

C A M B R I A

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ENVIRONMENTAL
PROTECTION

December 22, 1999

Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

99 DEC 30 PM 2:57

Re: **Third Quarter 1999 Monitoring Report**
Former Shell Service Station
2101 Park Boulevard
Oakland, California
Incident #97088251
Cambria Project #241-0865-002



Dear Mr. Chan:

On behalf of Equiva Services 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 1999 ACTIVITIES

Ground Water Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged the site wells and sampled well S-3. Blaine calculated ground water elevations and compiled the analytical data. Cambria prepared a ground water elevation contour map (Figure 1). The Blaine report, presenting the laboratory report and including supporting field documents, is included as Attachment A.

ANTICIPATED FOURTH QUARTER 1999 ACTIVITIES

Ground Water Monitoring: Blaine will gauge all wells, sample well S-3, and tabulate the data. Cambria will prepare a monitoring report.

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

Cambria
Environmental
Technology, Inc.

11055th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9700

Alameda County Health Care Services Agency (ACHCSA): In response to the ACHCSA letter dated August 26, 1999, Cambria is currently evaluating the potential for utilizing the newly developed Oakland RBCA guidelines for this site. In the case that the residual soil and ground water concentrations are less than the site specific target levels, Cambria will proceed with requesting site closure.

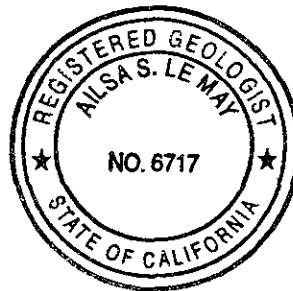
CLOSING



We appreciate the opportunity to work with you on this project. Please call Troy Buggle at (510) 420-3333 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

