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October 21, 2002

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

Re: **Groundwater Monitoring and System Progress Report**
Third Quarter 2002
Hooshi's Auto Service
1499 MacArthur Boulevard
Oakland, California 94602
Cambria Project No. 129-0741

Dear Mr. Hwang:

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) has prepared this groundwater monitoring and remediation system progress report for the above-referenced site. Presented in the report are the third quarter 2002 activities and the anticipated fourth quarter 2002 activities.

If you have any questions or comments regarding this report, please call me at (510) 450-1983.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Geologist

Attachments: Groundwater Monitoring and System Progress Report, Third Quarter 2002

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

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

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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

THIRD QUARTER 2002

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

October 21, 2002

Prepared for:

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

Prepared by:

Cambria Environmental Technology, Inc.
6262 Hollis Street
Emeryville, California 94608

Matthew A. Meyers
Staff Geologist

Ron Scheele, RG
Senior Geologist

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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

THIRD QUARTER 2002

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

October 21, 2002

INTRODUCTION

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) has prepared this Groundwater Monitoring and System Progress Report for the above-referenced site (see Figure 1). Presented in the report are the third quarter 2002 groundwater monitoring and corrective action activities and the anticipated fourth quarter 2002 activities.

THIRD QUARTER 2002 ACTIVITIES

Monitoring Activities

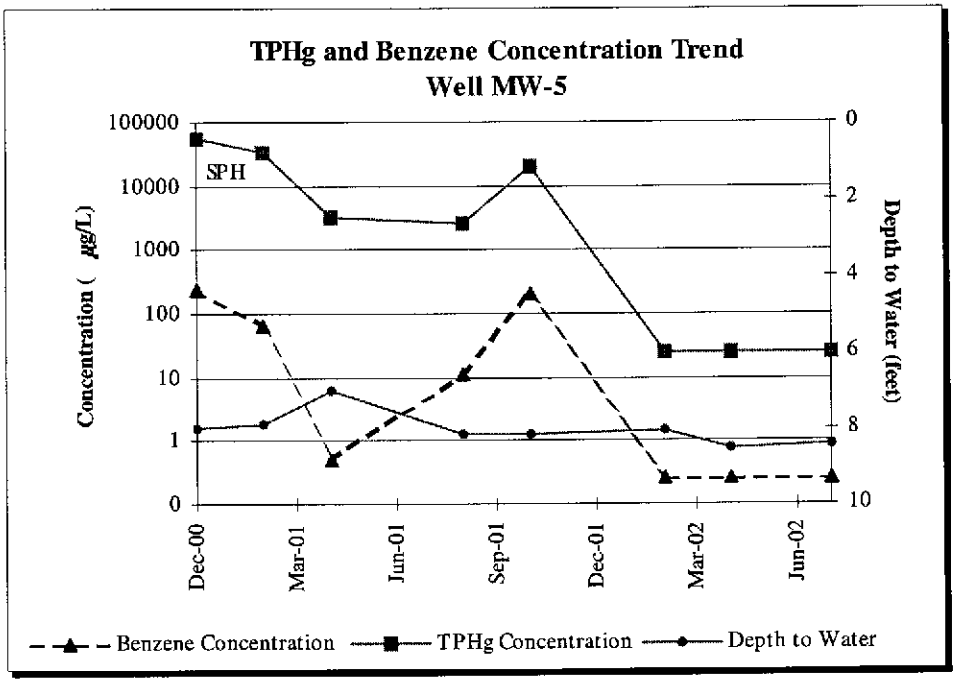
Field Activities: On July 16, 2002, Cambria gauged water levels in groundwater monitoring wells MW-1 through MW-6. On July 16, 2002, groundwater samples were obtained from monitoring wells according to the sampling schedule. Field data sheets are presented as Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021. When MTBE was detected by EPA Method 8020, the result was confirmed by EPA Method 8260. The groundwater analytical results are summarized in Table 1. The laboratory analytical report is included as Appendix B.

Monitoring Results

Groundwater Flow Direction: Based on field measurements collected on July 16, 2002, groundwater beneath the site generally flows in a southwesterly direction (Figure 1). The groundwater gradient is relatively flat onsite and increases significantly towards the southwest corner of the site. Depth to water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater: TPHg and benzene concentrations were detected in only one well (MW-2) at 5,700 micrograms per liter (μg/L) and 120 μg/L, respectively. MTBE was detected only in offsite and upgradient well MW-3 at 30 μg/L (as confirmed by EPA 8260). This MTBE concentration is slightly higher than the previous two quarters and may be indicating a possible offsite source. Hydrocarbon concentrations continue to decrease in MW-2 as compared with the previous quarters. Table 1 summarizes the groundwater analytical results. A decreasing benzene concentration trend can be seen in monitoring wells MW-1, MW-2, and MW-5 (see graph below and Appendix C).



ANTICIPATED FOURTH QUARTER 2002 ACTIVITIES

Monitoring Activities

Cambria plans to implement the proposed well sampling reductions beginning in the fourth quarter. Cambria will gauge the site wells, and collect groundwater samples from all wells according to the revised sampling schedule. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8021. Any samples containing MTBE will be confirmed by EPA Method 8260. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

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Corrective Action Activities

Interim Remedial Action: Based on the evidence of decreasing concentrations from natural attentuation processes and the stable plume confirmation, Cambria plans to submit a closure request for this low risk groundwater site in the beginning of the next year assuming that decreasing hydrocarbon concentration trends continue next quarter.

Groundwater Sampling Schedule Modification: Based on the historical groundwater sampling data, Cambria will implement the reduced the sampling frequency of wells MW-3, MW-4, and MW-6 from a quarterly to annual basis.

