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(415) 922-4740 / FAX 922-1485 / CELL 264-8304  
1626 Vallejo Street, San Francisco, CA 94123-5116

Alameda County  
FEB 08 2006  
Environmental Health

February 4, 2006

Mr. Don Hwang  
Hazardous Materials Specialist  
ACHCSA  
Suite 250  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577  
(510) 567-6700 / FAX 337-9335

SUBJECT: IVQ05 Groundwater Monitoring Report  
1432 Harrison St., Oakland, CA 94612  
Site ID: 498

Dear Mr. Hwang:

Attached is the IVQ05 Groundwater Monitoring Report for the above site.  
If you have a question, please call me.

Sincerely yours,



Mark Borsuk

# C A M B R I A

January 30, 2006

Mr. Mark Borsuk  
1626 Vallejo St.  
San Francisco, CA 94123-5116

Alameda County  
FEB 08 2006  
Environmental Health

Re: **Groundwater Monitoring Report**  
**Fourth Quarter 2005**  
Allright Parking  
1432 Harrison Street  
Oakland, California  
Cambria Project #540-0188



Dear Mr. Borsuk:

As requested, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring Report – Fourth Quarter 2005*. Presented in the report are the fourth quarter 2005 activities and results, and the anticipated first quarter 2006 activities. Please forward the original report to Mr. Don Hwang with the Alameda County Health Care Services Agency (ACHCSA). A copy of the report is also for your file.

If you have any questions or comments regarding this report, please call me at (510) 420-3361.

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

Subbarao Nagulapathy  
Project Engineer

Attachments: *Groundwater Monitoring Report - Fourth Quarter 2005* (1 original and 1 copy)

**Cambria  
Environmental  
Technology, Inc.**

5900 Hollis Street  
Suite A  
Emeryville, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

# C A M B R I A

## GROUNDWATER MONITORING REPORT

FOURTH QUARTER 2005

Allright Parking  
1432 Harrison Street  
Oakland, California  
Cambria Project #540-0188



January 30, 2006

*Prepared for:*

Mr. Mark Borsuk  
1626 Vallejo Street  
San Francisco, California 94123-5116

*Prepared by:*

Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
Emeryville, California 94608

*Written by:*

Glenn D. Reiss

Glenn D. Reiss  
Staff Geologist



Ron Scheele

Ron Scheele, P.G.  
Senior Geologist

# C A M B R I A

## GROUNDWATER MONITORING REPORT

### FOURTH QUARTER 2005

**Allright Parking  
1432 Harrison Street  
Oakland, California  
Cambria Project #540-0188**

**January 30, 2006**

### INTRODUCTION



On behalf of Mr. Mark Borsuk, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring Report – Fourth Quarter 2005* for the above-referenced site (see Figure 1). Presented in this report are the fourth quarter 2005 groundwater monitoring activities and results, and the anticipated first quarter 2006 activities.

### THIRD QUARTER 2005 ACTIVITIES AND RESULTS

#### Monitoring Activities

**Field Activities:** On December 20, 2005, Cambria coordinated with Muskan Environmental Sampling (MES) to conduct quarterly monitoring activities. MES gauged and inspected for separate-phase hydrocarbons (SPH) in all monitoring wells. SPH was not detected in any of the wells and groundwater samples were collected from wells MW-2, MW-4, and MW-5. A sample from well MW-1 was not collected due to insufficient water in the well. Wells MW-3 and MW-6 are sampled on an annual basis during the first quarter. Groundwater monitoring field data sheets are presented as Appendix A. The groundwater monitoring data has been submitted to the GeoTracker database. See Appendix B for the GeoTracker electronic delivery confirmation.

**Sample Analyses:** Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method 8021B. All analyses were performed by McCampbell Analytical, Inc. of Pacheco, California. The laboratory analytical report is included as Appendix C. Hydrocarbon concentrations are shown on Figure 1 and Table 1. The analytical data was submitted to the GeoTracker database. See Appendix B for the GeoTracker electronic delivery confirmation.

**Monitoring Results**

**Groundwater Flow Direction:** Based on depth-to-water measurements collected during the December 20, 2005 site visit, groundwater beneath the site flows toward the north-northeast at a gradient of 0.004 feet/foot. Groundwater flow conditions observed during the fourth quarter 2005 are consistent with conditions observed during previous monitoring events. Groundwater elevation data is presented in Figure 1 and Table 1.



**Hydrocarbon Distribution in Groundwater:** Hydrocarbon concentrations were detected in all three sampled wells this quarter. TPHg concentrations ranged from 150 micrograms per liter ( $\mu\text{g}/\text{L}$ ) to 26,000  $\mu\text{g}/\text{L}$ , with the highest concentration detected in well MW-4. Benzene concentrations ranged from 10  $\mu\text{g}/\text{L}$  to 8,500  $\mu\text{g}/\text{L}$ , with the highest concentration detected in well MW-4. MTBE was not detected above laboratory reporting limits in any of the wells. Please refer to Figure 1 and Table 1 for dissolved hydrocarbon concentrations, and Appendix D for benzene concentration and depth to water versus time trend graphs for wells MW-1 through MW-6. Please note that the unshaded symbols on the graphs represent results below laboratory detection limits.

**ANTICIPATED FIRST QUARTER 2006 ACTIVITIES****Monitoring Activities**

Cambria will coordinate with MES to perform quarterly monitoring activities. MES will gauge all monitoring wells; check wells for SPH; and collect groundwater samples from wells not containing SPH. As per the sampling schedule, wells MW-1 through MW-6 will be sampled during the first quarter event. Groundwater samples will be analyzed for TPHg by modified EPA Method 8015, and BTEX and MTBE by EPA Method 8021B. If MTBE is detected above laboratory detection limits in any sample, confirmation analysis by EPA Method 8260 will be performed. Groundwater monitoring and sampling results will be submitted to the State's GeoTracker database. Cambria will summarize groundwater monitoring activities and results in the *Groundwater Monitoring Report - First Quarter 2006*.

