

C A M B R I A

2 February, 2000

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

Re: **Third Quarter 1999 Monitoring Report**  
Shell-branded Service Station  
11989 Dublin Boulevard  
Dublin, California  
Incident #98995328  
Cambria Project #241-0548-002



Dear Ms. chu:

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**

**Monitoring Well Installation:** Cambria installed three monitoring wells on June 8 and 9, 1999. A report detailing well installation activities is forthcoming.

**Ground Water Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California developed, gauged and sampled the site wells. 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. Virgil Chavez Land Surveying (Chavez) of Vallejo, California surveyed the wells to top of casing. Survey results are included as Attachment B.

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

### **ANTICIPATED FOURTH QUARTER 1999 ACTIVITIES**

**Cambria  
Environmental  
Technology, Inc.**

**Ground Water Monitoring:** Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

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

00 FEB -8 AM 8:05  
ENVIRONMENTAL  
PROTECTION

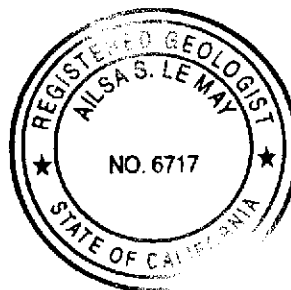
**CLOSING**

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, REA I  
Project Manager

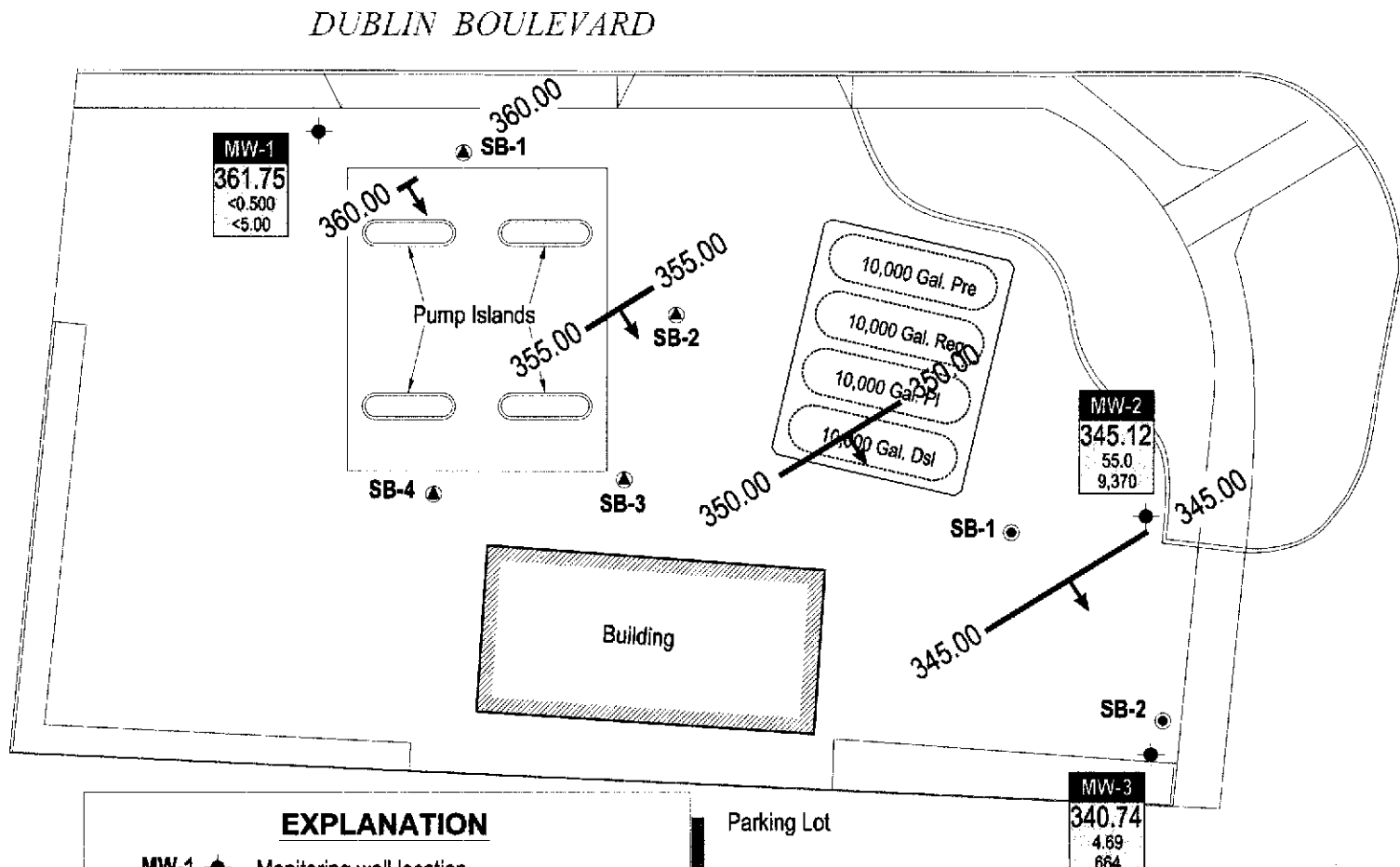


Ailsa S. Le May, R.G.  
Senior Geologist

Figure: 1 - Ground Water Elevation Contour Map  
Attachment: A - Blaine Ground Water Monitoring Report and Field Notes  
B - Chavez Survey Results

cc: Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, California 90749-6249

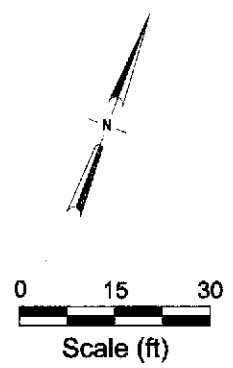
g:\dublin 11989\qm\3q99qm.doc



**EXPLANATION**

- MW-1 ● Monitoring well location
- SB-1 ▲ Soil boring locations for November 16, 1997 investigation
- SB-1 ● Soil boring locations for August 5, 1998 investigation
