



ENVIRONMENTAL  
PROTECTION  
June 25, 1998  
98 JUL -1 PM 3: 24

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

Re: **Second Quarter 1998 Monitoring Report**  
Shell Service Station  
5251 Hopyard Road  
Pleasanton, California  
WIC# 204-6138-0907  
Cambria Project# 24-314-298

Dear Mr. Seery:

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

## **SECOND QUARTER 1998 ACTIVITIES**

Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells. Cambria compiled the ground water elevation and analytical data (Table 1) and prepared a ground water contour map (Figure 1). The Blaine report, describing these activities and presenting the laboratory report, is included as Attachment A.

CAMBRIA  
ENVIRONMENTAL  
TECHNOLOGY, INC.

## **ANTICIPATED FUTURE ACTIVITIES**

The next ground water monitoring event is scheduled for second quarter 1999. At that time, Blaine will gauge and sample the site wells, and Cambria will tabulate the data and prepare a monitoring report.

1144 65TH STREET,  
SUITE B  
OAKLAND,  
CA 94608  
PH: (510) 420-0700  
FAX: (510) 420-9170

Scott Seery  
August 13, 1997

CAMBRIA

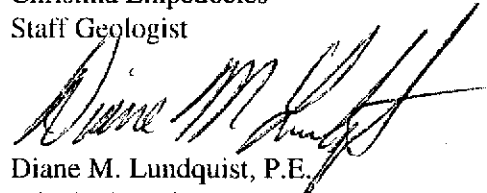
**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Christina Empedocles at (510) 420-3324 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc.**

*Aubrey K Cool For:*

Christina Empedocles  
Staff Geologist



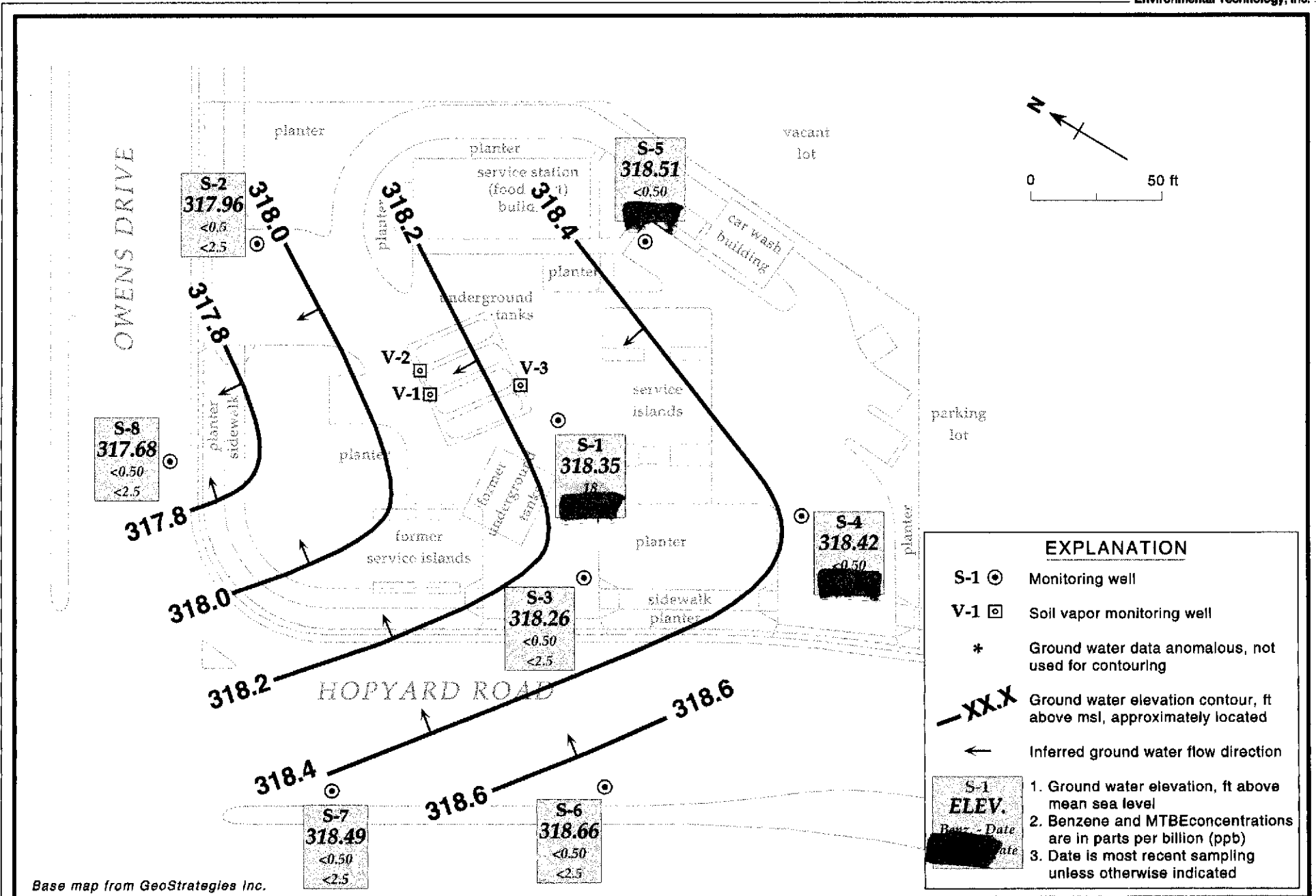
Diane M. Lundquist, P.E.  
Principal Engineer



