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July 7, 2004

Mr. Don Hwang  
Alameda County Department of Environmental Health  
UST Local Oversight Program  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

Re: **Groundwater Monitoring Report - Second Quarter 2004**  
Hooshi's Auto Service  
1499 MacArthur Boulevard  
Oakland, California 94602  
Cambria Project No. 129-0741

Alameda County  
JUL 12 2004  
Environmental Health



Dear Mr. Hwang:

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. has prepared this *Groundwater Monitoring Report - Second Quarter 2004* for the above-referenced site. Presented in the report is a summary of the second quarter 2004 activities and results, and a description of the anticipated third quarter 2004 activities.

If you have any questions or comments regarding this report, please call me at (510) 420-3314.

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

Matthew A. Meyers  
Senior Staff Geologist

Attachments: Groundwater Monitoring Report - Second Quarter 2004

cc: Ms. Naomi Gatzke, 1545 Scenic View Drive, San Leandro, California 94577

**Cambria  
Environmental  
Technology, Inc.**

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

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GROUNDWATER MONITORING REPORT - SECOND QUARTER 2004

Hooshi's Auto Service  
1499 MacArthur Boulevard  
Oakland, California 94602  
Cambria Project No. 129-0741

July 7, 2004

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ENVIRONMENTAL DIVISION



*Prepared for:*

Ms. Naomi Gatzke  
1545 Scenic View Drive  
San Leandro, California 94577

*Prepared by:*

Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
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*Written by:*

Matthew A. Meyers  
Senior Staff Geologist



Neal E. Siler, R.G., R.E.A.  
Senior Project Geologist

## GROUNDWATER MONITORING REPORT - SECOND QUARTER 2004

Hooshi's Auto Service  
1499 MacArthur Boulevard  
Oakland, California 94602  
Cambria Project No. 129-0741

July 7, 2004

### INTRODUCTION



On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring Report – Second Quarter 2004* for the above-referenced site (Figure 1). Presented in this report is a summary of the second quarter 2004 groundwater monitoring activities and results, and a description of the anticipated third quarter 2004 activities.

In addition to the information presented in this report, four appendices present supporting information and data. Appendix A contains the Cambria field monitoring data sheets for this monitoring event. Appendix B contains the analytical laboratory reports for the samples submitted by Cambria. Appendix C contains graphs of hydrocarbon concentrations versus time. Appendix D contains GeoTracker delivery confirmation documentation.

### SECOND QUARTER 2004 ACTIVITIES

#### Monitoring Activities

**Field Activities:** On April 2, 2004, Cambria gauged water levels and sampled groundwater in monitoring wells MW-1 through MW-6 according to the sampling schedule. Field data sheets are presented as Appendix A. The well gauging data has been submitted to the GeoTracker database (Appendix D).

Cambria's monitoring procedures and protocols consisted of the following. Prior to purging, groundwater levels were gauged in the wells to evaluate groundwater elevation and flow patterns at the site. To facilitate groundwater sampling, Cambria purged three well-casing volumes prior to sampling. Cambria recorded groundwater pH, conductivity, and temperature, and evaluated reading stabilization. Groundwater samples were collected using clean, disposable bailers and were decanted into the appropriate containers supplied by the analytical laboratory. Samples were labeled, placed in protective foam sleeves, stored on crushed, water-based ice at or below 4 degrees Celsius and transported under chain-of-custody to the laboratory.

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**Sample Analyses:** Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified United States Environmental Protection Agency (EPA) Method 8015C; and benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. The groundwater analytical results are summarized in Table 1. The laboratory analytical report is included as Appendix B. The groundwater analytical results have been submitted to the GeoTracker database (Appendix D).

## Monitoring Results

**Groundwater Flow Direction and Gradient:** Based on field measurements collected on April 2, 2004, groundwater beneath the site generally flows toward the southwest (Figure 1). The groundwater gradient is relatively flat onsite and increases to 0.115 feet/foot towards the southwest corner of the site. Depth to water and groundwater elevation data are presented in Table 1.

**Hydrocarbon Distribution in Groundwater:** Hydrocarbons were detected in the three wells sampled. The maximum concentrations of TPHg and benzene were detected in well MW-2 at 37,000 micrograms per liter ( $\mu\text{g/L}$ ) and 840  $\mu\text{g/L}$ , respectively. No MTBE was detected in any of the sampled monitoring wells. Overall, hydrocarbon concentrations remained at relatively similar or decreased levels as compared with previous quarters (Appendix C).

## ANTICIPATED THIRD QUARTER 2004 ACTIVITIES

### Monitoring Activities

Cambria will gauge water levels in all wells and collect groundwater samples from wells MW-1, MW-2, and MW-5. As per phone discussions with Mr. Don Hwang of the Alameda County Department of Environmental Health (ACDEH), the well sampling schedule has been reduced so that wells MW-1, MW-2, and MW-5 will be sampled on a quarterly basis and wells MW-3, MW-4, and MW-6 will be sampled on an annual basis (during the fourth quarter). Groundwater samples will be analyzed for TPHg by modified EPA Method 8015C and BTEX and MTBE by EPA Method 8021B. Detected MTBE concentrations will be confirmed by EPA Method 8260. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

### Site Closure Activities

Based on the decreasing concentrations and the stable plume confirmation, Cambria has begun preparation of a Closure Request Report for this low risk groundwater site. The Closure Request Report is anticipated to be completed during the third quarter of 2004.

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## ATTACHMENTS

Figure 1 – Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Analytical Results for Groundwater Sampling