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 – Benzene Concentration Graphs – MW-1, MW-2, and MW-5

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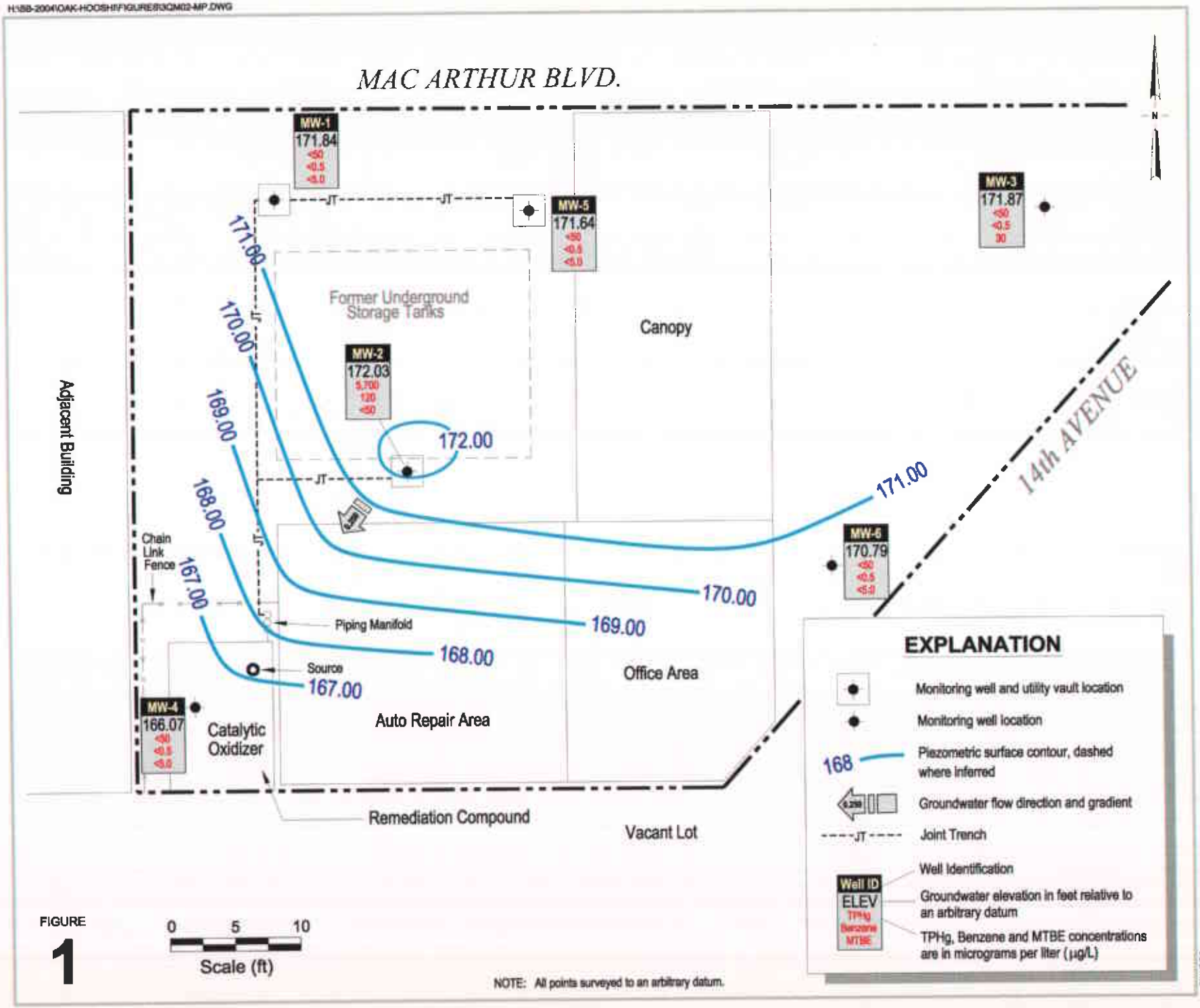

