

C A M B R I A

Re 2433

July 19, 2001

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

7/27/01

MTBE at 100 ppb  
TPH at 3,100 ppb

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

JUL 24 2001

Continue w/ data



Dear Mr. Chan:

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.

## SECOND 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 concentration map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

## ANTICIPATED THIRD 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  
July 19, 2001

**CLOSING**

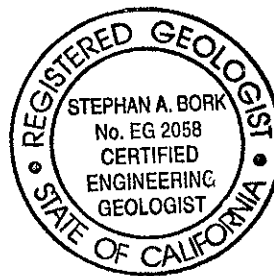
We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**



Jacquelyn L. Jones  
Project Geologist

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

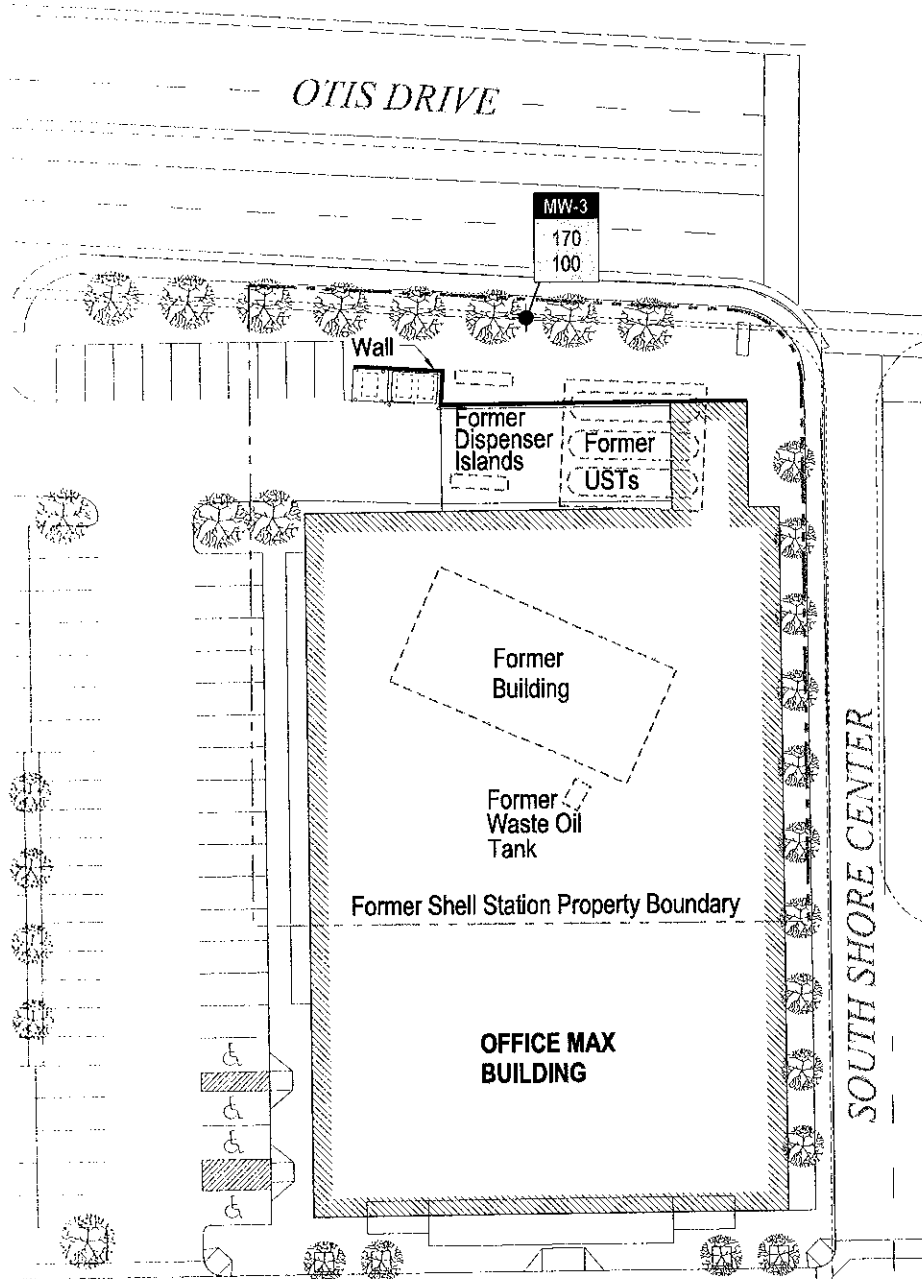


Figures: 1 - Benzene and MTBE Concentration Map

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:\alameda2160otis\qm\2q01qm.doc



Approximate Groundwater Gradient Direction

**EXPLANATION**

MW-3 ● Monitoring well location

MW-3 Well designation

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

0 25 50  
Scale (ft)

FIGURE 1

G:\ALAMEDA 2160 OTIS\FIGURES\COM01.MP.DWG

**Former Shell Service Station**  
2160 Otis Street  
Alameda, California  
Incident #98995140



C A M B R I A

**Benzene and MTBE  
Concentration Map**

May 31, 2001

**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

June 20, 2001

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

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

Monitoring performed on May 31, 2001

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Groundwater Monitoring Report **010531-C-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, 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.