Appendix C – TPHg and Benzene Concentration Graphs

Appendix D – Electronic Delivery Confirmations

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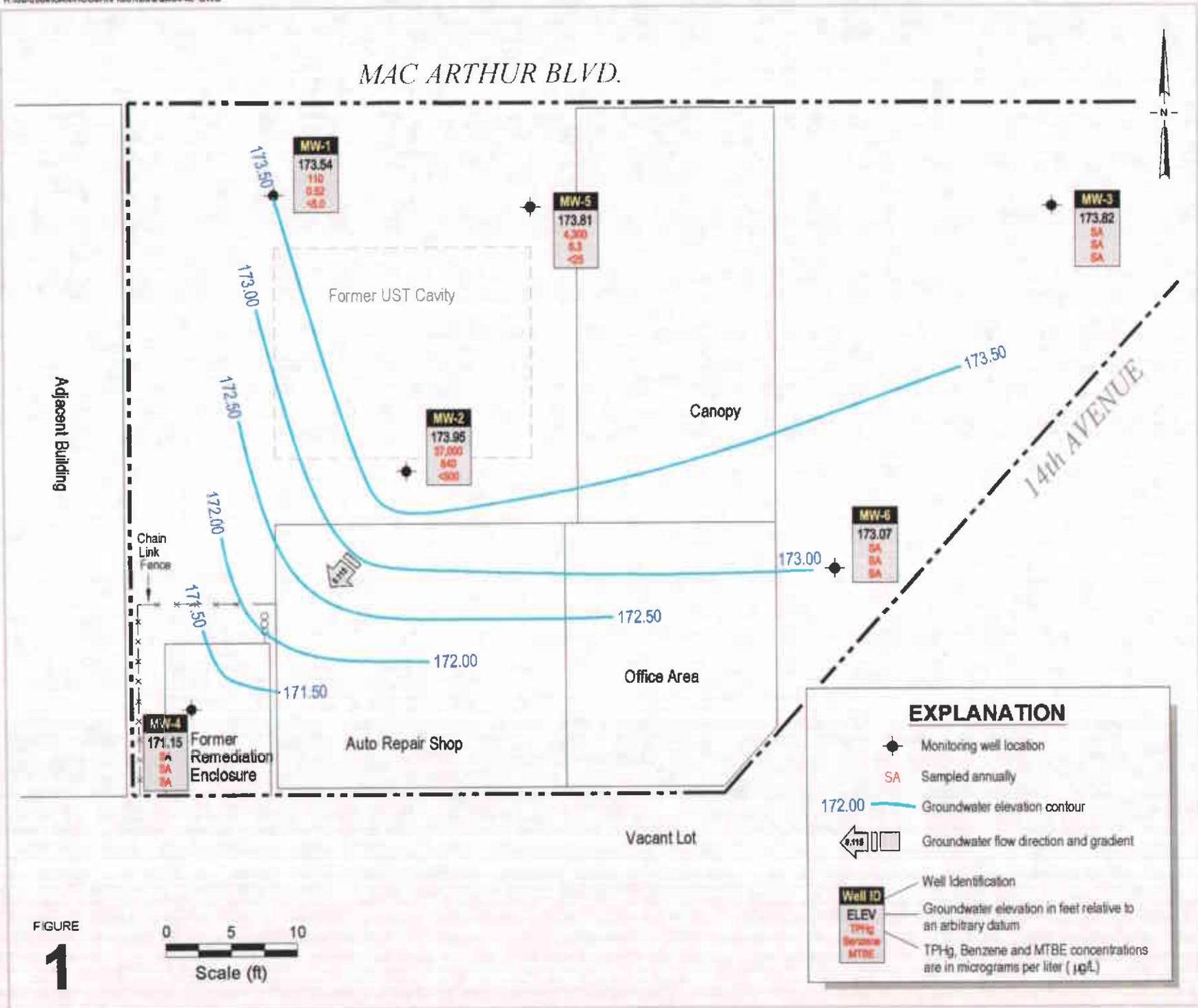
**Hooshi's Auto Service**  
 1499 MacArthur Boulevard  
 Oakland, California

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**Groundwater Elevation Contour  
 and Hydrocarbon Concentration Map**

April 2, 2004



# CAMBRIA

**Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California**

Well ID TOC (ft*)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	SPH Thickness (ft)	←----- (µg/L) -----→						Notes
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	
MW-1 181.00	1/4/1993	--	--	--	539	130	12	22	13	--	
	4/22/1993	--	--	--	1,130	75	8.0	38	11	--	
	12/27/1994	--	--	--	770	22	6.6	14	21	--	
	6/27/1996	14.11	166.89	--	3,300	260	34	59	170	80	
	12/10/1996	13.71	167.29	--	1,500	84	11	22	32	34	
	5/8/1998	13.85	167.15	--	3,200	300	12	62	36	<120	a
	8/17/1998	14.11	166.89	--	1,700	160	18	32	27	39	a
	11/4/1998	14.28	166.72	--	1,100	11	4.3	3.6	6.5	<50	a
	2/17/1999	13.41	167.59	--	320	200	47	72	75	57	a
	5/27/1999	14.16	166.84	--	2,500	81	12	29	41	<80	a
180.83	8/19/1999	14.18	166.82	--	780	19	<0.5	5.7	4.5	28	a
	11/23/1999	14.43	166.40	--	1,300	24	0.64	1.8	3.3	<100	a
	2/17/2000	13.85	166.98	--	1,300	60	9.1	22	19	22 (16)	a,b
	5/9/2000	14.01	166.82	--	2,700	55	13	19	25	34 (29)	a
	8/15/2000	14.24	166.59	--	--	--	--	--	--	--	
180.63	12/1/2000	8.75	172.08	--	480	6.4	5.9	1.1	3.9	18 (21)	a
	2/8/2001	8.49	172.14	--	64	<0.5	<0.5	<0.5	<0.5	6.1 (5.6)	a,c
	4/9/2001	8.71	171.92	--	--	--	--	--	--	--	
	4/24/2001	7.90	172.73	--	77	<0.5	<0.5	<0.5	<0.5	5.6 (3.7)	c
	8/6/2001	8.83	171.80	--	140	1.7	0.55	<0.5	0.63	5.8 (4.0)	a
	10/22/2001	8.91	171.72	--	120	0.92	<0.5	<0.5	0.59	11(10)	a
	2/1/2002	8.15	172.48	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/2002	8.63	172.00	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/16/2002	8.79	171.84	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/3/2002	8.90	171.73	--	110	<0.5	<0.5	<0.5	<0.5	<5.0	f
1/10/2003	7.93	172.70	--	<50	<0.5	0.74	<0.5	<0.5	<5.0		
4/21/2003	8.17	172.46	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		

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**Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California**

Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	SPH Thickness (ft)	$\leftarrow$ $\mu\text{g/L}$ $\rightarrow$						Notes	
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
<i>MW-1 cont'd</i>	7/9/2003	8.92	171.71	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	10/7/2003	9.13	171.50	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	1/22/2004	8.20	172.43	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	<b>4/2/2004</b>	<b>7.09</b>	<b>173.54</b>	--	<b>110</b>	<b>0.52</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>a</b>	
MW-2	1/4/1993	--	--	--	149,000	21,700	25,000	ND	7,760	--		
<i>180.45</i>	4/22/1993	--	--	--	136,300	9,900	15,870	15,300	2,190	--		
	12/27/1994	--	--	--	94,000	11,000	18,000	2,700	16,000	--		
	6/27/1996	12.61	168.64	1.00	--	--	--	--	--	--		
	12/10/1996	11.10	169.55	0.25	--	--	--	--	--	--		
	5/8/1998	10.81	169.66	0.03	--	--	--	--	--	--		
	8/17/1998	12.16	168.31	0.02	--	--	--	--	--	--		
	11/4/1998	12.61	167.86	0.02	--	--	--	--	--	--		
	2/17/1999	9.82	170.66	0.04	--	--	--	--	--	--		
	5/27/1999	11.07	169.48	0.13	--	--	--	--	--	--		
	8/19/1999	12.79	167.68	0.02	--	--	--	--	--	--		
	<i>180.24</i>	11/23/1999	12.14	168.20	0.12	--	--	--	--	--	--	
		2/17/2000	10.01	170.37	0.18	--	--	--	--	--	--	
		5/9/2000	10.88	169.38	0.03	--	--	--	--	--	--	
8/15/2000		12.28	167.97	0.01	--	--	--	--	--	--		
12/1/2000		8.03	172.21	--	260,000	1,100	5,000	1,900	17,000	<100	a	
2/8/2001		7.86	172.38	--	2,900	1.7	14	5.0	140	<5.0	c,d	
4/9/2001		7.95	172.29	--	--	--	--	--	--	--		
4/24/2001		6.90	173.34	--	56,000	360	980	1,000	4,700	<5.0	a,b	
8/6/2001		8.15	172.09	--	54,000	680	1,900	1,500	7,800	<200 (<10)	a,b,j	
10/22/2001		8.22	172.02	--	32,000	420	770	1,100	4,100	<250	a,b	
2/1/2002	8.07	172.17	--	26,000	310	490	920	1,600	<1,000	a		
4/19/2002	8.60	171.64	--	16,000	300	240	1,000	990	<100	a		

