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4670

July 24, 2001

JUL 27 2001

Mr. Lee Douglas
Douglas Parking
1721 Webster Street
Oakland, California 94612

Re: **Second Quarter 2001 Monitoring Report**

Douglas Parking
1721 Webster Street
Oakland, California
Cambria Project No. 580-0197



Dear Mr. Douglas:

Cambria Environmental Technology, Inc. (Cambria) is pleased to provide this second quarter 2001 monitoring report for the above-referenced site. The report describes the second quarter 2001 activities and results as well as the anticipated third quarter 2001 activities.

If you have any questions or comments, please call me at (510) 420-3340.

Sincerely,

Cambria Environmental Technology, Inc.

John Rigg, R.G.
Project Geologist

Attachments: Second Quarter 2001 Monitoring Report

cc: Mr. Larry Seto, Alameda County Department of Environmental Health, 1131 Harbor Bay Parkway,
2nd Floor, Alameda, CA 94502

Mr. Hari Patel, Technical Review Unit, UST Cleanup Fund, 1001 I Street, Sacramento, CA 94244

Oakland, CA
San Ramon, CA
Sonoma, CA

**Cambria
Environmental
Technology, Inc.**

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
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SECOND QUARTER 2001 MONITORING REPORT

Douglas Parking
1721 Webster Street
Oakland, California
Cambria Project No. 580-0917

July 24, 2001

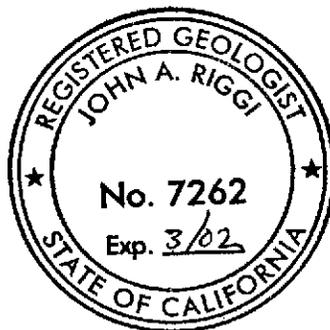


Prepared for:

Mr. Lee Douglas
1721 Webster Street
Oakland, California 94612

Prepared by:

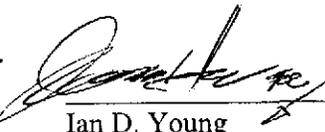
Cambria Environmental Technology, Inc.
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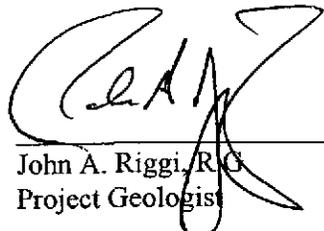
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Ian D. Young
Staff Geologist



John A. Riggi, R.G.
Project Geologist

C A M B R I A

SECOND QUARTER 2001 MONITORING REPORT

Douglas Parking
1721 Webster Street
Oakland, California
Cambria Project No. 580-0917

July 24, 2001

INTRODUCTION



On behalf of Douglas Parking, Cambria Environmental Technology, