Weiss Associates Environmental and Geologic Services

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

March 18, 1995

eva chu
Alameda County Department of
Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

Re: Shell Service Station
WIC #204-0072-0403
1601 Webster Street
Alameda, California 94501
WA Job #81-0434-105

Dear Ms. chu:

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 first quarter 1995 and proposed work for the second quarter 1995.

First Quarter 1995 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected water samples from the site wells. BTS' report describing these sampling activities and presenting analytic results for ground water is included as Attachment A.
- WA compiled the ground water elevation and analytic data (Tables 1 and 2) and prepared a ground water elevation contour map (Figure 2).
- Ground water remediation was implemented at the site on March 2, 1995.

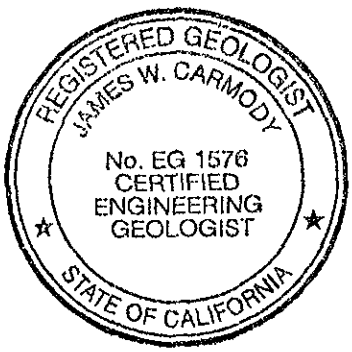
Anticipated Second Quarter 1995 Activities:

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

Conclusions and Recommendations:

WA recommends continued ground water sampling according to the frequencies described in our second quarter 1994 report. These sampling frequencies include sampling MW-1 and S-1 annually for total petroleum hydrocarbons as gasoline (TPH-G), benzene, ethylbenzene, toluene and xylenes (BETX) and halogenated volatile organic compounds (HVOC's) and sampling MW-2 and MW-3 quarterly for TPH-G, BETX and HVOC's. This frequency is sufficient to monitor hydrocarbon and dissolved oxygen concentrations and the ground water flow direction at the site.

Please call if you have any questions.



Sincerely,
Weiss Associates

Grady Glasser
Technical Asst.

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

Attachments: A - Blaine Tech's Associates' Ground Water Monitoring Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 4023, Concord, California 94524
John Jang, Regional Water Quality Control Board - San Francisco Bay, 2101 Webster Street, Suite 500, Oakland, California 94612

GSG/JWC:sms
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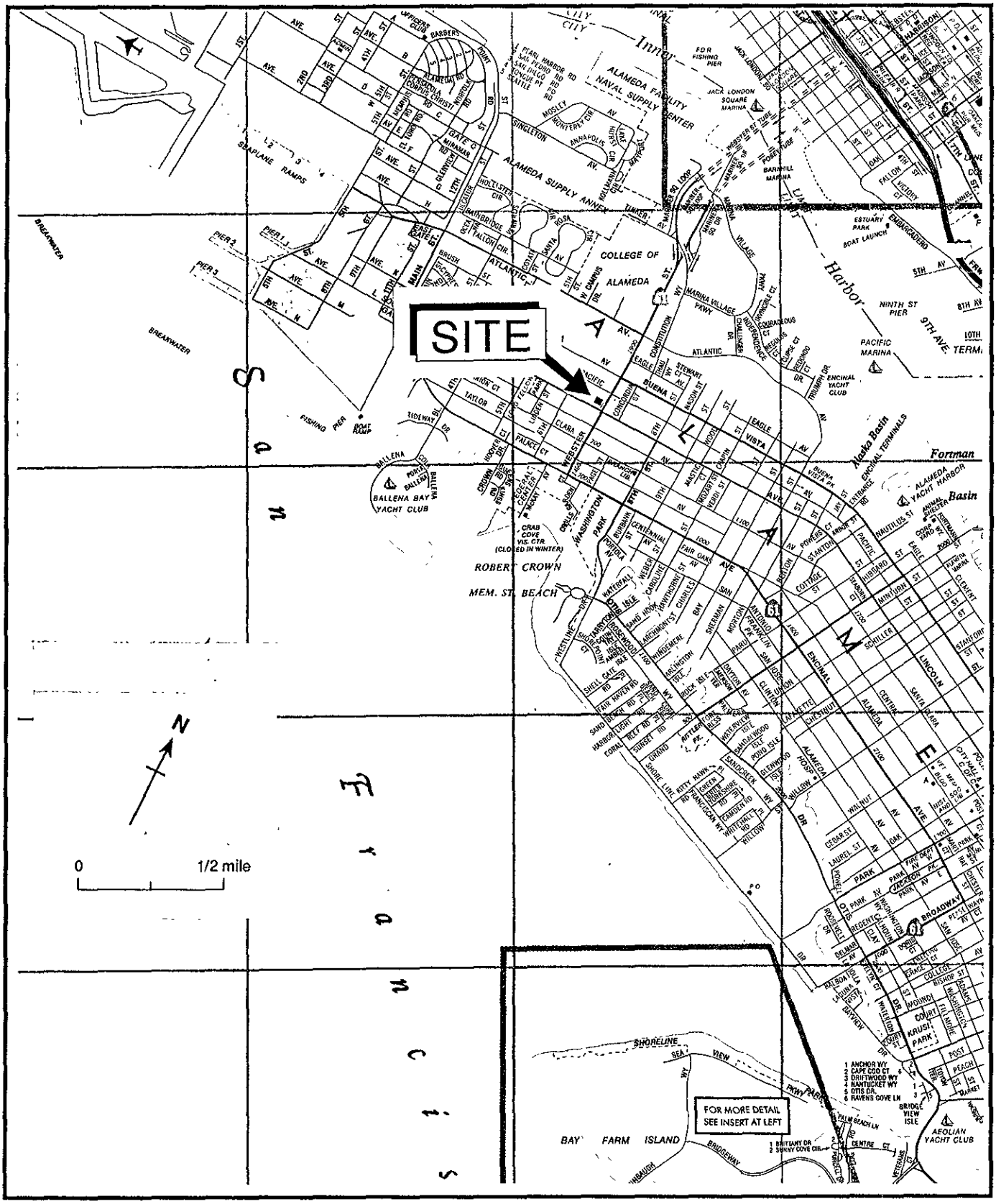