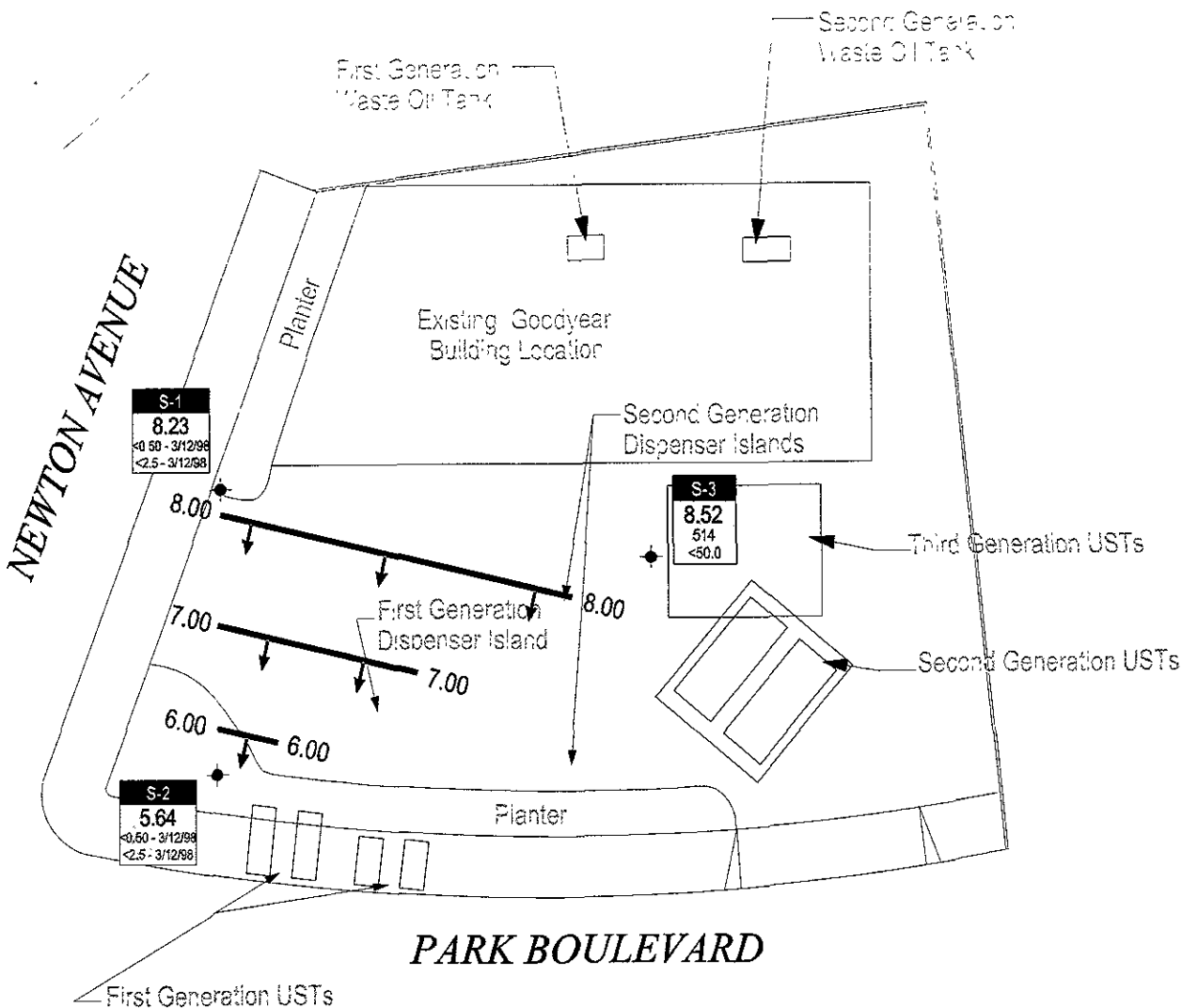
Troy A. Buggle
Senior Staff Scientist



Ailsa S. Le May, R.G.
Senior Geologist

- Figure: 1 - Ground Water Elevation Contour Map
Table: 1 - Ground Water Analytical Data - Other Constituents
Attachment: A - Blaine Ground Water Monitoring Report and Field Notes

cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91501-7869
Frank J. Schlessinger, Schlessinger & Associates, 333 Kearney Street, San Francisco, CA 94108
Steve Makara, Goodyear Tire and Rubber Company, 1144 East Market Street, Akron, Ohio 44316-0001



EXPLANATION

- S-1** ◆ Monitoring well location
- Ground water flow direction
- XX.XX Ground water elevation contour, in feet above mean sea level (msl), approximately located; dashed where inferred
- Well** Well designation
- ELEV** Ground water elevation (msl)
- Benzene** Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8020
- MTBE**

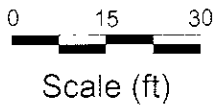


FIGURE
1

Former Shell Service Station
 2101 Park Boulevard
 Oakland, California
 Incident #97088251



C A M B R I A

Ground Water Elevation Contour Map

September 30, 1999

C:\MAN\10\10\10\RES\BOMB\M.P.DWG

CAMBRIA

**Table 1. Ground Water Analytical Data - Other Constituents - Former Shell Service Station, Incident #97088251
2101 Park Boulevard, Oakland, California**

Sample ID	Date Sampled	1,2-DCA ← (Concentrations in ppb) →	EDB ← (Concentrations in ppb) →	MTBE by 8020 ← (Concentrations in ppb) →	Nitrate ← (Concentrations in ppm) →	Sulfate ← (Concentrations in ppm) →	Total Dissolved Solids ← (Concentrations in ppm) →	D.O.
S 3	09/30/99	<0.500	<0.500	<50.0	1.28	5.60	1,120	1.6

Abbreviations:

1,2 DCA = 1,2-dichloroethane by EPA Method 8010
 EDB = Ethylene dibromide (1,2-dibromoethane) by EPA Method 8010
 MTBE = Methyl tert-butyl ether by EPA Methods 8020
 D.O. = Dissolved oxygen, measured pre-purge
 ppb = Parts per billion
 ppm = Parts per million

Notes:

Nitrate as nitrate and sulfate as sulfate by EPA Method 300.0
 Total dissolved solids by EPA Method 160.1
 <n = Below detection limits of n units

ATTACHMENT A

Blaine Ground Water Monitoring Report
and Field Notes



1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE

October 28, 1999

Karen Petryna
Equiva Services LLC
P.O. Box 6249
Carson, CA 90749-6249

Third Quarter 1999 Groundwater Monitoring at
Shell-branded Service Station
2101 Park Boulevard
Oakland, CA

Monitoring performed on September 30, 1999

Groundwater Monitoring Report 990930-I-3

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Shell Martinez Manufacturing Complex.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type 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. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read "Deidre Kerwin", with a long horizontal flourish extending to the right.

