

2770 988

C A M B R I A
SEP 17 '98 AM 2:51

September 15, 1998

Brian Oliva
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Third Quarter 1998 Monitoring Report**
Shell-branded Service Station
1285 Bancroft Avenue
San Leandro, California
WIC #204-6852-0703
Cambria Project #24-314-398



Dear Mr. Oliva:

On behalf of Equilon Enterprises LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this ground water monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

THIRD QUARTER 1998 ACTIVITIES

Ground Water Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells. Cambria calculated ground water elevations (Table 1), compiled the analytical data (Tables 2A and 2B), and prepared a ground water elevation contour map (Figure 1). The Blaine report is included as Attachment A.

Oxygen-Releasing Compound (ORC) Monitoring Update: As approved by the Alameda County Department of Environmental Health in a September 11, 1997 letter to Shell Oil Products Company, Blaine installed ORCs in wells MW-2 and MW-3 on October 24, 1997. As shown in Figures A, B, C, and D and presented in Table 2A, ORCs have increased dissolved oxygen (DO) concentrations in well MW-2. Benzene concentrations in the site wells have generally decreased relative to pre-ORC installation concentrations. The ORCs are scheduled to be replaced in the fourth quarter 1998 sampling event.

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

**Cambria
Environmental
Technology, Inc.**

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

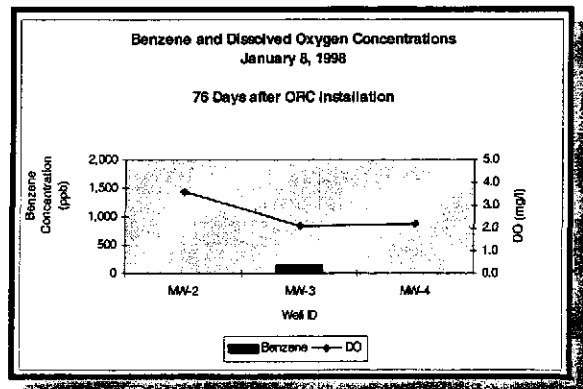
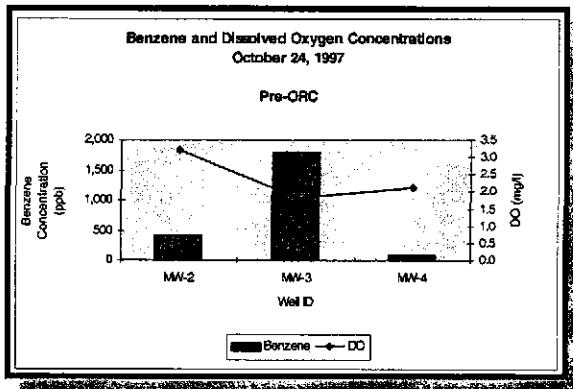


Figure A.

Figure B.

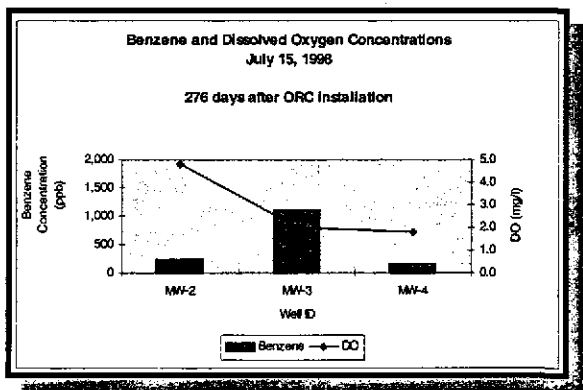
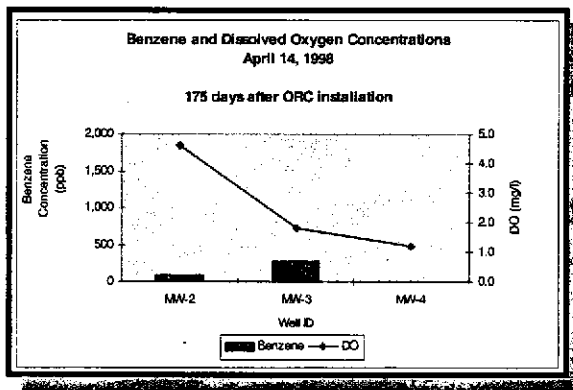


Figure C.

Figure D.

ANTICIPATED FOURTH QUARTER 1998 ACTIVITIES

Ground Water Monitoring: Blaine will gauge, measure DO concentrations, and sample the site wells. Cambria will tabulate the data and prepare a monitoring report.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

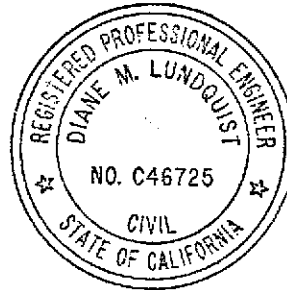
Sincerely,
Cambria Environmental Technology, Inc.