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					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
<i>MW-2 cont'd</i>	7/16/2002	8.21	172.03	--	5,700	120	18	340	15	<50	a	
	10/3/2002	8.14	172.10	--	4,400	44	16	68	20	<25	a	
	1/10/2003	6.98	173.26	--	16,000	300	320	580	830	<100	a,b	
	4/21/2003	7.25	172.99	--	12,000	350	260	610	380	<50	a	
	7/9/2003	7.99	172.25	--	3,300	51	7.4	47	2.8	<17	a	
	10/7/2003	8.21	172.03	--	2,400	93	11	34	22	<50	a	
	1/22/2004	7.24	173.00	--	5,900	240	130	350	200	<50	a	
	4/2/2004	6.29	173.95	--	37,000	840	1,500	1,300	5,900	<500	a	
<i>MW-3 179.94</i>	1/4/1993	--	--	--	1,610	772	14	11	ND	--		
	4/22/1993	--	--	--	3,040	980	34	19	16	--		
	12/27/1994	--	--	--	2,600	180	9.0	7.2	13	--		
	6/27/1996	13.20	166.74	--	2,000	22	2.9	11	7.4	56		
	12/10/1996	13.13	166.81	--	970	<0.5	<0.5	<0.5	<0.5	24		
	5/8/1998	13.03	166.91	--	780	3.7	2.1	1.1	2.4	<32	a	
	8/17/1998	13.22	166.72	--	870	2.8	<0.5	<0.5	3.7	<5.0	b,c	
	11/4/1998	13.31	166.63	--	770	1.6	4.4	2.0	6.9	<30	c	
	2/17/1999	12.89	167.05	--	650	6.2	3.4	1.5	2.6	<5.0	b,c	
	5/27/1999	12.32	167.62	--	570	1.5	1.2	0.72	1.1	<20	a	
	8/19/1999	13.19	166.75	--	830	<0.5	1.9	<0.5	1.3	<20	c,d	
	<i>179.55</i>	11/23/1999	13.26	166.29	--	900	<0.5	1.8	0.56	1.4	<20	c,d
		2/17/2000	12.78	166.77	--	250	<0.5	1.5	<0.5	0.62	<5.0	d
5/9/2000		12.92	166.63	--	690	<0.5	2.1	0.85	1.6	<5.0	a	
8/15/2000		13.19	166.36	--	610	<0.5	2.3	0.75	1.2	<5.0	c,d	
12/1/2000		7.50	172.05	--	120	<0.5	0.90	0.65	0.62	<5.0	c,d	
2/8/2001		7.20	172.35	--	87	<0.5	<0.5	<0.5	<0.5	<5.0	c,d	
4/9/2001		7.33	172.22	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
8/6/2001	7.61	171.94	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0			

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Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	SPH Thickness (ft)	←----- (µg/L) -----→						Notes	
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
<i>MW-3 cont'd</i>	10/22/2001	7.58	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	2/1/2002	7.53	172.02	--	<50	<0.5	<0.5	<0.5	<0.5	8.5 (8.5)		
	4/19/2002	7.95	171.60	--	<50	<0.5	<0.5	<0.5	<0.5	9.0 (11)		
	7/16/2002	7.68	171.87	--	<50	<0.5	<0.5	<0.5	<0.5	20 (30)		
	10/3/2002	7.78	171.77	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	1/10/2003	6.91	172.64	--	<50	<0.5	<0.5	<0.5	<0.5	19 (16)		
	sampled annually	4/21/2003	7.21	172.34	--	--	--	--	--	--	--	
		7/9/2003	8.05	171.50	--	--	--	--	--	--	--	
		10/7/2003	8.19	171.36	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
		1/22/2004	7.13	172.42	--	--	--	--	--	--	--	
	<b>4/2/2004</b>	<b>5.73</b>	<b>173.82</b>	--	--	--	--	--	--	--		
<i>MW-4</i> <i>180.54</i>	6/27/1996	17.03	163.51	--	720	2	0.5	2.5	23	3.2		
	12/10/1996	8.50	172.04	--	80	2.4	<0.5	<0.5	6.6	<2.0		
	5/8/1998	11.46	169.08	--	<50	0.60	<0.5	<0.5	<0.5	<5.0		
	8/17/1998	13.98	166.56	--	<50	<0.5	<0.5	<0.5	0.5	<5.0		
	11/4/1998	14.36	166.18	--	96	9.7	8.1	4.8	18	<5.0	a	
	2/17/1999	8.39	172.15	--	<50	<0.5	<0.5	<0.5	0.5	<5.0		
	5/27/1999	12.80	167.74	--	<50	<0.5	1.0	<0.5	2.9	<5.0		
	8/19/1999	14.42	166.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	<i>180.12</i>	11/23/1999	14.63	165.49	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
		2/17/2000	8.15	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
		5/9/2000	12.81	167.31	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
		8/15/2000	14.29	165.83	--	<50	2.1	<0.5	<0.5	<0.5	<5.0	
		12/1/2000	12.80	167.32	--	81	6.0	8.4	1.0	5.6	<5.0	a
		2/8/2001	12.57	167.55	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
		4/9/2001	12.50	167.62	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
		8/6/2001	14.00	166.12	--	59	1.5	<0.5	<0.5	<0.5	<5.0	a
		10/22/2001	14.05	166.07	--	130	6.3	<0.5	0.88	<0.5	<5.0	a
		2/1/2002	13.47	166.65	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