Deidre Kerwin
Operations Manager

DK/ek

attachments: Cumulative Table of WELL CONCENTRATIONS
Certified Analytical Report
Field Data Sheet

cc: Anni Kreml
Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, CA 94608-2411

WELL CONCENTRATIONS
Shell-branded Service Station
2101 Park Avenue
Oakland, CA
Wic #204-5508-1206

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
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S-1	06/20/1995	160	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	11.93	4.67	7.26	NA	NA
S-1	09/12/1995	<50	250	3.0	<0.5	<0.5	<0.5	NA	NA	11.93	4.19	7.74	NA	NA
S-1	12/28/1995	70	160	1.1	<0.5	<0.5	1.3	NA	NA	11.93	5.30	6.63	NA	NA
S-1	03/25/1996	70	220	<0.5	<0.5	<0.5	<0.5	<2.0	NA	11.93	3.44	8.49	NA	NA
S-1	06/27/1996	<50	140	0.59	<0.50	<0.50	<0.50	<2.5	NA	11.93	3.15	8.78	NA	NA
S-1	09/26/1996	<50	190	<0.50	<0.50	<0.50	<0.50	<2.5	NA	11.93	3.90	8.03	NA	NA
S-1	12/10/1996	<50	84	<0.50	<0.50	<0.50	<0.50	<2.5	NA	11.93	2.46	9.47	NA	NA
S-1	03/10/1997	<50	200	<0.50	<0.50	<0.50	<0.50	<2.5	NA	11.93	2.93	9.00	NA	NA
S-1	06/26/1997	<50	99	<0.50	<0.50	<0.50	<0.50	<2.5	NA	11.93	3.91	8.02	NA	NA
S-1	09/30/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	11.93	4.00	7.93	NA	NA
S-1	12/15/1997	<50	99	<0.50	<0.50	<0.50	<0.50	<2.5	NA	11.93	2.83	9.10	NA	NA
S-1	03/12/1998	<50	100	<0.50	<0.50	<0.50	<0.50	<2.5	NA	11.93	1.73	10.20	NA	2.7
S-1	06/08/1998	NA	NA	NA	NA	NA	NA	NA	NA	11.93	6.05	5.88	NA	0.8
S-1	08/26/1998	NA	NA	NA	NA	NA	NA	NA	NA	11.93	3.61	8.32	NA	1.0
S-1	12/24/1998	NA	NA	NA	NA	NA	NA	NA	NA	11.93	4.45	7.48	NA	1.0
S-1	03/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	11.93	4.17	7.76	NA	1.2
S-1	06/30/1999	NA	NA	NA	NA	NA	NA	NA	NA	11.93	3.53	8.40	NA	2.1
S-1	09/30/1999	NA	NA	NA	NA	NA	NA	NA	NA	11.93	3.70	8.23	NA	2.3

S-2	06/20/1995	180	NA	1.1	<0.5	<0.5	0.6	NA	NA	12.06	5.80	6.26	NA	NA
S-2	09/12/1995	190	NA	18	<0.5	1.2	0.6	NA	NA	12.06	5.78	6.28	NA	NA
S-2	12/28/1995	200	NA	11	1.0	1.0	4.0	NA	NA	12.06	4.02	8.04	NA	NA
S-2	03/25/1996	180	NA	12	0.8	1.4	1.0	<2.0	NA	12.06	5.56	6.50	NA	NA
S-2	06/27/1996	150	NA	7.7	0.79	0.93	0.5	<2.5	NA	12.06	6.00	6.06	NA	NA
S-2	09/26/1996	83	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	12.06	5.73	6.33	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
2101 Park Avenue
Oakland, CA
Wic #204-5508-1206