## **Corrective Action Activities**

Cambria proposed to conduct a risk-based corrective action (RBCA) analysis to evaluate the site as a low-risk case closure candidate. The RBCA analysis was proposed in Cambria's *Groundwater monitoring and System Progress Report – First Quarter 2005* dated April 13, 2005. Cambria is waiting for agency approval to initiate the RBCA analysis.



## **ATTACHMENTS**

Figure 1 - Groundwater Elevation and Hydrocarbon Concentration Map

Table 1 - Groundwater Elevations and Analytical Data

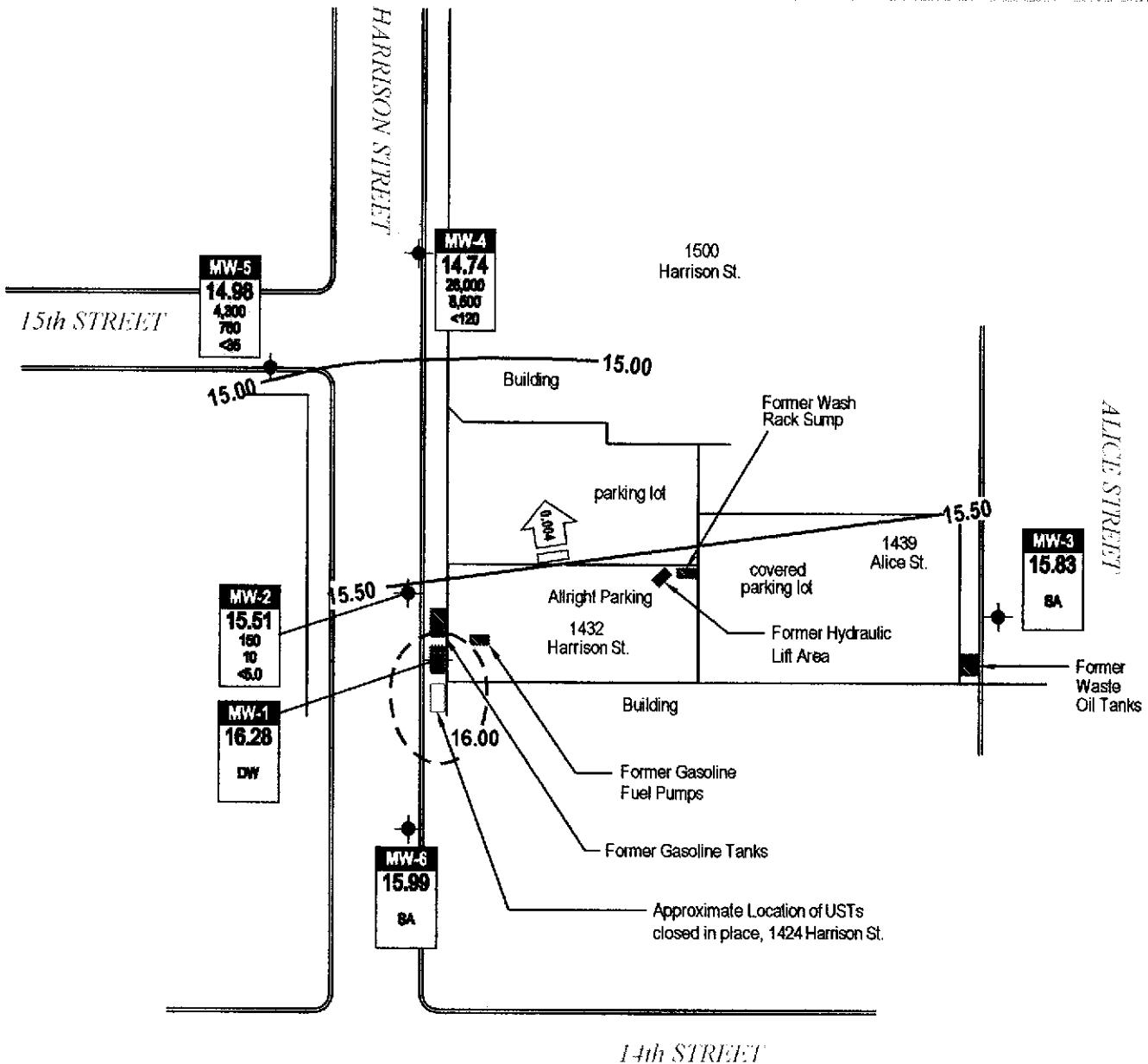
Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B -- GeoTracker Electronic Delivery Confirmations

Appendix C -- Analytical Results for Groundwater Sampling

Appendix D – Benzene Concentration and Depth to Water versus Time Trend Graphs

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### EXPLANATION

•	Groundwater monitoring well
—	Groundwater elevation contour, in feet above mean sea level (dashed where inferred)
→	Groundwater flow direction and gradient
Well ID ELEV TPH Benzene MTBE	Well designation Groundwater elevation, in feet above mean sea level Hydrocarbons and MTBE in groundwater, in micrograms per liter
DW	Well dewatered during purging activities, no sample collected
SA	Sampled Annually