Darryk Ataide
Project Environmental Scientist



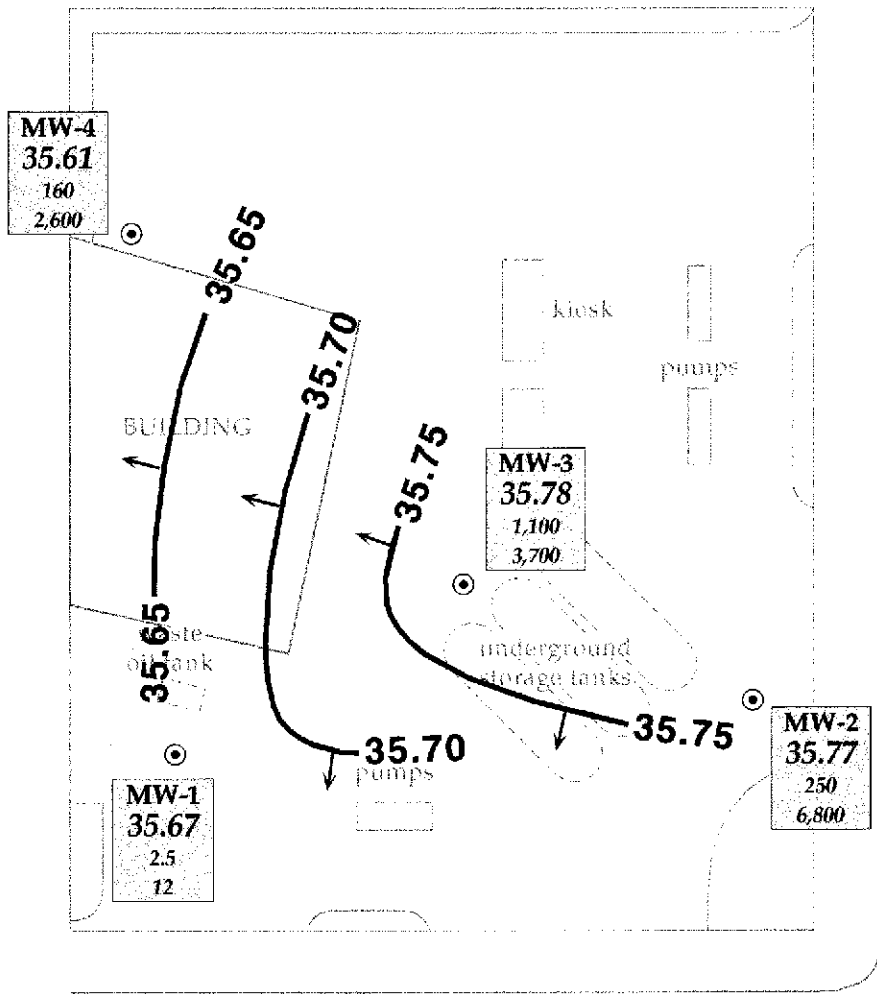
Diane M. Lundquist, P.E.
Principal Engineer



Attachment : A - Blaine Ground Water Monitoring Report

cc: Karen Petryna, Equiva Services LLC, P.O. Box 8080 Martinez, California 94553

G:ASNL1285\QM3Q98QM.WPD



EXPLANATION

MW-2 ⊙ Monitoring well

—XX.X
Ground water elevation contour, ft above mean sea level, approximately located, dashed where inferred

→ Inferred ground water flow direction

MW-1	1.
ELEV.	2.
Benz. - Date	3.
MTBE - Date	

1. Ground water elevation, ft above mean sea level
2. Benzene and MTBE concentrations are in parts per billion (ppb)
3. Date is most recent sampling unless otherwise indicated

ESTUDILLO AVENUE

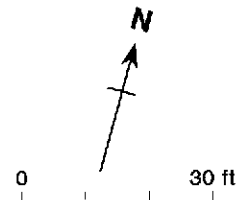


Figure 1. Ground Water Elevation Contours - July 15, 1998 - Shell-branded Service Station, WIC# 204-6852-0703
1285 Bancroft Avenue, San Leandro, California

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

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Ground Water Elevation (ft above msl)
MW-1	03/13/90	66.29	42.65	23.64
	06/12/90		43.14	23.15
	09/13/90		44.71	21.58
	12/18/90		45.23	21.06
	03/07/91		43.32	22.97
	06/07/91		42.18	24.11
	09/17/91		44.85	21.44
	03/01/92		41.56	24.73
	06/03/92		40.74	25.55
	09/01/92		43.05	23.24
	12/07/92		44.19	22.10
	03/01/93		34.96	31.33
	06/22/93		36.75	29.54
	09/09/93		39.36	26.93
	12/13/93		40.74	25.55
	03/03/94		38.40	27.89
	07/27/94		40.49	26.41
	08/09/94		40.84	26.06
	10/05/94		41.98	24.92
	11/11/94		41.34	25.56
	12/29/94	42.06	24.84	
	01/04/95	39.90	27.00	
	04/14/95	31.02	35.88	
	07/12/95	34.61	32.29	
	12/14/95	39.24	27.66	
	01/10/96	38.34	28.56	
	04/25/96	31.95	34.95	
	07/09/96	34.45	32.45	
	10/02/96	37.72	29.18	
	01/09/97	32.25	34.65	
	04/09/97	32.90	34.00	
07/02/97	36.65	30.25		
10/24/97	39.75	27.15		
01/08/98	36.31	30.59		
04/14/98	26.37	40.53		
	07/15/98	66.90^a	31.23	35.67
MW-2	03/01/92	66.91	41.57	25.34
	06/03/92		40.56	26.35
	09/01/92		42.94	23.97
	12/07/92		44.13	22.78
	03/01/93		34.82	32.09
	06/22/93		36.64	30.27
	09/09/93		39.24	27.67
	12/13/93		40.64	26.27
	03/03/94		38.98	27.93

18' variation

Table 1. Ground Water Elevation Data – Shell-branded Service Station
WIC# 204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Ground Water Elevation (ft above msl)
	07/27/94	66.91 ^a	40.40	26.51
	08/09/94		40.71	26.20
	10/05/94		41.89	25.02
	11/11/94		41.22	25.69
	12/29/94		41.99	24.92
	01/04/95		39.81	27.10
	04/14/95		30.83	36.08
	07/12/95		34.50	32.41
	12/14/95		39.22	27.69
	01/10/96		38.22	28.69
	04/25/96		31.78	35.13
	07/09/96		34.35	32.56
	10/02/96		37.56	29.35
	01/09/97		32.07	34.84
	04/09/97		32.78	34.13
	07/02/97		36.56	30.35
	10/24/97		39.74	27.17
	01/08/98		36.13	30.78
	04/14/98		26.15	40.76
	07/15/98		31.14	35.77
MW-3	03/01/92	66.31	42.00	24.31
	06/03/92		44.30	22.01
	09/01/92		43.62	22.69
	12/07/92		44.77	21.54
	03/01/93		35.50	30.81
	06/22/93		37.30	29.01
	09/09/93		39.90	26.41
	12/13/93		41.30	25.01
	03/03/94		38.32	27.99
	07/27/94	67.52 ^a	41.07	26.45
	08/09/94		41.37	26.15
	10/05/94		42.55	24.97
	11/11/94		41.86	25.66
	12/29/94		42.59	24.93
	01/04/95		40.54	26.98
	04/14/95		31.50	36.02
	07/12/95		35.14	32.38
	12/14/95		39.86	27.66
	01/10/96		39.98	27.54
	04/25/96		32.38	35.14
	07/09/96		34.93	32.59
	10/02/96		38.20	29.32
	01/09/97		32.81	34.71
	04/09/97		33.42	34.10
	07/02/97		37.22	30.30

