

# C A M B R I A

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

- Complete another AWP and then review if closure is warranted
- Next AWP run November 5, 2001 \$260 for other other expenses too.

Re: **Third Quarter 2001 Monitoring Report**  
Former Shell Service Station  
2160 Otis Drive  
Alameda, California  
Incident #98995140  
Cambria Project #243-0627-002

NOV 08 2001



Dear Mr. Chan,

*eva*

On behalf of Equiva Services LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

## THIRD QUARTER 2001 ACTIVITIES

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled well MW-3 and compiled the analytical data. Cambria prepared a benzene and methyl tert butyl ether (MTBE) concentration map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

## ANTICIPATED FOURTH QUARTER 2001 ACTIVITIES

**Groundwater Monitoring:** Blaine will gauge and sample site well MW-3 and tabulate the data. Cambria will prepare a monitoring report.

Oakland, CA  
San Ramon, CA  
Sonoma, CA

**Cambria  
Environmental  
Technology, Inc.**

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

C A M B R I A

Barney Chan  
November 5, 2001

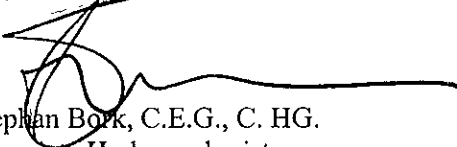
**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**



Jacquelyn L. Jones  
Project Geologist



Stephan Bork, C.E.G., C. HG.  
Associate Hydrogeologist

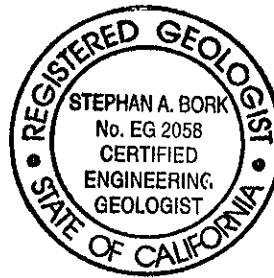


Figure: 1 - Benzene and MTBE Concentration Map

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91510-7869  
Harsch Investment Group, 523 West Plaza, Alameda, California 94501

g:\alamcda2160otis\qml3q01qm.doc

OTIS DRIVE

MW-3  
0.79  
180

Wall

Former  
Dispenser  
Islands

Former  
USTs

Former  
Building

Former  
Waste Oil  
Tank

Former Shell Station Property Boundary

OFFICE MAX  
BUILDING

SOUTH SHORE CENTER


Approximate Groundwater  
Gradient Direction



**EXPLANATION**

MW-3  Monitoring well location

 Well designation

 Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260

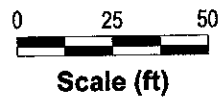


FIGURE  
**1**

**Former Shell Service Station**

2160 Otis Street  
Alameda, California  
Incident #98995140



C A M B R I A

**Benzene and MTBE  
Concentration Map**

September 18, 2001

G:\ALAMEDA 2160 OTIS\FIGURES\COMO1.MP DWG

**ATTACHMENT A**  
**Blaine Groundwater Monitoring Report**  
**and Field Notes**

**BLAINE**  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE  
CONTRACTOR'S LICENSE #746684  
www.blainetech.com

October 12, 2001

Karen Petryna  
Equiva Services LLC  
P.O. Box 7869  
Burbank, CA 91510-7869

Third Quarter 2001 Groundwater Monitoring at  
Former Shell Service Station  
2160 Otis Drive  
Alameda, CA

Monitoring performed on September 18, 2001

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Groundwater Monitoring Report **010918-R-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. Purge water (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

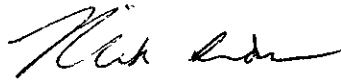
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

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. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,



Nick Sudano  
Project Coordinator

NS/jt

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, Suite C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**2160 Otis Street**  
**Alameda, 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-3	03/21/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.23	NA
MW-3	03/23/2001	1,000	1,100	80	16	7.9	72	NA	72	NA	5.21	NA
MW-3	05/31/2001	3,100	<1,500	170	50	150	340	NA	100	NA	5.57	NA
MW-3	09/18/2001	130	130	0.79	<0.50	<0.50	<0.50	NA	180	NA	5.93	NA

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B.

TEPH = Total extractable hydrocarbons as diesel by modified EPA Method 8015.

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit



Report Number : 22404

Date : 10/7/2001

Nick Sudano  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 1 Water Sample  
Project Name : 2160 Otis Dr., Alameda  
Project Number : 010918-R3  
P.O. Number : 98995140

Dear Mr. Sudano,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff





Report Number : 22404

Date : 10/7/2001

Project Name : 2160 Otis Dr., Alameda

Project Number : 010918-R3

Sample : MW-3

Matrix : Water

Lab Number : 22404-01

Sample Date :9/18/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>0.79</b>	0.50	ug/L	EPA 8260B	10/1/2001
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	10/1/2001
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	10/1/2001
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	10/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>180</b>	0.50	ug/L	EPA 8260B	10/1/2001
<b>TPH as Gasoline</b>	<b>130</b>	50	ug/L	EPA 8260B	10/1/2001
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	10/1/2001
4-Bromofluorobenzene (Surr)	92.6		% Recovery	EPA 8260B	10/1/2001
<b>TPH as Diesel</b>	<b>130</b>	50	ug/L	M EPA 8015	9/27/2001

Approved By:  Joel Kiff

Report Number : 22404


Date : 10/7/2001

Project Name : 2160 Otis Dr., Alameda

Project Number : 010918-R3

22404 Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	9/26/2001

Approved By:  Joel Kiff

Report Number : 22404

Date : 10/7/2001

Project Name : **2160 Otis Dr., Alameda**

Project Number : **010918-R3**

22404 Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	9/28/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	9/28/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	9/28/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	9/28/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	9/28/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	9/28/2001
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	9/28/2001
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	9/28/2001