FIGURE
1

Hooshi's Auto Service
1499 MacAurthur Boulevard
Oakland, California

Groundwater Elevation Contour and Hydrocarbon Concentration Map
July 16, 2002

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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**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-1	1/4/93	--	--	--	539	130	12	22	13	--	
181.00	4/22/93	--	--	--	1,130	75	8.0	38	11	--	
	12/27/94	--	--	--	770	22	6.6	14	21	--	
	6/27/96	14.11	166.89	--	3,300	260	34	59	170	80	
	12/10/96	13.71	167.29	--	1,500	84	11	22	32	34	
	5/8/98	13.85	167.15	--	3,200	300	12	62	36	<120	a
	8/17/98	14.11	166.89	--	1,700	160	18	32	27	39	a
	11/4/98	14.28	166.72	--	1,100	11	4.3	3.6	6.5	<50	a
	2/17/99	13.41	167.59	--	320	200	47	72	75	57	a
	5/27/99	14.16	166.84	--	2,500	81	12	29	41	<80	a
	8/19/99	14.18	166.82	--	780	19	<0.5	5.7	4.5	28	a
180.83	11/23/99	14.43	166.40	--	1,300	24	0.64	1.8	3.3	<100	a
	2/17/00	13.85	166.98	--	1,300	60	9.1	22	19	22 (16)	a,b
	5/9/00	14.01	166.82	--	2,700	55	13	19	25	34 (29)	a
	8/15/00	14.24	166.59	--	--	--	--	--	--	--	
	12/1/00	8.75	172.08	--	480	6.4	5.9	1.1	3.9	18 (21)	a
180.63	2/8/01	8.49	172.14	--	64	<0.5	<0.5	<0.5	<0.5	6.1 (5.6)	a,c
	4/9/01	8.71	171.92	--	--	--	--	--	--	--	
	4/24/01	7.90	172.73	--	77	<0.5	<0.5	<0.5	<0.5	5.6 (3.7)	c
	8/6/01	8.83	171.80	--	140	1.7	0.55	<0.5	0.63	5.8 (4.0)	a
	10/22/01	8.91	171.72	--	120	0.92	<0.5	<0.5	0.59	11(10)	a
	2/1/02	8.15	172.48	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	8.63	172.00	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/16/02	**8.79**	**171.84**	**--**	**<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 *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-2	1/4/93	--	--	--	149,000	21,700	25,000	ND	7,760	--	
180.45	4/22/93	--	--	--	136,300	9,900	15,870	15,300	2,190	--	
	12/27/94	--	--	--	94,000	11,000	18,000	2,700	16,000	--	
	6/27/96	12.61	168.64	1.00	--	--	--	--	--	--	
	12/10/99	11.10	169.55	0.25	--	--	--	--	--	--	
	5/8/98	10.81	169.66	0.03	--	--	--	--	--	--	
	8/17/98	12.16	168.31	0.02	--	--	--	--	--	--	
	11/4/98	12.61	167.86	0.02	--	--	--	--	--	--	
	2/17/99	9.82	170.66	0.04	--	--	--	--	--	--	
	5/27/99	11.07	169.48	0.13	--	--	--	--	--	--	
	8/19/99	12.79	167.68	0.02	--	--	--	--	--	--	
180.24	11/23/99	12.14	168.20	0.12	--	--	--	--	--	--	
	2/17/00	10.01	170.37	0.18	--	--	--	--	--	--	
	5/9/00	10.88	169.38	0.03	--	--	--	--	--	--	
	8/15/00	12.28	167.97	0.01	--	--	--	--	--	--	
	12/1/00	8.03	172.21	--	260,000	1,100	5,000	1,900	17,000	<100	a
	2/8/01	7.86	172.38	--	2,900	1.7	14	5.0	140	<5.0	c,d
	4/9/01	7.95	172.29	--	--	--	--	--	--	--	
	4/24/01	6.90	173.34	--	56,000	360	980	1,000	4,700	<5.0	a,b
	8/6/01	8.15	172.09	--	54,000	680	1,900	1,500	7,800	<200 (<10)	a,h,j
	10/22/01	8.22	172.02	--	32,000	420	770	1,100	4,100	<250	a,h
	2/1/02	8.07	172.17	--	26,000	310	490	920	1,600	<1,000	a
	4/19/02	8.60	171.64	--	16,000	300	240	1,000	990	<100	a
	7/16/02	**8.21**	**172.03**	**--**	**5,700**	**120**	**18**	**340**	**15**	**<50**	**a**

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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**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-3	1/4/93	--	--	--	1,610	772	14	11	ND	--	
179.94	4/22/93	--	--	--	3,040	980	34	19	16		
	12/27/94	--	--	--	2,600	180	9.0	7.2	13		
	6/27/96	13.20	166.74	--	2,000	22	2.9	11	7.4	56	
	12/10/96	13.13	166.81	--	970	<0.5	<0.5	<0.5	<0.5	24	
	5/8/98	13.03	166.91	--	780	3.7	2.1	1.1	2.4	<32	a
	8/17/98	13.22	166.72	--	870	2.8	<0.5	<0.5	3.7	<5.0	b,c
	11/4/98	13.31	166.63	--	770	1.6	4.4	2.0	6.9	<30	c
	2/17/99	12.89	167.05	--	650	6.2	3.4	1.5	2.6	<5.0	b,c
	5/27/99	12.32	167.62	--	570	1.5	1.2	0.72	1.1	<20	a
	8/19/99	13.19	166.75	--	830	<0.5	1.9	<0.5	1.3	<20	c,d
179.55	11/23/99	13.26	166.29	--	900	<0.5	1.8	0.56	1.4	<20	c,d
	2/17/00	12.78	166.77	--	250	<0.5	1.5	<0.5	0.62	<5.0	d
	5/9/00	12.92	166.63	--	690	<0.5	2.1	0.85	1.6	<5.0	a
	8/15/00	13.19	166.36	--	610	<0.5	2.3	0.75	1.2	<5.0	c,d
	12/1/00	7.50	172.05	--	120	<0.5	0.90	0.65	0.62	<5.0	c,d
	2/8/01	7.20	172.35	--	87	<0.5	<0.5	<0.5	<0.5	<5.0	c,d
	4/9/01	7.33	172.22	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/6/01	7.61	171.94	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/22/01	7.58	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/1/02	7.53	172.02	--	<50	<0.5	<0.5	<0.5	<0.5	8.5 (8.5)	
	4/19/02	7.95	171.60	--	<50	<0.5	<0.5	<0.5	<0.5	9.0 (11)	
	7/16/02	**7.68**	**171.87**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**20 (30)**	

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Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-4	6/27/96	17.03	163.51	--	720	2	0.5	2.5	23	3.2	
180.54	12/10/96	8.50	172.04	--	80	2.4	<0.5	<0.5	6.6	<2.0	
	5/8/98	11.46	169.08	--	<50	0.60	<0.5	<0.5	<0.5	<5.0	
	8/17/98	13.98	166.56	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	11/4/98	14.36	166.18	--	96	9.7	8.1	4.8	18	<5.0	a
	2/17/99	8.39	172.15	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	5/27/99	12.80	167.74	--	<50	<0.5	1.0	<0.5	2.9	<5.0	
	8/19/99	14.42	166.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
180.12	11/23/99	14.63	165.49	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/17/00	8.15	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/9/00	12.81	167.31	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/15/00	14.29	165.83	--	<50	2.1	<0.5	<0.5	<0.5	<5.0	
	12/1/00	12.80	167.32	--	81	6.0	8.4	1.0	5.6	<5.0	a
	2/8/01	12.57	167.55	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/9/01	12.50	167.62	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/6/01	14.00	166.12	--	59	1.5	<0.5	<0.5	<0.5	<5.0	a
	10/22/01	14.05	166.07	--	130	6.3	<0.5	0.88	<0.5	<5.0	a
	2/1/02	13.47	166.65	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	13.55	166.57	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/16/02	**14.05**	**166.07**	**--**	**<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 *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-5	6/27/96	13.62	166.74	0.16	--	--	--	--	--	--	
180.23	12/10/96	13.26	167.77	1.00	--	--	--	--	--	--	
	5/8/98	13.15	167.11	0.04	--	--	--	--	--	--	
	8/17/98	13.36	166.89	0.02	--	--	--	--	--	--	
	11/4/98	13.52	166.73	0.02	--	--	--	--	--	--	
	2/17/99	13.02	167.23	0.02	--	--	--	--	--	--	
	5/27/99	13.80	166.71	0.35	--	--	--	--	--	--	
	8/19/99	13.45	166.86	0.10	--	--	--	--	--	--	
180.09	11/23/99	14.03	166.35	0.36	--	--	--	--	--	--	
	2/17/00	13.28	167.02	0.26	--	--	--	--	--	--	
	5/9/00	13.55	166.77	0.29	--	--	--	--	--	--	
	8/15/00	13.58	166.54	0.04	--	--	--	--	--	--	
	12/1/00	8.00	172.09	0.00	54,000	240	1,700	870	1,000	<300	c,d
180.04	2/8/01	7.88	172.16	0.00	33,000	63	420	120	4,500	<50	a,b
	4/9/01	7.97	172.07	0.00	--	--	--	--	--	--	
	4/24/01	7.00	173.04	0.00	3,200	<1.0	11	7	260	<5.0	c,d
	8/6/01	8.17	171.87	--	2,700	11	40	21	240	<5.0	a
	10/22/01	8.15	171.89	--	20,000	200	1,200	330	2,900	<100	a,h
	2/1/02	8.07	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	8.51	171.53	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/16/02	**8.40**	**171.64**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**1.7**	**<5.0**	