Figure 1. Site Location Map - Shell Service Station, WIC# 204-0072-0403, 1601 Webster Street, Alameda, CA

8/20/90

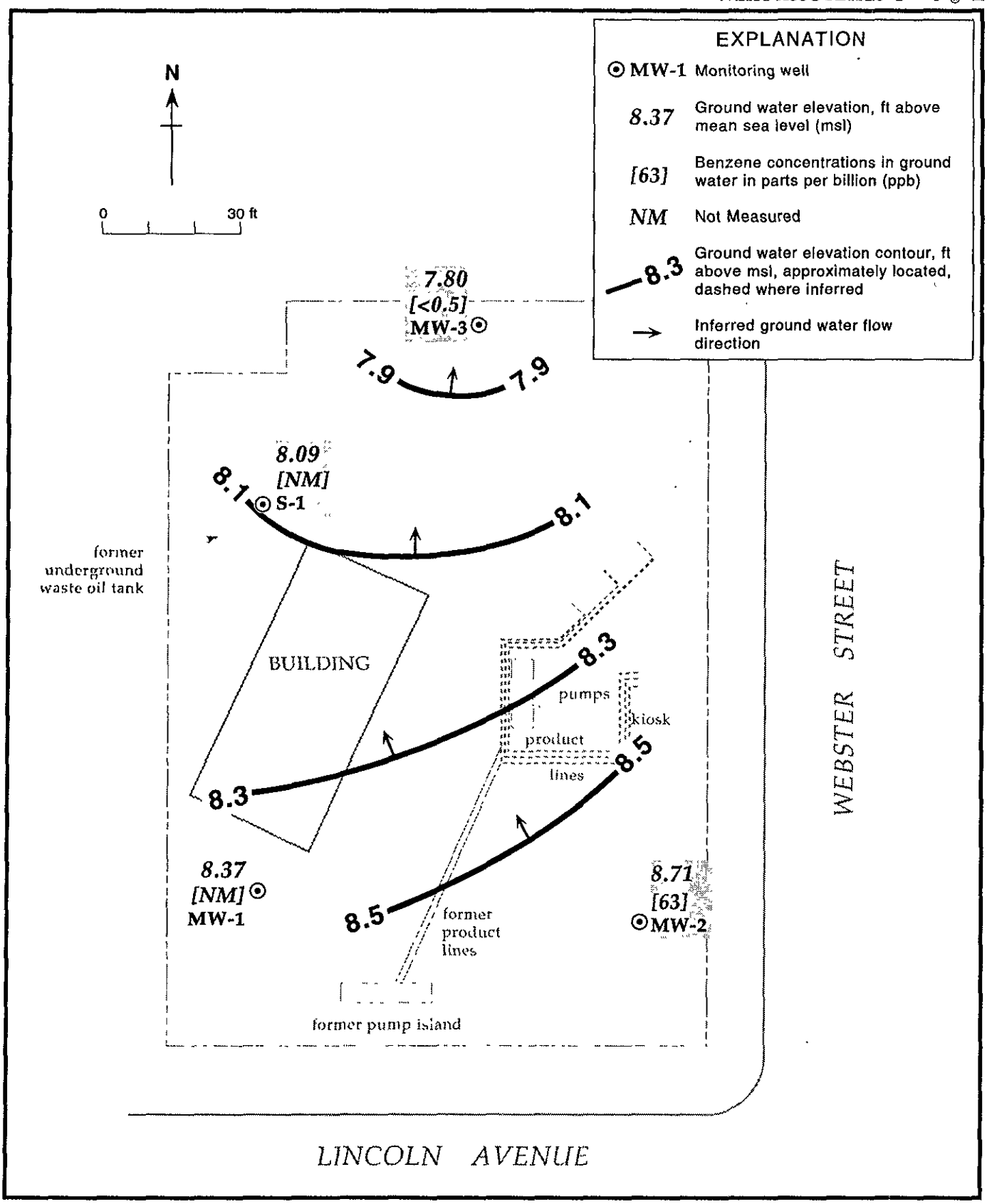

Figure 2. Monitoring Well Locations, Ground Water Elevation Contours and Benzene Concentrations in Ground Water - January 26, 1995 - Shell Service Station WIC #204-0072-0403, 1601 Webster Street, Alameda, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0072-0403, 1601 Webster Street 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	**13.80**	8.22	5.58
	07/18/90		9.14	4.66
	10/18/90		10.37	3.43
	01/25/91		10.41	3.39
	04/11/91		7.37	6.43
	07/18/91		8.86	4.94
	10/17/91		10.47	3.33
	01/24/92		9.18	4.62
	04/23/92		6.95	6.85
	07/22/92		8.01	5.79
	10/02/92		9.81	3.99
	01/05/93		7.26	6.54
	04/08/93	**13.80**[a]	5.85	7.95
	07/20/93		6.83	6.97
	10/15/93		8.07	5.73
	01/07/94		7.82	5.98
	04/13/94		6.91	6.89
	07/26/94		7.51	6.29
	10/06/94		8.71	5.09
	01/26/95		**5.43**	**8.37**
MW-2	04/11/90	**13.20**	7.69	5.51
	07/18/90		8.56	4.64
	10/18/90		9.76	3.44
	01/25/91		9.78	3.42
	04/11/91		6.87	6.33
	07/18/91		8.27	4.93
	10/17/91		9.89	3.31
	01/24/92		8.60	4.60
	04/23/92		6.48	6.72
	07/02/92		7.37	5.83
	10/02/92		9.20	4.00
	01/05/93		6.80	6.40
	04/08/93	**13.20**[a]	5.40	7.80
	07/20/93		6.05	7.15
	10/15/93		7.04	6.16
	01/07/94		6.99	6.21
	04/13/94		6.20	7.00
	07/26/94		6.63	6.57
	10/06/94		7.75	5.45
	01/26/95		**4.49**	**8.71**
MW-3	04/08/93	**12.80**	5.48	7.32

— Table 1 continued on next page —

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0072-0403, 1601 Webster Street Alameda, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	07/20/93		6.38	6.42
	10/15/93		7.53	5.27
	01/07/94		7.38	5.42
	04/13/94		6.50	6.30
	07/26/94		7.00	5.80
	10/06/94		8.10	4.70
	01/26/95		**5.00**	**7.80**
S-1	09/11/89	**13.77**	9.82	3.95
	04/11/90		8.41	5.36
	07/18/90		9.31	4.46
	10/18/90		10.43	3.34
	01/25/91		10.49	3.28
	04/11/91		7.68	6.09
	07/18/91		8.95	4.82
	10/17/91		10.62	3.15
	01/24/92		9.32	4.45
	04/23/92		7.27	6.50
	07/02/92		8.19	5.58
	10/02/92		9.95	3.82
	01/05/93		7.64	6.13
	04/08/93	**13.74**[a]	6.10	7.64
	07/20/93		7.18	6.56
	10/15/93		8.39	5.35
	01/07/94		8.19	5.55
	04/13/94		7.22	6.52
	07/26/94		7.82	5.92
	10/06/94		9.01	4.73
	01/26/95		**5.65**	**8.09**

Notes:

a = Top of casing resurveyed on March 30, 1993

Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street, Alameda, California

Sample ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	c-1,2-DCE	1,2-DCA	TOG	DO (mg/l)
			← parts per billion (µg/L) →									
MW-1	04-11-90	8.22	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10,000	
	07-18-90	9.14	<50	---	<0.5	<0.5	<0.5	<0.5	3	<0.5	<5,000	
	10-18-90	10.37	<50	---	<0.5	<0.5	<0.5	<0.5	7.9	<0.5	<5,000	
	01-25-91	10.41	<50	---	<0.5	<0.5	<0.5	<0.5	5.6	<0.5	---	
	04-11-91	7.37	<50	---	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	---	
	07-18-91	8.86	<50	---	<0.5	<0.5	<0.5	<0.5	4.4	<0.5	---	
	10-17-91	10.47	<50	---	<0.5	<0.5	<0.5	<0.5	7.2	<0.5	---	
	01-24-92	9.18	<50	---	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	---	
	04-23-92	6.95	<50		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	
	07-02-92	8.01	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	
	10-02-92	9.81	<50	---	<0.5	<0.5	<0.5	<0.5	2	<0.5	---	
	01-05-93	7.26	<50	---	<0.5	<0.5	<0.5	<0.5	2	<0.5	---	
	04-08-93[a]	5.85	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	
	07-20-93[b]	6.83	<50	---	<0.5	<0.5	<0.5	<0.5	0.76	<0.5	---	
	10-15-93	8.07	<50	---	<0.5	<0.5	<0.5	<0.5	0.71	<0.5	---	
	01-07-94	7.82	<50	---	<0.5	<0.5	<0.5	<0.5	3.1	0.85	---	5.5
	04-13-94	6.91	<50	---	<0.5	<0.5	<0.5	<0.5	3.6	0.95	---	nm
	07-26-94	7.51	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	2.8
	10-06-94[c]	8.71	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	4.0
MW-2	04-11-90	7.69	580	430	20	1.2	4.9	73	<0.5	1.1	<10,000	
	07-18-90	8.56	1,400	---	110	71	310	310	<0.5	0.7	<5,000	
	10-18-90	9.76	1,900	1,300[d]	110	89	470	400	<0.5	0.9	<5,000	
	01-25-91	9.78	8,100	---	430	480	1,200	2,600	<0.5	0.8	---	
	04-11-91	6.87	2,600	---	130	250	150	330	<0.5	<0.5	---	
	07-15-91	8.27	1,300	---	100	84	59	120	<0.5	0.8	---	
	10-17-91	9.89	2,100	---	180	150	260	520	<0.5	0.6	---	
	01-24-92	8.60	7,100	---	450	960	450	1,600	110	<0.5	---	
	04-23-92	6.48	16,000	---	320	650	740	2,600	<2.5	<2.5	---	
	07-02-92	7.37	33,000	---	2,500	2,000	3,700	9,600	<50	<50	---	
	10-02-92	9.20	7,000	---	960	570	650	1,200	<50	<50	---	
	01-05-93	6.80	8,900	---	550	600	500	1,900	<2	<2	---	
	04-08-93	5.40	13,000	---	670	900	580	2,900	0.68	<0.5	---	
	04-08-93[dup]	5.40	13,000	---	830	1,100	740	3,700	0.64	<0.5	---	

— Table 2 continued on next page —

Table 2. Analytic Results for ground Water - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street Alameda, California (continued)

Sample ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	c-1,2-DCE	1,2-DCA	TOG	DO (mg/l)
			← parts per billion (µg/L) →									
	07-20-93	6.05	10,000	---	1,200	1,100	630	4,000	0.87	<0.5	---	
	07-20-93[dup]	6.05	12,000	---	1,200	1,100	600	3,800	0.80	<0.5	---	
	10-15-93	7.04	24,000	---	1,400	1,200	3,400	5,200	<0.5	<0.5	---	
	10-15-93[dup]	7.04	19,000	---	1,200	1,000	2,800	4,400	<0.5	<0.5	---	
	01-07-94	6.99	27,000	---	1,300	1,900	2,700	7,900	<10	<10	---	
	01-07-94[dup]	6.99	33,000	---	1,100	1,700	2,300	6,900	<10	<10	---	
	04-13-94	6.20	16,000	---	460	820	93	2,700	<25	<25	---	3.6
	04-13-94[dup]	6.20	18,000	---	500	880	100	3,000	<25	<25	---	nm
	07-26-94	6.63	25,000	---	1,600	1,500	1,500	6,800	<0.4	<0.4	---	3.2
	07-26-94[dup]	6.63	28,000	---	1,700	1,600	1,600	7,300	<0.4	<0.4	---	
	10-06-94	7.75	15,000	---	850	1,000	650	4,000	<0.4	<0.4	---	2.4
	10-06-94[dup]	7.75	17,000	---	1000	1,200	630	4,500	<0.4	<0.4	---	1.6
	01-26-95	4.49	**3,200**	**---**	**63**	**300**	**14**	**1,000**	**<0.4**	**<0.4**	**---**	
	01-26-95 [dup]	4.49	**3,100**	**---**	**31**	**140**	**13**	**820**	**<0.4**	**<0.4**	**---**	
MW-3	02-25-93	5.37	58	140	<0.5	2.5	<0.5	6.4	<0.5	1.5	<5,000	
	04-08-93	5.48	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	
	07-20-93[e]	6.38	<50	---	1.2	<0.5	<0.5	<0.5	<0.5	2.8	---	
	10-15-93[f]	7.53	60	---	<0.5	<0.5	<0.5	<0.5	<0.5	0.55	---	
	01-07-94	7.38	74	---	<0.5	<0.5	<0.5	0.76	<0.5	0.91	---	4.6
	04-13-94	6.50	<50	---	<0.5	<0.5	<0.5	<0.5	<1.3	<1.3	---	nm
	07-26-94	7.00	750[g]	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	1.7
	10-06-94	8.10	1,900[g]	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	3.0
	01-26-95	5.00	**580[g]**	**---**	**<0.5**	**<0.5**	**<0.5**	**1.3**	**<0.4**	**<0.4**	**---**	1.3
S-1	09-04-87[h]		---	---	<5	<5	<5	<5	<0.5	<0.5	---	
	09-11-89[i]	9.82	<50	<100	<0.5	<1	<1	<3	<0.5	<0.5	<1,000	
	04-11-90	8.41	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10,000	
	07-18-90	9.31	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5,000	
	10-18-90	10.43	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5,000	
	01-25-91	10.49	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	04-11-91	7.68	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	07-18-91	8.95	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	10-17-91	10.62	<50	---	<0.5	<0.5	<0.5	<5	---	---	---	
	01-24-92	9.32	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	

— Table 2 continued on next page —

Table 2. Analytic Results for ground Water - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street Alameda, California (continued)

Sample ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	c-1,2-DCE	1,2-DCA	TOG	DO (mg/l)
			← parts per billion (µg/L) →									
	04-23-92	7.27	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	07-02-92	8.19	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	10-02-92	9.95	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	01-05-93	7.64	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	04-08-93	6.10	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	07-20-93	7.18	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	10-15-93	8.39	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	
	01-07-94	8.19	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	6.8
	04-13-94	7.22	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	nm
	07-26-94	7.82	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	2.6
	10-06-94	9.01	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	6.0
Trip Blank	07-18-90		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	10-18-90		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	01-25-91		<50	---	<0.5	<0.5	<0.5	0.8	---	---	---	
	04-11-91		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	07-18-91		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	10-17-91		<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	---	---	---	
	07-02-92		<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[j]	<0.5	---	---	---	
	07-26-94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	10-06-94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	01-26-95		**<50**	---	**<0.5**	**<0.5**	**<0.5**	**<0.5**	---	---	---	
DTSC MCLs			NE	NE	1	680	100[k]	1,750	6.0	0.5	NE	

— Table 2 continued on next page —

Table 2. Analytic Results for ground Water - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street 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
B = Benzene by EPA Method 602, 624, or 8020
E = Ethylbenzene by EPA Method 602, 624, or 8020
T = Toluene by EPA Method 602, 624, or 8020
X = Xylenes by EPA Method 602, 624, or 8020
c-1,2-DCE = cis-1,2-dichloroethene by EPA Method 601 or 624
1,2-DCA = 1,2-dichloroethane by EPA Method 601 or 624
TOG = Total non-polar oil and grease by American Public Health Association Standard Method 503E
<n = Not detected at detection limit of n ppb
DTSC MCL = California Department of Toxic Substances Control maximum contaminant level for drinking water
NE = Not established
--- = Not analyzed
dup = Duplicate sample
DO = Dissolved Oxygen in mg/L

Notes:

a = Chloroform detected at 0.0071 ppm by EPA Method 8010
b = Chloroform detected at 1.1 ppb by EPA Method 8010
c = Trichloroethylene detected at 1.7ppb.
d = Compounds detected and calculated as diesel appear to be the less volatile constituents of gasoline
e = Chloroform detected at 1.5 ppb by EPA Method 8010
f = Chloroform detected at 3.6 ppb by Method 8010
g = The result for Gasoline in and unknown hydrocarbon which consists of a single peak.
h = 0.12 ppm acetone detected by EPA Method 624; no other volatile organic compounds detected
i = Metals detected by EPA Method 6010; 0.020 ppm chromium, 0.060 ppm lead and 0.030 ppm zinc; no cadmium detected above detection limit of 0.010 ppm; no PCBs or semi-volatile compounds detected by EPA Method 625
j = 0.54 ppb Toluene detected in equipment blank
k = DTSC recommended action level for drinking water; MCL not established

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

February 13, 1995

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

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-0072-0403
1601 Webster Street
Alameda, California

