well ID (Sampling Frequency)	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	B	E	T	X	TDS
			<----------parts per billion (µg/L)---------->							
BH-E	12/17/92	5.5	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5	---
Trip Blank	07/10/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/09/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/17/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/09/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	07/10/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/09/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/24/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/23/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	07/01/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/02/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/05/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/08/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	07/20/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/15/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	01/07/94.		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	04/13/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	10/11/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/01/94		**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
DTSC MCLs			NE	NE	NE	1	680	100[e]	1,750	

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Table 2A. Analytic Results for Ground Water - Petroleum Hydrocarbons - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, 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
POG = Petroleum oil and grease by American Public Health Association Standard Methods 503, or EPA method 5520BF
B = Benzene by EPA Method 8020, or 8240
E = Ethylbenzene by EPA Method 8020, or 8240
T = Toluene by EPA Method 8020, or 8240
X = Xylenes by EPA Method 8020, or 8240
TDS = Total dissolved solids
DTSC MCLs = Department of Toxic Substances Control maximum contaminant levels
<n = Not detected above detection limit of n ppb
NE = DTSC MCL not established
BH-C = Grab Ground Water Sample

Notes:

a = 0.090 ppm chromium, 0.090 ppm lead and 0.10 ppm Zn detected; no cadmium detected above detection limit of 0.010 ppm by EPA Method 6010. No semi-volatile organic compounds or PCBs detected by EPA Method 625. DTSC MCLs for Cr = 0.05 ppm; Pb = 0.05 ppm; secondary MCL for Zn = 5 ppm.
b = Chromatographic pattern not typical for gasoline; the concentration is due mostly to lighter hydrocarbon compounds.
c = The concentration reported as gasoline is *partially* due to the presence of discrete peaks not indicative of gasoline.
d = The concentration reported as gasoline is *primarily* due to the presence of discrete peaks not indicative of gasoline.
e = DTSC recommended action level for drinking water; MCL not established

Table 2B. Analytic Results for Ground Water - Volatile Organic Compounds - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California

Well ID	Date Sampled	Depth to Water (ft)	TCE	TCA	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	Carbon Disulfate	Vinyl Chloride
			<----------parts per billion (µg/l)---------->								
S-1	09/04/87[a]	---	---	---	---	---	---	---	---	---	---
	09/11/89	4.29	ND	ND	ND	ND	ND	ND	ND	ND	ND
	04/11/90	4.00	<0.4	<0.4	<0.4	1.7	<0.4	<0.4	<0.4	---	<0.4
	07/10/90	4.25	<0 4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	<2
	10/09/90	4.96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<2
	01/07/94	4.19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5
	01/07/94[dup]	4.19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5
	11/01/94	**4.84**	**<0.4**	**<0.4**	**<0.4**	**<0.4**	---	**<0.4**	**<0.4**	**---**	**<0.4**
MW-1	04/11/90	5.23	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	<0.4
	07/10/90	5.40	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	<2
	10/09/90	5.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<2
	01/07/94	5.26	---	---	---	---	---	---	---	---	---
	08/18/94	5.40	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	---
	10/11/94	**5.60**	**<0.4**	**<0.4**	**<0.4**	**<0.4**	---	**<0.4**	**<0.4**	**---**	**<0.4**
MW-2	04/11/90	4.51	1.2	<0.4	<0.4	4.5	<0.4	16	<0.4	---	<2
	07/10/90	4.61	0.93	<0.4	<0.4	1.7	<0.4	11	0.44	---	<2
	10/09/90	4.74	1.3	<0.5	1.6	15	46	6.7	<0.5	---	2.5
	01/17/91[b]	4.73	1.2	<0.5	0.6	2.6	74	12	0.5	---	3.0
	04/09/91	4.09	<5	<5	<5	<5	64	<5	<5	<0.5	<10
	07/10/91	4.66	<0.5	<0.5	6.9	43	<0.5	<0.5	<0.5	14	<10
	10/09/91	4.81	1.9	<1	28	7.4	54	16	<1	---	1.7
	01/24/92	4.66	2.5	<0.5	7.0	19	16	4.3	0.6	---	<0.5
	04/23/92	4.51	<3	<3	3.0	<3	84	18	<3	---	<3
	07/01/92	4.57	2.0	<1	2.0	<1	54	14	<1	---	1.0
	10/92/92	4.80	1.0	<1	<1	<1	61	12	<1	---	<1
	01/05/93	4.39	1.7	<0.5	2.2	<0.5	33	8.7	<0.5	---	.67
	04/08/93	4.15	1.3	<1	<1	<1	38	7.8	<1	---	<1

-- Table 2B continues on next page --

Table 2B. Analytic Results for Ground Water - Volatile Organic Compounds - Shell Service Station WIC #204-0072-0502, 2160 Otis Drive, Alameda, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TCE	TCA	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	Carbon Disulfate	Vinyl Chloride
			<----------parts per billion (µg/l)---------->								
	07/20/93	4.40	2.4	<1	4.7	2.3	43	10	<0.5	---	<0.5
	10/15/93	4.38	<2.5	<2.5	<2.5	<2.5	110	25	<2.5	---	<2.5
	01/07/94	4.34	3.8	<0.5	14.0	8.9	29	5.4	<0.5	---	<0.5
	04/13/94	4.29	4.3	<1.3	5.7	2.9	76	14	<1.3	---	---
	07/26/94	4.56	4.3	<0.4	3.5	<0.4	57	5.7	<0.4	---	<0.4
	11/11/94	**4.68**	**2.2**	**<0.4**	**6.3**	**5.6**	---	**2.2**	**<0.4**	**---**	**<0.4**
BH-C	12/17/93	5.0	<2	<2	<2	<2	<2	<2	<2	---	<2
BH-D	12/17/93	5.0	<2	<2	<2	<2	<2	<2	<2	---	<2
BH-E	12/17/93	5.5	<2	<2	<2	<2	<2	<2	<2	---	<2
DTSC MCLs			5	200	5	NE	6	10	0.5	NE	0.5

Abbreviations:

TCE = Trichloroethene by EPA Method 601/8010 or 8240
TCA = 1,1,1-Trichloroethane by EPA Method 601/8010 or 8240
PCE = Tetrachloroethene by EPA Method 601/8010 or 8240
cis-1,2-DCE = cis-1,2-Dichloroethene by EPA Method 601/8010 or 8240
trans-1,2-DCE = trans-1,2-Dichloroethene by EPA Method 601/8010 or 8240
--- = Not analyzed
<**n** = Not detected above detection limit of **n** ppb
1,2-DCA = 1,2 dichloroethane by EPA Method 601/8010 or 8240
DTCS MCLs = Department of Toxic Substance control maximum contaminant levels
NE = DTSC MCL not established
ND = Analyte not detected, detection limit not known

Notes:

a = 7.0 ppb unknown alcohol and 270 ppb acetone detected
b = 5.0 ppb chlorobenzene detected

ATTACHMENT A

BTS GROUND WATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

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

November 29, 1994

Shell Oil Company
P.O. Box 4023
Concord, CA 94524

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-0072-0502
2160 Otis Drive
Alameda, California

QUARTER:
4th quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 941011-J-4

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

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 National Environmental Testing, Inc. in Santa Rosa, California. NET is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #178.