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Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	SPH Thickness (ft)	←----- (µg/L) ----->						Notes
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	
<i>MW-4 cont'd</i>	4/19/2002	13.55	166.57	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/16/2002	14.05	166.07	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/3/2002	13.09	167.03	--	77	2.1	0.51	<0.5	<0.5	<5.0	a
	1/10/2003	12.04	168.08	--	<50	<0.5	<0.5	<0.5	<0.5	20 (15)	a
	4/21/2003	12.15	167.97	--	--	--	--	--	--	--	
	sampled annually	7/9/2003	12.90	167.22	--	--	--	--	--	--	
	10/7/2003	13.15	166.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	1/22/2004	12.09	168.03	--	--	--	--	--	--	--	
	4/2/2004	8.97	171.15	--	--	--	--	--	--	--	
	MW-5	6/27/1996	13.62	166.74	0.16	--	--	--	--	--	--
180.23	12/10/1996	13.26	167.77	1.00	--	--	--	--	--	--	
	5/8/1998	13.15	167.11	0.04	--	--	--	--	--	--	
	8/17/1998	13.36	166.89	0.02	--	--	--	--	--	--	
	11/4/1998	13.52	166.73	0.02	--	--	--	--	--	--	
	2/17/1999	13.02	167.23	0.02	--	--	--	--	--	--	
	5/27/1999	13.80	166.71	0.35	--	--	--	--	--	--	
	8/19/1999	13.45	166.86	0.10	--	--	--	--	--	--	
180.09	11/23/1999	14.03	166.35	0.36	--	--	--	--	--	--	
	2/17/2000	13.28	167.02	0.26	--	--	--	--	--	--	
	5/9/2000	13.55	166.77	0.29	--	--	--	--	--	--	
	8/15/2000	13.58	166.54	0.04	--	--	--	--	--	--	
	12/1/2000	8.00	172.09	0.00	54,000	240	1,700	870	1,000	<300	c,d
180.04	2/8/2001	7.88	172.16	0.00	33,000	63	420	120	4,500	<50	a,b
	4/9/2001	7.97	172.07	0.00	--	--	--	--	--	--	
	4/24/2001	7.00	173.04	0.00	3,200	<1.0	11	7	260	<5.0	c,d
	8/6/2001	8.17	171.87	--	2,700	11	40	21	240	<5.0	a
	10/22/2001	8.15	171.89	--	20,000	200	1,200	330	2,900	<100	a,b
	2/1/2002	8.07	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/2002	8.51	171.53	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

# CAMBRIA

**Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California**

Well ID TOC (ft*)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	SPH Thickness (ft)	←----- (µg/L) ----->						Notes
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	
MW-5 cont'd	7/16/2002	8.40	171.64	--	<50	<0.5	<0.5	<0.5	1.7	<5.0	
	10/3/2002	8.18	171.86	--	15,000	94	830	460	2,200	<500	a
	1/10/2003	6.95	173.09	--	290	<0.5	1.8	<0.5	17	<5.0	a
	4/21/2003	7.18	172.86	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/9/2003	7.95	172.09	--	<50	<0.5	<0.5	<0.5	2.7	<5.0	
	10/7/2003	8.22	171.82	--	9,800	120	340	180	2,000	<50	a
	1/22/2004	7.18	172.86	--	250	<0.5	0.82	<0.5	29	<5.0	d
	<b>4/2/2004</b>	<b>6.23</b>	<b>173.81</b>	--	<b>4,300</b>	<b>6.3</b>	<b>18</b>	<b>59</b>	<b>750</b>	<b>&lt;25</b>	<b>a</b>
MW-6 180.03	6/27/1996	18.55	161.48	--	ND	ND	ND	ND	ND	--	
	12/10/1999	11.79	168.24	--	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	
179.63	5/8/1998	11.62	168.41	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/17/1998	12.66	167.37	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/1998	13.56	166.47	--	68	3.8	3.7	2.8	11	<5.0	a
	2/17/1999	12.91	167.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/1999	13.03	167.00	--	<50	1.0	1.7	0.82	4.9	<5.0	
	8/19/1999	13.10	166.93	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/23/1999	13.58	166.05	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/17/2000	10.72	168.91	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/9/2000	11.71	167.92	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/15/2000	12.49	167.14	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/1/2000	8.64	170.99	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/8/2001	8.20	171.43	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/9/2001	8.53	171.10	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/6/2001	8.69	170.94	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/22/2001	8.75	170.88	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/1/2002	8.31	171.32	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
4/19/2002	8.62	171.01	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
7/16/2002	8.84	170.79	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
10/3/2002	8.71	170.92	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
1/10/2003	6.99	172.64	--	<50	<0.5	<0.5	<0.5	<0.5	19 (16)		

# CAMBRIA

**Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California**

Well ID	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	SPH Thickness (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft*)		← (µg/L) →									
MW-6 cont'd sampled annually	4/21/2003	7.15	172.48	--	--	--	--	--	--	--	
	7/9/2003	7.98	171.65	--	--	--	--	--	--	--	
	10/7/2003	8.28	171.35	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	1/22/2004	7.15	172.48	--	--	--	--	--	--	--	
	4/2/2004	6.56	173.07	--	--	--	--	--	--	--	
Trip Blank	5/8/1998	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/1998	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/1999	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/23/1999	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/1/2000	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

**Abbreviations and Methods:**

TOC = Top of casing elevation

ft = measured in feet

SPH = Separate phase hydrocarbons

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

Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020

MTBE = Methyl tertiary butyl ether by EPA Method 8020

(concentration in parentheses confirmed by EPA Method 8260)

µg/L = Micrograms per liter

-- = not sampled.

ND = Compound not detected, detection limit unknown

\* = wells surveyed to an arbitrary datum

\*\* = Calculated groundwater elevation corrected for SPH by the relation: Groundwater Elevation = Well Elevation - Depth to Water + (0.8xSPH thickness (ft))

\*\*\* = Due to the air sparge system running during sampling, samples collected on 4/9/01 were anomalous. Well was resampled on 4/24/01 with the air sparge system off.

**Notes:**

a - The analytical laboratory noted that unmodified or weakly modified gasoline is significant.

b - The analytical laboratory noted lighter than water immiscible sheen is present.

c - The analytical laboratory noted no recognizable pattern.

d - The analytical laboratory noted heavier gasoline range compounds are significant (aged gasoline?)

f - The analytical laboratory noted one to a few isolated non-target peaks present

j - The analytical laboratory noted sample diluted due to high organic content.