Attachment : A - Blaine Ground Water Monitoring Report

cc: A. E. (Alex) Perez, Shell Oil Products Company, P.O. Box 8080, Martinez, California 94553  
Steven Hill, Regional Water Quality Control Board - San Francisco Bay Region,  
2101 Webster Street, Suite 500, Oakland, California 94612  
Ted Klenk, Pleasanton Fire Department, 4444 Railroad Street, Pleasanton, California 94566

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**EXPLANATION**

- S-1 ⊙ Monitoring well
- V-1 □ Soil vapor monitoring well
- \* Ground water data anomalous, not used for contouring
- XX.X Ground water elevation contour, ft above msl, approximately located
- ← Inferred ground water flow direction

S-1	ELEV.	Benze - Date	MTBE - Date
318.35	<0.50	18	

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

Figure 1. Ground Water Elevation Contour [REDACTED] Shell Service Station WIC# 204-6138-0907, 5251 Hopyard Road, Pleasanton, California

**Table 1. Ground Water Elevations and Analytical Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, California**

Well ID	Sampling Date	Top-of-Box (ft msl)	Depth to Water (ft)	G W Elevation (ft msl)	(Concentrations in µg/L)							DO (mg/L)
					TPH-G	TPH-D	B	T	E	X	MTBE	
S-1	01/25/91	326.73	---	---	2,500	1,500	460	<25	130	36	---	---
	04/06/91		---	---	6,700	2,600 <sup>a</sup>	2,600	14	580	250	---	---
	07/24/91		---	---	8,800	3,800 <sup>a</sup>	2,300	30	640	220	---	---
	10/18/91		8.85	317.88	12,000	3,300 <sup>a</sup>	3,600	380	990	580	---	---
	01/23/92		---	---	1,600	890	450	3.0	120	17	---	---
	04/27/92		---	---	1,100 <sup>b</sup>	500 <sup>a</sup>	610	<10	110	10	---	---
	07/21/92		---	---	5,100	290 <sup>c</sup>	1,900	54	460	140	---	---
	10/16/92		---	---	13,000	390 <sup>c</sup>	3,200	310	780	360	---	---
	01/23/93		7.96	318.77	2,300	30 <sup>d</sup>	640	<5	110	13	---	---
	04/28/93		9.07	317.66	4,600	390	780	<0.5	250	<0.5	---	---
	09/22/93		8.68	318.05	3,000	610 <sup>a</sup>	660	28	160	17	---	---
	12/08/93		8.23	318.50	520	280	210	<2.5	49	<2.5	---	---
	03/04/94		8.81	317.92	640	---	190	1.4	18	1.3	---	---
	03/04/94 <sup>dup</sup>		8.81	317.92	640	---	180	1.7	17	1.3	---	---
	06/16/94		8.80	317.93	2,500	---	390	9.5	31	7.5	---	---
	06/16/94 <sup>dup</sup>		8.80	317.93	2,000	---	410	7.8	120	20	---	---
	09/13/94		8.62	318.11	1,400	---	310	7.7	29	8.5	---	---
	09/13/94 <sup>dup</sup>		8.62	318.11	1,400	---	240	7.9	44	6.3	---	---
	05/05/95		11.54	315.19	800	---	120	3.6	26	2.7	---	---
	05/05/95 <sup>dup</sup>		11.54	315.19	710	---	110	3.4	19	2.7	---	---
	05/21/96		8.88	317.85	1,500	---	170	8.5	120	6.7	---	---
05/12/97		11.19	315.54	4,700	---	200	15	210	20	2,300	2.4	
05/12/97 <sup>dup</sup>		11.19	315.54	4,800	---	210	16	190	16	3,200(2,900)	2.4	
<b>05/08/98</b>		<b>8.38</b>	<b>318.35</b>	<b>500</b>	<b>---</b>	<b>18</b>	<b>2.1</b>	<b>2.3</b>	<b>2.0</b>	<b>1,000</b>	<b>2.1</b>	
S-2	01/25/91	326.59	---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/16/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/24/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---

**Table 1. Ground Water Elevations and Analytical Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, California (continued)**

Well ID	Sampling Date	Top-of-Box (ft msl)	Depth to Water (ft)	G W Elevation (ft msl)	(Concentrations in µg/L)							DO (mg/L)
					TPH-G	TPH-D	B	T	E	X	MTBE	
	10/18/91		8.83	317.76	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/27/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/17/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/16/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/93		8.10	318.49	<50	140 <sup>b</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	04/28/93		9.06	317.53	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/22/93		8.91	317.68	---	---	---	---	---	---	---	---
	12/08/93		9.07	317.52	---	---	---	---	---	---	---	---
	03/04/94		8.90	317.69	---	---	---	---	---	---	---	---
	06/16/94		8.98	317.61	---	---	---	---	---	---	---	---
	09/13/94		8.78	317.81	<50	---	<0.5	2.5	<0.5	<0.5	---	---
	05/05/95		8.60	317.99	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/21/96		8.75	317.84	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/12/97		8.72	317.87	<50	---	<0.5	<0.5	<0.5	<0.5	<2.5	3.4
	<b>05/08/98</b>		<b>8.63</b>	<b>317.96</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;2.5</b>	<b>3.1</b>
S-3	01/25/91	327.38	---	---	870	330	230	<2.5	130	<2.5	---	---
	04/16/91		---	---	190	140 <sup>a</sup>	12	0.8	6.2	1.5	---	---
	07/24/91		---	---	1,700	1,200 <sup>a</sup>	450	4.4	150	2.9	---	---
	10/18/91		9.64	317.74	1,900	500	370	3.1	120	220	---	---
	01/23/92		---	---	2,000	650 <sup>a</sup>	580	3.0	200	<0.5	---	---
	04/27/92		---	---	1,100	230 <sup>a</sup>	150	<3	76	14	---	---
	07/17/92		---	---	810	58	200	<2.5	57	3.8	---	---
	10/16/92		---	---	440	190 <sup>c</sup>	79	1.8	18	4.6	---	---
	01/23/93		8.81	318.57	670	170 <sup>d</sup>	79	1.5	46	15	---	---
	04/28/93		9.87	317.51	2,000	<50	300	3.4	210	38	---	---
	09/22/93		9.65	317.73	4,800	670 <sup>a</sup>	2,000	34	150	51	---	---
	12/08/93		9.26	318.12	1,200	11	440	<5.0	120	29	---	---

**Table 1. Ground Water Elevations and Analytical Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, California (continued)**

Well ID	Sampling Date	Top-of-Box (ft msl)	Depth to Water (ft)	G W Elevation (ft msl)	← (Concentrations in µg/L) →							DO (mg/L)
					TPH-G	TPH-D	B	T	E	X	MTBE	
	03/04/94		9.64	317.74	630	---	130	<0.5	17	0.80	---	---
	06/16/94		9.78	317.60	1,800	---	430	19	35	21	---	---
	05/05/95		9.38	318.00	160	---	50	0.9	7.2	4.1	---	---
	05/21/96		9.41	317.97	270	---	45	<0.5	1.4	<0.5	---	---
	05/21/96 <sup>dup</sup>		9.41	317.97	210	---	<0.5	<0.5	.95	<0.5	---	---
	05/12/97		9.30	318.08	420	---	<1.0	<1.0	<1.0	<1.0	57	2.5
	<b>05/08/98</b>		<b>9.12</b>	<b>318.26</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;2.5</b>	<b>2.2</b>
S-4	01/25/91	327.38	---	---	<50	<50	<0.5	1.5	<0.5	2.8	---	---
	04/16/91		---	---	<50	0.7	<0.5	<0.5	<0.5	<0.5	---	---
	07/24/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/18/91		8.82	318.56	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/27/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/17/92		---	---	<500	74	<0.5	<0.5	<0.5	<0.5	---	---
	10/16/92		---	---	<500	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/93		8.32	319.06	<500	94 <sup>b</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	04/28/93		9.76	317.62	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/22/93		9.30	318.08	---	---	---	---	---	---	---	---
	12/08/93		9.74	317.64	---	---	---	---	---	---	---	---
	03/04/94		9.60	317.78	---	---	---	---	---	---	---	---
	06/16/94		9.42	317.96	---	---	---	---	---	---	---	---
	05/05/95		9.02	318.36	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/21/96		9.29	318.09	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/12/97		7.95	319.43	<50	---	<0.50	<0.50	<0.50	<0.50	140	2.5
	<b>05/08/98</b>		<b>8.96</b>	<b>318.42</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>250</b>	<b>2.0</b>
S-5	01/25/91	327.76	---	---	<50	<50	<0.5	<0.5	<0.5	0.7	---	---
	04/16/91		---	---	<50	<50	<0.5	<0.5	<0.5	0.8	---	---

**Table 1. Ground Water Elevations and Analytical Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, California (continued)**