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/lp

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	11/1/94	TOC	--	NONE	--	--	5.60	16.52
MW-2 *	11/1/94	TOC	--	NONE	--	--	4.68	17.06
MW-3	11/1/94	TOC	--	NONE	--	--	4.84	18.74

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD 3164
Serial No: 941011J4

Date: 10/11/94
Page 1 of 1

Site Address: 2160 Otis Drive, Alameda

WIC#: 204-0072-0502

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:

Printed Name: JEAN GATINEAU

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT
Quarterly Monitoring [X]	5461
Site Investigation [ ]	5441
Soil Classify/Disposal [ ]	5442
Water Classify/Disposal [ ]	5443
Soil/Air Rem. or Sys. O & M [ ]	5462
Water Rem. or Sys. O & M [ ]	5453
Other [ ]	

TURN AROUND TIME: 24 hours [ ] 48 hours [ ] 16 days [X] (Normal) Other [ ] ____

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

Analysis Required

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	8010 (EPA 601)	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	10/11					8		X				X	X						
TB						2						X							

(10/12/94 [signature] seals intact AL)

Relinquished By (signature):	Printed Name:	Date / Time:	Received (signature):	Printed Name:	Date / Time:
[signature]	JEAN GATINEAU	Date: 10/12/94 Time: 1455	[signature]	G L LUMBRE	Date: 10/12 Time: 915
[signature]	G L LUMBRE	Date: 10/12 Time: 16:00	[signature] via NCS	Anny Lope	Date: 10/13/94 Time: 08:10
		Date: Time:			Date: Time:

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

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 10/21/1994
NET Client Acct. No: 1821
NET Pacific Job No: 94.04814
Received: 10/13/1994

Client Reference Information

SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

for
Judy Ridley
Project Coordinator

Jim Hoch
Operations Manager

Enclosure(s)

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

SAMPLE DESCRIPTION: MW-1
Date Taken: 10/11/1994
Time Taken:
NET Sample No: 219506

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						10/16/1994
DILUTION FACTOR*	1						10/16/1994
as Gasoline	ND		50	ug/L	5030		10/16/1994
Carbon Range:	--						10/16/1994
METHOD 8020 (GC,Liquid)	--						10/16/1994
Benzene	ND		0.5	ug/L	8020		10/16/1994
Toluene	ND		0.5	ug/L	8020		10/16/1994
Ethylbenzene	ND		0.5	ug/L	8020		10/16/1994
Xylenes (Total)	ND		0.5	ug/L	8020		10/16/1994
SURROGATE RESULTS	--						10/16/1994
Bromofluorobenzene (SURR)	98			% Rec.	5030		10/16/1994
METHOD M8015 (EXT., Liquid)						10/15/1994	
DILUTION FACTOR*	1						10/18/1994
as Diesel	ND		50	ug/L	3510		10/18/1994
Carbon Range:	--						10/18/1994

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

SAMPLE DESCRIPTION: MW-1
Date Taken: 10/11/1994
Time Taken:
NET Sample No: 219506

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 8010 (GC,Liquid)							
DILUTION FACTOR*	1						10/14/1994
Bromodichloromethane	ND		0.4	ug/L	8010		10/14/1994
Bromoform	ND		0.4	ug/L	8010		10/14/1994
Bromomethane	ND		0.4	ug/L	8010		10/14/1994
Carbon tetrachloride	ND		0.4	ug/L	8010		10/14/1994
Chlorobenzene	ND		0.4	ug/L	8010		10/14/1994
Chloroethane	ND		0.4	ug/L	8010		10/14/1994
2-Chloroethylvinyl ether	ND		1.0	ug/L	8010		10/14/1994
Chloroform	ND		0.4	ug/L	8010		10/14/1994
Chloromethane	ND		0.4	ug/L	8010		10/14/1994
Dibromochloromethane	ND		0.4	ug/L	8010		10/14/1994
1,2-Dichlorobenzene	ND		0.4	ug/L	8010		10/14/1994
1,3-Dichlorobenzene	ND		0.4	ug/L	8010		10/14/1994
1,4-Dichlorobenzene	ND		0.4	ug/L	8010		10/14/1994
Dichlorodifluoromethane	ND		0.4	ug/L	8010		10/14/1994
1,1-Dichloroethane	ND		0.4	ug/L	8010		10/14/1994
1,2-Dichloroethane	ND		0.4	ug/L	8010		10/14/1994
1,1-Dichloroethene	ND		0.4	ug/L	8010		10/14/1994
trans-1,2-Dichloroethene	ND		0.4	ug/L	8010		10/14/1994
1,2-Dichloropropane	ND		0.4	ug/L	8010		10/14/1994
cis-1,3-Dichloropropene	ND		0.4	ug/L	8010		10/14/1994
trans-1,3-Dichloropropene	ND		0.4	ug/L	8010		10/14/1994
Methylene chloride	ND		10	ug/L	8010		10/14/1994
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	8010		10/14/1994
Tetrachloroethene	ND		0.4	ug/L	8010		10/14/1994
1,1,1-Trichloroethane	ND		0.4	ug/L	8010		10/14/1994
1,1,2-Trichloroethane	ND		1	ug/L	8010		10/14/1994
Trichloroethene	ND		0.4	ug/L	8010		10/14/1994
Trichlorofluoromethane	ND		0.4	ug/L	8010		10/14/1994
Vinyl chloride	ND		0.4	ug/L	8010		10/14/1994
SURROGATE RESULTS	--						10/14/1994
1,4-Difluorobenzene (SURR)	71			% Rec.			10/14/1994
Bromochloromethane (SURR)	84			% Rec.			10/14/1994

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

SAMPLE DESCRIPTION: TB
Date Taken: 10/11/1994
Time Taken:
NET Sample No: 219507

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						10/16/1994
DILUTION FACTOR*	1						10/16/1994
as Gasoline	ND		50	ug/L	5030		10/16/1994
Carbon Range:	--						10/16/1994
METHOD 8020 (GC,Liquid)	--						10/16/1994
Benzene	ND		0.5	ug/L	8020		10/16/1994
Toluene	ND		0.5	ug/L	8020		10/16/1994
Ethylbenzene	ND		0.5	ug/L	8020		10/16/1994
Xylenes (Total)	ND		0.5	ug/L	8020		10/16/1994
SURROGATE RESULTS	--						10/16/1994
Bromofluorobenzene (SURR)	101			% Rec.	5030		10/16/1994

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)						
as Gasoline	105.0	1.05	1.00	mg/L	10/16/1994	lss
Benzene	107.2	5.36	5.00	ug/L	10/16/1994	lss
Toluene	97.6	4.88	5.00	ug/L	10/16/1994	lss
Ethylbenzene	106.0	5.30	5.00	ug/L	10/16/1994	lss
Xylenes (Total)	102.0	15.3	15.0	ug/L	10/16/1994	lss
Bromofluorobenzene (SURR)	105.0	105	100	% Rec.	10/16/1994	lss
METHOD M8015 (EXT., Liquid)						
as Diesel	113.0	1130	1000	mg/L	10/18/1994	tts

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD 8010 (GC,Liquid)						
Bromodichloromethane	99.5	19.9	20.0	ug/L	10/14/1994	lss
Bromoform	101.5	20.3	20.0	ug/L	10/14/1994	lss
Bromomethane	89.0	17.8	20.0	ug/L	10/14/1994	lss
Carbon tetrachloride	100.5	20.1	20.0	ug/L	10/14/1994	lss
Chlorobenzene	103.0	20.6	20.0	ug/L	10/14/1994	lss
Chloroethane	107.0	21.4	20.0	ug/L	10/14/1994	lss
2-Chloroethylvinyl ether	67.5	13.5	20.0	ug/L	10/14/1994	lss
Chloroform	111.0	22.2	20.0	ug/L	10/14/1994	lss
Chloromethane	79.0	15.8	20.0	ug/L	10/14/1994	lss
Dibromochloromethane	103.5	20.7	20.0	ug/L	10/14/1994	lss
1,2-Dichlorobenzene	99.0	19.8	20.0	ug/L	10/14/1994	lss
1,3-Dichlorobenzene	102.0	20.4	20.0	ug/L	10/14/1994	lss
1,4-Dichlorobenzene	109.5	21.9	20.0	ug/L	10/14/1994	lss
Dichlorodifluoromethane	88.5	17.7	20.0	ug/L	10/14/1994	lss
1,1-Dichloroethane	100.5	20.1	20.0	ug/L	10/14/1994	lss
1,2-Dichloroethane	101.0	20.2	20.0	ug/L	10/14/1994	lss
1,1-Dichloroethene	88.0	17.6	20.0	ug/L	10/14/1994	lss
trans-1,2-Dichloroethene	94.5	18.9	20.0	ug/L	10/14/1994	lss
1,2-Dichloropropane	97.0	19.4	20.0	ug/L	10/14/1994	lss
cis-1,3-Dichloropropene	97.5	19.5	20.0	ug/L	10/14/1994	lss
trans-1,3-Dichloropropene	103.5	20.7	20.0	ug/L	10/14/1994	lss
Methylene chloride	95.0	19.0	20.0	ug/L	10/14/1994	lss
1,1,2,2-Tetrachloroethane	103.0	20.6	20.0	ug/L	10/14/1994	lss
Tetrachloroethene	103.0	20.6	20.0	ug/L	10/14/1994	lss
1,1,1-Trichloroethane	100.5	20.1	20.0	ug/L	10/14/1994	lss
1,1,2-Trichloroethane	103.5	20.7	20.0	ug/L	10/14/1994	lss
Trichloroethene	95.5	19 1	20.0	ug/L	10/14/1994	lss
Trichlorofluoromethane	96.5	19.3	20.0	ug/L	10/14/1994	lss
Vinyl chloride	88.5	17.7	20.0	ug/L	10/14/1994	lss
1,4-Difluorobenzene (SURR)	75.0	75	100	% Rec.	10/14/1994	lss
Bromochloromethane (SURR)	106.0	106	100	% Rec.	10/14/1994	lss

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	10/16/1994	lss
Benzene	ND	0.5	ug/L	10/16/1994	lss
Toluene	ND	0.5	ug/L	10/16/1994	lss
Ethylbenzene	ND	0.5	ug/L	10/16/1994	lss
Xylenes (Total)	ND	0.5	ug/L	10/16/1994	lss
Bromofluorobenzene (SURR)	106		% Rec.	10/16/1994	lss
METHOD M8015 (EXT., Liquid)					
as Diesel	ND	0.05	mg/L	10/15/1994	tts

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
METHOD 8010 (GC,Liquid)					
Bromodichloromethane	ND	0.4	ug/L	10/14/1994	lss
Bromoform	ND	0.4	ug/L	10/14/1994	lss
Bromomethane	ND	0.4	ug/L	10/14/1994	lss
Carbon tetrachloride	ND	0.4	ug/L	10/14/1994	lss
Chlorobenzene	ND	0.4	ug/L	10/14/1994	lss
Chloroethane	ND	0.4	ug/L	10/14/1994	lss
2-Chloroethylvinyl ether	ND	1.0	ug/L	10/14/1994	lss
Chloroform	ND	0.4	ug/L	10/14/1994	lss
Chloromethane	ND	0.4	ug/L	10/14/1994	lss
Dibromochloromethane	ND	0.4	ug/L	10/14/1994	lss
1,2-Dichlorobenzene	ND	0.4	ug/L	10/14/1994	lss
1,3-Dichlorobenzene	ND	0.4	ug/L	10/14/1994	lss
1,4-Dichlorobenzene	ND	0.4	ug/L	10/14/1994	lss
Dichlorodifluoromethane	ND	0.4	ug/L	10/14/1994	lss
1,1-Dichloroethane	ND	0.4	ug/L	10/14/1994	lss
1,2-Dichloroethane	ND	0.4	ug/L	10/14/1994	lss
1,1-Dichloroethene	ND	0.4	ug/L	10/14/1994	lss
trans-1,2-Dichloroethene	ND	0.4	ug/L	10/14/1994	lss
1,2-Dichloropropane	ND	0.4	ug/L	10/14/1994	lss
cis-1,3-Dichloropropene	ND	0.4	ug/L	10/14/1994	lss
trans-1,3-Dichloropropene	ND	0.4	ug/L	10/14/1994	lss
Methylene chloride	ND	10	ug/L	10/14/1994	lss
1,1,2,2-Tetrachloroethane	ND	0.4	ug/L	10/14/1994	lss
Tetrachloroethene	ND	0.4	ug/L	10/14/1994	lss
1,1,1-Trichloroethane	ND	0.4	ug/L	10/14/1994	lss
1,1,2-Trichloroethane	ND	0.4	ug/L	10/14/1994	lss
Trichloroethene	ND	0.4	ug/L	10/14/1994	lss
Trichlorofluoromethane	ND	0.4	ug/L	10/14/1994	lss
Vinyl chloride	ND	0.4	ug/L	10/14/1994	lss
1,4-Difluorobenzene (SURR)	82		% Rec.	10/14/1994	lss
Bromochloromethane (SURR)	97		% Rec.	10/14/1994	lss

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)										
as Gasoline	96.0	96.0	0.0	1.00	ND	0.96	0.96	mg/L	10/16/1994	lss
Benzene	78.3	84.5	7.6	41.4	ND	32.4	35.0	ug/L	10/16/1994	lss
Toluene	93.5	97.6	4.3	98.4	ND	92.0	96.0	ug/L	10/16/1994	lss
METHOD 8010 (GC,Liquid)										
Chlorobenzene	92.5	97.5	5.3	20.0	ND	18.5	19.5	ug/L	10/14/1994	lss
1,1-Dichloroethene	101.0	94.0	7.1	20.0	ND	20.2	18.8	ug/L	10/14/1994	lss
Trichloroethene	95.0	89.5	6.0	20.0	ND	19.0	17.9	ug/L	10/14/1994	lss

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: SHELL, 2160 Otis Drive, Alameda, Job No. 941011-J4

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD M8015 (EXT., Liquid) as Diesel	76.2		0.762	1.00	mg/L	10/15/1994	tts
METHOD M8015 (EXT., Liquid) as Diesel	72.8	4.6	0.728	1.00	mg/L	10/15/1994	tts