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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**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-6	6/27/96	18.55	161.48	--	ND	ND	ND	ND	ND	--	
180.03	12/10/99	11.79	168.24	--	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	
	5/8/98	11.62	168.41	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/17/98	12.66	167.37	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/98	13.56	166.47	--	68	3.8	3.7	2.8	11	<5.0	a
	2/17/99	12.91	167.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/99	13.03	167.00	--	<50	1.0	1.7	0.82	4.9	<5.0	
	8/19/99	13.10	166.93	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
179.63	11/23/99	13.58	166.05	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/17/00	10.72	168.91	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/9/00	11.71	167.92	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/15/00	12.49	167.14	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/1/00	8.64	170.99	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/8/01	8.20	171.43	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/9/01	8.53	171.10	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/6/01	8.69	170.94	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/22/01	8.75	170.88	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/1/02	8.31	171.32	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	8.62	171.01	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/16/02	**8.84**	**170.79**	**--**	**<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 *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
Trip Blank	5/8/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/23/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/1/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

Abbreviations and Methods:

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

TOC = Top of casing elevation

* = 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.

-- = not sampled.

Abbreviations and Methods (Cont'd):

MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)

NE = MCLs not established

ND = Compound not detected, detection limit unknown

Notes:

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

b - The analytical laboratory noted that 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 ga:

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

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

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APPENDIX A

Groundwater Monitoring Field Data Sheets

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Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Product Thickness	Amount of Product Removed	Casing Diam.	Comment DTB
MW-1	7:15		8.79				19.90
MW-2	7:20		8.21				19.80
MW-3	7:05		7.68				19.78
MW-4	7:10		14.05				19.72
MW-5	7:25		8.40				14.50
MW-6	7:00		8.84				20.00

Project Name: Hoosh'is

Project Number/Task: 129-0741/032

Measured By: J. Wall

Date: 7-16-02

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-1
Project Number: 129-0741	Date:07/ 16 /02	Well Yield:
Site Address: 1499 Mac Arthur Blvd. Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.79	Total Well Depth: 19.90	Water Column Height: 11.11
Volume/ft: 0.16	1 Casing Volume: 1.77	3 Casing Volumes: 5.33
Purging Device: **disposable bailer**	Did Well Dewater?: ND	Total Gallons Purged: 5
Start Purge Time: 9:15	Stop Purge Time: 9:29	Total Time: 14mins

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.	pH	Cond.	Comments
9:20	1.5	18.2	7.05	1190	
9:25	3	18.9	7.09	1529	
9:30	5	18.7	7.13	1631	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	**07/16/02**	9:35	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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NSM 5/31/94

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WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-2
Project Number: 129-0741	Date:07/ 16 /02	Well Yield:
Site Address: 1499 Mac Arthur Blvd. Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.21	Total Well Depth: 19.80	Water Column Height: 11.59
Volume/ft: 0.16	1 Casing Volume: 1.85	3 Casing Volumes: 5.56
Purging Device: **disposable bailer**	Did Well Dewater?: ND	Total Gallons Purged: 6
Start Purge Time: 10:20	Stop Purge Time: 10:34	Total Time: 14 mins

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.	pH	Cond.	Comments
10:25	2	18.5	7.29	741	
10:30	4	18.7	7.20	795	
10:35	6	18.8	7.17	820	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	**07/16/02**	10:40	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-3
Project Number: 129-0741	Date:07/ 16 /02	Well Yield:
Site Address: 1499 Mac Arthur Blvd. Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 7.68	Total Well Depth: 19.78	Water Column Height: 12.10
Volume/ft: 0.16	1 Casing Volume: 1.93	3 Casing Volumes: 5.80
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 6
Start Purge Time: 8:15	Stop Purge Time: 8:29	Total Time: 14 mins

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.	pH	Cond.	Comments
8:20	2	17.8	7.20	1157	
8:25	4	18.9	7.20	1295	
8:30	6	18.7	7.22	1028	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	**07/16/02**	8:35	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-4
Project Number: 129-0741	Date:07/ 16 /02	Well Yield:
Site Address: 1499 Mac Arthur Blvd. Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 14.05	Total Well Depth: 19.72	Water Column Height: 5.22
Volume/ft: 0.16	1 Casing Volume: 0.83	3 Casing Volumes: 2.49
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 8:45	Stop Purge Time: 8:59	Total Time: 14 mins