**APPENDIX A**

Groundwater Monitoring Field Data Sheets

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	Comments
MW-1	10:25		7.09	19.90			2"	
MW-2	10:35		6.29	19.80			2"	Smells strongly of HCl
MW-3	10:20		5.73				2"	
MW-4	10:10		8.97				2"	
MW-5	10:30		6.23	14.50			2"	
MW-6	10:15		6.56				2"	

Project Name: Hooski's

Project Number/Task: 129-0741/046

Technician: T. Fulmer

Date: 4/2/04

WELL SAMPLING FORM

Project Name: <u>Hooshi's</u>	Cambria Mgr: <u>MM</u>	Well ID: <u>MW-1</u>
Project Number: <u>129-0741</u>	Date: <u>4/2/04</u>	Well Yield:
Site Address: <u>1499 MacArthur Blvd.</u> <u>Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>TF</u>
Initial Depth to Water: <u>7.09</u>	Total Well Depth: <u>19.70</u>	Water Column Height: <u>12.81</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>2.04</u>	3 Casing Volumes: <u>6.14</u>
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>NO</u>	Total Gallons Purged: <u>6</u>
Start Purge Time: <u>11:00</u>	Stop Purge Time: <u>11:14</u>	Total Time: <u>14 min</u>

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
<u>11:05</u>	<u>2</u>	<u>68.6°F</u>	<u>6.80</u>	<u>941</u>	
<u>11:10</u>	<u>4</u>	<u>68.5°F</u>	<u>6.84</u>	<u>1004</u>	
<u>11:15</u>	<u>6</u>	<u>68.7°F</u>	<u>6.82</u>	<u>963</u>	

Fe =                      mg/L                      ORP =                      mV                      DO =                      mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-1</u>	<u>4/2/04</u>	<u>11:14</u>	<u>300a</u>	<u>HCl</u>		

## WELL SAMPLING FORM

Project Name: <u>Hooshi's</u>	Cambria Mgr: <u>MM</u>	Well ID: <u>MW-2</u>
Project Number: <u>129-0741</u>	Date: <u>4/2/04</u>	Well Yield:
Site Address: <u>1499 MacArthur Blvd. Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>TF</u>
Initial Depth to Water: <u>6.29</u>	Total Well Depth: <u>19.80</u>	Water Column Height: <u>13.51</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>2.16</u>	3 Casing Volumes: <u>6.48</u>
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged:
Start Purge Time: <u>11:55</u>	Stop Purge Time: <u>12:09</u>	Total Time: <u>14 min</u>

Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
<u>12:00</u>	<u>2</u>	<u>19.9</u>	<u>6.53</u>	<u>838</u>	
<u>12:05</u>	<u>4</u>	<u>18.2</u>	<u>6.59</u>	<u>840</u>	
<u>12:10</u>	<u>6</u>	<u>17.4</u>	<u>6.65</u>	<u>825</u>	

Fe =                      mg/L      ORP =                      mV      DO =                      mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-2</u>	<u>4/2/04</u>	<u>12:15</u>	<u>300a</u>	<u>HCl</u>		

WELL SAMPLING FORM

Project Name: <u>Hooshi's</u>	Cambria Mgr: <u>MM</u>	Well ID: <u>MW-5</u>
Project Number: <u>129-0741</u>	Date: <u>4/2/04</u>	Well Yield:
Site Address: <u>1499 MacArthur Blvd. Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>TF</u>
Initial Depth to Water: <u>6.23</u>	Total Well Depth: <u>14.50</u>	Water Column Height: <u>8.27</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>1.32</u>	3 Casing Volumes: <u>3.96</u>
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>4</u>
Start Purge Time: <u>11:30</u>	Stop Purge Time: <u>11:44</u>	Total Time: <u>14 min</u>

Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
<u>11:35</u>	<u>1.5</u>	<u>21.0</u>	<u>6.16</u>	<u>384</u>	
<u>11:40</u>	<u>3.0</u>	<u>21.2</u>	<u>6.25</u>	<u>403</u>	
<u>11:45</u>	<u>4.0</u>	<u>20.1</u>	<u>6.38</u>	<u>447</u>	

Fe =                      mg/L                      ORP =                      mV                      DO =                      mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-5</u>	<u>4/2/04</u>	<u>11:49</u>	<u>300A</u>	<u>HCl</u>		

## **APPENDIX B**

### Analytical Results for Groundwater Sampling



# McC Campbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #129-0741; Hooshi's	Date Sampled: 04/02/04
		Date Received: 04/05/04
	Client Contact: Matt Meyers	Date Reported: 04/09/04
	Client P.O.:	Date Completed: 04/09/04

**WorkOrder: 0404049**

April 09, 2004

Dear Matt:

Enclosed are:

- 1). the results of 3 analyzed samples from your #129-0741; Hooshi's 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. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



**QC SUMMARY REPORT FOR SW8021B/8015Cm**

Matrix: W

WorkOrder: 0404049

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 11003			Spiked Sample ID: 0404053-004A			
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) <sup>£</sup>	ND	60	100	99.9	0.250	102	101	1.74	70	130
MTBE	ND	10	99.6	107	7.49	102	104	1.85	70	130
Benzene	ND	10	109	110	0.142	112	111	0.415	70	130
Toluene	ND	10	114	105	9.07	104	109	4.62	70	130
Ethylbenzene	ND	10	111	110	1.01	109	109	0	70	130
Xylenes	ND	30	100	100	0	96.3	96	0.347	70	130
%SS:	97.4	10	105	105	0	104	106	1.03	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

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = 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.

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0404049**

**Report to:**

Matt Meyers  
 Cambria Env. Technology  
 5900 Hollis St, Suite A  
 Emeryville, CA 94608

TEL: (510) 420-0700  
 FAX: (510) 420-9170  
 ProjectNo: #129-0741; Hooshi's  
 PO:

**Bill to:**

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

**Requested TAT: 5 days**

**Date Received: 4/5/04**

**Date Printed: 4/5/04**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0404049-001	MW-1	Water	4/2/04 11:00:00 AM	<input type="checkbox"/>	A	A														
0404049-002	MW-2	Water	4/2/04 12:15:00 PM	<input type="checkbox"/>	A															
0404049-003	MW-5	Water	4/2/04 11:30:00 AM	<input type="checkbox"/>	A															