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
S-2	12/10/1996	78	NA	1.4	<0.50	0.57	<0.50	<2.5	NA	12.06	4.57	7.49	NA	NA
S-2	03/10/1997	61	NA	1.6	<0.50	<0.50	<0.50	<2.5	NA	12.06	5.38	6.68	NA	NA
S-2 (D)	03/10/1997	77	NA	2.0	<0.50	0.69	<0.50	<2.5	NA	12.06	NA	NA	NA	NA
S-2	06/26/1997	90	NA	1.5	<0.50	<0.50	<0.50	<2.5	NA	12.06	5.68	6.38	NA	NA
S-2 (D)	06/26/1997	<50	99	<0.50	<0.50	<0.50	<0.50	<2.5	NA	12.06	3.91	8.02	NA	NA
S-2	09/30/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	12.06	5.75	6.31	NA	NA
S-2 (D)	09/30/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	12.06	5.75	6.31	NA	NA
S-2	12/15/1997	<50	NA	4.1	<0.50	<0.50	<0.50	<2.5	NA	12.06	5.35	6.71	NA	NA
S-2	03/12/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	12.06	4.71	7.35	NA	4.3
S-2	06/08/1998	NA	NA	NA	NA	NA	NA	NA	NA	12.06	8.41	3.65	NA	2.2
S-2	08/26/1998	NA	NA	NA	NA	NA	NA	NA	NA	12.06	5.23	6.83	NA	1.8
S-2	12/24/1998	NA	NA	NA	NA	NA	NA	NA	NA	12.06	5.94	6.12	NA	1.4
S-2	03/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	12.06	5.75	6.31	NA	1.8
S-2	06/30/1999	NA	NA	NA	NA	NA	NA	NA	NA	12.06	5.85	6.21	NA	9.7
S-2	09/30/1999	NA	NA	NA	NA	NA	NA	NA	NA	12.06	6.42	5.64	NA	4.9
S-3	06/20/1995	5500	NA	240	34	120	840	NA	NA	13.54	4.90	8.64	NA	NA
S-3 (D)	06/20/1995	6300	NA	270	37	120	1100	NA	NA	13.54	NA	NA	NA	NA
S-3	09/12/1995	5200	NA	690	14	290	280	NA	NA	13.54	5.37	8.17	NA	NA
S-3 (D)	09/12/1995	4700	NA	620	13	260	240	NA	NA	13.54	NA	NA	NA	NA
S-3	12/28/1995	13000	NA	670	34	960	1400	NA	NA	13.54	3.90	9.64	NA	NA
S-3 (D)	12/28/1995	13000	NA	800	34	1000	1600	NA	NA	13.54	NA	NA	NA	NA
S-3	03/25/1996	7300	NA	560	65	540	820	<200	NA	13.54	4.30	9.24	NA	NA
S-3 (D)	03/25/1996	7400	NA	580	19	620	670	<20	NA	13.54	NA	NA	NA	NA
S-3	06/27/1996	17000	NA	1100	83	1200	2700	<250	NA	13.54	5.00	8.54	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
2101 Park Avenue
Oakland, CA
Wic #204-5508-1206

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
S-3 (D)	09/26/1996	9800	NA	960	41	450	1300	120	<16 a	13.54	NA	NA	NA	NA
S-3	12/10/1996	6100	NA	470	25	290	640	<100	NA	13.54	3.88	9.66	NA	NA
S-3 (D)	12/10/1996	7700	NA	550	33	380	880	120	NA	13.54	NA	NA	NA	NA
S-3	03/10/1997	7000	NA	720	29	340	620	110	NA	13.54	4.10	9.44	NA	NA
S-3	06/26/1997	11000	NA	1100	63	470	1300	150	NA	13.54	5.23	8.31	NA	NA
S-3 (D)	06/26/1997	12000	NA	1100	62	480	1400	<100	NA	13.54	NA	NA	NA	NA
S-3	09/30/1997	25000	NA	970	170	1200	4600	<50	NA	13.54	5.36	8.18	NA	NA
S-3	09/30/1997	25000	NA	970	170	1200	4600	<50	NA	13.54	5.36	8.18	NA	NA
S-3	12/15/1997	9800	NA	840	55	420	1100	350	NA	13.54	3.81	9.73	NA	NA
S-3 (D)	12/15/1997	9800	NA	850	56	420	1100	360	<20	13.54	NA	NA	NA	NA
S-3	03/12/1998	2800	NA	260	21	140	600	<12	NA	13.54	4.79	8.75	NA	4.8
S-3 (D)	03/12/1998	2100	NA	200	15	110	450	<12	NA	13.54	NA	NA	NA	NA
S-3	06/08/1998	2500	420	220	23	170	600	<20	NA	13.54	5.60	7.94	NA	NA
S-3 (D)	06/08/1998	3200	NA	270	30	220	740	76	NA	13.54	NA	NA	NA	NA
S-3	06/17/1998	NA	NA	NA	NA	NA	NA	NA	NA	13.54	3.49	10.05	NA	NA
S-3	08/26/1998	4000	600	520	56	270	910	<50	NA	13.54	4.89	8.65	NA	1.9
S-3 (D)	08/26/1998	4100	500	550	65	320	1100	<2.5	NA	13.54	NA	NA	NA	NA
S-3	12/24/1998	3700	590	320	32	210	650	55	NA	13.54	4.93	8.61	NA	1.2
S-3	03/29/1999	5400	NA	530	62	400	1100	45	NA	13.54	4.61	8.93	NA	1.5
S-3	06/30/1999	5890	NA	589	83.4	406	1710	<50.0	NA	13.54	3.58	9.96	NA	1.5
S-3	09/30/1999	1930	NA	514	13.2	185	319	<50.0	NA	13.54	5.02	8.52	NA	1.6

WELL CONCENTRATIONS
Shell-branded Service Station
2101 Park Avenue
Oakland, CA
Wic #204-5508-1206

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
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Abbreviations

TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

DO = Dissolved Oxygen

ug/L = parts per billion

msl = Mean sea level

ft = Feet

< n = Below detection limit

(D) = Duplicate sample

NA = Not applicable

Note

(a) = The MTBE was analyzed by EPA method 8260 one day past hold time. The MTBE value did not confirm therefore, all MTBE results at this site should be considered estimated.



Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

October 18, 1999

Leah Davis
Blaine Tech Services (Shell)
1680 Rogers Avenue
San Jose, CA 95112

RE: Equiva 2101 Park Blvd. Oakland/M910026

Dear Leah Davis

Enclosed are the results of analyses for sample(s) received by the laboratory on October 1, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kayvan Kfirmyai'. The signature is fluid and cursive, with a large initial 'K'.

Kayvan Kfirmyai
Project Manager D.M.

CA ELAP Certificate Number 1210



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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ANALYTICAL REPORT FOR M910026

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
S-3	M910026-01	Water	9/30/99



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
S-3				M910026-01			Water	
Purgeable Hydrocarbons	9100346	10/12/99	10/12/99		1000	1930	ug/l	1
Benzene	"	"	"		10.0	514	"	
Toluene	"	"	"		10.0	13.2	"	
Ethylbenzene	"	"	"		10.0	185	"	
Xylenes (total)	"	"	"		10.0	319	"	
Methyl tert-butyl ether	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		106	%	



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
S-3				<u>M910026-01</u>			<u>Water</u>	
1,2-Dibromoethane	9090856	10/7/99	10/7/99		0.500	ND	ug/l	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
Surrogate: 4-Bromofluorobenzene	"	"	"	70.0-130		112	%	



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**Conventional Chemistry Parameters by APHA/EPA Methods
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>S-3</u> Total Dissolved Solids	9100151	10/5/99	10/5/99	<u>M910026-01</u> EPA 160.1	10.0	1120	<u>Water</u> mg/l	



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**Anions by EPA Method 300.0
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
S-3				<u>M910026-01</u>				
Nitrate as N	9100066	10/1/99	10/1/99	EPA 300.0	0.226	1.28	mg/l	
Sulfate as SO4	"	"	"	EPA 300.0	5.00	5.60	"	



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100346			Date Prepared: 10/12/99			Extraction Method: EPA 5030B [P/T]				
Blank			9100346-BLK1							
Purgeable Hydrocarbons	10/12/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.50				
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		10.5	"	70.0-130	105			
LCS			9100346-BS1							
Purgeable Hydrocarbons	10/12/99	250		235	ug/l	70.0-130	94.0			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		8.59	"	70.0-130	85.9			
Matrix Spike			9100346-MS1 M910040-12							
Purgeable Hydrocarbons	10/12/99	250	ND	222	ug/l	60.0-140	88.8			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		7.90	"	70.0-130	79.0			
Matrix Spike Dup			9100346-MSD1 M910040-12							
Purgeable Hydrocarbons	10/12/99	250	ND	229	ug/l	60.0-140	91.6	25.0	3.10	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		8.67	"	70.0-130	86.7			