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.	pH	Cond.	Comments
8:50	1	18.5	7.28	680	
8:55	2	18.9	7.13	925	
9:00	3	18.9	7.11	898	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	**07/16/02**	9:05	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-5
Project Number: 129-0741	Date:07/ 16 /02	Well Yield:
Site Address: 1499 Mac Arthur Blvd. Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.40	Total Well Depth: 14.50	Water Column Height: 6.10
Volume/ft: 0.16	1 Casing Volume: 0.97	3 Casing Volumes: 2.92
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 9:45	Stop Purge Time: 9:59	Total Time: 14 mins

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.	pH	Cond.	Comments
9:50	1	18.4	7.13	821	
9:55	2	18.7	7.19	519	
10:00	3	18.5	7.20	623	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	**07/16/02**	10:05	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-6
Project Number: 129-0741	Date:07/ 16 /02	Well Yield:
Site Address: 1499 Mac Arthur Blvd. Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.84	Total Well Depth: 20.00	Water Column Height: 11.16
Volume/ft: 0.16	1 Casing Volume: 1.78	3 Casing Volumes: 5.35
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 5
Start Purge Time: 7:45	Stop Purge Time: 7:59	Total Time: 14mins

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.	pH	Cond.	Comments
7:50	1.5	18.7	7.20	2370	
7:55	3	18.9	7.24	1592	
8:00	5	18.9	7.22	1640	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	**07/16/02**	8:05	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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NSM 5/31/94

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: Ron Scheels Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608

Tele: (510) 450-1983 Fax: (510) 450-8295

Project #: 129-0741-032 Project Name: Mooshi's

Project Location: 1499 MacArthur Blvd. Oakland, Ca

Sampler Signature: S. Hill

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: confirm all MTBE hits by 8260	Comments
MW-1		7-16-02	9:35	4	voa	X					X	X			X															X	
MW-2		7-16-02	10:40	4	voa	X					X	X			X															X	
MW-3		7-16-02	8:35	4	voa	X					X	X			X															X	
MW-4		7-16-02	9:05	4	voa	X					X	X			X															X	
MW-5		7-16-02	10:05	4	voa	X					X	X			X															X	
MW-6		7-16-02	8:05	4	voa	X					X	X			X															X	

	Date:	Time:	Received By:
Relinquished By: S. Hill	7-17-02	5:00	Secure location
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks: report results in EDF format

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APPENDIX B

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
http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 6262 Hollis St. Emeryville, CA 94608	Client Project ID: #129-0741-032; Hooshi's	Date Sampled: 07/16/02
		Date Received: 07/23/02
	Client Contact: Ron Scheels	Date Reported: 07/30/02
	Client P.O.:	Date Completed: 07/30/02

July 30, 2002

Dear Ron:

Enclosed are:

1). the results of **6** samples from your **#129-0741-032; 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. 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #129-0741-032; Hooshi's	Date Sampled: 07/16/02
6262 Hollis St.		Date Received: 07/23/02
Emeryville, CA 94608	Client Contact: Ron Scheels	Date Extracted: 07/24/02
	Client P.O.:	Date Analyzed: 07/24/02

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

Extraction method: SW5030B | Analytical methods: SW8021B/8015Cm | Work Order: 0207299

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	96.7
002A	MW-2	W	5700,a	ND<50	120	18	340	15	10	106
003A	MW-3	W	ND	20	ND	ND	ND	ND	1	98.8
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	98.1
005A	MW-5	W	ND	ND	ND	ND	ND	1.7	1	99.0
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	99.9

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	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

*water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipe samples in ug/wipe, and TCLP extracts in ug/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); 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 ~2 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.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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

Cambria Env. Technology	Client Project ID: #129-0741-032; Hooshi's	Date Sampled: 07/16/02
6262 Hollis St.		Date Received: 07/23/02
Emeryville, CA 94608	Client Contact: Ron Scheels	Date Extracted: 07/26/02
	Client P.O.:	Date Analyzed: 07/26/02

Methyl tert-Butyl Ether*

Extraction method: SW5030B Analytical methods: SW8260B Work Order: 0207299

Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS
003A	MW-3	W	30	1	109

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

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0207299

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 3105 Spiked Sample ID: N/A

Compound	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(gas)	N/A	60	N/A	N/A	N/A	99.5	99.6	0.160	80	120
MTBE	N/A	10	N/A	N/A	N/A	94.9	95.2	0.317	80	120
Benzene	N/A	10	N/A	N/A	N/A	99.8	107	6.79	80	120
Toluene	N/A	10	N/A	N/A	N/A	108	115	6.01	80	120
Ethylbenzene	N/A	10	N/A	N/A	N/A	105	112	6.51	80	120
Xylenes	N/A	30	N/A	N/A	N/A	107	110	3.08	80	120
%SS:	N/A	100	N/A	N/A	N/A	105	107	1.85	80	120

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.

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.

% 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.

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

QC SUMMARY REPORT FOR SW8260B

Matrix: W WorkOrder: 0207299

EPA Method: SW8260B	Extraction: SW5030B				BatchID: 3167		Spiked Sample ID: N/A			
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Methyl-t-butyl ether (MTBE)	N/A	10	N/A	N/A	N/A	116	120	3.05	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.

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.