Approved By:  Joel Kiff

Report Number : 22404

Date : 10/7/2001

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Project Name : **2160 Otis Dr., Alameda**

Project Number : **010918-R3**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Spike Recovery Data														
TPH as Diesel	Blank	<50	1000	1000	1280	1280	ug/L	M EPA 8015	9/26/2001	128	128	0.00	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff

Report Number : 22404

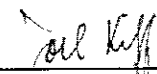
Date : 10/7/2001

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Project Name : **2160 Otis Dr., Alameda**

Project Number : **010918-R3**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Spike Recovery Data														
Benzene	22379-01	<0.50	19.6	19.7	20.7	21.1	ug/L	EPA 8260B	9/28/2001106	107	1.52	70-130	25	
Toluene	22379-01	<0.50	19.6	19.7	21.1	21.4	ug/L	EPA 8260B	9/28/2001107	108	1.02	70-130	25	
Tert-Butanol	22379-01	<5.0	98.0	98.3	95.3	96.6	ug/L	EPA 8260B	9/28/200197.2	98.2	1.04	70-130	25	
Methyl-t-Butyl Ether	22379-01	<0.50	19.6	19.7	19.4	20.0	ug/L	EPA 8260B	9/28/200199.1	102	2.83	70-130	25	

Approved By:   
Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 22404

Date : 10/7/2001

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **2160 Otis Dr., Alameda**

Project Number : **010918-R3**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	9/28/2001	99.1	70-130
Toluene	20.0	ug/L	EPA 8260B	9/28/2001	101	70-130
Tert-Butanol	100	ug/L	EPA 8260B	9/28/2001	97.5	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	9/28/2001	97.8	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff

*Joel Kiff*

LAB: KIFF

# EQUIVA Services LLC Chain Of Custody Record

Lab Identification (if necessary)

Address:

City, State, Zip

Equiva-Project Manager to be invoiced:

Karen Petryna

22409

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRMT HOUSTON

INCIDENT NUMBER (S&E ONLY)

9 | 8 | 9 | 9 | 5 | ~~140~~

SAP or CRMT NUMBER (TS/CRMT)

DATE: 9/18/01

PAGE 1 of 1

CONSULTANT COMPANY  
**Blaine Tech Services**

ADDRESS  
**1680 Rogers Avenue**

CITY  
**San Jose, CA 95112**

TELEPHONE: **408-573-0555** FAX: **408-573-7771** E-MAIL: **nsudano@blainetech.com**

SITE ADDRESS (Street and City)  
**2160 Otis Dr., Alameda**

PROJECT CONTACT (Report to)  
**Nick Sudano**

CONSULTANT PROJECT NO  
**610918-R3**

SAMPLER NAME(S) (Print)  
**TREE**

BTS #  
**LAB USE ONLY**

TURNAROUND TIME (BUSINESS DAYS):  
 10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

### REQUESTED ANALYSIS

LA - RWQCB REPORT FORMAT  UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: TEMPERATURE ON RECEIPT °C

TPH- Gas, Purgeable * 8260	BTEX * 8260	MTBE (8021B - 6ppb RL)	MTBE (8260B - 0.5 ppbRL)	Oxygenates (6) by (8260)	Ethanol (8260B)	Methanol	1,2-DCA	EDB (8260B)	TPH-Diesel, Extractable (8015m)	MTBE (8260B) Confirmation, See note
X	X	X	X						X	

FIELD NOTES:  
Container/Preservative or PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
	MN-3	9/18	1525	W	6

Relinquished by (Signature)

Received by (Signature)

Date: 9/18/01

Time: 1630

Relinquished by (Signature)

Received by (Signature)

Date:

Time:

Relinquished by (Signature)

Received by (Signature) Harold Breaker KIFF

Date: 091901

Time: 1110

WELL GAUGING DATA

Project # 010918-R1 Date 9/18/01 Client EJ 98995140

Site 2160 OTIS DRIVE - Alameda

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-3	2					5.93	17.99	TOC



## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010918-R3</u>	Site: <u>98995140</u>
Sampler: <u>1</u>	Date: <u>9/18/01</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>17.99</u>	Depth to Water: <u>5.93</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- |   |  |
|---|--|
| <input type="checkbox"/> Bailer                       | <input type="checkbox"/> Waterra         |
| <input checked="" type="checkbox"/> Disposable Bailer | <input type="checkbox"/> Peristaltic     |
| <input type="checkbox"/> Middleburg                   | <input type="checkbox"/> Extraction Pump |
| <input type="checkbox"/> Electric Submersible         | <input type="checkbox"/> Other _____     |

Sampling Method: Bailer

- |   |
|---|
| <input checked="" type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Extraction Port              |
| <input type="checkbox"/> Dedicated Tubing             |

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

1.9 (Gals.) X 3 = 6 Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1511	66.8	7.1	11.70	>200	2	Turbid
1515	66.5	7.2	10.25	>200	4	"
1518	66.5	7.2	10.78	>200	6	"

Did well dewater? Yes  No  Gallons actually evacuated: 6

Sampling Time: 1525 Sampling Date: 9/18/01

Sample I.D.: MW-3 42260 Laboratory: Sequoia Columbia (Other) KIFF

Analyzed for: (TPH-G BTEX MTBE TPH-D) Other: 8075

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

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