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Volatile Organic Compounds by EPA Method 8010B/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 9090856

Date Prepared: 10/1/99

Extraction Method: EPA 5030B [P/T]

Blank

9090856-BLK1

1,2-Dibromoethane	10/7/99			ND	ug/l	0.500				
Bromodichloromethane	"			ND	"	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	1.00				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	1.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	1.00				
Dibromochloromethane	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Methylene chloride	"			ND	"	5.00				
1,1,1,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,2-Trichlorotrifluoroethane	"			ND	"	1.00				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: 4-Bromofluorobenzene	"	10.0		9.55	"	70.0-130	95.5			

Blank

9090856-BLK2

Bromodichloromethane	10/8/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	1.00				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	1.00				
Chloroform	"			ND	"	0.500				



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**Volatile Organic Compounds by EPA Method 8010B/Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	9090856-BLK2									
Chloromethane	10/8/99			ND	ug/l	1.00				
Dibromochloromethane	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Methylene chloride	"			ND	"	5.00				
1,1,1,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,2-Trichlorotrifluoroethane	"			ND	"	1.00				
Trichloroethene	10/1/99			ND	"	0.500				
Trichlorofluoromethane	10/8/99			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
<i>Surrogate: 4-Bromofluorobenzene</i>	"	10.0		8.76	"	70.0-130	87.6			

Blank	9090856-BLK3									
Bromodichloromethane	10/11/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	1.00				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	1.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	1.00				
Dibromochloromethane	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Volatile Organic Compounds by EPA Method 8010B/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
9090856-BLK3										
trans-1,2-Dichloroethene	10/11/99			ND	ug/l	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Methylene chloride	"			ND	"	5.00				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,2-Trichlorotrifluoroethane	"			ND	"	1.00				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
<i>Surrogate: 4-Bromofluorobenzene</i>	"	10.0		3.91	"	70.0-130	89.1			
LCS										
9090856-BS1										
Chlorobenzene	10/7/99	25.0		23.1	ug/l	70.0-130	92.4			
1,1-Dichloroethene	"	25.0		21.1	"	65.0-135	84.4			
Trichloroethene	"	25.0		23.9	"	70.0-130	95.6			
<i>Surrogate: 4-Bromofluorobenzene</i>	"	10.0		11.6	"	70.0-130	116			
LCS										
9090856-BS2										
Chlorobenzene	10/8/99	25.0		18.5	ug/l	70.0-130	74.0			
1,1-Dichloroethene	"	25.0		18.6	"	65.0-135	74.4			
Trichloroethene	"	25.0		21.7	"	70.0-130	86.8			
<i>Surrogate: 4-Bromofluorobenzene</i>	"	10.0		7.91	"	70.0-130	79.1			
LCS										
9090856-BS3										
Chlorobenzene	10/11/99	25.0		19.6	ug/l	70.0-130	78.4			
1,1-Dichloroethene	"	25.0		17.1	"	65.0-135	68.4			
Trichloroethene	"	25.0		21.0	"	70.0-130	84.0			
<i>Surrogate: 4-Bromofluorobenzene</i>	"	10.0		10.2	"	70.0-130	102			
Matrix Spike										
9090856-MS1 M910026-01										
Chlorobenzene	10/7/99	25.0	ND	19.5	ug/l	60.0-140	78.0			
1,1-Dichloroethene	"	25.0	ND	17.3	"	60.0-140	69.2			
Trichloroethene	"	25.0	ND	20.5	"	60.0-140	82.0			
Matrix Spike										
9090856-MS2 M910157-03										
Chlorobenzene	10/11/99	25.0	ND	21.5	ug/l	60.0-140	86.0			
1,1-Dichloroethene	"	25.0	ND	20.3	"	60.0-140	81.2			