*17.98
variation*

Table 1. Ground Water Elevation Data – Shell-branded Service Station
WIC# 204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Ground Water Elevation (ft above msl)
	10/24/97		40.75	26.77
	01/08/98		36.90	30.62
	04/14/98		26.92	40.60
	07/15/98		31.74	35.78
MW-4	07/27/94	68.08	41.78	26.30
	08/09/94		42.09	25.99
	10/05/94		43.25	24.83
	11/11/94		42.54	25.54
	12/29/94		43.34	24.74
	01/04/95		41.57	26.51
	04/14/95		32.24	35.84
	07/12/95		35.88	32.20
	12/14/95		40.54	27.54
	01/10/96		39.59	28.49
	04/25/96		33.22	34.86
	07/09/96		35.70	32.38
	10/02/96		38.95	29.13
	01/09/97		33.04	35.04
	04/09/97		34.15	33.93
	07/02/97		37.92	30.16
	10/24/97		41.00	27.08
	01/08/98		37.54	30.54
	04/14/98		27.75	40.33
	07/15/98		32.47	35.61

Abbreviations and Notes:

- ft = Feet
- msl = Mean sea level
- TOC = Top of casing
- a = TOC elevation resurveyed March 29, 1994

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

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	(Concentrations in µg/L)					DO (mg/L)
					B	T	E	X	MTBE	
MW-1	09/17/91	44.85	50 ^a	160 ^b	<0.5	<0.5	<0.5	<0.5	---	---
	03/01/92	41.56	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	06/03/92	40.74	<50	---	0.8	<0.5	0.9	<0.5	---	---
	09/01/92	43.05	<50	---	<0.5	5.8	5.3	7.2	---	---
	12/07/92	44.19	68	---	<0.5	0.8	<0.5	1.2	---	---
	03/01/93	34.96	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	03/01/93 ^{dup}	34.96	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/22/93	36.75	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	09/09/93	39.36	200 ^c	---	16	5.2	2.0	<0.5	---	---
	12/13/93	40.74	89 ^d	---	3.4	<0.5	<0.5	<0.5	---	---
	03/03/94	38.40	65 ^d	---	2.6	<0.5	<0.5	<0.5	---	---
	07/27/94	40.49	180	---	30	1.8	2.6	5.0	---	---
	07/27/94 ^{dup}	40.49	240	---	25	2.2	2.2	4.0	---	---
	10/05/94	41.98	<50	---	<0.3	<0.3	<0.3	<0.6	---	---
	01/04/95	39.90	<50	---	2.4	<0.5	<0.5	<0.5	---	---
	01/04/95 ^{dup}	39.90	<50	---	2.5	<0.5	<0.5	<0.5	---	---
	04/14/95	35.88	<50	---	<0.5	0.5	<0.5	<0.5	---	---
	04/14/95 ^{dup}	35.88	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	07/12/95	34.61	<50	---	1.2	0.8	<0.5	<0.5	---	---
	12/14/95	39.24	380	---	230	9.0	1.1	49	---	---
	01/10/96	38.34	60	---	3.5	<0.5	<0.5	0.5	---	---
	04/25/96	31.95	<50	---	3.3	2.4	1.2	5.4	---	---
	07/09/96	34.45	810	---	29	7.3	<5.0	11	1,800	---
	10/02/96	37.72	<125	---	3.1	<1.2	<1.2	<1.2	960	---
	01/09/97	32.25	<250	---	<2.5	<2.5	<2.5	<2.5	510	---
	04/09/97	32.90	<50	---	<0.5	<0.5	<0.5	<0.5	130	---
	07/02/97	36.65	<250	---	60	7.6	4.2	18	1,300	---
	10/24/97	39.75	<500	---	140	<5.0	12	40	2,600	4.5
	01/08/98	36.31	<50	---	<0.50	<0.50	<0.50	<0.50	170	4.0
	04/14/98 ^c	26.37	72	---	0.82	4.9	1.8	13	2.7	2.2
	07/15/98	31.23	<50	---	2.5	1.5	<0.50	<0.50	12	2.4