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. **Do not** multiply the reporting limits or reported values by the dilution factor.
dw	:	Result expressed as dry weight.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than the applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, Rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, Rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Revised September, 1993
abb.93

COOLER RECEIPT FORM

Project: Shell, 2160 Otis Dr. Alameda Log No: 3164
Cooler received on: 10/13/94 and checked on 10/13/94 by A. Lope
A. Lope
(signature)

Were custody papers present?..... YES NO

Were custody papers properly filled out?..... YES NO

Were the custody papers signed?..... YES NO

Was sufficient ice used?..... YES NO 0.7°C

Did all bottles arrive in good condition (unbroken)?..... YES NO

Did bottle labels match COC?..... YES NO

Were proper bottles used for analysis indicated?..... YES NO

Correct preservatives used?..... YES NO

VOA vials checked for headspace bubbles?..... YES NO
Note which voas (if any) had bubbles:*

Sample descriptor:	Number of vials:

*All VOAs with headspace bubbles have been set aside so they will not be used for analysis..... YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #

(coolerrec)

#3570

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 941101-M1

Date:
Page 1 of 1

Site Address: 2160 OTIS DR ALAMEDA, CA

WIC#: 204-0072-0502

Shell Engineer: DANIEL T. KIRK
Phone No.: 510-675-6168
Fax #:

Consultant Name & Address: BLAINE TECH SERVICES SJ, CA

Consultant Contact: FRAN THIE/JIM KELLER
Phone No.: 408-995-5535
Fax #: 293-8773

Comments:

Sampled by: [signature]

Printed Name: MIKE MYERS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
Quarterly Monitoring [X]	5461	24 hours [ ]
Site Investigation [ ]	5441	48 hours [ ]
Soil Classify/Disposal [ ]	5442	16 days [X] (Normal)
Water Classify/Disposal [ ]	5443	Other [ ]
Soil/Air Rem. or Sys. O & M [ ]	5452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M [ ]	5453	
Other [ ]		

Analysis Required

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	TOTAL DISSOLVED SOLIDS	8010	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	11-1			W		1							X							
MW-2	11-1			↓		1							X							
S-1	11-1			↓		7						X	X	X						
EB	11-1			↓		6						X	X	X						
DUP	11-1			↓		1							X							CUST SEALED 11/2/94 [signature] Seal Intact
TB	11-1			↓		2						X								

Relinquished By (signature):	Printed Name:	Date / Time:	Received (signature):	Printed Name:	Date / Time:
[signature]	MIKE MYERS	Date: 11/2/94 Time: 13:30	[signature]	G P LUMBRE	Date: 11/2/94 Time: 1307
[signature]	G P LUMBRE	Date: 11/2/94 Time: 16:30	[signature]	PAM GREENE VIA: NCS	Date: 11/03/94 Time: 09:15
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

TEMP. 1.9°C

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 11/11/1994
NET Client Acct. No: 1821
NET Pacific Job No: 94.05220
Received: 11/03/1994

Client Reference Information

Shell, 2160 Otis Dr., Alameda, 941101-M1

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Judy Ridley
Project Coordinator

Jim Hoch
Operations Manager

Enclosure(s)

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 94.05220

Date: 11/11/1994
ELAP Cert: 1386
Page: 2

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

SAMPLE DESCRIPTION: MW-1
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221335

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Tot. Dissolved Solids (TFR)	6,700,000		10,000	ug/L	160 1		11/04/1994	491

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 94 05220

Date: 11/11/1994
ELAP Cert: 1386
Page: 3

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

SAMPLE DESCRIPTION: MW-2
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221336

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Tot. Dissolved Solids (TFR)	20,400,00		10,000	ug/L	160.1		11/04/1994	491

NOTE: Results apply only to the samples analyzed Reproduction of this report is permitted only in its entirety.

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 94.05220

Date: 11/11/1994
ELAP Cert. 1386
Page: 4

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

SAMPLE DESCRIPTION: S-1
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221337

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Tot. Dissolved Solids (TFR)	560,000		10,000	ug/L	160.1		11/04/1994	491
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						11/08/1994	2281
DILUTION FACTOR*	1						11/08/1994	2281
as Gasoline	ND		50	ug/L	5030		11/08/1994	2281
Carbon Range:	--						11/08/1994	2281
METHOD 8020 (GC,Liquid)	--						11/08/1994	2281
Benzene	ND		0.5	ug/L	8020		11/08/1994	2281
Toluene	ND		0.5	ug/L	8020		11/08/1994	2281
Ethylbenzene	ND		0.5	ug/L	8020		11/08/1994	2281
Xylenes (Total)	ND		0.5	ug/L	8020		11/08/1994	2281
SURROGATE RESULTS	--						11/08/1994	2281
Bromofluorobenzene (SURR)	96			% Rec.	5030		11/08/1994	2281

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

SAMPLE DESCRIPTION: S-1
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221337

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 8010 (GC,Liquid)								
DILUTION FACTOR*	1						11/03/1994	747
Bromodichloromethane	ND		0.4	ug/L	8010		11/03/1994	747
Bromoform	ND		0.4	ug/L	8010		11/03/1994	747
Bromomethane	ND		0.4	ug/L	8010		11/03/1994	747
Carbon tetrachloride	ND		0.4	ug/L	8010		11/03/1994	747
Chlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
Chloroethane	ND		0.4	ug/L	8010		11/03/1994	747
2-Chloroethylvinyl ether	ND		1.0	ug/L	8010		11/03/1994	747
Chloroform	ND		0.4	ug/L	8010		11/03/1994	747
Chloromethane	ND		0.4	ug/L	8010		11/03/1994	747
Dibromochloromethane	ND		0.4	ug/L	8010		11/03/1994	747
1,2-Dichlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
1,3-Dichlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
1,4-Dichlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
Dichlorodifluoromethane	ND		0.4	ug/L	8010		11/03/1994	747
1,1-Dichloroethane	ND		0.4	ug/L	8010		11/03/1994	747
1,2-Dichloroethane	ND		0.4	ug/L	8010		11/03/1994	747
1,1-Dichloroethene	ND		0.4	ug/L	8010		11/03/1994	747
trans-1,2-Dichloroethene	ND		0.4	ug/L	8010		11/03/1994	747
1,2-Dichloropropane	ND		0.4	ug/L	8010		11/03/1994	747
cis-1,3-Dichloropropene	ND		0.4	ug/L	8010		11/03/1994	747
trans-1,3-Dichloropropene	ND		0.4	ug/L	8010		11/03/1994	747
Methylene chloride	ND		10	ug/L	8010		11/03/1994	747
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	8010		11/03/1994	747
Tetrachloroethene	ND		0.4	ug/L	8010		11/03/1994	747
1,1,1-Trichloroethane	ND		0.4	ug/L	8010		11/03/1994	747
1,1,2-Trichloroethane	ND		1	ug/L	8010		11/03/1994	747
Trichloroethene	ND		0.4	ug/L	8010		11/03/1994	747
Trichlorofluoromethane	ND		0.4	ug/L	8010		11/03/1994	747
Vinyl chloride	ND		0.4	ug/L	8010		11/03/1994	747
SURROGATE RESULTS	--						11/03/1994	747
1,4-Difluorobenzene (SURR)	75			% Rec.			11/03/1994	747
Bromochloromethane (SURR)	85			% Rec.			11/03/1994	747