Well ID	Sampling Date	Top-of-Box (ft msl)	Depth to Water (ft)	G W Elevation (ft msl)	(Concentrations in µg/L)						MTBE	DO (mg/L)
					TPH-G	TPH-D	B	T	E	X		
	07/24/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/18/91		10.00	317.76	120 <sup>a</sup>	<50	4.3	<0.5	1.0	0.7	---	---
	01/23/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/27/92		---	---	50	<50	<0.5	<0.5	<0.5	0.6	---	---
	07/17/92		---	---	<50	70	<0.5	<0.5	<0.5	<0.5	---	---
	10/16/92		---	---	230	57	13	<0.5	4.9	4.3	---	---
	01/23/93		8.88	318.88	<50	150 <sup>b</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	04/28/93		10.20	317.56	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/22/93		9.92	317.84	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	12/08/93		10.19	317.57	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	03/04/94		9.95	317.81	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/16/94		10.02	317.74	<50	---	0.9	<0.5	<0.5	<0.5	---	---
	05/05/95		9.58	318.18	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/21/96		9.84	317.92	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/12/97		9.16	318.60	360	---	3.3	<0.50	17	9.8	130	4.2
	<b>05/08/98</b>		<b>9.25</b>	<b>318.51</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>92</b>	<b>3.8</b>
	<b>05/08/98<sup>dup</sup></b>		<b>9.25</b>	<b>318.51</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>100</b>	<b>3.8</b>
S-6	01/25/91	326.56	---	---	<50	<50	<0.5	1.7	<0.5	2.8	---	---
	04/16/91		---	---	<50	<50	<0.5	<0.5	<0.5	0.6	---	---
	07/24/91		---	---	<50	<50	<0.5	<0.5	<0.5	0.5	---	---
	10/18/91		8.84	317.22	<50	<50	<0.5	<0.5	<0.5	0.5	---	---
	01/23/92		---	---	<50	<50	<0.5	<0.5	<0.5	0.5	---	---
	04/27/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/17/92		---	---	400	130	<0.5	<0.5	<0.5	<0.5	---	---
	10/16/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/93		7.82	318.74	<50	230 <sup>b</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	04/28/93		9.00	317.56	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/22/93		8.61	317.96	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---

**Table 1. Ground Water Elevations and Analytical Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, California (continued)**

Well ID	Sampling Date	Top-of-Box (ft msl)	Depth to Water (ft)	G W Elevation (ft msl)	← (Concentrations in µg/L) →							DO (mg/L)
					TPH-G	TPH-D	B	T	E	X	MTBE	
	12/08/93		10.02	316.54	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	03/04/94		8.88	317.68	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/16/94		9.04	317.52	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/05/95		8.54	318.02	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/21/96		8.62	317.94	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/12/97		8.60	317.96	<50	---	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	<b>05/08/98</b>		<b>7.90</b>	<b>318.66</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;2.5</b>	<b>2.2</b>
S-7	01/25/91	326.49	---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/16/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/24/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/18/91		8.92	317.57	<50	140 <sup>f</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/92		---	---	<50	140 <sup>f</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	04/27/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/17/92		---	---	<50	<50	<0.5	1.8	0.6	4.1	---	---
	10/16/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/93		8.06	318.43	<50	110 <sup>b</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	04/28/93		8.94	317.55	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/22/93		8.57	317.92	---	---	---	---	---	---	---	---
	12/08/93		9.00	317.49	---	---	---	---	---	---	---	---
	03/04/94		8.96	317.53	---	---	---	---	---	---	---	---
	06/16/94		9.12	317.37	---	---	---	---	---	---	---	---
	05/05/95		8.58	317.91	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/21/96		8.64	317.85	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/12/97		8.74	317.75	<50	---	<0.50	<0.50	<0.50	<0.50	<2.5	2.3
	<b>05/08/98</b>		<b>8.00</b>	<b>318.49</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;2.5</b>	<b>2.5</b>
S-8	01/25/91	325.32	---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/16/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---



**Table 1. Ground Water Elevations and Analytical Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, California (continued)**

Well ID	Sampling Date	Top-of-Box (ft msl)	Depth to Water (ft)	G W Elevation (ft msl)	(Concentrations in µg/L)							DO (mg/L)
					TPH-G	TPH-D	B	T	E	X	MTBE	
	07/24/91		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/18/91		7.62	317.70	<50	360 <sup>f</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/92		---	---	<50	90	<0.5	<0.5	<0.5	<0.5	---	---
	04/27/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/17/92		---	---	53	<50	<0.5	1.0	<0.5	1.8	---	---
	10/16/92		---	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/93		7.00	318.32	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/28/93		7.77	317.55	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/22/93		7.67	317.65	<50	160	<0.5	<0.5	<0.5	<0.5	---	---
	12/08/93		7.76	317.56	<50	210	<0.5	<0.5	<0.5	<0.5	---	---
	03/04/94		7.66	317.66	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/16/94		7.78	317.54	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/05/95		7.42	317.90	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/21/96		7.50	317.82	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/12/97		7.56	317.76	<50	---	<0.50	<0.50	<0.50	<0.50	<2.5	1.6
	<b>05/08/98</b>		<b>7.64</b>	<b>317.68</b>	<b>&lt;50</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;2.5</b>	<b>2.0</b>
Trip Blank	03/04/94				<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	06/16/94				<50	---	<0.5	<0.5	<0.5	<0.5	---	---
	05/05/95				<50	---	<0.5	<0.5	<0.5	<0.5	---	---
MCLs					NE	NE	1	150	700	1,750	NE	