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

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	MTBE	DO (mg/L)
MW-2	03/01/92	41.57	910	<50	11	5.2	50	140	---	---
	06/03/92	40.56	1,400	---	33	16	150	240	---	---
	09/01/92	42.94	230	---	5.2	4.1	15	19	---	---
	09/01/92 ^{dup}	42.94	320	---	5.6	5	18	220	---	---
	12/07/92	44.13	240	---	1.5	1.3	9.5	9.9	---	---
	12/07/92 ^{dup}	44.13	<50	---	1.7	1	13	12	---	---
	03/01/93	34.82	230	---	260	310	27	66	---	---
	06/22/93	36.64	220	---	18	3.4	3.6	5.2	---	---
	06/22/93 ^{dup}	36.64	320	---	29	4.8	4.2	6.1	---	---
	09/09/93	39.24	260	---	18	4.6	16	12	---	---
	09/09/93 ^{dup}	39.24	210	---	16	3.9	14	9.1	---	---
	12/13/93	40.64	1,300 ^c	---	82	34	73	15	---	---
	12/13/93 ^{dup}	40.64	1,400 ^c	---	110	45	72	19	---	---
	03/03/94	38.98	9,600	---	1,200	600	390	710	---	---
	03/03/94 ^{dup}	38.98	10,000	---	930	500	330	590	---	---
	07/27/94	40.40	190	---	<0.5	1.0	<0.5	<0.5	---	---
	08/09/94	40.71	1,500	---	53.5	12.4	46.2	44.0	---	---
	10/05/94	41.89	<485	---	<0.3	<0.3	<0.3	<0.6	---	---
	01/04/95	39.81	1,300	---	150	35	23	51	---	---
	04/14/95	30.83	5,000	---	1,000	340	400	810	---	---
	07/12/95	34.50	4,500	---	440	170	170	290	---	---
	07/12/95 ^{dup}	34.50	4,300	---	430	160	160	280	---	---
	12/14/95	39.22	37,000	---	1,800	7,600	1,000	6,700	---	---
	12/14/95 ^{dup}	39.22	34,000	---	1,800	6,600	1,000	6,500	---	---
	01/10/96	38.22	69,000	---	1,000	3,200	510	3,300	---	---
	01/10/96 ^{dup}	38.22	78,000	---	1,100	3,500	560	3,600	---	---
	04/25/96	31.78	11,000	---	820	880	210	1,400	---	---
	04/25/96 ^{dup}	31.78	9,300	---	690	710	160	1,200	---	---
	07/09/96	34.35	100,000	---	15,000	24,000	1,700	9,900	70,000	---
	07/09/96 ^{dup}	34.35	86,000	---	12,000	19,000	1,400	7,500	32,000	---
	10/02/96	37.56	82,000	---	20,000	32,000	1,800	9,100	40,000	---
	10/02/96 ^{dup}	37.56	89,000	---	19,000	31,000	1,700	8,900	42,000	---

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

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	MTBE	DO (mg/L)
	01/09/97	32.07	17,000	---	710	2,300	350	2,200	4,000	---
	01/09/97 ^{dup}	32.07	12,000	---	490	1,300	260	1,800	2,800	---
	04/09/97	32.78	20,000	---	970	3,500	330	2,000	3,200	---
	07/02/97	36.56	28,000	---	1,700	8,700	550	3,000	5,500	---
	07/02/97 ^{dup}	36.56	32,000	---	2,000	11,000	680	3,800	6,400	---
	10/24/97	39.74	14,000	---	460	1,000	300	2,000	3,000	3.2
	10/24/97 ^{dup}	39.74	14,000	---	420	980	270	2,000	2,800	3.2
	01/08/98	36.13	180	---	2.8	1.6	<0.50	<0.50	7.6	3.6
	04/14/98 ^e	26.15	12,000	---	92	1,500	260	1,900	110	4.6
	07/15/98	31.14	36,000	---	250	5,600	830	6,000	6,800	4.8
	07/15/98 ^{dup}	31.14	35,000	---	230	5,600	860	600	570	4.8
MW-3	03/01/92	42.00	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	06/03/92	44.30	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	09/01/92	43.62	<50	---	<0.5	<0.5	1.1	3.2	---	---
	12/07/92	44.77	52	---	<0.5	<0.5	<0.5	0.5	---	---
	03/01/93	35.50	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/22/93	37.30	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	09/09/93	39.90	50 ^c	---	5.0	<0.5	<0.5	<0.5	---	---
	12/13/93	41.30	120 ^d	---	7.5	<0.5	1.6	6.3	---	---
	03/03/94	38.32	<50	---	0.81	<0.5	<0.5	<0.5	---	---
	07/27/94	41.07	<50	---	3.5	<0.5	<0.5	<0.5	---	---
	10/05/94	42.55	<57	---	<0.3	<0.3	<0.3	<0.6	---	---
	01/04/95	40.54	<50	---	6.0	<0.5	<0.5	<0.5	---	---
	04/14/95	31.50	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	07/12/95	35.14	90	---	16	<0.5	<0.5	<0.5	---	---
	12/14/95	39.86	4,600	---	460	390	34	1,000	---	---
	01/10/96	39.98	11,000	---	470	460	68	670	---	---
	04/25/96	32.38	5,500	---	830	910	<50	460	---	---
	07/09/96	34.93	72,000	---	7,600	14,000	970	5,900	59,000	---
	10/02/96	38.20	77,000	---	15,000	24,000	2,000	9,600	94,000 (71,000)	---
	01/09/97	32.81	130	---	15	16	2.0	9.7	80	---

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

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	MTBE	DO (mg/L)
	04/09/97	33.42	24,000	---	2,900	5,300	420	2,200	4,100	---
	04/09/97 ^{dup}	33.42	24,000	---	3,000	5,600	450	2,300	4,700	---
	07/02/97	37.22	68,000	---	7,400	18,000	1,600	8,700	16,000	---
	10/24/97	40.75	93,000	---	1,800	8,500	2,300	14,000	3,100	1.8
	01/08/98	36.90	16,000	---	140	870	22	5,000	120	2.1
	01/08/98 ^{dup}	36.90	24,000	---	100	840	26	5,600	<100	2.1
	04/14/98 ^e	26.92	100,000	---	270	5,000	2,100	17,000	890	1.8
	04/14/98 ^{dup, e}	26.92	49,000	---	230	3,200	1,200	8,900	790	1.8
	07/15/98	31.74	31,000	---	1,100	3,300	300	2,800	3,700	2.0
MW-4	07/27/94	41.78	120	---	3.4	3.9	0.6	4.9	---	---
	10/05/94	43.25	<50	---	<0.3	<0.3	<0.3	<0.6	---	---
	10/05/94 ^{dup}	43.25	<50	---	<0.3	<0.3	<0.3	<0.6	---	---
	01/04/95	41.57	<50	---	1.4	<0.5	<0.5	<0.5	---	---
	04/14/95	32.24	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	07/12/95	35.88	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	12/14/95	40.54	70	---	0.6	<0.5	<0.5	<0.5	---	---
	01/10/96	39.59	280	---	3.7	1.0	<0.5	0.8	---	---
	04/25/96	33.22	<500	---	63	<5.0	<5.0	<5.0	---	---
	07/09/96	35.70	<2000	---	160	<20	<20	<20	5,300	---
	10/02/96	38.95	<5,000	---	480	<50	<50	<50	19,000	---
	01/09/97	33.04	<2,000	---	43	<20	<20	<20	7,000	---
	04/09/97	34.15	<2,500	---	120	<25	<25	<25	8,100	---
	07/02/97	37.92	<2,000	---	81	<20	<20	<20	6,600	---
	10/24/97	41.00	<500	---	90	<5.0	11	6.3	3,200	2.1
	01/08/98	37.54	<50	---	3.9	<0.50	<0.50	<0.50	1,800	2.2
	04/14/98 ^e	27.75	920	---	<0.50	<0.50	<0.50	<0.50	27	1.2
	07/15/98	32.47	2,100	---	160	76	120	190	2,600	1.8
Bailer	09/01/92		<50	---	<0.5	<0.5	<0.5	1	---	---
Blank	12/07/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	01/04/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---