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 94.05220

Date: 11/11/1994
ELAP Cert: 1386
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Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

SAMPLE DESCRIPTION: EB
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221338

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						11/08/1994	2281
DILUTION FACTOR*	1						11/08/1994	2281
as Gasoline	ND		50	ug/L	5030		11/08/1994	2281
Carbon Range:	--						11/08/1994	2281
METHOD 8020 (GC,Liquid)	--						11/08/1994	2281
Benzene	ND		0.5	ug/L	8020		11/08/1994	2281
Toluene	ND		0.5	ug/L	8020		11/08/1994	2281
Ethylbenzene	ND		0.5	ug/L	8020		11/08/1994	2281
Xylenes (Total)	ND		0.5	ug/L	8020		11/08/1994	2281
SURROGATE RESULTS	--						11/08/1994	2281
Bromofluorobenzene (SURR)	97			% Rec.	5030		11/08/1994	2281

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 94.05220

Date: 11/11/1994
ELAP Cert: 1386
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Ref: Shell, 2160 Otis Dr., Alameda, 941101-Mi

SAMPLE DESCRIPTION: EB
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221338

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 8010 (GC,Liquid)								
DILUTION FACTOR*	1						11/03/1994	747
Bromodichloromethane	ND		0.4	ug/L	8010		11/03/1994	747
Bromoform	ND		0.4	ug/L	8010		11/03/1994	747
Bromomethane	ND		0.4	ug/L	8010		11/03/1994	747
Carbon tetrachloride	ND		0.4	ug/L	8010		11/03/1994	747
Chlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
Chloroethane	ND		0.4	ug/L	8010		11/03/1994	747
2-Chloroethylvinyl ether	ND		1.0	ug/L	8010		11/03/1994	747
Chloroform	ND		0.4	ug/L	8010		11/03/1994	747
Chloromethane	ND		0.4	ug/L	8010		11/03/1994	747
Dibromochloromethane	ND		0.4	ug/L	8010		11/03/1994	747
1,2-Dichlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
1,3-Dichlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
1,4-Dichlorobenzene	ND		0.4	ug/L	8010		11/03/1994	747
Dichlorodifluoromethane	ND		0.4	ug/L	8010		11/03/1994	747
1,1-Dichloroethane	ND		0.4	ug/L	8010		11/03/1994	747
1,2-Dichloroethane	ND		0.4	ug/L	8010		11/03/1994	747
1,1-Dichloroethene	ND		0.4	ug/L	8010		11/03/1994	747
trans-1,2-Dichloroethene	ND		0.4	ug/L	8010		11/03/1994	747
1,2-Dichloropropane	ND		0.4	ug/L	8010		11/03/1994	747
cis-1,3-Dichloropropene	ND		0.4	ug/L	8010		11/03/1994	747
trans-1,3-Dichloropropene	ND		0.4	ug/L	8010		11/03/1994	747
Methylene chloride	ND		10	ug/L	8010		11/03/1994	747
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	8010		11/03/1994	747
Tetrachloroethene	ND		0.4	ug/L	8010		11/03/1994	747
1,1,1-Trichloroethane	ND		0.4	ug/L	8010		11/03/1994	747
1,1,2-Trichloroethane	ND		1	ug/L	8010		11/03/1994	747
Trichloroethene	ND		0.4	ug/L	8010		11/03/1994	747
Trichlorofluoromethane	ND		0.4	ug/L	8010		11/03/1994	747
Vinyl chloride	ND		0.4	ug/L	8010		11/03/1994	747
SURROGATE RESULTS	--						11/03/1994	747
1,4-Difluorobenzene (SURR)	84			% Rec.			11/03/1994	747
Bromochloromethane (SURR)	89			% Rec.			11/03/1994	747

NOTE. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

SAMPLE DESCRIPTION: DUP
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221339

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Tot. Dissolved Solids (TFR)	17,600,00		10,000	ug/L	160.1		11/04/1994	491

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

SAMPLE DESCRIPTION: TB
Date Taken: 11/01/1994
Time Taken:
NET Sample No: 221340

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						11/08/1994	2281
DILUTION FACTOR*	1						11/08/1994	2281
as Gasoline	ND		50	ug/L	5030		11/08/1994	2281
Carbon Range:	--						11/08/1994	2281
METHOD 8020 (GC,Liquid)	--						11/08/1994	2281
Benzene	ND		0.5	ug/L	8020		11/08/1994	2281
Toluene	ND		0.5	ug/L	8020		11/08/1994	2281
Ethylbenzene	ND		0.5	ug/L	8020		11/08/1994	2281
Xylenes (Total)	ND		0.5	ug/L	8020		11/08/1994	2281
SURROGATE RESULTS	--						11/08/1994	2281
Bromofluorobenzene (SURR)	75			% Rec.	5030		11/08/1994	2281

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)						
as Gasoline	103.0	1.03	1.00	mg/L	11/08/1994	aal
Benzene	101.4	5.07	5.00	ug/L	11/08/1994	aal
Toluene	99.8	4.99	5.00	ug/L	11/08/1994	aal
Ethylbenzene	99.6	4.98	5.00	ug/L	11/08/1994	aal
Xylenes (Total)	99.3	14.9	15.0	ug/L	11/08/1994	aal
Bromofluorobenzene (SURR)	90.0	90	100	% Rec.	11/08/1994	aal

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Blaine Tech Services
Client Acct. 1821
NET Job No: 94.05220