- Ground water flow direction
- XX.XX Ground water elevation contour, in feet above mean sea level (msl), dashed where inferred

Well	Well designation
ELEV	Ground water elevation (msl)
Benzene MTBE	Benzene and MTBE concentrations are in parts per billion (ppb)



**1** FIGURE

**Shell-branded Service Station**  
 11989 Dublin Boulevard  
 Dublin, California  
 Incident #98995328



C A M B R I A

**Ground Water Elevation  
 Contour Map**

July 20, 1999

SAN RAMON ROAD

**ATTACHMENT A**

Blaine Ground Water Monitoring Report  
and Field Notes

**BLAINE**  
TECH SERVICES INC.



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

August 30, 1999

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

Third Quarter 1999 Groundwater Monitoring at  
Shell-branded Service Station  
11989 Dublin Boulevard  
Dublin, CA

Monitoring performed on July 20, 1999

---

Groundwater Monitoring Report **990720-R-2**

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, appropriate 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 Martinez Refining Company.

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/ld

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

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
1144 65<sup>th</sup> Street  
Oakland, Ca 94608-2411

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**11989 Dublin Boulevard**  
**Dublin, CA**

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)
MW-1	07/20/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	367.99	6.24	361.75
MW-2	07/20/1999	2600	699	55.0	<2.50	59.5	<2.50	9370	NA	365.43	20.31	345.12
MW-3	07/20/1999	208	177	4.69	<0.500	<0.500	<0.500	664	NA	364.97	24.23	340.74

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 by EPA Method 8020

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

Notes:

Wells surveyed on June 21, 1999 by Virgil Chavez Land Surveying of Vallejo, CA.