**Test Legend:**

1	G-MBTX_W	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12		13		14		15	

**Prepared by: Maria Venegas**

**Comments:**

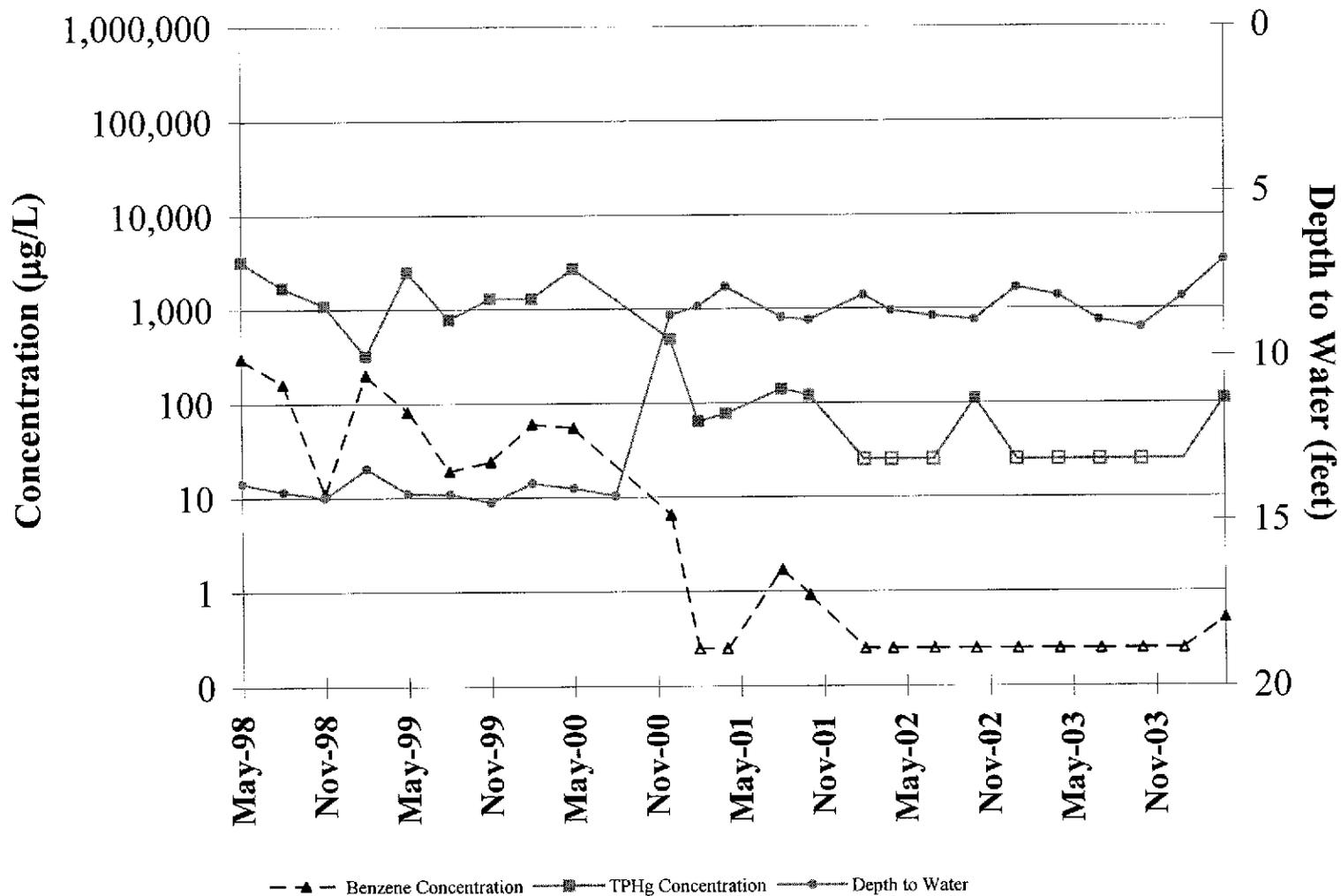
NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.