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

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	MTBE	DO (mg/L)
	07/12/95		<50	---	0.6	0.7	<0.5	<0.5	---	---
	12/14/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
Trip	09/17/91		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
Blank	03/01/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/03/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	09/01/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	12/07/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	03/01/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/22/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	09/09/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	12/13/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	03/03/94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	07/27/94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	08/09/94		<500	---	<0.3	<0.3	<0.3	<0.6	---	---
	10/05/94		<50	---	<0.3	<0.3	<0.3	<0.6	---	---
	01/04/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	04/14/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	07/12/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	12/14/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MCLs			NE	NE	1	150	700	1,750	NE	

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

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
TPH-D = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
B = Benzene by EPA Method 8020
T = Toluene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
X = Xylenes by EPA Method 8020
MTBE = Methyl tert-butyl ether by EPA Method 8020. Result in parentheses indicates MTBE by EPA Method 8260
DO = Dissolved oxygen
µg/L = Micrograms per liter
mg/L = Milligrams per liter
dup = Duplicate sample
MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)
NE = MCLs not established

Notes:

a = Result due to a non-gasoline hydrocarbon compound
b = Result due to a non-diesel hydrocarbon compound
c = The concentrations reported as TPH-G are primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline
d = The concentrations reported as TPH-G are primarily due to the presence of a discrete peak not indicative of gasoline
e = Equipment blank contained 80 µg/L TPH-G, 1.2 µg/L benzene, 17 µg/L toluene, 3.2 µg/L ethylbenzene, 16 µg/L xylenes, and 15 µg/L MTBE
--- = Not analyzed/Not available
<n = Below detection limits of n µg/L

Table 2B. Analytical Results for Ground Water - Non-Fuel Compounds – Shell-branded Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date Sampled	Depth to Water (ft)	TCE	TOG	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE
			←————— (Concentrations in µg/L) —————→					
MW-1	03/08/90	42.65	---	<10,000	35	6.3	---	---
	06/12/90	43.14	---	<10,000	1.9	63	---	---
	09/13/90	44.71	---	<10,000	26	9	---	---
	12/18/90	45.23	---	<10,000	<0.4	5.3	---	---
	03/07/91	43.32	---	---	23	3.7	---	---
	06/07/91	42.18	---	---	21	6.6	---	---
	09/17/91	44.85	---	---	23	7.4	---	---
	03/01/92	41.56	<0.4	---	21	6.3	---	<0.4
	06/03/92	40.74	17	---	<0.5	6.7	<0.5	<0.5
	09/01/92	43.05	12	---	<0.5	5.8	<0.5	<0.5
	12/07/92	44.19	<0.5	---	17	9	<0.5	<0.5
	03/01/93	34.96	<0.5	---	22	13	<0.5	<0.5
	03/01/93 ^{dup}	34.96	<0.5	---	22	13	<0.5	<0.5
	06/23/93	36.75	<0.5	---	18	8	<0.5	<0.5
	09/09/93	39.36	<0.5	---	17	6.5	<0.5	<0.5
	12/13/93	40.74	---	---	---	---	---	---
	04/14/95	31.02	---	---	---	---	---	---
MW-2	03/01/92	41.57	<0.4	---	11	8.9	---	<0.4
	06/03/92	40.56	7.4	---	<0.5	<0.5	0.76	6.3
	09/01/92	42.94	8.4	---	<0.5	9.1	<0.5	<0.5
	09/01/92 ^{dup}	42.94	8.4	---	<0.5	8.1	<0.5	<0.5
	12/07/92	44.13	<0.5	---	10	10	<0.5	<0.5
	12/07/92 ^{dup}	44.13	<0.5	---	10	9	<0.5	<0.5
	03/01/93	34.82	<0.5	---	<0.5	<0.5	<0.5	<0.5
	06/22/93	36.64	<0.5	---	13	7.9	<0.5	<0.5
	06/22/93 ^{dup}	36.64	<0.5	---	12	6.9	<0.5	<0.5
	09/09/93	39.24	<0.5	---	11	5.9	1.9	<0.5
	09/09/93	39.24	<0.5	---	12	7.3	1.1	<0.5
	12/13/93	40.64	---	---	---	---	---	---
	07/27/94	40.40	<0.4	---	<0.4	7.5	---	<0.4
08/09/94	40.71	<0.1	---	10.1	5.8	<0.1	<0.3	

CAMBRIA

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

Well ID	Date Sampled	Depth to Water (ft)	TCE	TOG	(Concentrations in µg/L)			
					PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE
	10/05/94 ^a	41.89	<5	---	9	5	<5	<5
	01/04/95	39.81	<0.4	---	12	3.8	---	<0.4
	04/14/95	30.83	<0.4	---	8.4	2.3	<0.4	---
MW-3	03/01/92	42.00	<0.4	---	8.8	2.4	---	<0.4
	06/03/92	44.30	3	---	<0.5	1.5	<0.5	<0.5
	09/01/92	43.62	8.8	---	<0.5	2.3	<0.5	<0.5
	12/07/92	44.77	<0.5	---	10	3	<0.5	<0.5
	03/01/93	35.50	<0.5	---	9.2	9.4	<0.5	<0.5
	06/22/93	37.30	<0.5	---	7.8	9.6	<0.5	<0.5
	09/09/93	39.90	<0.5	---	7.9	7.3	<0.5	<0.5
	12/13/93	41.30	---	---	---	---	---	---
Bailer	09/01/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
Blank	12/07/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
Trip	09/01/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
Blank	12/07/92 ^b		<0.5	---	<0.5	<0.5	<0.5	<0.5
	03/01/93		<0.5	---	<0.5	<0.5	<0.5	<0.5
	06/22/93 ^c		<0.5	---	<0.5	<0.5	<0.5	<0.5
MCLs			5.0	NE	5.0	100	6.0	10.0