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**11989 Dublin Boulevard**  
**Dublin, CA**

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)
MW-1	07/20/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	367.99	6.24	361.75
MW-2	07/20/1999	2600	699	55.0	<2.50	59.5	<2.50	9370	NA	365.43	20.31	345.12
MW-3	07/20/1999	208	177	4.69	<0.500	<0.500	<0.500	664	NA	364.97	24.23	340.74

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 by EPA Method 8020

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

Notes:

Wells surveyed on June 21, 1999 by Virgil Chavez Land Surveying of Vallejo, CA.





# Sequoia Analytical

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

August 11, 1999

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

RE: Equiva 11989 Dublin Blvd./M907992

Dear Ann Pember

Enclosed are the results of analyses for sample(s) received by the laboratory on July 21, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kayvan Kimyai  
Project Manager D.M.

CA ELAP Certificate Number 1210





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 11989 Dublin Blvd. Project Manager: Ann Pember	Sampled: 7/20/99 Received: 7/21/99 Reported: 8/11/99
--	--	--

**ANALYTICAL REPORT FOR M907992**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	M907992-01	Water	7/20/99
MW-2	M907992-02	Water	7/20/99
MW-3	M907992-03	Water	7/20/99





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 11989 Dublin Blvd. Project Manager: Ann Pember	Sampled: 7/20/99 Received: 7/21/99 Reported: 8/11/99
--	--	--

**Diesel Hydrocarbons (C9-C24) by DHS LUFT  
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u><b>MW-1</b></u>				<u><b>M907992-01</b></u>			<u><b>Water</b></u>	
Diesel Range Hydrocarbons	9080047	8/3/99	8/5/99		0.0500	ND	mg/l	
Surrogate: n-Pentacosane	"	"	"	50.0-150		92.1	%	
<u><b>MW-2</b></u>				<u><b>M907992-02</b></u>			<u><b>Water</b></u>	
Diesel Range Hydrocarbons	9080047	8/3/99	8/5/99		0.0500	0.699	mg/l	1
Surrogate: n-Pentacosane	"	"	"	50.0-150		88.4	%	
<u><b>MW-3</b></u>				<u><b>M907992-03</b></u>			<u><b>Water</b></u>	
Diesel Range Hydrocarbons	9080047	8/3/99	8/5/99		0.0500	0.177	mg/l	1
Surrogate: n-Pentacosane	"	"	"	50.0-150		99.3	%	





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 11989 Dublin Blvd. Project Manager: Ann Pember	Sampled: 7/20/99 Received: 7/21/99 Reported: 8/11/99
--	--	--

**Diesel Hydrocarbons (C9-C24) 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*
<b>Batch: 9080047</b>		<b>Date Prepared: 8/3/99</b>			<b>Extraction Method: EPA 3510B</b>					
<b>Blank</b>		<b>9080047-BLK1</b>								
Diesel Range Hydrocarbons	8/4/99			ND	mg/l	0.0500				
Surrogate: n-Pentacosane	"	0.100		0.108	"	50.0-150	108			
<b>LCS</b>		<b>9080047-BS1</b>								
Diesel Range Hydrocarbons	8/4/99	1.00		0.779	mg/l	60.0-140	77.9			
Surrogate: n-Pentacosane	"	0.100		0.0929	"	50.0-150	92.9			
<b>LCS Dup</b>		<b>9080047-BSD1</b>								
Diesel Range Hydrocarbons	8/4/99	1.00		0.760	mg/l	60.0-140	76.0	50.0	2.47	
Surrogate: n-Pentacosane	"	0.100		0.0903	"	50.0-150	90.3			





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 11989 Dublin Blvd. Project Manager: Ann Pember	Sampled: 7/20/99 Received: 7/21/99 Reported: 8/11/99
--	--	--

### Notes and Definitions

#	Note
1	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
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





# Sequoia Analytical

1551 Industrial Road  
San Carlos, CA 94070-4111  
(650) 232-9600  
FAX (650) 232-9612

August 4, 1999

Kayvan Kimyai  
Sequoia - Morgan Hill  
885 Jarvis Drive  
Morgan Hill, CA 95037

RE: 1/L907265

Dear Kayvan Kimyai:

Enclosed are the results of analyses for sample(s) received by the laboratory on July 28, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Wayne Stevenson  
Project Manager

CA ELAP Certificate Number I-2360





Sequoia - Morgan Hill 885 Jarvis Drive Morgan Hill, CA 95037	Project: 1 Project Number: M907992 Project Manager: Kayvan Kimyai	Sampled: 7/20/99 Received: 7/28/99 Reported: 8/4/99
--	---	---

**ANALYTICAL REPORT FOR L907265**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
M907992-01/MW-1	L907265-01	Water	7/20/99
M907992-02/MW-2	L907265-02	Water	7/20/99
M907992-03/MW-3	L907265-03	Water	7/20/99





Sequoia - Morgan Hill 885 Jarvis Drive Morgan Hill, CA 95037	Project: 1 Project Number: M907992 Project Manager: Kayvan Kimyai	Sampled: 7/20/99 Received: 7/28/99 Reported: 8/4/99
--	---	---

**Sample Description:** M907992-01/MW-1  
**Laboratory Sample Number:** L907265-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
---------	--------------	---------------	---------------	--------------------------------------	-----------------	--------	-------	--------

**Sequoia Analytical - San Carlos**

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT**

Purgeable Hydrocarbons as Gasoline	9080002	8/2/99	8/3/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		98.8	%	







Sequoia - Morgan Hill 885 Jarvis Drive Morgan Hill, CA 95037	Project: 1 Project Number: M907992 Project Manager: Kayvan Kimyai	Sampled: 7/20/99 Received: 7/28/99 Reported: 8/4/99
--	---	---

**Sample Description:** M907992-02/MW-2  
**Laboratory Sample Number:** L907265-02

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
---------	--------------	---------------	---------------	--------------------------------------	-----------------	--------	-------	--------

Sequoia Analytical - San Carlos

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT**

<b>Purgeable Hydrocarbons as Gasoline</b>	9080002	8/2/99	8/3/99		250	<b>2600</b>	ug/l	1
<b>Benzene</b>	"	"	"		2.50	<b>55.0</b>	"	
<b>Toluene</b>	"	"	"		2.50	ND	"	
<b>Ethylbenzene</b>	"	"	"		2.50	<b>59.5</b>	"	
<b>Xylenes (total)</b>	"	"	"		2.50	ND	"	
<b>Methyl tert-butyl ether</b>	9080010	8/3/99	"		500	<b>9370</b>	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9080002	8/2/99	"	70.0-130		145	%	2





Sequoia - Morgan Hill 885 Jarvis Drive Morgan Hill, CA 95037	Project: 1 Project Number: M907992 Project Manager: Kayvan Kimyai	Sampled: 7/20/99 Received: 7/28/99 Reported: 8/4/99
--	---	---

**Sample Description:** M907992-03/MW-3  
**Laboratory Sample Number:** L907265-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
---------	--------------	---------------	---------------	--------------------------------------	-----------------	--------	-------	--------

**Sequoia Analytical - San Carlos**

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT**

<b>Purgeable Hydrocarbons as Gasoline</b>	9080002	8/2/99	8/3/99		50.0	<b>208</b>	ug/l	3
<b>Benzene</b>	"	"	"		0.500	<b>4.69</b>	"	
<b>Toluene</b>	"	"	"		0.500	ND	"	
<b>Ethylbenzene</b>	"	"	"		0.500	ND	"	
<b>Xylenes (total)</b>	"	"	"		0.500	ND	"	
<b>Methyl tert-butyl ether</b>	9080010	8/3/99	"		50.0	<b>664</b>	"	
<b>Surrogate: a,a,a-Trifluorotoluene</b>	9080002	8/2/99	"	70.0-130		107	%	





Sequoia - Morgan Hill 885 Jarvis Drive Morgan Hill, CA 95037	Project: 1 Project Number: M907992 Project Manager: Kayvan Kimyai	Sampled: 7/20/99 Received: 7/28/99 Reported: 8/4/99
--	---	---