QUARTER:
1st quarter of 1995

QUARTERLY GROUNDWATER SAMPLING REPORT 950126-L-2

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

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

STANDARD PROCEDURES

Evacuation

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

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency . Less water may be obtained 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 site 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	1/26/95	TOC	--	NONE	--	--	5.43	21.05
MW-2 *	1/26/95	TOC	ODOR	NONE	--	--	4.49	19.86
MW-3	1/26/95	TOC	--	NONE	--	--	5.00	19.37
S-1	1/26/95	TOC	--	NONE	--	--	5.65	19.82

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

5252

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 950126-L2

Date: 1/26/95
Page 1 of 1

Site Address: 1601 Webster Street, Alameda

WIC#: 204-0072-0403

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: Lad Oliver

Printed Name: Lad Oliver

LAB: Net Pacific

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	EPA 601		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW 2	1/26			X		6						X	X							
MW 3				X		6						X	X							
DUP				X		6						X	X							
EB				X		6						X	X							
TB				X		2						X								

CHECK ONE (1) BOX ONLY — C1/01 — TURN AROUND TIME

		C1/01	
Quarterly Monitoring	X	6441	24 hours ☐
Site Investigation	☐	6441	48 hours ☐
Soil Closure/Disposal	☐	6442	15 days XX (Normal)
Water Closure/Disposal	☐	6443	Other ☐ ___
Soil/Air Rem. or Sys. O & M	☐	6462	NOTE: Notify Lab as soon as Possible of 24/48 hr. TAT.
Water Rem. or Sys. O & M	☐	6463	
Other	☐		

Relinquished By (signature)	Printed Name	Date / Time	Received (signature)	Printed Name	Date / Time
	LADD OLIVER	Date: 1/27/95 Time: 10:00		GF LUMBRE	Date: 1/27/95 Time: 10:01
	GF LUMBRE	Date: 1/27 Time: 1400		Mike Dowling	Date: 1/27/95 Time: 1400
	Mike Dowling	Date: 1/27/95 Time: 1508		PAM GREENE	Date: 1/27/95 Time: 1508

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: 02/06/1995
NET Client Acct. No: 1821
NET Pacific Job No: 95.00425
Received: 01/27/1995

Client Reference Information

Shell 1601 Webster Street, Alameda, CA/950126-L2

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 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: MW2
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234791

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2549
DILUTION FACTOR*	1						01/31/1995	2549
as Gasoline	3,200		50	ug/L	5030		01/31/1995	2549
Carbon Range:	C5-C14						01/31/1995	2549
METHOD 8020 (GC,Liquid)	--						01/31/1995	2549
Benzene	63	FC	0.5	ug/L	8020		02/01/1995	2552
Toluene	14		0.5	ug/L	8020		01/31/1995	2549
Ethylbenzene	300	FC	0.5	ug/L	8020		02/01/1995	2552
Xylenes (Total)	1,000	FC	0.5	ug/L	8020		02/01/1995	2552
SURROGATE RESULTS	--						02/01/1995	2552
Bromofluorobenzene (SURR)	110			% Rec.	5030		02/01/1995	2552

FC : Compound quantitated at a 10X dilution factor.

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: MW2
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234791

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 601 (GC,Liquid)								
DILUTION FACTOR*	1						01/31/1995	801
Bromodichloromethane	ND		0.4	ug/L	601		01/31/1995	801
Bromoform	ND		0.4	ug/L	601		01/31/1995	801
Bromomethane	ND		0.4	ug/L	601		01/31/1995	801
Carbon tetrachloride	ND		0.4	ug/L	601		01/31/1995	801
Chlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Chloroethane	ND		0.4	ug/L	601		01/31/1995	801
2-Chloroethylvinyl ether	ND		1.0	ug/L	601		01/31/1995	801
Chloroform	3.9		0.4	ug/L	601		01/31/1995	801
Chloromethane	ND		0.4	ug/L	601		01/31/1995	801
Dibromochloromethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,3-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,4-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Dichlorodifluoromethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,2-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloropropane	ND		0.4	ug/L	601		01/31/1995	801
cis-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
Methylene chloride	ND		10	ug/L	601		01/31/1995	801
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	601		01/31/1995	801
Tetrachloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,1,1-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1,2-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
Trichloroethene	ND		0.4	ug/L	601		01/31/1995	801
Trichlorofluoromethane	ND		0.4	ug/L	601		01/31/1995	801
Vinyl chloride	ND		0.4	ug/L	601		01/31/1995	801
SURROGATE RESULTS	--						01/31/1995	801
1,4-Difluorobenzene (SURR)	90			% Rec.	601		01/31/1995	801
1,4-Dichlorobutane (SURR)	91			% Rec.	601		01/31/1995	801

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 95.00425

Date: 02/06/1995
ELAP Cert: 1386
Page: 4

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: MW3
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234792

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2549
DILUTION FACTOR*	1						01/31/1995	2549
as Gasoline	580		50	ug/L	5030		01/31/1995	2549
Carbon Range:	C5-C12						01/31/1995	2549
METHOD 8020 (GC,Liquid)	--						01/31/1995	2549
Benzene	ND		0.5	ug/L	8020		01/31/1995	2549
Toluene	ND		0.5	ug/L	8020		01/31/1995	2549
Ethylbenzene	ND		0.5	ug/L	8020		01/31/1995	2549
Xylenes (Total)	1.3		0.5	ug/L	8020		01/31/1995	2549
SURROGATE RESULTS	--						01/31/1995	2549
Bromofluorobenzene (SURR)	99			% Rec.	5030		01/31/1995	2549

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: MW3
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234792