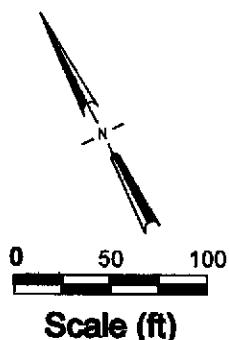


FIGURE  
1

### Allright Parking

1432 Harrison Street  
Oakland, California

CAMBRIA

### Groundwater Elevation and Hydrocarbon Concentration Map

December 20, 2005







# CAMBRIA

**Table 1. Groundwater Elevations and Analytical Data - Albright Parking, 1432 Harrison Street, Oakland, California**

Well ID <i>TOC (ft amsl)</i>	Date	Depth to Groundwater (ft amsl)	SPH Thickness (feet)	Groundwater Elevation (feet)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
<i>(µg/L)</i>											
<i>MW-6</i>	6/22/1998	18.43	--	17.46	ND	ND	ND	ND	ND	--	--
<i>Continued</i>	9/18/1998	19.10	--	16.79	ND	ND	ND	ND	ND	--	--
	12/23/1998	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	3/29/1999	18.92	--	16.97	ND	ND	ND	ND	ND	--	--
	6/23/1999	18.41	--	17.48	ND	ND	ND	ND	ND	--	--
	9/24/1999	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	12/23/1999	20.30	--	15.59	ND	ND	ND	ND	ND	--	--
	3/21/2000	18.97	--	16.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/2000	19.46	--	16.43	59	5.1	2.3	1.1	5.3	<5.0*	--
	9/7/2000	19.95	--	15.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	a
	12/5/2000	20.50	--	15.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/2001	19.54	--	16.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/2001	20.92	--	14.97	<50	<0.5	<0.5	<0.5	<0.5	<5.1	--
	8/27/2001	21.37	--	14.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/23/2001	21.59	--	14.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/2002	21.33	--	14.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/2002	21.97	--	13.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/2002	21.55	--	14.34	-	-	-	-	-	-	--
	12/22/2002	22.25	--	13.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	1/23/2003	20.47	--	15.42	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/12/2003	21.09	--	14.80	-	--	--	--	--	--	--
	7/23/2003	21.42	--	14.47	-	--	--	--	--	--	--
	12/22/2003	19.49	--	16.40	-	--	--	--	--	--	--
	3/10/2004	20.20	--	15.69	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/16/2004	20.73	--	15.16	-	--	--	--	--	--	--
	9/27/2004	22.88	--	13.01	-	--	--	--	--	--	--
	12/22/2004	22.53	--	13.36	-	--	--	--	--	--	--
	3/3/2005	19.87	--	16.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/9/2005	18.95	--	16.94	-	--	--	--	--	--	--
	9/9/2005	19.45	--	16.44	-	--	--	--	--	--	--
	12/20/2005	19.90	--	15.99	-	--	--	--	--	--	--
Trip Blank	3/21/2000	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	9/7/2000	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--

**Abbreviations, Methods, & Notes**

TOC = Top of casing elevation

ft amsl = feet above mean sea level

SPH = Separate-phase hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW 8021B

MTBE = Methyl tert-butyl ether

\* = MTBE by EPA Method SW8021B

\*\* = MTBE by EPA Method SW8240

\*\*\* = MTBE by EPA Method SW8260

mg/L = micrograms per liter, equivalent to parts per billion

-- = Not sampled, not analyzed, or not applicable

<n = Not detected in sample above n mg/L

ND = Not detected above laboratory detection limit

x = Groundwater elevation adjusted for SPH by the relation:

Groundwater Elevation = TOC Elevation - Depth to Groundwater + (0.7 x SPH thickness)

# = The wellhead elevation was raised by 0.41 feet when well MW-1 was connected to

the SVE system on October 31, 2003.

## = The wellhead elevation was lowered by 0.41 feet when well MW-1 was disconnected from the SVE

system on April 30, 2005.

+ = Well de-watered during purging, no measurable water to sample.

a = Unmodified or weakly modified gasoline is significant.

b = Lighter than water immiscible sheen is present.

c = Liquid sample that contains greater than ~2 vol. % sediment.

d = MTBE result confirmed by secondary column or GC/MS analysis.

e = Sample analyzed for purgeable hydrocarbons by EPA Method SW8010, no purgeable hydrocarbons were detected.

f = Sample analyzed for VOCs by EPA Method SW8240, no non-BTEX compounds were detected.

g = Sample analyzed for Total Petroleum Hydrocarbons as motor oil (TPHmo) by Modified EPA Method SW8015, no TPHmo was detected.

h = Analytic sampling discontinued. Approved by Alameda County Department of Environmental Health.

i = Lighter than gasoline range compounds are significant.

j = Gasoline range compounds having broad chromatographic peaks are significant.

k = No recognizable pattern.

l = Sample diluted due to high organic content.

m = Liquid sample that contains greater than ~1 vol. % sediment.

n = TOC well elevation was increased by 3 ft based on a benchmark discrepancy discovered

during a well survey performed on September 11, 2002.

## **APPENDIX A**

Groundwater Monitoring Field Data Sheets



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL GAUGING SHEET**

## WELL SAMPLING FORM

Date:	12/20/2005					
Client:	Cambria Environmental Technology Inc.					
Site Address:	1232 Harrison Street Oakland, CA					
Well ID:	MW-1					
Well Diameter:	4"					
Purging Device:						
Sampling Method:						
Total Well Depth:	Fe=                          mg/L ORP=                        mV DO=                        mg/L					
Depth to Water:						
Water Column Height:						
Gallons/ft:						
1 Casing Volume (gal):	<b>COMMENTS:</b> Soft silty water and soil mixture bottom at 18.68, checked with a disposable bailer after gauging well. Bailor contained a very silty, low water content mixture. Unable to sample well.					
3 Casing Volumes (gal):						
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. ( $\mu$ S/cm)		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method

Signature: 



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## WELL SAMPLING FORM

Date:	12/20/2005					
Client:	Cambria Environmental Technology Inc.					
Site Address:	1232 Harrison Street Oakland, CA					
Well ID:	MW-2					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	25.60	Fe=	mg/L			
Depth to Water:	19.70	ORP=	mV			
Water Column Height:	5.90	DO=	mg/L			
Gallons/ft:	0.16					
1 Casing Volume (gal):	0.94	COMMENTS: turbid				
3 Casing Volumes (gal):	2.83					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (μS/cm)		
3:30	0.9	19.7	7.13	630		
3:35	1.9	19.3	7.08	622		
3:40	2.8	19.2	7.11	617		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-2	12/20/2005	3:45	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8020, confirmation by 8260

Signature:   
**NB**



## WELL SAMPLING FORM

Date:	12/20/2005					
Client:	Cambria Environmental Technology Inc.					
Site Address:	1232 Harrison Street Oakland, CA					
Well ID:	MW-4					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	24.75		Fe=	mg/L		
Depth to Water:	19.01		ORP=	mV		
Water Column Height:	5.74		DO=	mg/L		
Gallons/ft:	0.16					
1 Casing Volume (gal):	0.92		COMMENTS: turbid, odor			
3 Casing Volumes (gal):	2.76					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. ( $\mu\text{S}/\text{cm}$ )		
4:10	0.9	19.4	7.15	498		
4:15	1.8	19.2	7.12	517		
4:20	2.8	19.1	7.12	529		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-4	12/20/2005	4:25	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8020, confirmation by 8260
						Signature:



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## WELL SAMPLING FORM

Date:	12/20/2005					
Client:	Cambria Environmental Technology Inc.					
Site Address:	1232 Harrison Street Oakland, CA					
Well ID:	MW-5					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	28.41	Fe=	mg/L			
Depth to Water:	19.65	ORP=	mV			
Water Column Height:	8.76	DO=	mg/L			
Gallons/ft:	0.16					
1 Casing Volume (gal):	1.40	COMMENTS: turbid				
3 Casing Volumes (gal):	4.20					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS/cm)		
2:50	1.4	19.4	7.19	524		
2:55	2.8	19.2	7.14	507		
3:00	4.2	19.2	7.10	513		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-5	12/20/2005	3:05	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8020, confirmation by 8260
						Signature:

## **APPENDIX B**

Geotracker Electronic Delivery Confirmations

## Electronic Submittal Information

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

### UPLOADING A GEO\_WELL FILE

**Processing is complete. No errors were found!  
Your file has been successfully submitted!**

**Submittal Title:** 4th Quarter 2005

Geo\_Well

**Submittal Date/Time:** 1/3/2006 5:00:52 PM

**Confirmation  
Number:** 2875196695

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Logged in as CAMBRIA-EM (AUTH\_RP) CONTACT SITE ADMINISTRATOR.

## Electronic Submittal Information

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Your EDF file has been successfully uploaded!

**Confirmation Number:** 2887736022

**Date/Time of Submittal:** 1/4/2006 9:10:58 AM

**Facility Global ID:** T0600100682

**Facility Name:** A BACHARACH TR & B BORSUK

**Submittal Title:** 4TH QTR 2005 GW Analytical Data

**Submittal Type:** Additional Information Report

[Click here to view the detections report for this upload.](#)

<b>A BACHARACH TR &amp; B BORSUK</b> 1432 HARRISON ST OAKLAND, CA 94612	<b>Regional Board - Case #:</b> 01-0739 SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)
	<b>Local Agency (lead agency) - Case #:</b> 498 ALAMEDA COUNTY LOP - (AG)

<b>CONF #</b> 2887736022	<b>TITLE</b> 4TH QTR 2005 GW Analytical Data	<b>QUARTER</b> Q4 2005
<b>SUBMITTED BY</b> Matt Meyers	<b>SUBMIT DATE</b> 1/4/2006	<b>STATUS</b> PENDING REVIEW

### **SAMPLE DETECTIONS REPORT**

# FIELD POINTS SAMPLED	3
# FIELD POINTS WITH DETECTIONS	3
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	3
SAMPLE MATRIX TYPES	WATER

### **METHOD QA/QC REPORT**

METHODS USED	SW8015B,SW8021F
TESTED FOR REQUIRED ANALYTES?	N

#### MISSING PARAMETERS NOT TESTED:

- SW8015B REQUIRES ETBE TO BE TESTED
- SW8015B REQUIRES TAME TO BE TESTED
- SW8015B REQUIRES DIPE TO BE TESTED
- SW8015B REQUIRES TBA TO BE TESTED
- SW8015B REQUIRES DCA12 TO BE TESTED
- SW8015B REQUIRES EDB TO BE TESTED
- SW8021F REQUIRES ETBE TO BE TESTED
- SW8021F REQUIRES TAME TO BE TESTED
- SW8021F REQUIRES DIPE TO BE TESTED
- SW8021F REQUIRES TBA TO BE TESTED
- SW8021F REQUIRES DCA12 TO BE TESTED
- SW8021F REQUIRES EDB TO BE TESTED

LAB NOTE DATA QUALIFIERS	N
--------------------------	---

### **QA/QC FOR 8021/8260 SERIES SAMPLES**

TECHNICAL HOLDING TIME VIOLATIONS	0
-----------------------------------	---

METHOD HOLDING TIME VIOLATIONS	0
--------------------------------	---

LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
--	---

LAB BLANK DETECTIONS	0
----------------------	---

DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?

- LAB METHOD BLANK	Y
--------------------	---

- MATRIX SPIKE	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	N
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	N

**WATER SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	N
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPDL</u>
QCTB SAMPLES	N	0
QCCEB SAMPLES	N	0
QCAB SAMPLES	N	0

Logged in as CAMBRIA-EM (AUTH\_RP)

CONTACT SITE ADMINISTRATOR.

## **APPENDIX C**

Analytical Results for Groundwater Sampling



**McCampbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560

Telephone : 925-798-1620 Fax : 925-798-1622

Website: [www.mccampbell.com](http://www.mccampbell.com) E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)

Cambria Env. Technology  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #540-0188; Borsuk	Date Sampled: 12/20/05
		Date Received: 12/22/05
	Client Contact: Subbarao Nagulapaty	Date Reported: 12/28/05
	Client P.O.:	Date Completed: 12/28/05

**WorkOrder: 0512390**

December 28, 2005

Dear Subbarao:

Enclosed are:

- 1). the results of 3 analyzed samples from your **#540-0188; Borsuk project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

**McCampbell Analytical, Inc.**110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
Telephone : 925-798-1620 Fax : 925-798-1622  
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #540-0188; Borsuk	Date Sampled: 12/20/05
		Date Received: 12/22/05
	Client Contact: Subbarao Nagulapaty	Date Extracted: 12/22/05-12/23/05
	Client P.O.:	Date Analyzed: 12/22/05-12/23/05

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0512390

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-2	W	150,a	ND	10	1.9	2.8	10	1	104
002A	MW-4	W	26,000,a	ND<120	8500	160	640	800	10	99
003A	MW-5	W	4300,a	ND<35	760	18	170	150	1	115

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	μg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