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control**  
**Sequoia Analytical - San Carlos**

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

<b>Batch: 9080002</b>	<b>Date Prepared: 8/2/99</b>	<b>Extraction Method: EPA 5030B [P/T]</b>								
<b>Blank</b>	<b>9080002-BLK1</b>									
Purgeable Hydrocarbons as Gasoline	8/2/99			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	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.2	"	70.0-130	102			

<b>LCS</b>	<b>9080002-BS1</b>									
Benzene	8/2/99	10.0		9.08	ug/l	70.0-130	90.8			
Toluene	"	10.0		8.64	"	70.0-130	86.4			
Ethylbenzene	"	10.0		8.44	"	70.0-130	84.4			
Xylenes (total)	"	30.0		27.4	"	70.0-130	91.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.5	"	70.0-130	105			

<b>Matrix Spike</b>	<b>9080002-MS1</b>	<b>L907219-01</b>								
Benzene	8/2/99	10.0	ND	8.69	ug/l	60.0-140	86.9			
Toluene	"	10.0	ND	8.36	"	60.0-140	83.6			
Ethylbenzene	"	10.0	ND	7.54	"	60.0-140	75.4			
Xylenes (total)	"	30.0	ND	26.9	"	60.0-140	89.7			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.86	"	70.0-130	98.6			

<b>Matrix Spike Dup</b>	<b>9080002-MSD1</b>	<b>L907219-01</b>								
Benzene	8/2/99	10.0	ND	8.56	ug/l	60.0-140	85.6	25.0	1.51	
Toluene	"	10.0	ND	8.29	"	60.0-140	82.9	25.0	0.841	
Ethylbenzene	"	10.0	ND	7.73	"	60.0-140	77.3	25.0	2.49	
Xylenes (total)	"	30.0	ND	26.2	"	60.0-140	87.3	25.0	2.71	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.92	"	70.0-130	89.2			





Sequoia - Morgan Hill 885 Jarvis Drive Morgan Hill, CA 95037	Project: 1 Project Number: M907992 Project Manager: Kayvan Kimyai	Sampled: 7/20/99 Received: 7/28/99 Reported: 8/4/99
--	---	---

**Notes and Definitions**

#	Note
---	------

- 1 Chromatogram Pattern: Gasoline C6-C12
- 2 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 3 Chromatogram Pattern: Unidentified Hydrocarbons 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



# BLAINE

TECH SERVICES, INC.

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

## CONDUCT ANALYSIS TO DETECT

LAB

Sequoia

DHS #

ALL ANALYSIS MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION

CHAIN OF <u>990720 R-2</u>					
CLIENT Equiva - Karen Petryna					
SITE 11989 Dublin Blvd.					
Dublin, CA					
		MATRIX		CONTAINERS	
SAMPLE I.D.	DATE	TIME	S= SOIL W=H <sub>2</sub> O	TOTAL	

C = COMPOSITE ALL CONTAINERS

TPH - gas, BTEX -  
 MTBE by 8020  
 MTBE by 8260  
 TPH - diesel  
 Oxygenates by 8260

### SPECIAL INSTRUCTIONS

Send invoice to Equiva

M907992

Incident # 98995328

Sent report to Blaine Tech Services, Inc.

ATTN: Ann Pember

SAMPLE I.D.	DATE	TIME	S= SOIL W=H <sub>2</sub> O	TOTAL		TPH - gas, BTEX -	MTBE by 8020	MTBE by 8260	TPH - diesel	Oxygenates by 8260	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	7/20	13:11	W	5	Van Hk	X	X		X					
MW-2		15:09		5	UP Amber	X	X		X					
MW-3		14:10		5	1	X	X		X					

21311

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED
	7/20	15:40	SR	NO LATER THAN

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<i>[Signature]</i>	7-21-99	8:23	<i>[Signature]</i>	7/21/99	8:23