Date: 11/11/1994
ELAP Cert: 1386
Page: 11

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD 8010 (GC,Liquid)						
Bromodichloromethane	108.5	21.7	20.0	ug/L	11/03/1994	ltg
Bromoform	106.0	21.2	20.0	ug/L	11/03/1994	ltg
Bromomethane	100.0	20.0	20.0	ug/L	11/03/1994	ltg
Carbon tetrachloride	110.0	22.0	20.0	ug/L	11/03/1994	ltg
Chlorobenzene	114.5	22.9	20.0	ug/L	11/03/1994	ltg
Chloroethane	113.0	22.6	20 0	ug/L	11/03/1994	ltg
2-Chloroethylvinyl ether	97.0	19.4	20.0	ug/L	11/03/1994	ltg
Chloroform	117.5	23.5	20.0	ug/L	11/03/1994	ltg
Chloromethane	84.5	16.9	20.0	ug/L	11/03/1994	ltg
Dibromochloromethane	112.0	22.4	20.0	ug/L	11/03/1994	ltg
1,2-Dichlorobenzene	103.0	20.6	20.0	ug/L	11/03/1994	ltg
1,3-Dichlorobenzene	104.5	20 9	20.0	ug/L	11/03/1994	ltg
1,4-Dichlorobenzene	117.5	23.5	20.0	ug/L	11/03/1994	ltg
Dichlorodifluoromethane	100.0	20.0	20.0	ug/L	11/03/1994	ltg
1,1-Dichloroethane	110.5	22.1	20.0	ug/L	11/03/1994	ltg
1,2-Dichloroethane	107.5	21.5	20.0	ug/L	11/03/1994	ltg
1,1-Dichloroethene	94.0	18.8	20.0	ug/L	11/03/1994	ltg
trans-1,2-Dichloroethene	101.5	20 3	20.0	ug/L	11/03/1994	ltg
1,2-Dichloropropane	104.0	20.8	20.0	ug/L	11/03/1994	ltg
cis-1,3-Dichloropropene	106.0	21.2	20.0	ug/L	11/03/1994	ltg
trans-1,3-Dichloropropene	112.0	22.4	20 0	ug/L	11/03/1994	ltg
Methylene chloride	94.0	18 8	20.0	ug/L	11/03/1994	ltg
1,1,2,2-Tetrachloroethane	107.5	21.5	20.0	ug/L	11/03/1994	ltg
Tetrachloroethene	107.5	21.5	20.0	ug/L	11/03/1994	ltg
1,1,1-Trichloroethane	110.0	22.0	20.0	ug/L	11/03/1994	ltg
1,1,2-Trichloroethane	112.0	22.4	20.0	ug/L	11/03/1994	ltg
Trichloroethene	105.0	21.0	20.0	ug/L	11/03/1994	ltg
Trichlorofluoromethane	106.5	21.3	20.0	ug/L	11/03/1994	ltg
Vinyl chloride	100.0	20.0	20.0	ug/L	11/03/1994	ltg
1,4-Difluorobenzene (SURR)	98 0	98	100	% Rec.	11/03/1994	ltg
Bromochloromethane (SURR)	103.0	103	100	% Rec.	11/03/1994	ltg

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
Tot. Dissolved Solids (TFR)	ND	10	mg/L	11/04/1994	shr
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	11/08/1994	aal
Benzene	ND	0.5	ug/L	11/08/1994	aal
Toluene	ND	0.5	ug/L	11/08/1994	aal
Ethylbenzene	ND	0.5	ug/L	11/08/1994	aal
Xylenes (Total)	ND	0.5	ug/L	11/08/1994	aal
Bromofluorobenzene (SURR)	84		% Rec.	11/08/1994	aal

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
METHOD 8010 (GC,Liquid)					
Bromodichloromethane	ND	0.4	ug/L	11/03/1994	ltg
Bromoform	ND	0.4	ug/L	11/03/1994	ltg
Bromomethane	ND	0.4	ug/L	11/03/1994	ltg
Carbon tetrachloride	ND	0.4	ug/L	11/03/1994	ltg
Chlorobenzene	ND	0.4	ug/L	11/03/1994	ltg
Chloroethane	ND	0.4	ug/L	11/03/1994	ltg
2-Chloroethylvinyl ether	ND	1.0	ug/L	11/03/1994	ltg
Chloroform	ND	0.4	ug/L	11/03/1994	ltg
Chloromethane	ND	0.4	ug/L	11/03/1994	ltg
Dibromochloromethane	ND	0.4	ug/L	11/03/1994	ltg
1,2-Dichlorobenzene	ND	0.4	ug/L	11/03/1994	ltg
1,3-Dichlorobenzene	ND	0.4	ug/L	11/03/1994	ltg
1,4-Dichlorobenzene	ND	0.4	ug/L	11/03/1994	ltg
Dichlorodifluoromethane	ND	0 4	ug/L	11/03/1994	ltg
1,1-Dichloroethane	ND	0.4	ug/L	11/03/1994	ltg
1,2-Dichloroethane	ND	0.4	ug/L	11/03/1994	ltg
1,1-Dichloroethene	ND	0.4	ug/L	11/03/1994	ltg
trans-1,2-Dichloroethene	ND	0.4	ug/L	11/03/1994	ltg
1,2-Dichloropropane	ND	0.4	ug/L	11/03/1994	ltg
cis-1,3-Dichloropropene	ND	0.4	ug/L	11/03/1994	ltg
trans-1,3-Dichloropropene	ND	0.4	ug/L	11/03/1994	ltg
Methylene chloride	ND	10	ug/L	11/03/1994	ltg
1,1,2,2-Tetrachloroethane	ND	0.4	ug/L	11/03/1994	ltg
Tetrachloroethene	ND	0.4	ug/L	11/03/1994	ltg
1,1,1-Trichloroethane	ND	0.4	ug/L	11/03/1994	ltg
1,1,2-Trichloroethane	ND	0.4	ug/L	11/03/1994	ltg
Trichloroethene	ND	0.4	ug/L	11/03/1994	ltg
Trichlorofluoromethane	ND	0.4	ug/L	11/03/1994	ltg
Vinyl chloride	ND	0.4	ug/L	11/03/1994	ltg
1,4-Difluorobenzene (SURR)	94		% Rec.	11/03/1994	ltg
Bromochloromethane (SURR)	97		% Rec.	11/03/1994	ltg

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 94.05220

Date: 11/11/1994
ELAP Cert: 1386
Page: 14

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)										
as Gasoline	96.0	97.0	1.0	1.00	ND	0.96	0.97	mg/L	11/08/1994	aal
Benzene	97.0	94.5	2.6	20.1	ND	19.5	19.0	ug/L	11/08/1994	aal
Toluene	95.2	95.0	0.2	84.2	ND	80.2	80.0	ug/L	11/08/1994	aal
METHOD 8010 (GC,Liquid)										
Chlorobenzene	115.5	114.5	0.9	20.0	ND	23.1	22.9	ug/L	11/03/1994	ltg
1,1-Dichloroethene	85	70	16.1		98			ug/L	11/03/1994	ltg
Trichloroethene	104.5	103.5	1.0	20.0	3.4	24.3	24.1	ug/L	11/03/1994	ltg

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 94.05220

Date: 11/11/1994
ELAP Cert: 1386
Page: 15

Ref: Shell, 2160 Otis Dr., Alameda, 941101-M1

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
Tot. Dissolved Solids (TFR)	100.3		1,003	1,000	mg/L	11/04/1994	shr

NOTE. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
dw	:	Result expressed as dry weight.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than the applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, Rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, Rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Revised September, 1993
abb.93

COOLER RECEIPT FORM

Project: 941101-111 Log No: 3570
Cooler received on: 11/03/94 and checked on 11/03/94 by PHILIP ROSSER
Philip Rosser
(signature)

Were custody papers present?.....(YES) NO
Were custody papers properly filled out?.....(YES) NO
Were the custody papers signed?.....(YES) NO
Was sufficient ice used?.....(YES) NO TEMP.: 9°C
Did all bottles arrive in good condition (unbroken)?.....(YES) NO
Did bottle labels match COC?.....(YES) NO
Were proper bottles used for analysis indicated?.....(YES) NO
Correct preservatives used?.....(YES) NO
VOA vials checked for headspace bubbles?.....(YES) NO
Note which Voas (if any) had bubbles:*

Sample descriptor:	Number of vials:

*All VOAs with headspace bubbles have been set aside so they will not be used for analysis.....YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #

(coolerrec)

#3835

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 941111-E1

Date: 11/11/94
Page 1 of 1

Site Address: 2160 Otis Drive, Alameda

WIC#: 204-0072-0502

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: KENT BROWN

LAB: NET

Analysis Required

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	8010		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-2	11/11/94			W		6						X	X						SEE JUDY	