---

**Table 1. Ground Water Elevations and Analytical Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, California (continued)**

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**Abbreviations:**

ft msl = Feet above mean sea level  
GW = Ground water  
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  
NE = Not established  
MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)  
dup = Duplicate sample  
 $\mu\text{g/L}$  = Micrograms per liter  
 $\text{mg/L}$  = Milligrams per liter

**Notes:**

a = Compounds detected as TPH-D appear to be the less volatile constituents of gasoline.  
b = The concentration reported as TPH-D primarily due to the presence of a heavier petroleum product.  
c = The concentration reported as TPH-D due to the presence of a lighter petroleum product.  
d = Concentrations reported as diesel includes a heavier petroleum product.  
e = Compounds detected within the chromatographic range of TPH-D but not characteristic of the standard gasoline pattern.  
f = Compounds detected within the chromatographic range of TPH-D but not characteristic of the standard diesel pattern.  
g = The chromatographic pattern of the purgeable hydrocarbons found in the sample is similar to the pattern of weathered gasoline.  
<n = Not detected at detection limits of n  $\mu\text{g/L}$ .  
--- = Not analyzed

CAMBRIA

**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



May 29, 1998

Shell Oil Company  
P.O. Box 8080  
Martinez, CA 94553

Attn: Alex Perez

Shell WIC #204-6138-0907  
5251 Hopyard Road  
Pleasanton, California

2nd Quarter 1998

## Quarterly Groundwater Monitoring Report 980508-T-1

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Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling 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  
1144 65th St., Suite C  
Oakland, CA 94608  
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)
S-1	05/08/98	TOB	ODOR	NONE	--	--	8.38	29.90
S-2	05/08/98	TOB	--	NONE	--	--	8.63	24.55
S-3	05/08/98	TOB	--	NONE	--	--	9.12	24.75
S-4	05/08/98	TOB	--	NONE	--	--	8.96	24.50
S-5*	05/08/98	TOB	--	NONE	--	--	9.25	24.70
S-6	05/08/98	TOB	--	NONE	--	--	7.90	26.00
S-7	05/08/98	TOB	--	NONE	--	--	8.00	25.42
S-8	05/08/98	TOB	--	NONE	--	--	7.64	25.73

\* Sample DUP was a duplicate sample taken from well S-5.



# SHELL OIL PRODUCTS COMPANY CHAIN OF CUSTODY RECORD

ID 9805709

WIC OR FACILITY ID: 204-6138-0907 Date: 05/08/98 Results to:  Consult  Shell Page 01 of 02

Site Address: 5251 Hoover Rd, Pleasanton, CA  
 Consultant/Contact: ENVIRONMENTAL  
 Address: 14500 S. AVENUE, SUTTER CA  
 Phone: 925-575-0555  
 Shell Engineer: W. J. ...

Lab: SEQR-CA  
 TURN AROUND TIME:  24 hrs.  48 hrs.  15 days (Normal)  Other

CLASS TYPE/DETAIL TYPE *Select one only*

Site Invest (4441)  Wtr Rem/Sys (4453)  
 Soil Clas/Disp (4442)  G.W. Monitor (4463)  
 Wtr Clas/Disp (4443)  Other  
 Soil/Air Rem/Sys (4452)

Water Photo Number:                      Start Time (military): 07 00  
 Name: M. TOLL

**Analysis Required**

TPH-P/MBTEX (8015/8021)  
 TPH-P/BTEX (8015/8021)  
 MBTEX (8021)  
 BTEX (8021)  
 TPH-P (8015m)  
 TPH-E (8015m)  
 TPH-xx (8015m)  
 TRPH (418.1)  
 MBTEX (8260)  
 VOCs (8260) (specify)  
 SVOCs (8270) (specify)  
 Lead (specify)  
 Test for Disposal  
 Other (specify)

SAMPLE MATRIX *Select one only*

Water  NAPL  Sludge  Sediment  
 Soil  Vapor  Bedrock  Other

UST Agency:                     

Field Sample ID	Sample Time (military)	Composite?	Acid pres.	Cnt. Sz. (40ml)	Cnt. Sz. -Other	Total No. Containers	TPH-P/MBTEX (8015/8021)	TPH-P/BTEX (8015/8021)	MBTEX (8021)	BTEX (8021)	TPH-P (8015m)	TPH-E (8015m)	TPH-xx (8015m)	TRPH (418.1)	MBTEX (8260)	VOCs (8260) (specify)	SVOCs (8270) (specify)	Lead (specify)	Test for Disposal	Other (specify)	
S-1 ✓	11:00		<input checked="" type="radio"/>	<input type="radio"/>		03	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
S-2 ✓	09:50		<input type="radio"/>	<input type="radio"/>		03	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
S-3 ✓	10:42		<input type="radio"/>	<input type="radio"/>		03	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
S-4 ✓	10:04		<input type="radio"/>	<input type="radio"/>		03	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
S-5 ✓	10:25		<input type="radio"/>	<input type="radio"/>		03	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
S-6 ✓	08:40		<input type="radio"/>	<input type="radio"/>		03	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**LAB USE ONLY**

Lab Tracking No.:                     

Sample Condition/Comments

Cooler Temperature:                     

Material Description

Comments

Relinquished By (signature): <u>Mike Toll</u>	Printed Name: <u>Mike Toll</u>	Date: <u>5/11/98</u>	Received By (signature): <u>John Frick</u>	Printed Name: <u>JOHN FRICK</u>	Date: <u>5/11/98</u>
Relinquished By (signature): <u>John Frick</u>	Printed Name: <u>JOHN FRICK</u>	Date: <u>5/11/98</u>	Received By (signature): <u>                    </u>	Printed Name: <u>                    </u>	Date: <u>                    </u>
Relinquished By (signature): <u>                    </u>	Printed Name: <u>                    </u>	Date: <u>                    </u>	Received By (signature): <u>                    </u>	Printed Name: <u>                    </u>	Date: <u>                    </u>
Relinquished By (signature): <u>                    </u>	Printed Name: <u>                    </u>	Date: <u>                    </u>	Received By (signature): <u>                    </u>	Printed Name: <u>                    </u>	Date: <u>                    </u>



# SHELL OIL PRODUCTS COMPANY CHAIN OF CUSTODY RECORD

9805709

<b>WIC OR FACILITY ID:</b> 204-6138-0907	<b>Date:</b> 05/08/98	<b>Results to:</b> <input checked="" type="radio"/> Consult <input checked="" type="radio"/> Shell	<b>Page:</b> 02 of 02
---	--------------------------	--	-----------------------

**Site Address:** [Redacted]  
**Consultant/Contract Address:** [Redacted]  
**Phone:** [Redacted]  
**Shipping/Invoice:** [Redacted]

**Lab:** SFOR-CA

**TURN AROUND TIME:** Select one only  
 24 hrs  48 hrs  15 days (Normal)  Other

**CLASS TYPE/DETAIL TYPE:** Select one only

<input type="radio"/> Site Invest (4441)	<input type="radio"/> Wtr Rem/Sys (4451)
<input type="radio"/> Soil Clas/Disp (4442)	<input type="radio"/> G.W. Monitor (4450)
<input type="radio"/> Wtr Clas/Disp (4443)	<input type="radio"/> Other (4452)
<input type="radio"/> Soil/Air Rem/Sys (4452)	

**Start Time (military):** 07 00

**Exam:** M.TOLL

**UST Agency:**

**Sample Time (military):**

**Analysis Required**

Analysis	Lead (specify)	Test for Disposal	Other (specify)
TPH-P/MBTEX (8015/8021)			
TPH-P/BTEX (8015/8021)			
MBTEX (8021)			
BTEX (8021)			
TPH-P (8015m)			
TPH-E (8015m)			
TPH-xx (8015m)			
TRPH (418.1)			
MBTEX (8260)			
VOCs (8260) (specify)			
SVOCs (8270) (specify)			

Field Sample ID	Sample Time (military)	Composite?	Acid pres.	Cnt. Sz. (40ml)	Cnt. Sz. -Other	Total No. Containers
S-7-7-9	09:10		<input checked="" type="radio"/>			03
S-8-7-8	09:29		<input checked="" type="radio"/>			03
EB-7-9	08:50		<input checked="" type="radio"/>			03
DUP-7-10	-		<input checked="" type="radio"/>			03

**SAMPLE MATRIX:** Select one only

<input checked="" type="radio"/> Water	<input type="radio"/> NAPL	<input type="radio"/> Sludge	<input type="radio"/> Soil
<input type="radio"/> Soil	<input type="radio"/> Vapor	<input type="radio"/> Bedrock	<input type="radio"/> Other

**LAB USE ONLY**

Lab Tracking No.:

Sample Condition/Comments:

Cooler Temperature:

Material Description:

**Comments:**

Relinquished By (signature): <i>M. TOLL</i>	Printed Name: MIK TOLL	Date: 5/11/98	Time: 2:30	Received By (signature): <i>John Frick</i>	Printed Name: JOHN FRICK	Date: 5/11/98	Time: 2:30
Relinquished By (signature): <i>John Frick</i>	Printed Name: JOHN FRICK	Date: 5/11/98	Time:	Received By (signature): <i>Gene Downs</i>	Printed Name: DOWNS	Date: 5-11	Time: 15:16

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  
Petaluma, CA 94954

(650) 364-9600  
(510) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (510) 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 5251 Hopyard Rd.

Enclosed are the results from samples received at Sequoia Analytical on May 11, 1998.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9805709 -01	LIQUID, S-1	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -02	LIQUID, S-2	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -03	LIQUID, S-3	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -04	LIQUID, S-4	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -05	LIQUID, S-5	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -06	LIQUID, S-6	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -07	LIQUID, S-7	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -08	LIQUID, S-8	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -09	LIQUID, EB	05/08/98	Purgeable TPH/BTEX/MTBE
9805709 -10	LIQUID, DUP	05/08/98	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.

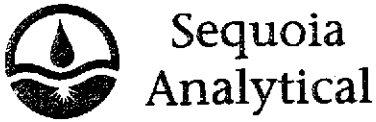
Very truly yours,

**SEQUOIA ANALYTICAL**

  
Peggy Penner  
Project Manager







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  
 Petaluma, CA 94954

(650) 364-9600  
 (510) 988-9600  
 (916) 921-9600  
 (707) 792-1865

FAX (650) 364-9233  
 FAX (510) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 5251 Hopyard Rd. Sample Descript: S-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-01	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/20/98 Reported: 05/27/98
--	--	---

GC Batch Number: GC052098BTEX18A  
 Instrument ID: GCHP18

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	500
Methyl t-Butyl Ether	250	1000
Benzene	0.50	18
Toluene	0.50	2.1
Ethyl Benzene	0.50	2.3
Xylenes (Total)	0.50	2.0
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	180 Q

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 5251 Hopyard Rd. Sample Descript: S-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-02	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/20/98 Reported: 05/27/98
Attention: Fran Thie		

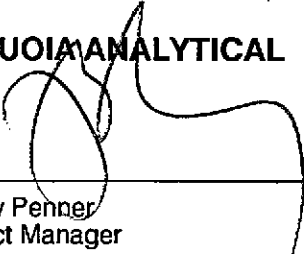
QC Batch Number: GC052098BTEX18A  
Instrument ID: GCHP18

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	90

Analytes 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 5251 Hopyard Rd. Sample Descript: S-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-03	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/21/98 Reported: 05/27/98
--	--	---

GC Batch Number: GC052198BTEX03A  
Instrument ID: GCHP03

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	83

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

SEQUOIA ANALYTICAL - ELAP #1210

Reggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 5251 Hopyard Rd. Sample Descript: S-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-04	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/20/98 Reported: 05/27/98
--	--	---

QC Batch Number: GC052098BTEX18A  
Instrument ID: GCHP18

**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	250
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	95

Analytes 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 5251 Hopyard Rd. Sample Descript: S-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-05	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/22/98 Reported: 05/27/98
--	--	---

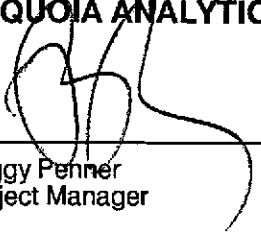
GC Batch Number: GC052298BTEX21A  
Instrument ID: GCHP21

**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	92
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
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 5251 Hopyard Rd. Sample Descript: S-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-06	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/22/98 Reported: 05/27/98
Attention: Fran Thie		

QC Batch Number: GC052298BTEX02A  
Instrument ID: GCHP02

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	80

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

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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 5251 Hopyard Rd.  
Sample Descript: S-7  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9805709-07

Sampled: 05/08/98  
Received: 05/11/98  
Analyzed: 05/20/98  
Reported: 05/27/98

Attention: Fran Thie

GC Batch Number: GC052098BTEX06A

Instrument ID: GCHP06

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	108

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

**EQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 5251 Hopyard Rd.  
Sample Descript: S-8  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9805709-08

Sampled: 05/08/98  
Received: 05/11/98  
Analyzed: 05/20/98  
Reported: 05/27/98

QC Batch Number: GC052098BTEX06A  
Instrument ID: GCHP06

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
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







Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 5251 Hopyard Rd. Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-09	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/22/98 Reported: 05/27/98
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GC Batch Number: GC052298OVOA02A  
Instrument ID: GCHP02

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	82

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 5251 Hopyard Rd. Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805709-10	Sampled: 05/08/98 Received: 05/11/98 Analyzed: 05/22/98 Reported: 05/27/98
Attention: Fran Thie		

QC Batch Number: GC052298BTEX17A  
Instrument ID: GCHP17

**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	100
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	96

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

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

Client Project ID: Shell 5251 Hopyard Rd.

QC Sample Group: 9805709-01-02, -04

Reported: May 27, 1998

**QUALITY CONTROL DATA REPORT**

**Matrix:** Liquid  
**Method:** EPA 8015  
**Analyst:** R.GECKLER

**ANALYTE** Gasoline

QC Batch #: GC052098BTEX18A

Sample No.: 9805C13-2  
Date Prepared: 5/20/98  
Date Analyzed: 5/20/98  
Instrument I.D.#: GCHP18

Sample Conc., ug/L: N.D.  
Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 190  
% Recovery: 78

Matrix  
pike Duplicate, ug/L: 210  
% Recovery: 84

Relative % Difference: 7.4

RPD Control Limits: 0-25

LCS Batch#: GC052098BTEX18A

Date Prepared: 5/20/98  
Date Analyzed: 5/20/98  
Instrument I.D.#: GCHP18

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 200  
LCS % Recovery: 80

**Percent Recovery Control Limits:**

MS/MSD	60-140
LCS	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





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Blaine Tech Services  
1680 Rogers Ave.  
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Attention: Fran Thie

Client Project ID: Shell 5251 Hopyard Rd.