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

Abbreviations:

TCE	=	Trichloroethene by EPA Method 601
TOG	=	Total non-polar oil and grease by American Public Health Association Standard Method 503A&E
PCE	=	Tetrachloroethene by EPA Method 601
cis-1,2-DCE	=	cis-1,2-Dichloroethene by EPA Method 601
trans-1,2-DCE	=	trans-1,2-Dichloroethene by EPA Method 601
---	=	Not analyzed
dup	=	Duplicate sample
MCLs	=	California primary maximum contaminant levels for drinking water (22 CCR 64444)
NE	=	MCL not established
µg/L	=	Micrograms per liter
<n	=	Below detection limit of n µg/L
ft	=	Feet

Notes:

- a = Results this date represent third month of third quarter 1994
- b = Sample contained 14 µg/L of 1,3-Dichlorobenzene
- c = Although 1.4 µg/L methylene chloride was detected in one of the ground water samples from well MW-2, the laboratory indicated that this was within normal laboratory background concentrations

Chloroform by EPA Method 601

ATTACHMENT A

Blaine Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.



1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
(408) 573-7771 FAX
(408) 573-0555 PHONE

August 5, 1998

Equilon Enterprises, L.L.C.
108 Cutting Blvd.
Richmond, CA 94804

Attn: Karen Petryna

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

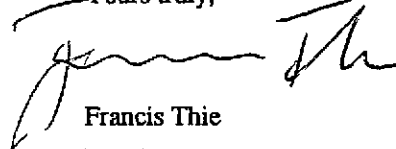
3rd Quarter 1998

Groundwater Monitoring Report 980715-G-3

Blaine Tech Services, Inc. performs environmental monitoring and documentation as an independent third party. Copies of our Monitoring Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 573-0555 ext. 201.

Yours truly,



Francis Thie

attachments: Table of Well Gauging Data
Chain of Custody
Field Data Sheets
Certified Analytical Report

cc: Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, CA 94608-2411
Attn: Maureen Feineman

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

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	07/15/98	TOC	--	NONE	--	--	31.23	59.08
MW-2*	07/15/98	TOC	--	NONE	--	--	31.14	58.95
MW-3	07/15/98	TOC	ODOR	NONE	--	--	31.74	57.92
MW-4	07/15/98	TOC	--	NONE	--	--	32.47	54.60

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 480715-63

Date: 7/15/98
 Page 1 of 1

Silo Address: 1285 Bancroft Ave., San Leandro, CA

WIC#: 204-6852-0703

Shell Engineer: Alex Perez
 Phone No.: (510) 675-6168
 Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc.
 1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie
 Phone No.: (408) 573-0555
 Fax #: 573-7771

Comments:

Sampled by: *[Signature]*

Printed Name: Morgan Gillies

Analysis Required 4807965

LAB: Sequoia

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	STEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020/MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N
-------------------------	----------------------------	---------------------	------------------------------	-------------------	---------------------------------------	----------	----------------	------------------	---------------

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input checked="" type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

UST AGENCY: _____

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	STEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020/MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
01 MW-1 ✓	7/15/98			X		3						XX						
02 MW-2 ✓				X								XX						
03 MW-3 ✓				X								XX						
04 MW-4 ✓				X								XX						
05 EB ✓				X								XX						
06 Rep ✓				X								XX						

Relinquished By (signature): <i>[Signature]</i>	Printed Name: <u>Morgan Gillies</u>	Date: <u>7/16/98</u>	Received (signature): <i>[Signature]</i>	Printed Name: <u>JOHN FRICK</u>	Date: <u>7/16/98</u>
Relinquished By (signature): <i>[Signature]</i>	Printed Name: <u>JOHN FRICK</u>	Date: <u>7/16/98</u>	Received (signature): <i>[Signature]</i>	Printed Name: <u>JOHN FRICK</u>	Date: <u>7/16/98</u>
Relinquished By (signature): <i>[Signature]</i>	Printed Name: _____	Date: _____	Received (signature): <i>[Signature]</i>	Printed Name: <u>GW ERGANA</u>	Date: <u>7/16/98</u>

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



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
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(707) 792-1865

FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thie

Project: Shell 1285 Bancroft

Enclosed are the results from samples received at Sequoia Analytical on July 16, 1998.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9807965 -01	LIQUID, MW-1	07/15/98	Purgeable TPH/BTEX/MTBE
9807965 -02	LIQUID, MW-2	07/15/98	Purgeable TPH/BTEX/MTBE
9807965 -03	LIQUID, MW-3	07/15/98	Purgeable TPH/BTEX/MTBE
9807965 -04	LIQUID, MW-4	07/15/98	Purgeable TPH/BTEX/MTBE
9807965 -05	LIQUID, EB	07/15/98	Purgeable TPH/BTEX/MTBE
9807965 -06	LIQUID, DUP	07/15/98	Purgeable TPH/BTEX/MTBE

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 1285 Bancroft Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9807965-01	Sampled: 07/15/98 Received: 07/16/98 Analyzed: 07/28/98 Reported: 07/31/98
--	--	---

GC Batch Number: GC072898BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	12
Benzene	0.50	2.5
Toluene	0.50	1.5
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	100

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





**Sequoia
Analytical**

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FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 1285 Bancroft Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9807965-02	Sampled: 07/15/98 Received: 07/16/98 Analyzed: 07/28/98 Reported: 07/31/98
Attention: Fran Thie		