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<i>[Signature]</i>	7/21/99				

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #



## EQUIVA WELL MONITORING DATA SHEET

Project #: <u>990720R-2</u>	Job # <u>98995328</u>
Sampler: <u>5in</u>	Date: <u>7-20-99</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>19.70</u>	Depth to Water: <u>6.24</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> 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 <sup>2</sup> * 0.163

Purge Method: Bailer Middleburg Electric Submersible Extraction Pump

Sampling Method: Bailer Extraction Port

Other: \_\_\_\_\_

Other: \_\_\_\_\_

<u>9.0</u>	<u>x</u>	<u>13</u>	<u>=</u>	<u>117</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
13:02	70.0	6.7	1190	2200	99	Hard Bottom
13:04	69.3	6.6	1189	142.7	108	Felt /
13:06	68.9	6.7	1183	98.7	117	Clearing
						good Recharge
						Rate 2" per min

Did well dewater? Yes  No

Gallons actually evacuated: 117

Sampling Time: 13:11 Sampling Date: 7-20-99

Sample I.D.: MW-1 Laboratory: Sequoia BC Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## EQUIVA WELL MONITORING DATA SHEET

Project #: <u>990720R-2</u>	Job # <u>98995328</u>
Sampler: <u>Sim</u>	Date: <u>7-20-99</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>32.50</u>	Depth to Water: <u>20.31</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> 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 <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
Middleburg      Extraction Port  
Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

<u>8.0</u>	<u>x</u>	<u>13</u>	<u>=</u>	<u>104</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>14:51</u>	<u>67.9</u>	<u>6.6</u>	<u>1056</u>	<u>2200</u>	<u>88</u>	<u>Agitated sub</u>
<u>14:53</u>	<u>69.2</u>	<u>6.6</u>	<u>1033</u>	<u>138.6</u>	<u>96</u>	<u>Pump in well</u>
<u>14:55</u>	<u>70.1</u>	<u>6.5</u>	<u>1027</u>	<u>98.3</u>	<u>104</u>	<u>turbid/bust</u>
						<u>clearing notes</u>
						<u>Heavy Recharge</u> <u>2.3" per min.</u>

Did well dewater? Yes  No       Gallons actually evacuated: 104

Sampling Time: 15:09      Sampling Date: 7-20-99

Sample I.D.: MW-2      Laboratory: Sequoia BC Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



## EQUIVA WELL MONITORING DATA SHEET

Project #: <u>990720 R-2</u>	Job # <u>98995328</u>
Sampler: <u>5m</u>	Date: <u>7-20-99</u>
Well I.D.: <u>MW-3</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth: <u>32.70</u>	Depth to Water: <u>24.23</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> 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 <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
Middleburg      Extraction Port  
Electric Submersible      Other: \_\_\_\_\_  
Extraction Pump  
 Other: \_\_\_\_\_

_____	x	<u>13</u>	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>13:51</u>	<u>68.7</u>	<u>6.7</u>	<u>1590</u>	<u>115.3</u>	<u>88</u>	<u>cloudy</u>
<u>13:53</u>	<u>68.9</u>	<u>6.7</u>	<u>1566</u>	<u>99.1</u>	<u>96</u>	<u>but clearing</u>
<u>13:55</u>	<u>68.2</u>	<u>6.7</u>	<u>1542</u>	<u>89.6</u>	<u>104</u>	<u>Good Recharge</u>
						<u>1.9" per min.</u>

Did well dewater? Yes  No      Gallons actually evacuated: 104

Sampling Time: 14:10      Sampling Date: 7-20-99

Sample I.D.: MW-3      Laboratory: Sequoia BC Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## WELL DEVELOPMENT DATA SHEET