CHECK ONE (1) BOX ONLY / CT/DT:
- [x] Quarterly Monitoring 5461
- [ ] Site Investigation 5441
- [ ] Soil Classify/Disposal 5442
- [ ] Water Classify/Disposal 5443
- [ ] Soil/Air Rem. or Sys. O & M 5452
- [ ] Water Rem. or Sys. O & M 5453
- [ ] Other

TURN AROUND TIME:
- [ ] 24 hours
- [ ] 48 hours
- (16 days) (Normal)
- [x] Other — Per KT / JSD 11/15/94

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

(11/11/94 [signature])
Seal Intact [initials]

Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
[signature]	KENT BROWN	Date: 11/11 Time: 9:32	[signature]	GP LUMBRE	Date: 11/11 Time: 950
[signature]	GP LUMBRE	Date: 11/14 Time: 16:00	[signature]	PAUL PRESSER VIA NCS	Date: 11/15/94 Time: 0915
		Date: Time:		TEMP. 2	Date: Time:

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

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax (707) 526-9623

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 11/21/1994
NET Client Acct. No: 1821
NET Pacific Job No: 94.05485
Received: 11/15/1994

Client Reference Information

Shell 2160 Otis Drive, Alameda/941111-E1

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Judy Ridley
Project Coordinator

Jim Hoch
Operations Manager

Enclosure(s)

Ref: Shell 2160 Otis Drive, Alameda/941111-E1

SAMPLE DESCRIPTION: MW-2
Date Taken: 11/11/1994
Time Taken:
NET Sample No: 222580

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						11/17/1994	2323
DILUTION FACTOR*	1						11/17/1994	2316
as Gasoline	ND		50	ug/L	5030		11/17/1994	2316
Carbon Range:	--						11/17/1994	2316
METHOD 8020 (GC,Liquid)	--						11/17/1994	2316
Benzene	3.5	C	0.5	ug/L	8020		11/17/1994	2316
Toluene	ND		0.5	ug/L	8020		11/17/1994	2316
Ethylbenzene	ND		0.5	ug/L	8020		11/17/1994	2316
Xylenes (Total)	ND		0.5	ug/L	8020		11/17/1994	2316
SURROGATE RESULTS	--						11/17/1994	2316
Bromofluorobenzene (SURR)	91			% Rec.	5030		11/17/1994	2316

C : Positive result confirmed by secondary column or GC/MS analysis.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety

Ref: Shell 2760 Otis Drive, Alameda/941111-E1

SAMPLE DESCRIPTION: MW-2
Date Taken: 11/11/1994
Time Taken:
NET Sample No: 222580

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 8010 (GC,Liquid)								
DILUTION FACTOR*	1						11/15/1994	752
Bromodichloromethane	ND		0.4	ug/L	8010		11/15/1994	752
Bromoform	ND		0.4	ug/L	8010		11/15/1994	752
Bromomethane	ND		0.4	ug/L	8010		11/15/1994	752
Carbon tetrachloride	ND		0.4	ug/L	8010		11/15/1994	752
Chlorobenzene	ND		0.4	ug/L	8010		11/15/1994	752
Chloroethane	ND		0.4	ug/L	8010		11/15/1994	752
2-Chloroethylvinyl ether	ND		1.0	ug/L	8010		11/15/1994	752
Chloroform	5.6		0.4	ug/L	8010		11/15/1994	752
Chloromethane	ND		0.4	ug/L	8010		11/15/1994	752
Dibromochloromethane	ND		0.4	ug/L	8010		11/15/1994	752
1,2-Dichlorobenzene	ND		0.4	ug/L	8010		11/15/1994	752
1,3-Dichlorobenzene	ND		0.4	ug/L	8010		11/15/1994	752
1,4-Dichlorobenzene	ND		0.4	ug/L	8010		11/15/1994	752
Dichlorodifluoromethane	ND		0.4	ug/L	8010		11/15/1994	752
1,1-Dichloroethane	ND		0.4	ug/L	8010		11/15/1994	752
1,2-Dichloroethane	ND		0.4	ug/L	8010		11/15/1994	752
1,1-Dichloroethene	ND		0.4	ug/L	8010		11/15/1994	752
trans-1,2-Dichloroethene	2.2		0.4	ug/L	8010		11/15/1994	752
1,2-Dichloropropane	ND		0.4	ug/L	8010		11/15/1994	752
cis-1,3-Dichloropropene	ND		0.4	ug/L	8010		11/15/1994	752
trans-1,3-Dichloropropene	ND		0.4	ug/L	8010		11/15/1994	752
Methylene chloride	ND		10	ug/L	8010		11/15/1994	752
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	8010		11/15/1994	752
Tetrachloroethene	6.3		0.4	ug/L	8010		11/15/1994	752
1,1,1-Trichloroethane	ND		0.4	ug/L	8010		11/15/1994	752
1,1,2-Trichloroethane	ND		1	ug/L	8010		11/15/1994	752
Trichloroethene	2.2		0.4	ug/L	8010		11/15/1994	752
Trichlorofluoromethane	ND		0.4	ug/L	8010		11/15/1994	752
Vinyl chloride	ND		0.4	ug/L	8010		11/15/1994	752
SURROGATE RESULTS	--						11/15/1994	752
1,4-Difluorobenzene (SURR)	76			% Rec.			11/15/1994	752
Bromochloromethane (SURR)	77			% Rec.			11/15/1994	752

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell 2160 Otis Drive, Alameda/941111-E1

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)						
as Gasoline	93.0	0.93	1.00	mg/L	11/19/1994	lss
Benzene	89.4	4.47	5.00	ug/L	11/19/1994	lss
Toluene	88.2	4.41	5.00	ug/L	11/19/1994	lss
Ethylbenzene	94.4	4.72	5.00	ug/L	11/19/1994	lss
Xylenes (Total)	100.0	15.0	15.0	ug/L	11/19/1994	lss
Bromofluorobenzene (SURR)	106.0	106	100	% Rec.	11/19/1994	lss

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell 2160 Otis Drive, Alameda/941111-E1