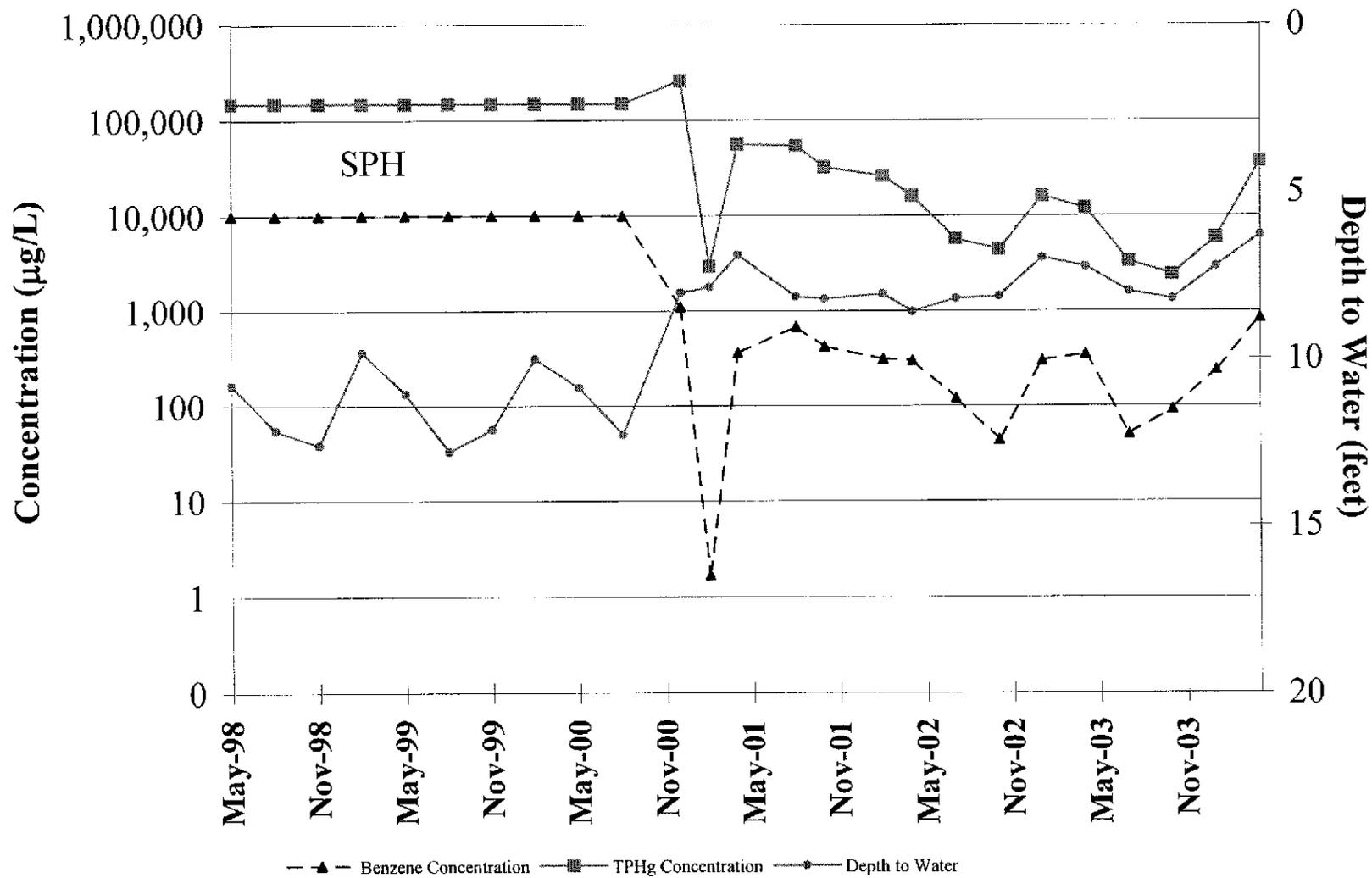
## **APPENDIX C**

TPHg and Benzene Concentration Graphs

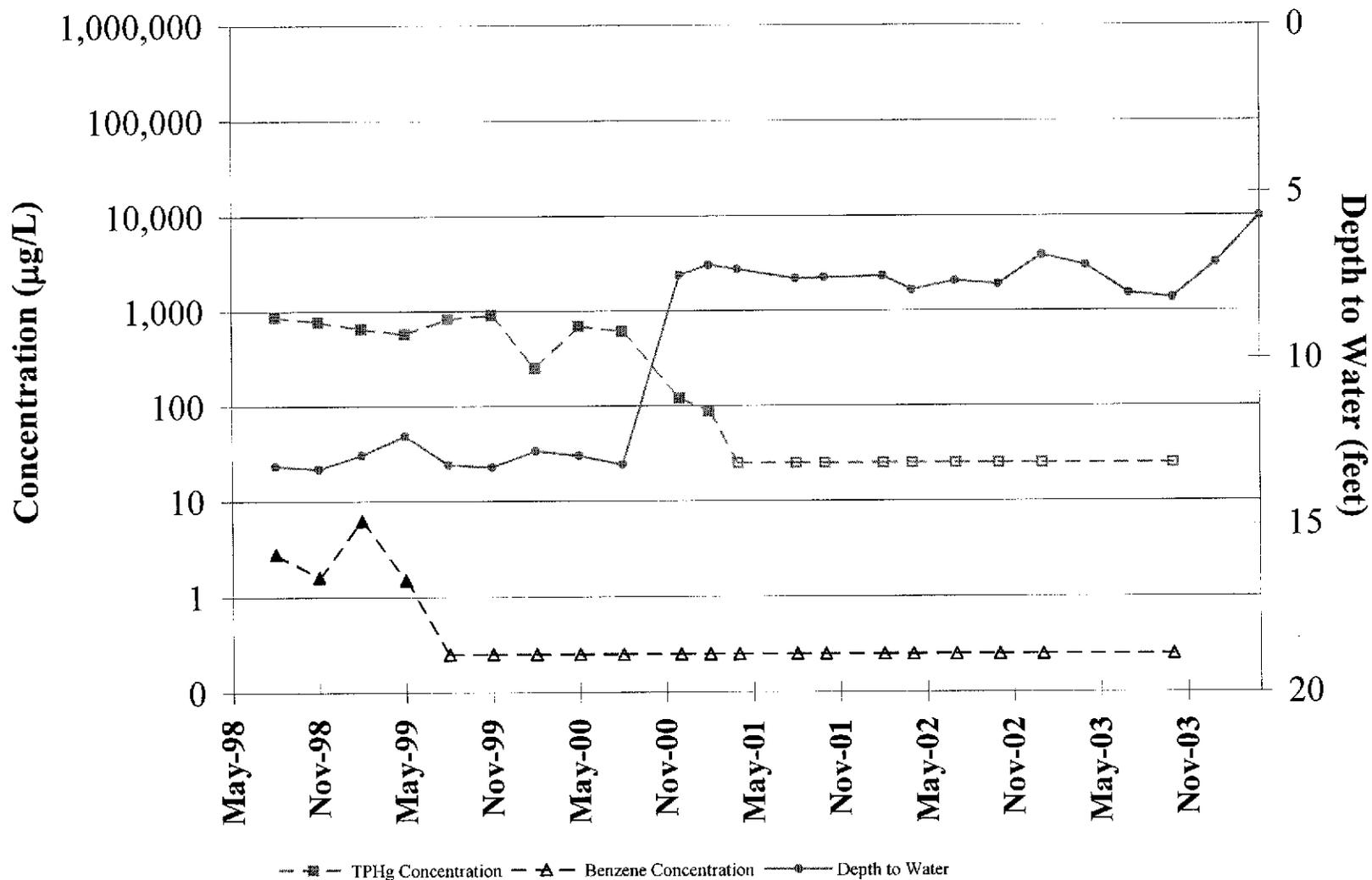
## TPHg and Benzene Concentration Trend Well MW-1



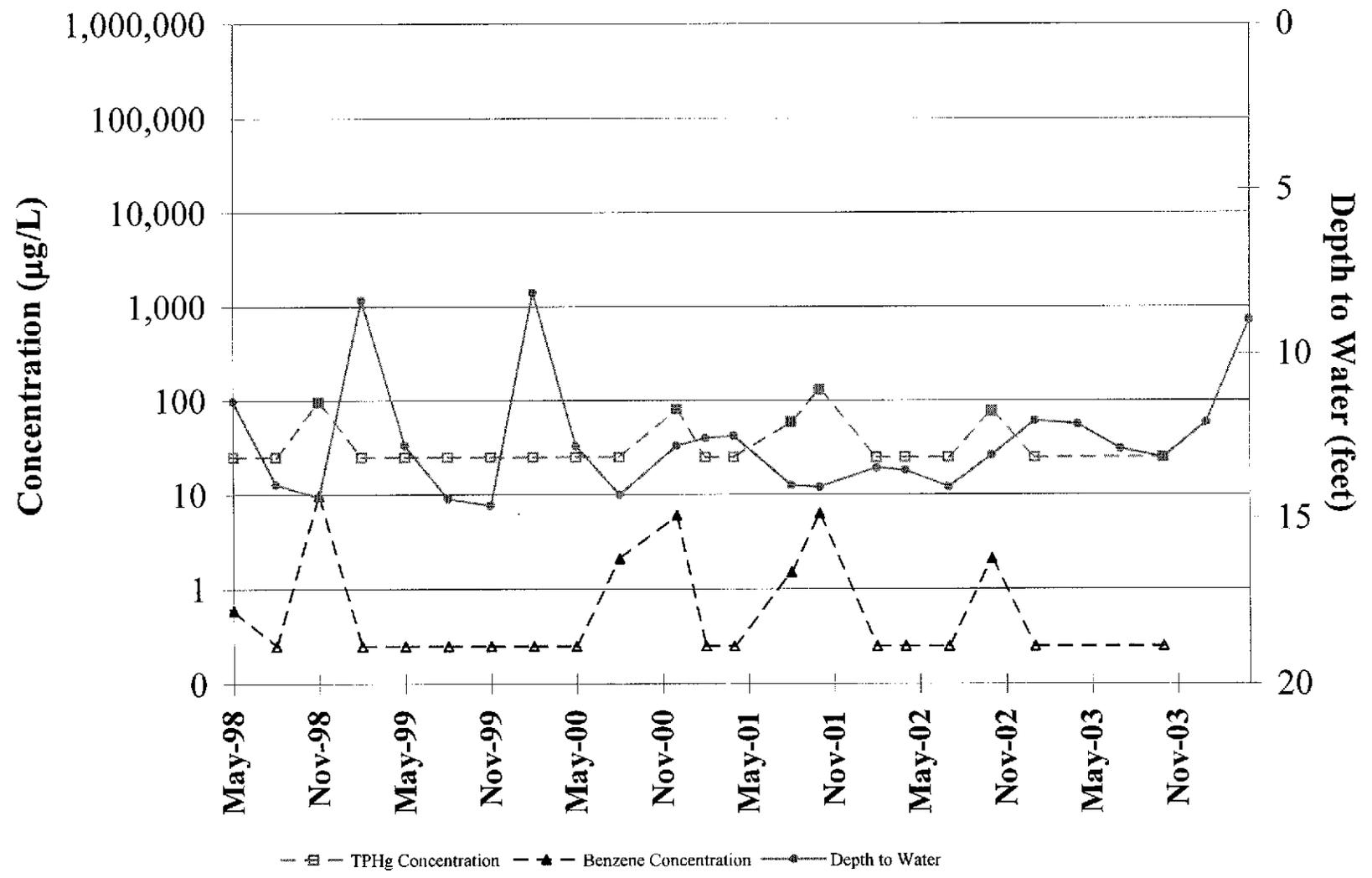
## TPHg and Benzene Concentration Trend Well MW-2