  
Angela Rydelius, Lab Manager



**McCampbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
Telephone : 925-798-1620 Fax : 925-798-1622  
Website: www.mccampbell.com E-mail: main@mccampbell.com

## QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0512390

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 19578			Spiked Sample ID: 0512392-002A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) <sup>E</sup>	ND	60	97.4	98	0.579	105	106	0.566	70 - 130	70 - 130
MTBE	ND	10	110	100	8.87	99.5	103	3.71	70 - 130	70 - 130
Benzene	ND	10	97	107	9.67	103	107	3.43	70 - 130	70 - 130
Toluene	ND	10	89.8	101	11.3	97.9	100	2.53	70 - 130	70 - 130
Ethylbenzene	ND	10	102	108	5.64	104	106	1.62	70 - 130	70 - 130
Xylenes	ND	30	95	96.3	1.39	95.3	99.7	4.44	70 - 130	70 - 130
%SS:	97	10	102	103	0.735	101	102	0.936	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 19578 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0512390-001A	12/20/05 3:45 PM	12/22/05	12/22/05 7:53 PM	0512390-002A	12/20/05 4:25 PM	12/22/05	12/22/05 8:27 PM
0512390-002A	12/20/05 4:25 PM	12/23/05	12/23/05 5:26 PM	0512390-003A	12/20/05 3:05 PM	12/22/05	12/22/05 9:02 PM
0512390-003A	12/20/05 3:05 PM	12/23/05	12/23/05 5:59 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

<sup>E</sup> TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

0512390

## McCAMPBELL ANALYTICAL, INC.

110 2<sup>nd</sup> AVENUE SOUTH, #D7  
PACHECO, CA 94553-5560Website: [www.mccampbell.com](http://www.mccampbell.com) Email: mail@mccampbell.com  
Telephone: (925) 798-1620 Fax: (925) 798-1622

## CHAIN OF CUSTODY RECORD

## TURN AROUND TIME

 RUSH     24 HR     48 HR     72 HR     5 DAYEDF Required?  Yes  No

Report To: Subbarao Nagayapathy Bill To: Cambria Environmental Tech.  
 Company: Cambria Environmental Technology  
 5900 Hollis Street Suite A  
 Emeryville, CA 94608 E-Mail: [snagayapathy@Cambria-env.com](mailto:snagayapathy@Cambria-env.com)  
 Tele: 510-420-3361 Fax: 510-420-9170  
 Project #: 540-0188 Project Name: BOSUK  
 Project Location: 1432 Harrison St. Oakland, CA  
 Sampler Signature: Muskan Environmental Sampling

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	MATRIX		METHOD PRESERVED	Analysis Request	Other	Comments			
		Date	Time		Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other
MW-2		12-20-05	3:45	3	Voc	X				X	X		
MW-4			4:25	3						X	X		
MW-5			3:05	3						X	X		
TB		X		1	X	X							Hold

Relinquished By:	Date: 12-20-05	Time: 8:00	Received By: <i>secure location</i>
Relinquished By:	Date: 12-22-05	Time: 8:15	Received By: <i>Nicole Marin</i>

ICE/T<sup>°</sup>  
 GOOD CONDITION  
 HEAD SPACE ABSENT  
 DECHLORINATED IN LAB  
 APPROPRIATE CONTAINERS  
 PRESERVED IN LAB  
 VOAC O&G METALS OTHER  
 PRESERVATION

**McCabe Analytical, Inc.**

  
110 Second Avenue South, #D7  
Pacheco, CA 94553-5560  
(925) 798-1620

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

WorkOrder: 0512390

ClientID: CETE

EDF: NO

**Report to:**

Subbarao Nagulapathy  
Cambria Env. Technology  
5900 Hollis St, Suite A  
Emeryville, CA 94608

TEL: (510) 420-0700  
FAX: (510) 420-9170  
ProjectNo: #540-0188; Borsuk  
PO:

**Bill to:**

Accounts Payable  
Cambria Env. Technology  
5900 Hollis St, Ste. A  
Emeryville, CA 94608

Requested TAT:

5 days

Date Received: 12/22/2005  
Date Printed: 12/22/2005

Sample ID	Client SampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0512390-001	MW-2	Water	12/20/05 3:45:00	<input type="checkbox"/>	A											
0512390-002	MW-4	Water	12/20/05 4:25:00	<input type="checkbox"/>	A											
0512390-003	MW-5	Water	12/20/05 3:05:00	<input type="checkbox"/>	A											