QC Batch Number: GC072898BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	36000
Methyl t-Butyl Ether	500	6800
Benzene	100	250
Toluene	100	5600
Ethyl Benzene	100	830
Xylenes (Total)	100	6000
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	128

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





**Sequoia
Analytical**

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FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell 1285 Bancroft
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807965-03

Sampled: 07/15/98
Received: 07/16/98
Analyzed: 07/28/98
Reported: 07/31/98

Attention: Fran Thie

QC Batch Number: GC072898BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2500	31000
Methyl t-Butyl Ether	125	3700
Benzene	25	1100
Toluene	25	3300
Ethyl Benzene	25	300
Xylenes (Total)	25	2800
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	138 Q

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

eggy Penner
roject Manager





**Sequoia
Analytical**

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FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell 1285 Bancroft
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807965-04

Sampled: 07/15/98
Received: 07/16/98

Analyzed: 07/28/98
Reported: 07/31/98

QC Batch Number: GC072898BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	2100
Methyl t-Butyl Ether	25	2600
Benzene	5.0	160
Toluene	5.0	76
Ethyl Benzene	5.0	120
Xylenes (Total)	5.0	190
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	102

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





**Sequoia
Analytical**

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

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FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell 1285 Bancroft
Sample Descript: EB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807965-05

Sampled: 07/15/98
Received: 07/16/98
Analyzed: 07/28/98
Reported: 07/31/98

Attention: Fran Thie

QC Batch Number: GC072898BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	102

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 1285 Bancroft Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9807965-06	Sampled: 07/15/98 Received: 07/16/98 Analyzed: 07/28/98 Reported: 07/31/98
--	---	---

QC Batch Number: GC072898BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	35000
Methyl t-Butyl Ether	500	570
Benzene	100	230
Toluene	100	5600
Ethyl Benzene	100	860
Xylenes (Total)	100	600
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	94

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Sequoia Analytical

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FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Ave.
San Jose, CA 95112
Attention: Fran Thie

Client Project ID: Shell 1285 Bancroft

QC Sample Group: 9807965-02-03

Reported: Jul 31, 1998

QUALITY CONTROL DATA REPORT

Matrix: Liquid
Method: EPA 8020
Analyst:

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
---------	---------	---------	--------------	---------

QC Batch #: GC072898BTEX03A

Sample No.: GW9807893-04

	7/28/98	7/28/98	7/28/98	7/28/98
Date Prepared:	7/28/98	7/28/98	7/28/98	7/28/98
Date Analyzed:	7/28/98	7/28/98	7/28/98	7/28/98
Instrument I.D.#:	GCHP03	GCHP03	GCHP03	GCHP03

Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30

Matrix Spike, ug/L:	11	11	11	34
% Recovery:	110	110	110	113

Matrix				
pike Duplicate, ug/L:	12	12	12	36
% Recovery:	120	120	120	120

relative % Difference:	8.7	8.7	8.7	6.0
------------------------	-----	-----	-----	-----

RPD Control Limits:	0-25	0-25	0-25	0-25
---------------------	------	------	------	------

LCS Batch#: GWBLK072898AS

	7/28/98	7/28/98	7/28/98	7/28/98
Date Prepared:	7/28/98	7/28/98	7/28/98	7/28/98
Date Analyzed:	7/28/98	7/28/98	7/28/98	7/28/98
Instrument I.D.#:	GCHP03	GCHP03	GCHP03	GCHP03

Conc. Spiked, ug/L:	10	10	10	30
---------------------	----	----	----	----

LCS Recovery, ug/L:	12	12	12	36
LCS % Recovery:	120	120	120	120

Percent Recovery Control Limits:

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager





Sequoia Analytical

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(707) 792-1865 FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Ave.
San Jose, CA 95112
Attention: Fran Thie

Client Project ID: Shell 1285 Bancroft

QC Sample Group: 9807965-01, -04-06

Reported: Jul 31, 1998

QUALITY CONTROL DATA REPORT

Matrix: Liquid
Method: EPA 8020
Analyst:

ANALYTE Benzene Toluene Ethylbenzene Xylenes

QC Batch #: GC072898BTEX21A

Sample No.: GW9807893-04

Date Prepared:	7/28/98	7/28/98	7/28/98	7/28/98
Date Analyzed:	7/28/98	7/28/98	7/28/98	7/28/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21

Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30

Matrix Spike, ug/L:	12	11	11	34
% Recovery:	120	110	110	113

Matrix Duplicate, ug/L:	12	11	11	34
% Recovery:	120	110	110	113

Relative % Difference:	0.0	0.0	0.0	0.0
------------------------	-----	-----	-----	-----

RPD Control Limits:	0-25	0-25	0-25	0-25
---------------------	------	------	------	------

LCS Batch#: GWBLK072898

Date Prepared:	7/28/98	7/28/98	7/28/98	7/28/98
Date Analyzed:	7/28/98	7/28/98	7/28/98	7/28/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21

Conc. Spiked, ug/L:	10	10	10	30
---------------------	----	----	----	----

LCS Recovery, ug/L:	12	11	11	34
LCS % Recovery:	120	110	110	113

Percent Recovery Control Limits:

MSMSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Peggy Penner
Project Manager





**Sequoia
Analytical**

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Blaine Tech Services
680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thie

Client Proj. ID: Shell 1285 Bancroft

Received: 07/16/98

Lab Proj. ID: 9807965

Reported: 07/31/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of _____ pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL


Peggy Penner
Project Manager





BLAINE TECH SERVICES INC.