% 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.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0207299

Client:
Cambria Env. Technology
6262 Hollis St.
Emeryville, CA 94608

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #129-0741-032;
PO:

30-Jul-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests <>	8021B/8015	SW8260B
0207299-001	MW-1	Water	7/16/02 9:35:00 AM		A	A	
0207299-002	MW-2	Water	7/16/02 10:40:00 AM			A	
0207299-003	MW-3	Water	7/16/02 8:35:00 AM			A	A
0207299-004	MW-4	Water	7/16/02 9:05:00 AM			A	
0207299-005	MW-5	Water	7/16/02 10:05:00 AM			A	
0207299-006	MW-6	Water	7/16/02 8:05:00 AM			A	

Comments: MTBE Confirmation added on 07/26/02

	Date/Time		Date/Time
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	

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.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

0207299

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: Ron Scheels Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology

6262 Hollis Street

Emeryville, CA 94608

Tele: (510) 450-1983 Fax: (510) 450-8295

Project #: 129-0741-032 Project Name: Mooshi's

Project Location: 1499 MacArthur Blvd. Oakland, Ca

Sampler Signature: S. Hill

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other
(+) MW-1		7-16-02	9:35	4	voa	X					X	X		
(+) MW-2		7-16-02	10:40	4	voa	X					X	X		
(+) MW-3		7-16-02	8:35	4	voa	X					X	X		
MW-4		7-16-02	9:05	4	voa	X					X	X		
+ MW-5		7-16-02	10:05	4	voa	X					X	X		
MW-6		7-16-02	8:05	4	voa	X					X	X		

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: confirm all MTBE hits by 8260	Comments
X															X	
X															X	
X															X	
X															X	
X															X	
X															X	

Relinquished By:	Date:	Time:	Received By:
S. Hill	7-17-02	5:00	secure location
	7/18/02	11:40	
	Date:	Time:	Received By:

Remarks: report results in EDF format

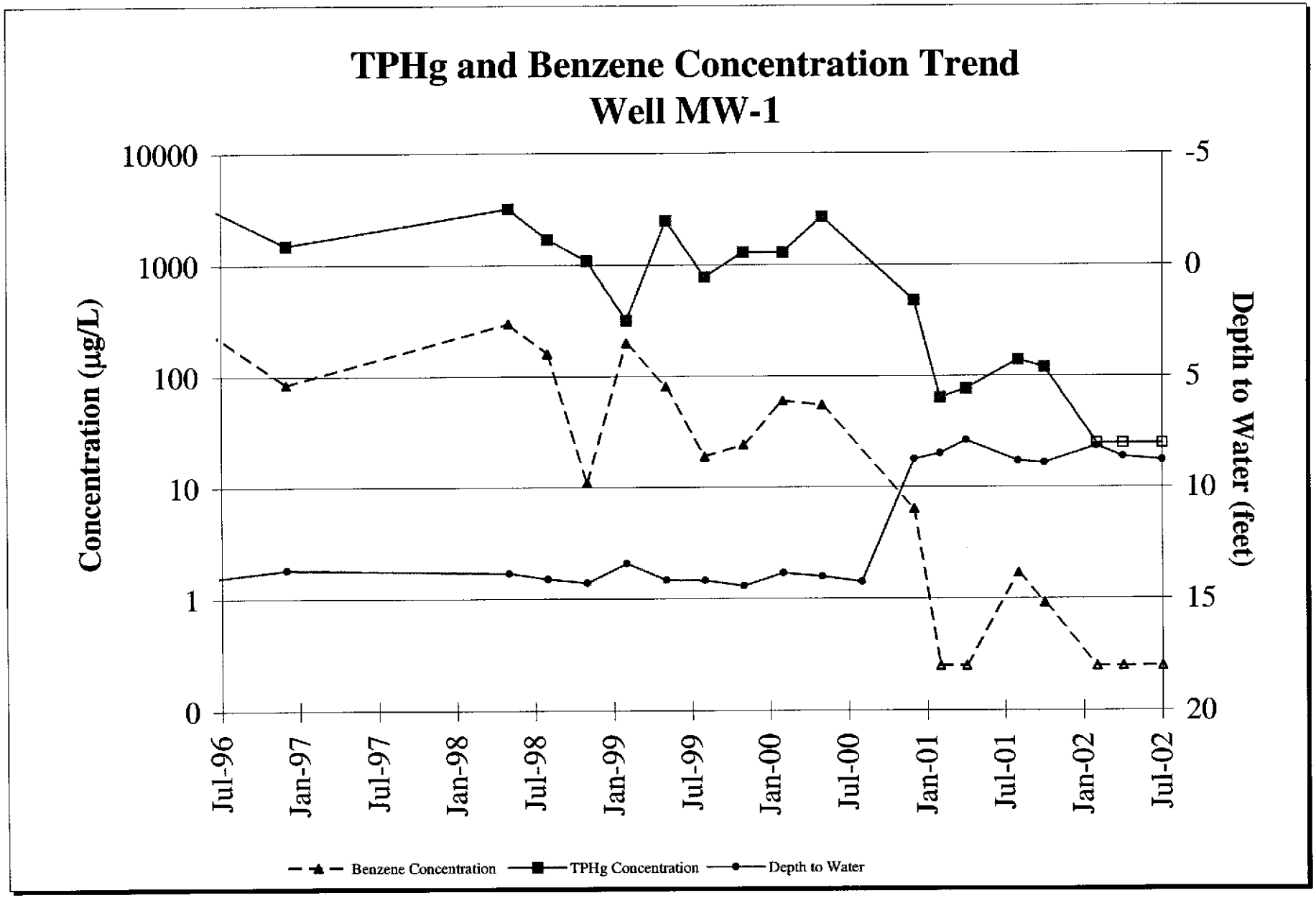
VOAS O&G METALS OTHER

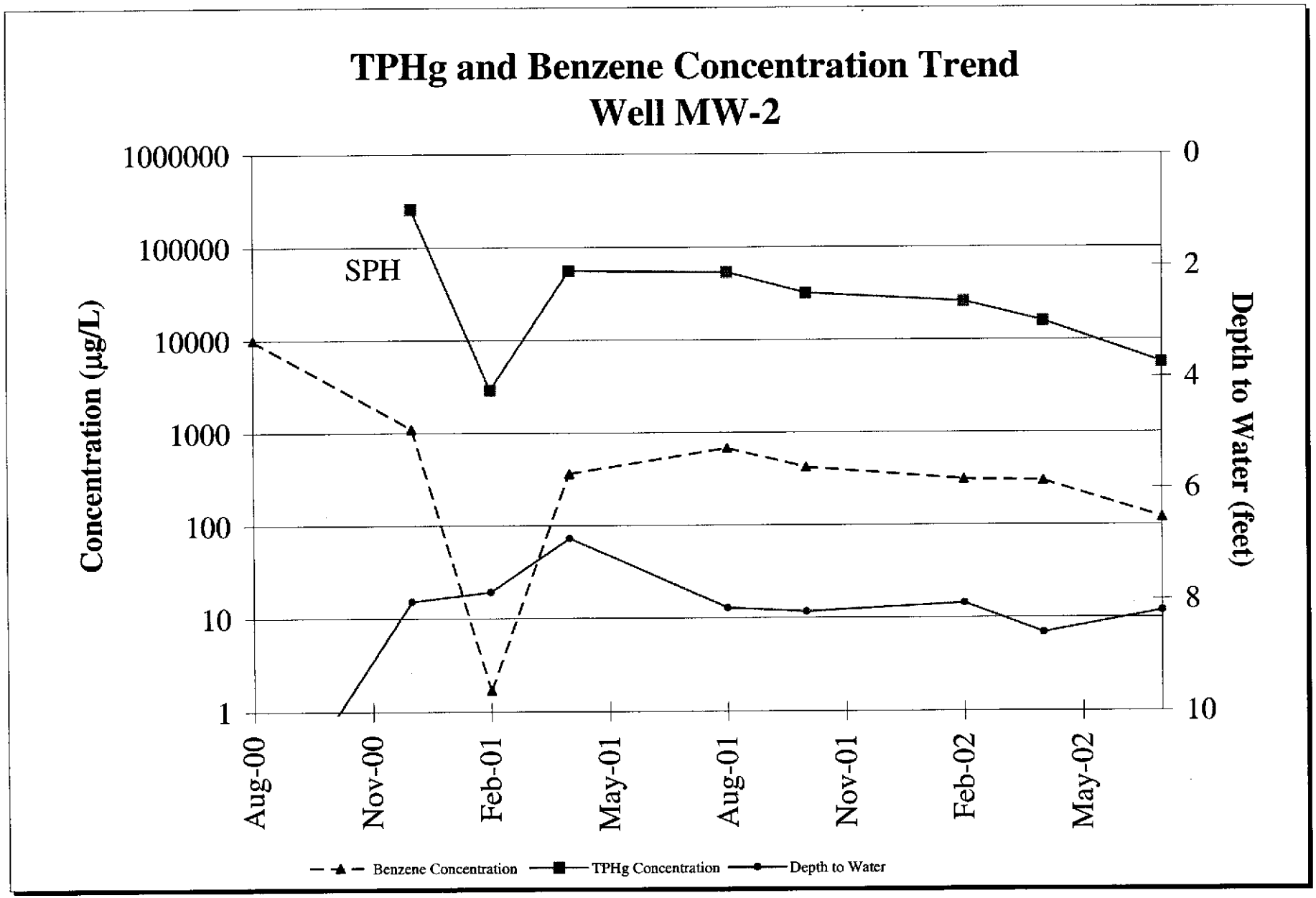
ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