**Test Legend:**

1	G-MBTEX_W	2		3		4		5		6		7		8		9	
6		7		8		9		10		11		12					
11		12															

Prepared by: Maria Venegas

**Comments:**

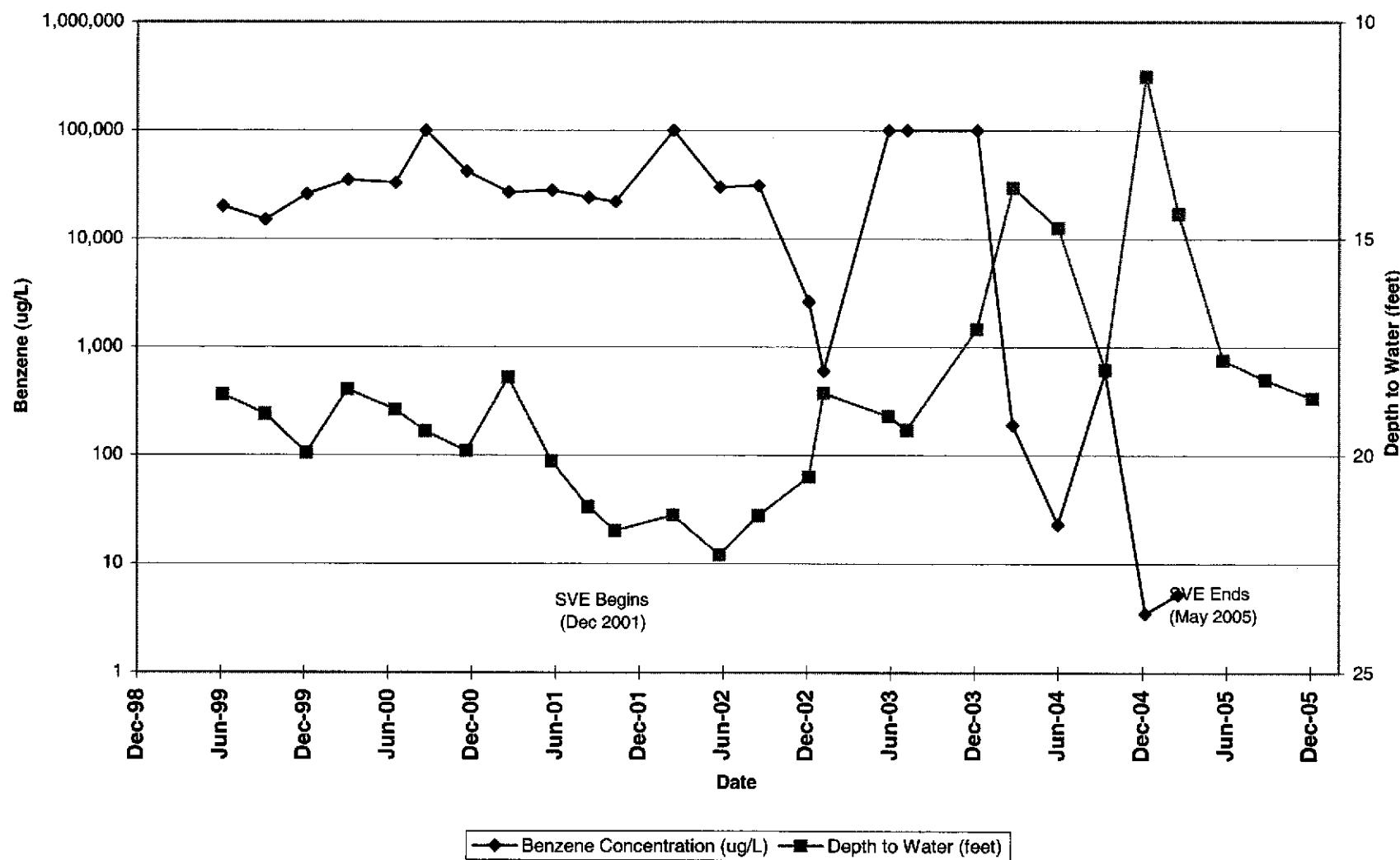
NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

## **APPENDIX D**

Benzene Concentration and Depth to Water versus Time Trend Graphs

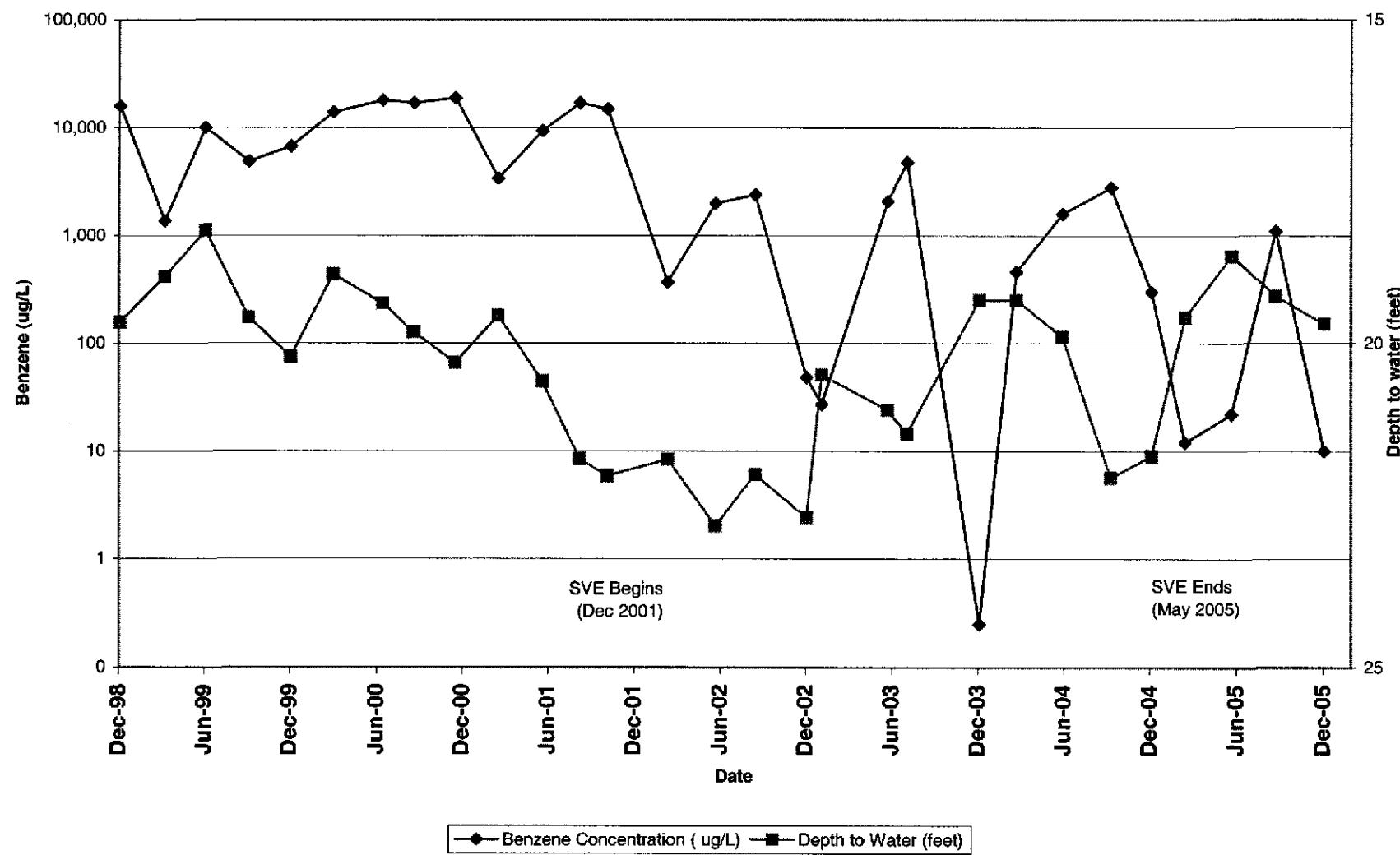
### MW-1: Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California