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 601 (GC,Liquid)								
DILUTION FACTOR*	1						01/31/1995	801
Bromodichloromethane	ND		0.4	ug/L	601		01/31/1995	801
Bromoform	ND		0.4	ug/L	601		01/31/1995	801
Bromomethane	ND		0.4	ug/L	601		01/31/1995	801
Carbon tetrachloride	ND		0.4	ug/L	601		01/31/1995	801
Chlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Chloroethane	ND		0.4	ug/L	601		01/31/1995	801
2-Chloroethylvinyl ether	ND		1.0	ug/L	601		01/31/1995	801
Chloroform	0.9		0.4	ug/L	601		01/31/1995	801
Chloromethane	ND		0.4	ug/L	601		01/31/1995	801
Dibromochloromethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,3-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,4-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Dichlorodifluoromethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,2-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloropropane	ND		0.4	ug/L	601		01/31/1995	801
cis-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
Methylene chloride	ND		10	ug/L	601		01/31/1995	801
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	601		01/31/1995	801
Tetrachloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,1,1-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1,2-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
Trichloroethene	ND		0.4	ug/L	601		01/31/1995	801
Trichlorofluoromethane	ND		0.4	ug/L	601		01/31/1995	801
Vinyl chloride	ND		0.4	ug/L	601		01/31/1995	801
SURROGATE RESULTS	--						01/31/1995	801
1,4-Difluorobenzene (SURR)	89			% Rec.	601		01/31/1995	801
1,4-Dichlorobutane (SURR)	90			% Rec.	601		01/31/1995	801

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: DUP
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234793

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2549
DILUTION FACTOR*	1						01/31/1995	2549
as Gasoline	3,100		50	ug/L	5030		01/31/1995	2549
Carbon Range:	C5-C14						01/31/1995	2549
METHOD 8020 (GC,Liquid)	--						01/31/1995	2549
Benzene	31	FC	0.5	ug/L	8020		02/01/1995	2552
Toluene	13		0.5	ug/L	8020		01/31/1995	2549
Ethylbenzene	140	FC	0.5	ug/L	8020		02/01/1995	2552
Xylenes (Total)	820	FC	0.5	ug/L	8020		02/01/1995	2552
SURROGATE RESULTS	--						02/01/1995	2552
Bromofluorobenzene (SURR)	77			% Rec.	5030		02/01/1995	2552

FC : Compound quantitated at a 10X dilution factor.

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: DUP
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234793

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 601 (GC,Liquid)								
DILUTION FACTOR*	1						01/31/1995	801
Bromodichloromethane	ND		0.4	ug/L	601		01/31/1995	801
Bromoform	ND		0.4	ug/L	601		01/31/1995	801
Bromomethane	ND		0.4	ug/L	601		01/31/1995	801
Carbon tetrachloride	ND		0.4	ug/L	601		01/31/1995	801
Chlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Chloroethane	ND		0.4	ug/L	601		01/31/1995	801
2-Chloroethylvinyl ether	ND		1.0	ug/L	601		01/31/1995	801
Chloroform	4.1		0.4	ug/L	601		01/31/1995	801
Chloromethane	ND		0.4	ug/L	601		01/31/1995	801
Dibromochloromethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,3-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,4-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Dichlorodifluoromethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,2-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloropropane	ND		0.4	ug/L	601		01/31/1995	801
cis-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
Methylene chloride	ND		10	ug/L	601		01/31/1995	801
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	601		01/31/1995	801
Tetrachloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,1,1-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1,2-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
Trichloroethene	ND		0.4	ug/L	601		01/31/1995	801
Trichlorofluoromethane	ND		0.4	ug/L	601		01/31/1995	801
Vinyl chloride	ND		0.4	ug/L	601		01/31/1995	801
SURROGATE RESULTS	--						01/31/1995	801
1,4-Difluorobenzene (SURR)	98			% Rec.	601		01/31/1995	801
1,4-Dichlorobutane (SURR)	89			% Rec.	601		01/31/1995	801

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: EB
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234794

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2549
DILUTION FACTOR*	1						01/31/1995	2549
as Gasoline	ND		50	ug/L	5030		01/31/1995	2549
Carbon Range:	--						01/31/1995	2549
METHOD 8020 (GC,Liquid)	--						01/31/1995	2549
Benzene	ND		0.5	ug/L	8020		01/31/1995	2549
Toluene	ND		0.5	ug/L	8020		01/31/1995	2549
Ethylbenzene	ND		0.5	ug/L	8020		01/31/1995	2549
Xylenes (Total)	ND		0.5	ug/L	8020		01/31/1995	2549
SURROGATE RESULTS	--						01/31/1995	2549
Bromofluorobenzene (SURR)	99			% Rec.	5030		01/31/1995	2549

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: EB
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234794

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 601 (GC,Liquid)								
DILUTION FACTOR*	1						01/31/1995	801
Bromodichloromethane	ND		0.4	ug/L	601		01/31/1995	801
Bromoform	ND		0.4	ug/L	601		01/31/1995	801
Bromomethane	ND		0.4	ug/L	601		01/31/1995	801
Carbon tetrachloride	ND		0.4	ug/L	601		01/31/1995	801
Chlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Chloroethane	ND		0.4	ug/L	601		01/31/1995	801
2-Chloroethylvinyl ether	ND		1.0	ug/L	601		01/31/1995	801
Chloroform	ND		0.4	ug/L	601		01/31/1995	801
Chloromethane	ND		0.4	ug/L	601		01/31/1995	801
Dibromochloromethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,3-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
1,4-Dichlorobenzene	ND		0.4	ug/L	601		01/31/1995	801
Dichlorodifluoromethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,2-Dichloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,2-Dichloropropane	ND		0.4	ug/L	601		01/31/1995	801
cis-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
trans-1,3-Dichloropropene	ND		0.4	ug/L	601		01/31/1995	801
Methylene chloride	ND		10	ug/L	601		01/31/1995	801
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	601		01/31/1995	801
Tetrachloroethene	ND		0.4	ug/L	601		01/31/1995	801
1,1,1-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
1,1,2-Trichloroethane	ND		0.4	ug/L	601		01/31/1995	801
Trichloroethene	ND		0.4	ug/L	601		01/31/1995	801
Trichlorofluoromethane	ND		0.4	ug/L	601		01/31/1995	801
Vinyl chloride	ND		0.4	ug/L	601		01/31/1995	801
SURROGATE RESULTS	--						01/31/1995	801
1,4-Difluorobenzene (SURR)	90			% Rec.	601		01/31/1995	801
1,4-Dichlorobutane (SURR)	94			% Rec.	601		01/31/1995	801