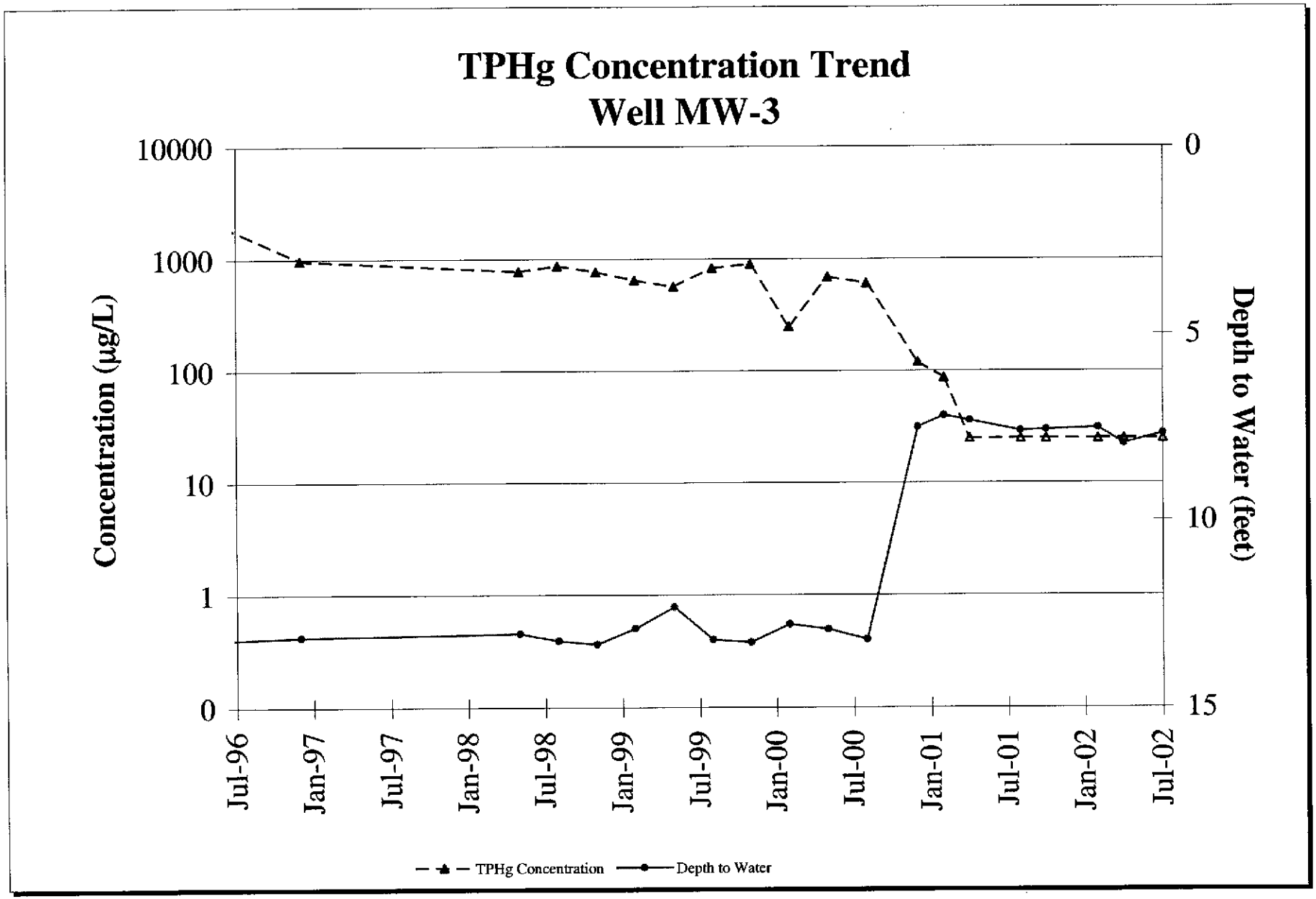
CAMBRIA

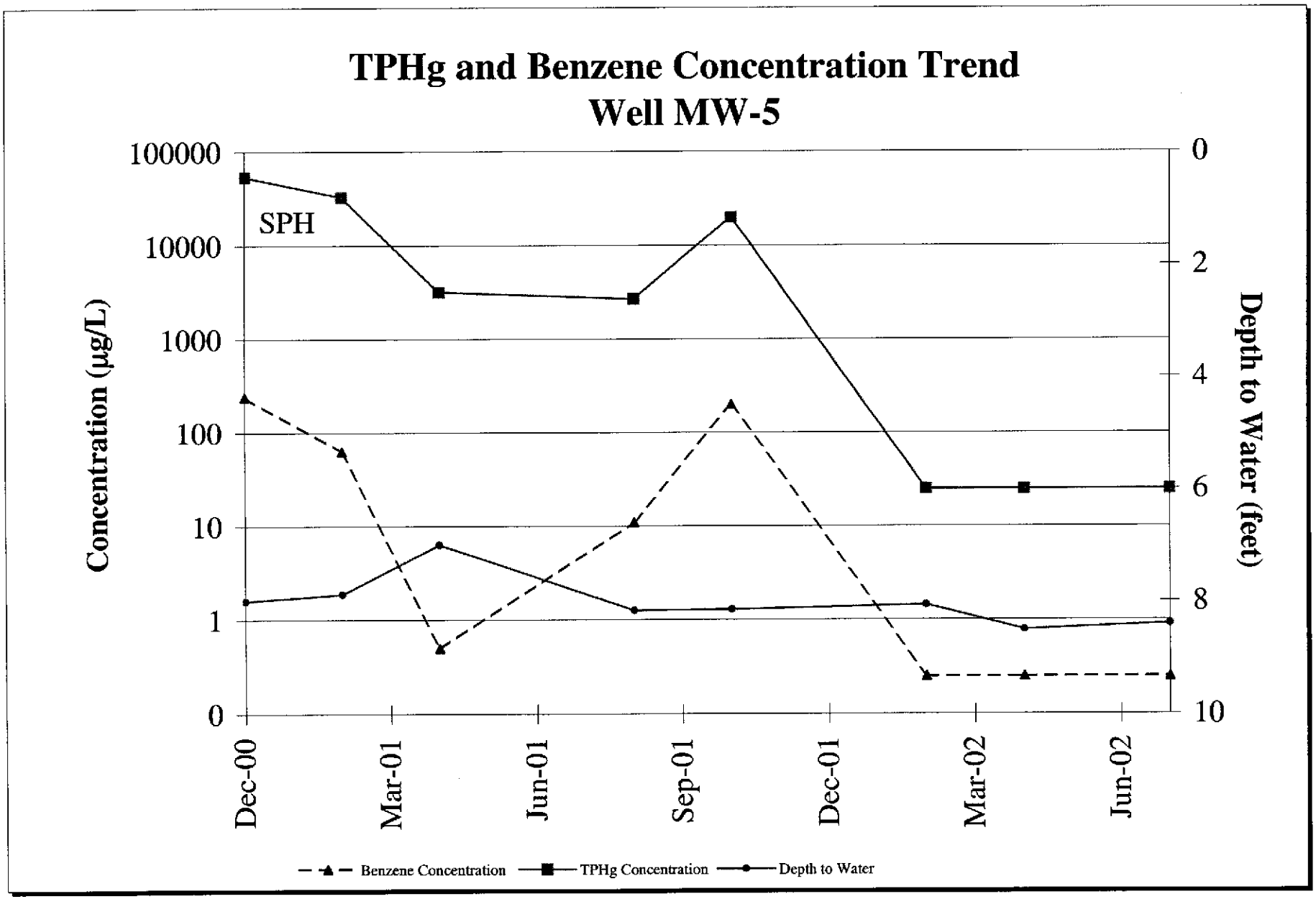
ATTACHMENT C

Benzene Concentration Graphs


TPHg and Benzene Concentration Trend
Well MW-1
Concentration (µg/L)
10000
1000
100
10
1
0
-5
0
5
10
15
20
Depth to Water (feet)
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
Benzene Concentration
TPHg Concentration
Depth to Water


TPHg and Benzene Concentration Trend
Well MW-2
Concentration (µg/L)
1000000
100000
10000
1000
100
10
1
SPH
0
2
4
6
8
10
Depth to Water (feet)
Aug-00
Nov-00
Feb-01
May-01
Aug-01
Nov-01
Feb-02
May-02
Benzene Concentration
TPHg Concentration
Depth to Water


TPHg Concentration Trend
Well MW-3
Concentration (µg/L)
10000
1000
100
10
1
0
Depth to Water (feet)
0
5
10
15
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
TPHg Concentration
Depth to Water


TPHg and Benzene Concentration Trend
Well MW-5
SPH
Concentration (µg/L)
100000
10000
1000
100
10
1
0
Depth to Water (feet)
0
2
4
6
8
10
Dec-00
Mar-01
Jun-01
Sep-01
Dec-01
Mar-02
Jun-02
Benzene Concentration
TPHg Concentration
Depth to Water