Project #: <u>990720 R-2</u>	Client: <u>Equiva</u>
Developer: <u>5in</u>	Date Developed: <u>7-20-99</u>
Well I.D. <u>MW-1</u>	Well Diameter: (circle one) 2 3 <u>(4)</u> 6
Total Well Depth: Before <u>19.70</u> After <u>19.80</u>	Depth to Water: Before <u>5.74</u> After <u>15.12</u>
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF): $(12 \times (d^2/4) \times \pi) / 231$ where 12 = in / foot d = diameter (in.) $\pi = 3.1416$ 231 = in <sup>3</sup> /gal	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Well dia.</th> <th style="text-align: left; border-bottom: 1px solid black;">VCF</th> </tr> <tr><td>2" =</td><td>0.16</td></tr> <tr><td>3" =</td><td>0.37</td></tr> <tr><td>4" =</td><td>0.65</td></tr> <tr><td>6" =</td><td>1.47</td></tr> <tr><td>10" =</td><td>4.08</td></tr> <tr><td>12" =</td><td>6.87</td></tr> </table>	Well dia.	VCF	2" =	0.16	3" =	0.37	4" =	0.65	6" =	1.47	10" =	4.08	12" =	6.87
Well dia.	VCF														
2" =	0.16														
3" =	0.37														
4" =	0.65														
6" =	1.47														
10" =	4.08														
12" =	6.87														

<u>9.0</u>	<u>X</u>	<u>13</u>	<u>=</u>	<u>117</u>	gallons
1 Case Volume		Specified Volumes			

Purging Device:      Bailer       Electric Submersible

                                 Middleburg       Suction Pump

Type of Installed Pump \_\_\_\_\_

Other equipment used Surge Block

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
12:35	69.5	6.7	1206	7200	9	Swabbed 5 minutes
12:37	70.1	6.7	1217	7200	18	Dark silt/no sand
12:39	70.4	6.7	1193	7200	27	Heavy turbidity
12:41	70.2	6.7	1196	7200	36	Agitated sub. pump
12:43	70.9	6.7	1192	7200	45	Swabbed 5 minutes
12:48	70.3	6.7	1189	7200	54	Still Heavy
12:50	69.6	6.7	1202	7200	63	Hit Bottom
12:52	69.0	6.7	1212	7200	72	Dark
12:54	70.1	6.7	1194	7200	81	Swabbed well 5
12:59	70.2	6.7	1183	7200	90	minutes

Did Well Dewater? NO If yes, note above.      Gallons Actually Evacuated: 117

## WELL DEVELOPMENT DATA SHEET

Project #: <u>990720 R-2</u>	Client: <u>Equiva</u>
Developer: <u>Sim</u>	Date Developed: <u>7-20-99</u>
Well I.D. <u>MW-2</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>32.35</u> After	Depth to Water: Before <u>19.91</u> After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):  
 $(12 \times (d^2/4) \times \pi) / 231$   
 where  
 12 = in / foot  
 d = diameter (in.)  
 $\pi = 3.1416$   
 231 = in<sup>3</sup>/gal

Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.65
6"	= 1.47
10"	= 4.08
12"	= 6.87

<u>8.0</u>	X	<u>13</u>	=	<u>104</u>	gallons
1 Case Volume		Specified Volumes			

Purging Device:    Bailer        Electric Submersible      
                          Middleburg        Suction Pump   

Type of Installed Pump \_\_\_\_\_  
 Other equipment used \_\_\_\_\_

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
14:25	68.9	6.7	1091	7200	8	Swabbed well 5
14:27	70.3	6.6	1123	7200	16	minutes
14:29	69.1	6.6	1084	7200	24	odor/turbid
14:31	68.7	6.6	1079	7200	32	Swabbed well 5
14:36	68.3	6.6	1064	7200	40	minutes
14:38	68.5	6.6	1059	148.6	48	odor/clearing
14:40	68.4	6.6	1103	122.6	56	Hit Hard Bottom
14:42	68.0	6.5	1120	112.1	64	Swabbed well 5
14:47	68.5	6.6	1104	7200	72	minutes
14:49	68.2	6.6	1098	134.6	80	cloudy/persistent odor