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

SAMPLE DESCRIPTION: TB
Date Taken: 01/26/1995
Time Taken:
NET Sample No: 234795

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2549
DILUTION FACTOR*	1						01/31/1995	2549
as Gasoline	ND		50	ug/L	5030		01/31/1995	2549
Carbon Range:	--						01/31/1995	2549
METHOD 8020 (GC,Liquid)	--						01/31/1995	2549
Benzene	ND		0.5	ug/L	8020		01/31/1995	2549
Toluene	ND		0.5	ug/L	8020		01/31/1995	2549
Ethylbenzene	ND		0.5	ug/L	8020		01/31/1995	2549
Xylenes (Total)	ND		0.5	ug/L	8020		01/31/1995	2549
SURROGATE RESULTS	--						01/31/1995	2549
Bromofluorobenzene (SURR)	95			% Rec.	5030		01/31/1995	2549

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)							
as Gasoline	101.0	1.01	1.00	mg/L	01/31/1995	dfw	2549
Benzene	91.6	4.58	5.00	ug/L	01/31/1995	dfw	2549
Toluene	108.6	5.43	5.00	ug/L	01/31/1995	dfw	2549
Ethylbenzene	102.6	5.13	5.00	ug/L	01/31/1995	dfw	2549
Xylenes (Total)	104.7	15.7	15.0	ug/L	01/31/1995	dfw	2549
Bromofluorobenzene (SURR)	104.0	104	100	% Rec.	01/31/1995	dfw	2549
TPH (Gas/BTXE,Liquid)							
as Gasoline	94.0	0.94	1.00	mg/L	02/01/1995	aal	2552
Benzene	94.6	4.73	5.00	ug/L	02/01/1995	aal	2552
Toluene	112.0	5.60	5.00	ug/L	02/01/1995	aal	2552
Ethylbenzene	107.2	5.36	5.00	ug/L	02/01/1995	aal	2552
Xylenes (Total)	105.3	15.8	15.0	ug/L	02/01/1995	aal	2552
Bromofluorobenzene (SURR)	109.0	109	100	% Rec.	02/01/1995	aal	2552

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
METHOD 601 (GC,Liquid)							
Bromodichloromethane	103.0	20.6	20.0	ug/L	01/31/1995	ltg	801
Bromoform	106.5	21.3	20.0	ug/L	01/31/1995	ltg	801
Bromomethane	113.0	22.6	20.0	ug/L	01/31/1995	ltg	801
Carbon tetrachloride	104.5	20.9	20.0	ug/L	01/31/1995	ltg	801
Chlorobenzene	107.5	21.5	20.0	ug/L	01/31/1995	ltg	801
Chloroethane	104.5	20.9	20.0	ug/L	01/31/1995	ltg	801
2-Chloroethylvinyl ether	139.0	27.8	20.0	ug/L	01/31/1995	ltg	801
Chloroform	100.5	20.1	20.0	ug/L	01/31/1995	ltg	801
Chloromethane	92.0	18.4	20.0	ug/L	01/31/1995	ltg	801
Dibromochloromethane	103.5	20.7	20.0	ug/L	01/31/1995	ltg	801
1,2-Dichlorobenzene	106.0	21.2	20.0	ug/L	01/31/1995	ltg	801
1,3-Dichlorobenzene	104.5	20.9	20.0	ug/L	01/31/1995	ltg	801
1,4-Dichlorobenzene	105.5	21.1	20.0	ug/L	01/31/1995	ltg	801
Dichlorodifluoromethane	125.5	25.1	20.0	ug/L	01/31/1995	ltg	801
1,1-Dichloroethane	105.5	21.1	20.0	ug/L	01/31/1995	ltg	801
1,2-Dichloroethane	104.0	20.8	20.0	ug/L	01/31/1995	ltg	801
1,1-Dichloroethene	109.0	21.8	20.0	ug/L	01/31/1995	ltg	801
trans-1,2-Dichloroethene	108.5	21.7	20.0	ug/L	01/31/1995	ltg	801
1,2-Dichloropropane	100.5	20.1	20.0	ug/L	01/31/1995	ltg	801
cis-1,3-Dichloropropene	106.5	21.3	20.0	ug/L	01/31/1995	ltg	801
trans-1,3-Dichloropropene	107.0	21.4	20.0	ug/L	01/31/1995	ltg	801
Methylene chloride	105.0	21.0	20.0	ug/L	01/31/1995	ltg	801
1,1,2,2-Tetrachloroethane	100.5	20.1	20.0	ug/L	01/31/1995	ltg	801
Tetrachloroethene	105.5	21.1	20.0	ug/L	01/31/1995	ltg	801
1,1,1-Trichloroethane	103.0	20.6	20.0	ug/L	01/31/1995	ltg	801
1,1,2-Trichloroethane	105.0	21.0	20.0	ug/L	01/31/1995	ltg	801
Trichloroethene	104.5	20.9	20.0	ug/L	01/31/1995	ltg	801
Trichlorofluoromethane	109.5	21.9	20.0	ug/L	01/31/1995	ltg	801
Vinyl chloride	111.5	22.3	20.0	ug/L	01/31/1995	ltg	801
1,4-Difluorobenzene (SURR)	97.0	97	100	% Rec.	01/31/1995	ltg	801
1,4-Dichlorobutane (SURR)	109.0	109	100	% Rec.	01/31/1995	ltg	801