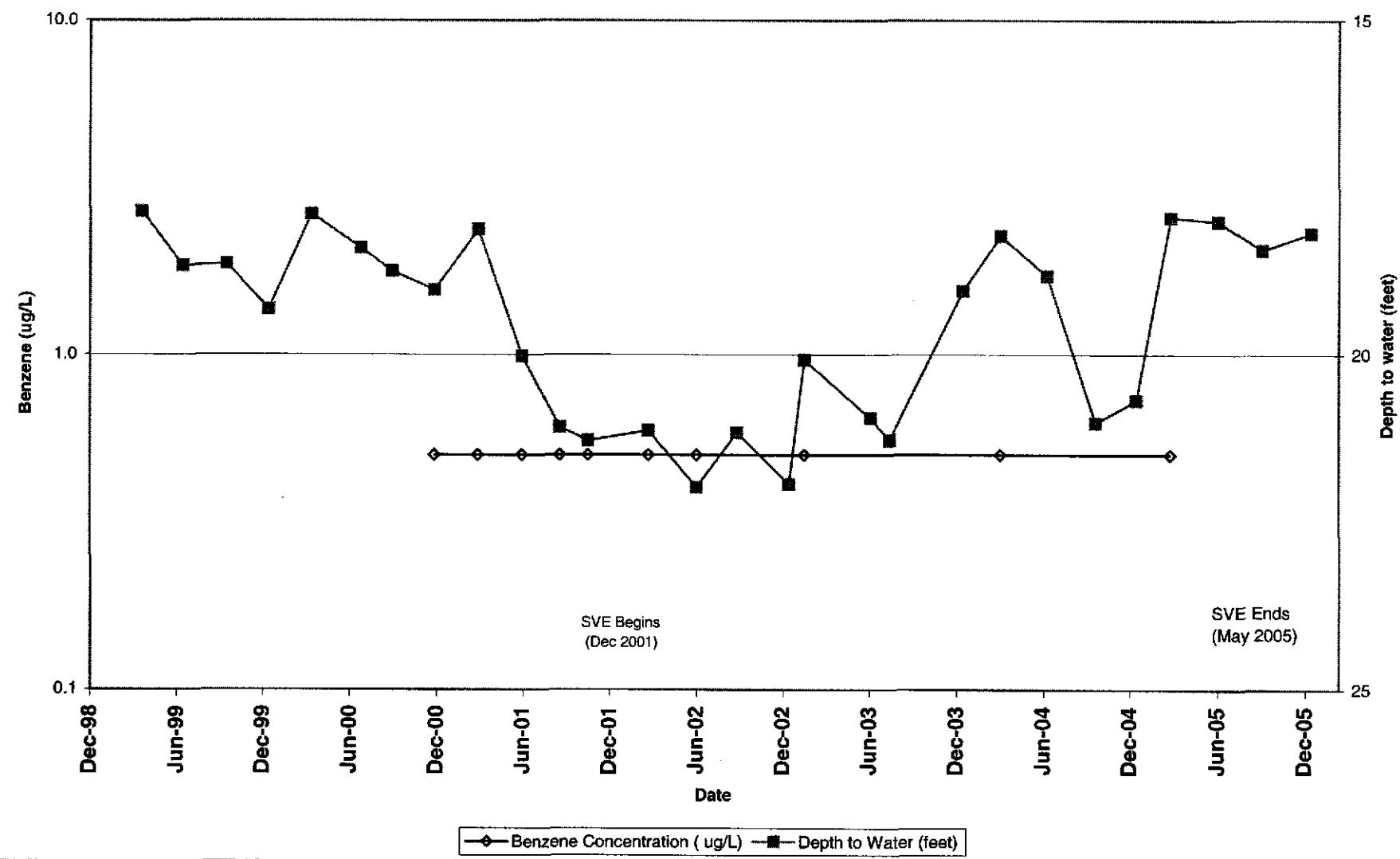
### MW-2: Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California