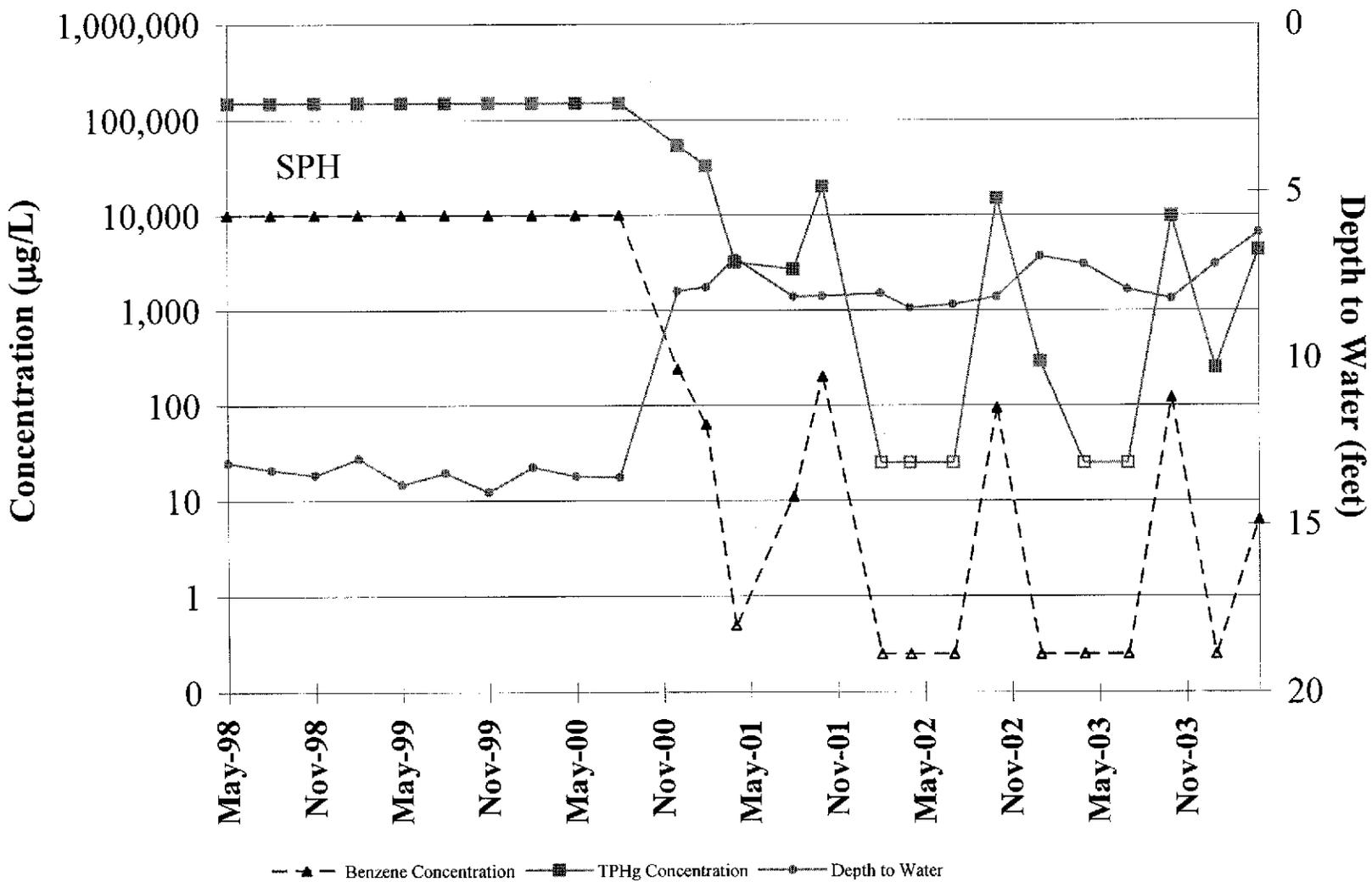
## TPHg and Benzene Concentration Trend Well MW-3



## TPHg and Benzene Concentration Trend Well MW-4



## TPHg and Benzene Concentration Trend Well MW-5



## **APPENDIX D**

### **Electronic Delivery Confirmations**

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**Confirmation Number:** 7764560103  
**Date/Time of Submittal:** 7/6/2004 6:33:09 PM  
**Facility Global ID:** T0600100714  
**Facility Name:** HOOSHI'S AUTO SERVICE  
**Submittal Title:** 2nd Qtr 2004, GW Analytical Data  
**Submittal Type:** GW Monitoring Report

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

<b>HOOSHI'S AUTO SERVICE</b> 1499 MACARTHUR BLVD OAKLAND, CA 94602	<b>Regional Board - Case #: 01-0777</b> SAN FRANCISCO BAY RWQCB (REGION 2) - (BG) <b>Local Agency (lead agency) - Case #: 3597</b> ALAMEDA COUNTY LOP - (UNK)
--	--

CONF #	TITLE	QUARTER
7764560103	2nd Qtr 2004, GW Analytical Data	Q2 2004
SUBMITTED BY	SUBMIT DATE	STATUS
Matt Meyers	7/6/2004	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	SW8021F
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT 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	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	Y

**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%	Y
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; REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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CONTACT SITE ADMINISTRATOR.

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Your file has been successfully submitted!**

**Submittal Title:** 2nd Qtr 2004, GW Depth Data for 1499 MacArthur Blvd.,  
Oakland

**Submittal Date/Time:** 7/6/2004 6:34:33 PM

**Confirmation  
Number:** 2982411026

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