Did Well Dewater? NO If yes, note above.      Gallons Actually Evacuated: 104

## WELL DEVELOPMENT DATA SHEET

Project #: <u>990720 R-2</u>	Client: <u>Shell</u>
Developer: <u>Jim</u>	Date Developed: <u>7-20-89</u>
Well I.D. <u>MW-3</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>32.10</u> After	Depth to Water: Before <u>20.98</u> After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):  
 $(12 \times (d^2/4) \times \pi) / 231$   
 where  
 12 = in / foot  
 d = diameter (in.)  
 $\pi = 3.1416$   
 231 = in<sup>3</sup>/gal

Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.65
6"	= 1.47
10"	= 4.08
12"	= 6.87

<u>7.2</u>	X	<u>13</u>	=	<u>93.6</u>
1 Case Volume		Specified Volumes		gallons

Purging Device:      Bailer            Electric Submersible        
                                  Middleburg            Suction Pump     

Type of Installed Pump \_\_\_\_\_  
 Other equipment used \_\_\_\_\_

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
13:25	68.2	6.7	1801	7200	8	Swabbed well
13:27	69.5	6.7	1823	7200	16	Turbid Grey
13:29	68.7	6.7	1779	7200	24	Silt
13:31	68.4	6.7	1783	7200	32	Swabbed well for
13:36	67.8	6.8	1755	157.8	40	5 minutes
13:38	67.9	6.8	1763	163.0	48	clearing / no odor
13:40	67.6	6.7	1721	139.6	56	Cloudy
13:42	67.1	6.7	1683	134.2	64	Swabbed well 5
13:47	67.8	6.8	1651	139.8	72	minutes / still
13:49	68.5	6.7	1623	127.6	80	Silty but becoming
						lite.

Did Well Dewater? NO If yes, note above.      Gallons Actually Evacuated: 104

**ATTACHMENT B**  
Chavez Survey Results

**Virgil Chavez Land Surveying**

312 Georgia Street, Suite 200  
Vallejo, California 94590-5907  
(707) 553-2476 • Fax (707) 553-8698

June 30, 1999  
Project No. 1703-22

John Riggi  
Cambria Environmental  
1144 65th Street, Suite C  
Oakland, Ca. 94608

Subject: Monitoring Well Survey  
Shell Service Station  
11989 Dublin Blvd.  
Dublin, Ca.

Dear Mr. Riggi:

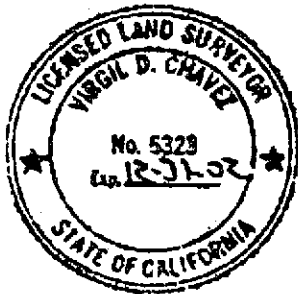
This is to confirm that we have proceeded at your request to survey the monitoring wells located at the above referenced location. The survey was performed on June 21, 1999. The benchmark for the survey was a bronze disk established by the USGS, located under a manhole cover in the left turn lane in front of Mervyn's on Dublin Blvd. Measurement locations were marked at approximate north side of top of box and top of casings. The stations and offsets are referenced to the face of the existing station building looking easterly. Benchmark Elevation = 347.662 feet, MSL.

<u>Monitoring Well No.</u>	<u>Rim Elevation</u>	<u>TOC Elevation</u>
MW - 1	368.23'	367.99'
MW - 2	365.78'	365.43'
MW - 3	365.55'	364.97'

<u>Well No.</u>	<u>Station</u>	<u>Offset</u>
MW - 1	0-32.22	-71.16(Lt.)
MW - 2	1+14.98	-16.09(Lt.)
MW - 3	1+17.45	21.93(Rt.)
SW Bldg Cor.	0+00.00	0.00
NW Bldg Cor.	0+57.78	0.00

Sincerely,

*Virgil D. Chavez*  
Virgil D. Chavez, PLS 6328



50 FEB - 8 AM 8:05  
ENVIRONMENTAL PROTECTION  
DIVISION

Post-it® Fax Note	7671	Date	9/3/99	# of pages	1
To	Leah Davis	From	Anni		
Co./Dept.	Blaine	Co.	Cambria		
Phone #	Pls update	Fax #			
Fax #	table - Thanks	Fax #			