Blaine Tech Services (Shell)
1680 Rogers Avenue
San Jose, CA 95112

Project: Equiva
Project Number: 2101 Park Blvd.
Project Manager: Leah Davis

Sampled: 9/30/99
Received: 10/1/99
Reported: 10/18/99

**Volatile Organic Compounds by EPA Method 8010B/Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)		9090856-MS2	M910157-03							
Trichloroethene	10/11/99	25.0	ND	23.1	ug/l	60.0-140	92.4			
Surrogate: 4-Bromofluorobenzene	"	10.0		11.5	"	70.0-130	115			
Matrix Spike Dup		9090856-MSD1	M910026-01							
Chlorobenzene	10/7/99	25.0	ND	18.0	ug/l	60.0-140	72.0	25.0	8.00	
1,1-Dichloroethene	"	25.0	ND	18.4	"	60.0-140	73.6	25.0	6.16	
Trichloroethene	"	25.0	ND	21.1	"	60.0-140	84.4	25.0	2.88	
Surrogate: 4-Bromofluorobenzene	"	10.0		8.52	"	70.0-130	85.2			
Matrix Spike Dup		9090856-MSD2	M910157-03							
Chlorobenzene	10/11/99	25.0	ND	21.5	ug/l	60.0-140	86.0	25.0	0	
1,1-Dichloroethene	"	25.0	ND	20.1	"	60.0-140	80.4	25.0	0.990	
Trichloroethene	"	25.0	ND	22.9	"	60.0-140	91.6	25.0	0.870	
Surrogate: 4-Bromofluorobenzene	"	10.0		10.7	"	70.0-130	107			



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100151		Date Prepared: 10/5/99		Extraction Method: General Preparation						
Blank		9100151-BLK1								
Total Dissolved Solids	10/5/99			ND	mg/l	10.0				
LCS		9100151-BS1								
Total Dissolved Solids	10/5/99	500		525	mg/l	80.0-120	105			
Matrix Spike		9100151-MS1		M909ACI-01						
Total Dissolved Solids	10/5/99	500	484	944	mg/l	80.0-120	92.0			
Matrix Spike Dup		9100151-MSD1		M909ACI-01						
Total Dissolved Solids	10/5/99	500	484	976	mg/l	80.0-120	98.4	20.0	6.72	



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**Anions by EPA Method 300.0/Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100066			Date Prepared: 10/1/99			Extraction Method: General Preparation				
Blank			9100066-BLK1							
Nitrate as N	10/1/99			ND	mg/l	0.226				
Sulfate as SO4	"			ND	"	0.500				
LCS			9100066-BS1							
Nitrate as N	10/1/99	2.26		2.18	mg/l	80.0-120	96.5			
Sulfate as SO4	"	10.0		9.75	"	80.0-120	97.5			
Matrix Spike			9100066-MS1 M909ABL-01							
Nitrate as N	10/1/99	22.6	1.22	22.1	mg/l	75.0-125	92.4			
Sulfate as SO4	"	100	ND	99.3	"	75.0-125	99.3			
Matrix Spike Dup			9100066-MSD1 M909ABL-01							
Nitrate as N	10/1/99	22.6	1.22	22.0	mg/l	75.0-125	91.9	20.0	0.543	
Sulfate as SO4	"	100	ND	97.2	"	75.0-125	97.2	20.0	2.14	



Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 2101 Park Blvd. Project Manager: Leah Davis	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Notes and Definitions

#	Note
1	Chromatogram Pattern: Gasoline C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

SHELL WELL MONITORING DATA SHEET

Project #: 990930-I3	WIC #: 201-5508-1206
Sampler: P.F.	Date: 9-30-99
Well I.D.: 8-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 16.52	Depth to Water: 5.07
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Purge Method: ~~Bailer~~ ~~Middleburg~~ ~~Electric Submersible~~ ~~Extraction Pump~~ Other: _____

Sampling Method: ~~Extraction Port~~ Bailer Other: _____

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1636	80.1	8.6	1830	7200	—	
				Ferrous	Iron - 1.9	
				Alkalinity	7 - 1134 mg/L	
					ORD 95	

Did well dewater? Yes No Gallons actually evacuated: 0

Sampling Time: 1636 Sampling Date: 9-30-99

Sample I.D.: 83 Laboratory: Sequoia Crosby

Analyzed for: TPH-G BTEX MTBE TPH-D Other: nitrate, sulfate, TDS

Equipment Blank I.D.: @ _____ Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd): Pre-purge: 1.6 mg/L Post-purge: _____ mg/L