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

January 11, 1993

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

Attn: Daniel T. Kirk

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

QUARTER:
4th quarter of 1993

QUARTERLY GROUNDWATER SAMPLING REPORT 931213-K-2

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

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

STANDARD PROCEDURES

Evacuation

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

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

Decontamination

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

Free Product Skimmer

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

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

Sample Containers

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

Sampling

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

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

Sample Designations

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

Chain of Custody

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

Hazardous Materials Testing Laboratory

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

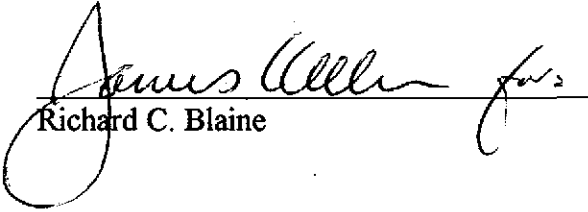
Objective Information Collection

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

Reportage

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

Please call if we can be of any further assistance.


Richard C. Blaine

RCB/lpn

attachments: table of well gauging data
chain of custody
certified analytical report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
ATTN: Michael Apsort

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	12/13/93	TOC	--	NONE	--	--	40.74	59.04
MW-2 *	12/13/93	TOC	--	NONE	--	--	40.64	58.96
MW-3	12/13/93	TOC	--	NONE	--	--	41.30	57.75

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



Inchcape Testing Services

Anamatrix Laboratories

1961 Concourse Drive
 Suite E
 San Jose, CA 95131
 Tel: 408-432-8192
 Fax: 408-432-8198

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

Workorder # : 9312163
 Date Received : 12/14/93
 Project ID : 204-6852-0703
 Purchase Order: MOH-B813


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

ANAMATRIX ID	CLIENT SAMPLE ID
9312163- 1	MW1
9312163- 2	MW2
9312163- 3	MW3
9312163- 4	DUP
9312163- 5	EB
9312163- 6	TB

This report consists of 7 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

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



 Sarah Schoen, Ph.D.
 Laboratory Director

12-23-93

 Date

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

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

Workorder # : 9312163
Date Received : 12/14/93
Project ID : 204-6852-0703
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9312163- 1	MW1	WATER	12/13/93	TPHgBTEX
9312163- 2	MW2	WATER	12/13/93	TPHgBTEX
9312163- 3	MW3	WATER	12/13/93	TPHgBTEX
9312163- 4	DUP	WATER	12/13/93	TPHgBTEX
9312163- 5	EB	WATER	12/13/93	TPHgBTEX
9312163- 6	TB	WATER	12/13/93	TPHgBTEX

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

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

Workorder # : 9312163
Date Received : 12/14/93
Project ID : 204-6852-0703
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as gasoline for samples MW1 and DUP are primarily due to the presence of a discrete peak not indicative of gasoline.
- The concentrations reported as gasoline for samples MW2 and DUP are due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.

Conner Phaw
Department Supervisor

12/23/93
Date

Reggie Dawson 12/23/93
Chemist Date

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

Lab Workorder : 9312163

Client Project ID : 204-6852-0703

Matrix : WATER

Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		MW1	MW2	MW3	DUP	EB
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		9312163-01	9312163-02	9312163-03	9312163-04	9312163-05
Benzene	0.50	3.4	82	7.5	110	ND
Toluene	0.50	ND	34	ND	45	ND
Ethylbenzene	0.50	ND	73	1.6	72	ND
Total Xylenes	0.50	ND	15	6.3	19	ND
TPH as Gasoline	50	89	1300	120	1400	ND
Surrogate Recovery		108%	118%	110%	110%	95%
Instrument ID		HP12	HP12	HP12	HP12	HP12
Date Sampled		12/13/93	12/13/93	12/13/93	12/13/93	12/13/93
Date Analyzed		12/16/93	12/17/93	12/16/93	12/16/93	12/16/93
RLMF		1	5	1	5	1
Filename Reference		FPD16301.D	FRD16302.D	FPD16303.D	FRD16304.D	FPD16305.D

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

ND : Not detected at or above the reporting limit for the analysis as performed.

TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.

BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

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

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

Peggie Dawson 12/23/93
Analyst Date

Corinne Khan 12/23/93
Supervisor Date

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

Lab Workorder : 9312163
 Matrix : WATER

Client Project ID : 204-6852-0703
 Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		TB				
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		9312163-06	METHOD BLANK	METHOD BLANK		
Benzene	0.50	ND	ND	ND		
Toluene	0.50	ND	ND	ND		
Ethylbenzene	0.50	ND	ND	ND		
Total Xylenes	0.50	ND	ND	ND		
TPH as Gasoline	50	ND	ND	ND		
Surrogate Recovery		100%	107%	100%		
Instrument ID		HP12	HP12	HP12		
Date Sampled		12/13/93	N/A	N/A		
Date Analyzed		12/16/93	12/16/93	12/17/93		
RLMF		1	1	1		
Filename Reference		FPD16306.D	BD1601E1.D	BD1701E1.D		

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

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

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

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

Reggie Davison 12/23/93
 Analyst Date

Corinne Han 12/22/93
 Supervisor Date

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

Project ID : 204-6852-0703
 Sample ID : MW3
 Matrix : WATER
 Date Sampled : 12/13/93

Laboratory ID : 9312163-03
 Analyst : PD
 Supervisor : CP
 Instrument ID : HP12
 Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	500	120	66%	70%	50-139	-6%	30
Surrogate Recovery		110%	105%	80%			
Date Analyzed		12/16/93	12/16/93	12/16/93			
Multiplier		1	1	1			
Filename Reference		FPD16303.D	FMD16303.D	FDD16303.D			

* Limits established by Incheape Testing Services, Anametrix Laboratories.

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

Instrument ID : HP12
 Matrix : LIQUID

Analyst : RD
 Supervisor : CP
 Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	88%	56-141
Surrogate Recovery		79%	61-139
Date Analyzed		12/16/93	
Multiplier		1	
Filename Reference		MD1601E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

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

Instrument ID : HP12
 Matrix : LIQUID

Analyst : RD
 Supervisor : CL
 Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Benzene	20	95%	52-133
Toluene	20	100%	57-136
Ethylbenzene	20	105%	56-139
Total Xylenes	20	95%	56-141
Surrogate Recovery		115%	61-139
Date Analyzed		12/17/93	
Multiplier		1	
Filename Reference		MD1701E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.