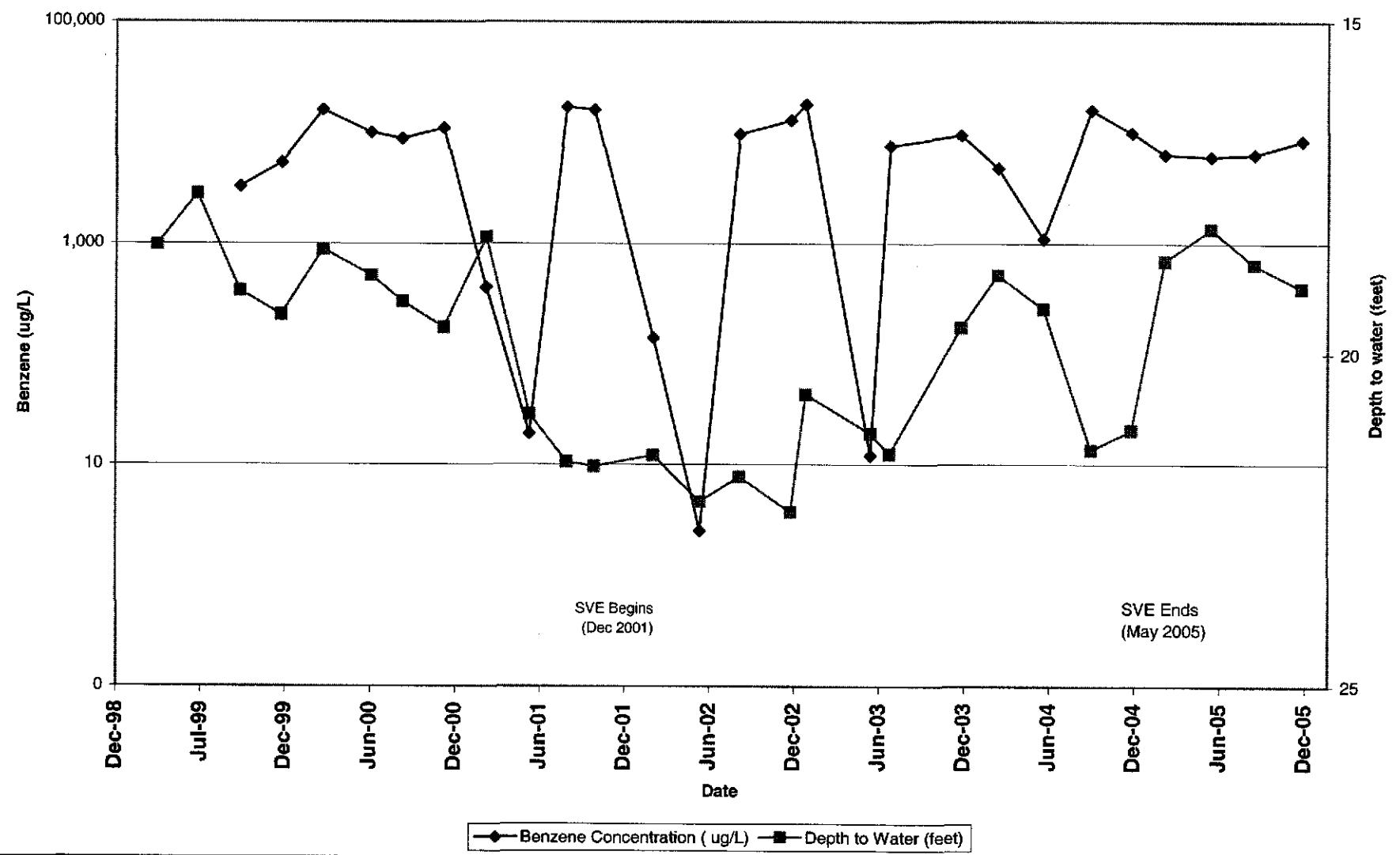
### MW-3:Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California



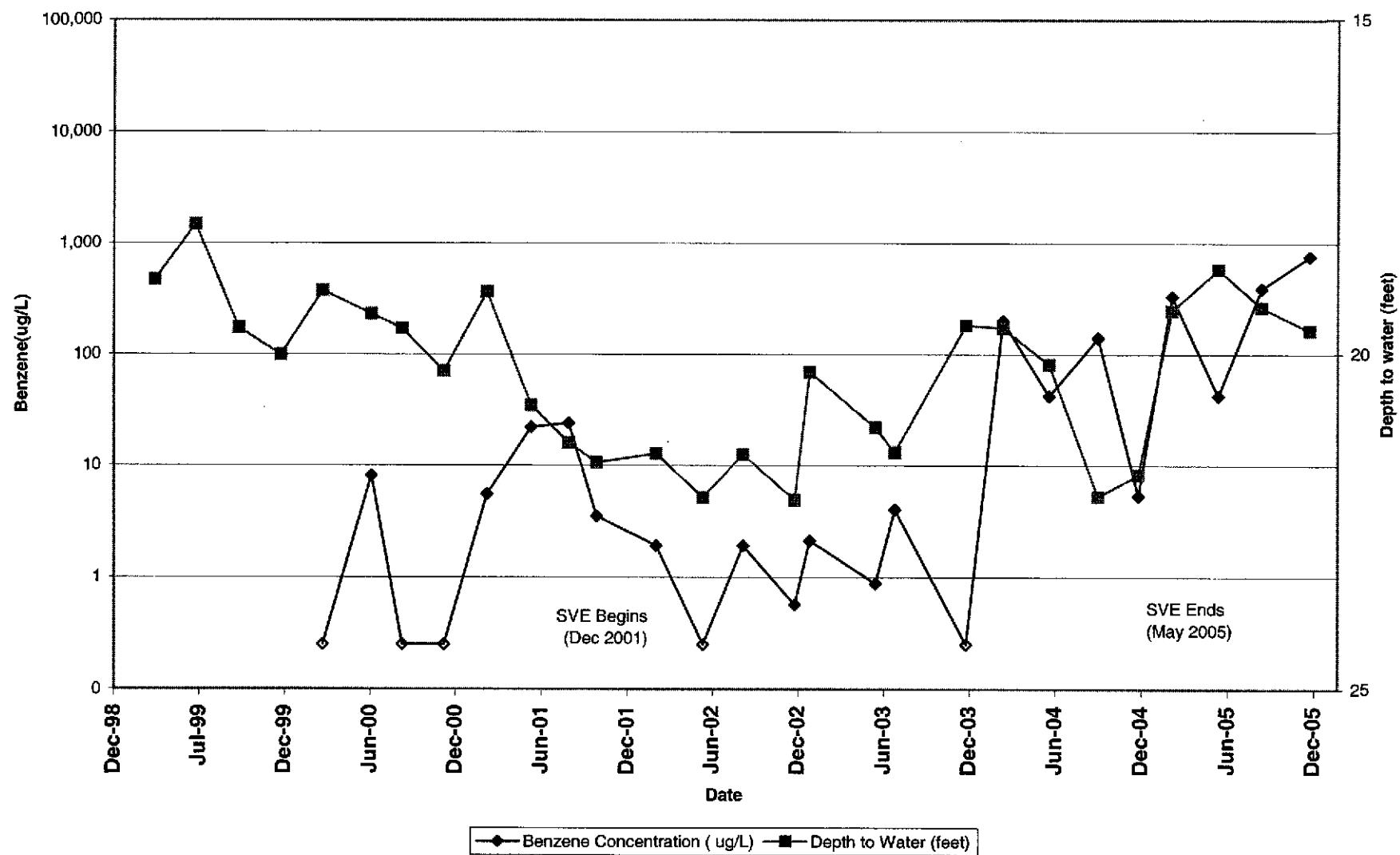
### MW-4: Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California



### MW-5: Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California



### MW-6: Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California