QC Sample Group: 9805709-03

Reported: May 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8020  
Analyst: C. Demartini

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
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QC Batch #: GC052198BTEX03A

Sample No.: GW9805C13-3

Date Prepared:	5/21/98	5/21/98	5/21/98	5/21/98
Date Analyzed:	5/21/98	5/21/98	5/21/98	5/21/98
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:	8.9	8.7	8.9	27
% Recovery:	89	87	89	90
Matrix pike Duplicate, ug/L:	8.7	8.6	8.8	26
% Recovery:	87	86	88	87
Relative % Difference:	2.3	1.2	1.1	3.4
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#: GAWBLK052198A

Date Prepared:	5/21/98	5/21/98	5/21/98	5/21/98
Date Analyzed:	5/21/98	5/21/98	5/21/98	5/21/98
Instrument I.D.#:	GCHP03	GCHP03	GCHP03	GCHP03
Conc. Spiked, ug/L:	10	10	10	30
LCS Recovery, ug/L:	8.7	8.7	8.8	26
LCS % Recovery:	87	87	88	87

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

Reggy Penner  
Project Manager





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Blaine Tech Services  
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Attention: Fran Thie

Client Project ID: Shell 5251 Hopyard Rd.

QC Sample Group: 9805709-06

Reported: May 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015  
Analyst:

**ANALYTE** Gasoline

QC Batch #: GC052298BTEX02A

Sample No.: GW9805610-6

Date Prepared: 5/22/98

Date Analyzed: 5/22/98

Instrument I.D.#: GCHP02

Sample Conc., ug/L: N.D.

Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 240

% Recovery: 96

Matrix

pike Duplicate, ug/L: 230

% Recovery: 92

relative % Difference: 4.3

RPD Control Limits: 0-25

LCS Batch#: GAWBLK052298A

Date Prepared: 5/22/98

Date Analyzed: 5/22/98

Instrument I.D.#: GCHP02

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 250

LCS % Recovery: 100.0

Percent Recovery Control Limits:

MS/MSD 60-140

LCS 70-130

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

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SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager





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

Client Project ID: Shell 5251 Hopyard Rd.

QC Sample Group: 9805709-07-09

Reported: May 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015  
Analyst: R. Geckler

ANALYTE Gasoline

QC Batch #: GC052098BTEX06A

Sample No.: 9805C13-02

Date Prepared: 5/20/98

Date Analyzed: 5/20/98

Instrument I.D.#: GCHP-06

Sample Conc., ug/L: N.D.

Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 180

% Recovery: 72

Matrix

pike Duplicate, ug/L: 200

% Recovery: 80

relative % Difference: 11

RPD Control Limits: 0-25

LCS Batch#: GC052098BTEX06A

Date Prepared: 5/20/98

Date Analyzed: 5/20/98

Instrument I.D.#: GCHP-06

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 220

LCS % Recovery: 88

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

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

Please Note:

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SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager





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

Client Project ID: Shell 5251 Hopyard Rd.

QC Sample Group: 9805709-10

Reported: May 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015  
Analyst:

ANALYTE Gasoline

QC Batch #: GC052298BTEX17A

Sample No.: GW9805709-3

Date Prepared: 5/22/98  
Date Analyzed: 5/22/98  
Instrument I.D.#:

Sample Conc., ug/L: N.D.  
Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 300  
% Recovery: 120

Matrix  
pike Duplicate, ug/L: 310  
% Recovery: 124

Relative % Difference: 3.3

RPD Control Limits: 0-25

LCS Batch#: GAWBLK052298A

Date Prepared: 5/22/98  
Date Analyzed: 5/22/98  
Instrument I.D.#:

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 270  
LCS % Recovery: 108

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

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

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager

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.





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

Client Project ID: Shell 5251 Hopyard Rd.

QC Sample Group: 9805709-05

Reported: May 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015  
Analyst:

**ANALYTE** Gasoline

QC Batch #: GC052298BTEX21A

Sample No.: GW9805709-03

Date Prepared: 5/22/98

Date Analyzed: 5/22/98

Instrument I.D.#: GCHP21

Sample Conc., ug/L: N.D.

Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 260

% Recovery: 104

Matrix Duplicate, ug/L: 250

% Recovery: 100.0

relative % Difference: 3.9

RPD Control Limits: 0-25

LCS Batch#: GAWBLK052298A

Date Prepared: 5/22/98

Date Analyzed: 5/22/98

Instrument I.D.#: GCHP21

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 240

LCS % Recovery: 96

**Percent Recovery Control Limits:**

MS/MSD 60-140

LCS 70-130

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

**SEQUOIA ANALYTICAL**

Reggy Penner  
Project Manager

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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.







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

Client Proj. ID: Shell 5251 Hopyard Rd.

Received: 05/11/98

Lab Proj. ID: 9805709

Reported: 05/27/98

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 17 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

EQUOIA ANALYTICAL

  
Peggy Penner  
Project Manager