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD 8010 (GC,Liquid)						
Bromodichloromethane	110.0	22.0	20.0	ug/L	11/15/1994	ltg
Bromoform	106.0	21.2	20.0	ug/L	11/15/1994	ltg
Bromomethane	95.5	19.1	20.0	ug/L	11/15/1994	ltg
Carbon tetrachloride	112.0	22.4	20.0	ug/L	11/15/1994	ltg
Chlorobenzene	112.0	22.4	20.0	ug/L	11/15/1994	ltg
Chloroethane	115.5	23.1	20.0	ug/L	11/15/1994	ltg
2-Chloroethylvinyl ether	76.0	15.2	20.0	ug/L	11/15/1994	ltg
Chloroform	110.5	22.1	20.0	ug/L	11/15/1994	ltg
Chloromethane	88.0	17.6	20.0	ug/L	11/15/1994	ltg
Dibromochloromethane	114.5	22.9	20.0	ug/L	11/15/1994	ltg
1,2-Dichlorobenzene	109.0	21.8	20.0	ug/L	11/15/1994	ltg
1,3-Dichlorobenzene	110.5	22.1	20.0	ug/L	11/15/1994	ltg
1,4-Dichlorobenzene	114.0	22.8	20.0	ug/L	11/15/1994	ltg
Dichlorodifluoromethane	106.0	21.2	20.0	ug/L	11/15/1994	ltg
1,1-Dichloroethane	113.5	22.7	20.0	ug/L	11/15/1994	ltg
1,2-Dichloroethane	110.0	22.0	20.0	ug/L	11/15/1994	ltg
1,1-Dichloroethene	96.0	19.2	20.0	ug/L	11/15/1994	ltg
trans-1,2-Dichloroethene	101.0	20.2	20.0	ug/L	11/15/1994	ltg
1,2-Dichloropropane	105.5	21.1	20.0	ug/L	11/15/1994	ltg
cis-1,3-Dichloropropene	107.5	21.5	20.0	ug/L	11/15/1994	ltg
trans-1,3-Dichloropropene	114.5	22.9	20.0	ug/L	11/15/1994	ltg
Methylene chloride	105.0	21.0	20.0	ug/L	11/15/1994	ltg
1,1,2,2-Tetrachloroethane	108.5	21.7	20.0	ug/L	11/15/1994	ltg
Tetrachloroethene	108.5	21.7	20.0	ug/L	11/15/1994	ltg
1,1,1-Trichloroethane	112.0	22.4	20.0	ug/L	11/15/1994	ltg
1,1,2-Trichloroethane	114.5	22.9	20.0	ug/L	11/15/1994	ltg
Trichloroethene	106.5	21.3	20.0	ug/L	11/15/1994	ltg
Trichlorofluoromethane	112.5	22.5	20.0	ug/L	11/15/1994	ltg
Vinyl chloride	106.0	21.2	20.0	ug/L	11/15/1994	ltg
1,4-Difluorobenzene (SURR)	93.0	93	100	% Rec.	11/15/1994	ltg
Bromochloromethane (SURR)	89.0	89	100	% Rec.	11/15/1994	ltg

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell 2160 Otis Drive, Alameda/941111-E1

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	11/19/1994	lss
Benzene	ND	0.5	ug/L	11/19/1994	lss
Toluene	ND	0.5	ug/L	11/19/1994	lss
Ethylbenzene	ND	0.5	ug/L	11/19/1994	lss
Xylenes (Total)	ND	0.5	ug/L	11/19/1994	lss
Bromofluorobenzene (SURR)	77		% Rec.	11/19/1994	lss

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell 2160 Otis Drive, Alameda/941111-E1

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
METHOD 8010 (GC,Liquid)					
Bromodichloromethane	ND	0.4	ug/L	11/15/1994	ltg
Bromoform	ND	0.4	ug/L	11/15/1994	ltg
Bromomethane	ND	0.4	ug/L	11/15/1994	ltg
Carbon tetrachloride	ND	0.4	ug/L	11/15/1994	ltg
Chlorobenzene	ND	0.4	ug/L	11/15/1994	ltg
Chloroethane	ND	0.4	ug/L	11/15/1994	ltg
2-Chloroethylvinyl ether	ND	1.0	ug/L	11/15/1994	ltg
Chloroform	ND	0.4	ug/L	11/15/1994	ltg
Chloromethane	ND	0.4	ug/L	11/15/1994	ltg
Dibromochloromethane	ND	0.4	ug/L	11/15/1994	ltg
1,2-Dichlorobenzene	ND	0.4	ug/L	11/15/1994	ltg
1,3-Dichlorobenzene	ND	0.4	ug/L	11/15/1994	ltg
1,4-Dichlorobenzene	ND	0.4	ug/L	11/15/1994	ltg
Dichlorodifluoromethane	ND	0.4	ug/L	11/15/1994	ltg
1,1-Dichloroethane	ND	0.4	ug/L	11/15/1994	ltg
1,2-Dichloroethane	ND	0.4	ug/L	11/15/1994	ltg
1,1-Dichloroethene	ND	0.4	ug/L	11/15/1994	ltg
trans-1,2-Dichloroethene	ND	0.4	ug/L	11/15/1994	ltg
1,2-Dichloropropane	ND	0.4	ug/L	11/15/1994	ltg
cis-1,3-Dichloropropene	ND	0.4	ug/L	11/15/1994	ltg
trans-1,3-Dichloropropene	ND	0.4	ug/L	11/15/1994	ltg
Methylene chloride	ND	10	ug/L	11/15/1994	ltg
1,1,2,2-Tetrachloroethane	ND	0.4	ug/L	11/15/1994	ltg
Tetrachloroethene	ND	0.4	ug/L	11/15/1994	ltg
1,1,1-Trichloroethane	ND	0.4	ug/L	11/15/1994	ltg
1,1,2-Trichloroethane	ND	0.4	ug/L	11/15/1994	ltg
Trichloroethene	ND	0.4	ug/L	11/15/1994	ltg
Trichlorofluoromethane	ND	0.4	ug/L	11/15/1994	ltg
Vinyl chloride	ND	0.4	ug/L	11/15/1994	ltg
1,4-Difluorobenzene (SURR)	95		% Rec.	11/15/1994	ltg
Bromochloromethane (SURR)	77		% Rec.	11/15/1994	ltg

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety

Ref: Shell 2160 Otis Drive, Alameda/941111-E1

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)										
as Gasoline	112.0	96.0	15.3	1.00	ND	1.12	0.96	mg/L	11/19/1994	lss
Benzene	112.8	102.3	9.8	17.2	ND	19.4	17.6	ug/L	11/19/1994	lss
Toluene	114.8	100.2	13.6	64.8	ND	74.4	64.9	ug/L	11/19/1994	lss

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Ref: Shell 2160 Otis Drive, Alameda/941111-E1

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
METHOD 8010 (GC,Liquid)										
Chlorobenzene	110.5	124.5	11.9	20.0	ND	22.1	24.9	ug/L	11/15/1994	ltg
1,1-Dichloroethene	96.0	102.0	6.0	20.0	ND	19.2	20.4	ug/L	11/15/1994	ltg
Trichloroethene	107.3	113.8	5.9	20.0	2.15	23.6	24.9	ug/L	11/15/1994	ltg

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NET® KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
dw	:	Result expressed as dry weight.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than the applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, Rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, Rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Revised September, 1993
abb.93

COOLER RECEIPT FORM

Project: 94-1111-E1 Log No: 3835

Cooler received on: 11/15/94 and checked on 11/15/94 by _____

(signature)

Were custody papers present?.....YES NO

Were custody papers properly filled out?.....YES NO

Were the custody papers signed?.....YES NO

Was sufficient ice used?.....YES NO

Did all bottles arrive in good condition (unbroken)?.....YES NO

Did bottle labels match COC?.....YES NO

Were proper bottles used for analysis indicated?.....YES NO

Correct preservatives used?.....YES NO

VOA vials checked for headspace bubbles?.....YES NO
Note which voas (if any) had bubbles:*

Sample descriptor:	Number of vials:

*All VOAs with headspace bubbles have been set aside so they will not be used for analysis.....YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #

(coolerrec)