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	01/31/1995	dfw	2549
Benzene	ND	0.5	ug/L	01/31/1995	dfw	2549
Toluene	ND	0.5	ug/L	01/31/1995	dfw	2549
Ethylbenzene	ND	0.5	ug/L	01/31/1995	dfw	2549
Xylenes (Total)	ND	0.5	ug/L	01/31/1995	dfw	2549
Bromofluorobenzene (SURR)	108		% Rec.	01/31/1995	dfw	2549
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	02/01/1995	aal	2552
Benzene	ND	0.5	ug/L	02/01/1995	aal	2552
Toluene	ND	0.5	ug/L	02/01/1995	aal	2552
Ethylbenzene	ND	0.5	ug/L	02/01/1995	aal	2552
Xylenes (Total)	ND	0.5	ug/L	02/01/1995	aal	2552
Bromofluorobenzene (SURR)	94		% Rec.	02/01/1995	aal	2552

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
METHOD 601 (GC,Liquid)						
Bromodichloromethane	ND	0.4	ug/L	01/31/1995	ltg	801
Bromoform	ND	0.4	ug/L	01/31/1995	ltg	801
Bromomethane	ND	0.4	ug/L	01/31/1995	ltg	801
Carbon tetrachloride	ND	0.4	ug/L	01/31/1995	ltg	801
Chlorobenzene	ND	0.4	ug/L	01/31/1995	ltg	801
Chloroethane	ND	0.4	ug/L	01/31/1995	ltg	801
2-Chloroethylvinyl ether	ND	1.0	ug/L	01/31/1995	ltg	801
Chloroform	ND	0.4	ug/L	01/31/1995	ltg	801
Chloromethane	ND	0.4	ug/L	01/31/1995	ltg	801
Dibromochloromethane	ND	0.4	ug/L	01/31/1995	ltg	801
1,2-Dichlorobenzene	ND	0.4	ug/L	01/31/1995	ltg	801
1,3-Dichlorobenzene	ND	0.4	ug/L	01/31/1995	ltg	801
1,4-Dichlorobenzene	ND	0.4	ug/L	01/31/1995	ltg	801
Dichlorodifluoromethane	ND	0.4	ug/L	01/31/1995	ltg	801
1,1-Dichloroethane	ND	0.4	ug/L	01/31/1995	ltg	801
1,2-Dichloroethane	ND	0.4	ug/L	01/31/1995	ltg	801
1,1-Dichloroethene	ND	0.4	ug/L	01/31/1995	ltg	801
trans-1,2-Dichloroethene	ND	0.4	ug/L	01/31/1995	ltg	801
1,2-Dichloropropane	ND	0.4	ug/L	01/31/1995	ltg	801
cis-1,3-Dichloropropene	ND	0.4	ug/L	01/31/1995	ltg	801
trans-1,3-Dichloropropene	ND	0.4	ug/L	01/31/1995	ltg	801
Methylene chloride	ND	10	ug/L	01/31/1995	ltg	801
1,1,2,2-Tetrachloroethane	ND	0.4	ug/L	01/31/1995	ltg	801
Tetrachloroethene	ND	0.4	ug/L	01/31/1995	ltg	801
1,1,1-Trichloroethane	ND	0.4	ug/L	01/31/1995	ltg	801
1,1,2-Trichloroethane	ND	0.4	ug/L	01/31/1995	ltg	801
Trichloroethene	ND	0.4	ug/L	01/31/1995	ltg	801
Trichlorofluoromethane	ND	0.4	ug/L	01/31/1995	ltg	801
Vinyl chloride	ND	0.4	ug/L	01/31/1995	ltg	801
1,4-Difluorobenzene (SURR)	99		% Rec.	01/31/1995	ltg	801
1,4-Dichlorobutane (SURR)	110		% Rec.	01/31/1995	ltg	801

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

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	Run Batch	Sample Spiked
TPH (Gas/BTXE,Liquid)											234795
as Gasoline	97.0	95.0	2.1	1.00	ND	0.97	0.95	mg/L	01/31/1995	2549	234795
Benzene	97.0	95.3	1.8	23.2	ND	22.5	22.1	ug/L	01/31/1995	2549	234795
Toluene	97.1	94.9	2.3	92.6	ND	89.9	87.9	ug/L	01/31/1995	2549	234795
TPH (Gas/BTXE,Liquid)											234872
as Gasoline	98.0	95.0	3.1	1.00	ND	0.98	0.95	mg/L	02/01/1995	2552	234872
Benzene	105.1	100.9	4.1	21.4	ND	22.5	21.6	ug/L	02/01/1995	2552	234872
Toluene	104.6	101.4	3.1	86.6	ND	90.6	87.8	ug/L	02/01/1995	2552	234872

Ref: Shell 1601 Webster Street, Alameda, CA/950126-L2

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	Run Batch	Sample Spiked
METHOD 601 (GC,Liquid)											234583
Chlorobenzene	98.0	92.0	6.3	20.0	ND	19.6	18.4	ug/L	01/31/1995	801	234583
1,1-Dichloroethene	97.5	93.5	4.2	20.0	ND	19.5	18.7	ug/L	01/31/1995	801	234583
Trichloroethene	95.0	94.5	0.5	20.0	ND	19.0	18.9	ug/L	01/31/1995	801	234583

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: 9501126-L2 Log No: 5252
Cooler received on: 1/27/95 and checked on 1/28/95 by: Jim Greene
(signature) Jim Greene

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 0 9° JG
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)