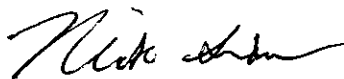
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

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. 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)
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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

**Abbreviations:**

TPPH = Total petroleum hydrocarbons as gasoline by modified 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 : 20537

Date : 6/14/2001

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

Subject : 1 Water Sample  
Project Name : 2160 Otis Drive, Alameda  
Project Number : 010531-C2  
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,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large initial "J".

Joel Kiff





Report Number : 20537

Date : 6/14/2001

Subject : 1 Water Sample  
Project Name : 2160 Otis Drive, Alameda  
Project Number : 010531-C2  
P.O. Number : 98995140

## Case Narrative

The Method Reporting Limit for TPH as Diesel has been increased due to interference from Gasoline-Range Hydrocarbons for the following sample :

MW-3

Approved By:  \_\_\_\_\_  
Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 916-297-4800



Report Number : 20537

Date : 6/14/2001

Project Name : 2160 Otis Drive, Alameda

Project Number : 010531-C2

Sample : MW-3

Matrix : Water

Lab Number : 20537-01

Sample Date :5/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>170</b>	1.0	ug/L	EPA 8260B	6/9/2001
<b>Toluene</b>	<b>50</b>	1.0	ug/L	EPA 8260B	6/9/2001
<b>Ethylbenzene</b>	<b>150</b>	1.0	ug/L	EPA 8260B	6/9/2001
<b>Total Xylenes</b>	<b>340</b>	1.0	ug/L	EPA 8260B	6/9/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>100</b>	1.0	ug/L	EPA 8260B	6/9/2001
<b>TPH as Gasoline</b>	<b>3100</b>	100	ug/L	EPA 8260B	6/9/2001
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	6/9/2001
4-Bromofluorobenzene (Surr)	98.8		% Recovery	EPA 8260B	6/9/2001
<b>TPH as Diesel</b>	<b>&lt; 1500</b>	1500	ug/L	M EPA 8015	6/6/2001

Approved By:  Joel Kiff

Report Number : 20537


Date : 6/14/2001

Project Name : **2160 Otis Drive, Alameda**

Project Number : **010531-C2**

20537 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	6/6/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/6/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/6/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	6/6/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	6/6/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	6/6/2001
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	6/6/2001
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	6/6/2001

Approved By:  Joel Kiff

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 2160 Otis Drive, Alameda

Project Number : 010531-C2

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	20538-01	<0.50	24.6	24.8	25.0	25.5	ug/L	EPA 8260B	6/6/2001	101	103	1.33	70-130	25
Toluene	20538-01	<0.50	24.6	24.8	23.5	24.0	ug/L	EPA 8260B	6/6/2001	95.3	96.7	1.52	70-130	25
Tert-Butanol	20538-01	8.4	24.6	24.8	29.4	31.9	ug/L	EPA 8260B	6/6/2001	85.2	94.4	10.2	70-130	25
Methyl-t-Butyl Ether	20538-01	<0.50	24.6	24.8	24.9	25.0	ug/L	EPA 8260B	6/6/2001	101	100	0.476	70-130	25

Approved By:  \_\_\_\_\_  
 Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 20537

Date : 6/14/2001

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

Project Name : **2160 Otis Drive, Alameda**

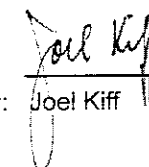
Project Number : **010531-C2**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	6/6/2001	97.7	70-130
Toluene	20.0	ug/L	EPA 8260B	6/6/2001	94.8	70-130
Tert-Butanol	100	ug/L	EPA 8260B	6/6/2001	91.9	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	6/6/2001	102	70-130

KIFF ANALYTICAL, LLC

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

Approved By: Joel Kiff



Report Number : 20537


Date : 6/14/2001

Project Name : **2160 Otis Drive, Alameda**

Project Number : **010531-C2**

20537 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	6/5/2001

Approved By:  \_\_\_\_\_  
Joel Kiff

Report Number : 20537

Date : 6/14/2001

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

Project Name : **2160 Otis Drive, Alameda**

Project Number : **010531-C2**

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	942	986	ug/L	M EPA 8015	6/5/2001	94.2	98.6	4.56	70-130	25

KIFF ANALYTICAL, LLC

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

Approved By:  Joel Kiff







## EQUIVA WELL MONITORING DATA SHEET

BTS #: 010531-02	Site: 2160 Otis Dr.
Sampler: Hank	Date: 5-31-01
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 17.88	Depth to Water: 5.57
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:  Bailer  Disposable Bailer  Middleburg  Electric Submersible

Sampling Method:  Waterra  Disposable Bailer  Extraction Port  Dedicated Tubing  Other: \_\_\_\_\_

Peristaltic  Extraction Pump  Other: \_\_\_\_\_

1.9 (Gals.) X 3 = 5.7 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
1228	70.6	7.3	4977	>200	1.9	Odor (Stons)
1232	71.3	7.3	4689	>200	3.8	
1236	71.2	7.4	4781	>200	5.7	↓

Did well dewater? Yes  No  Gallons actually evacuated: 5.7

Sampling Time: 1241      Sampling Date: 5-31-01

Sample I.D.: MW-3      Laboratory: Sequoia Columbia Other Kiff

Analyzed for: TPH-G BTEX MTBE TPH-D Other: MTBE by P260

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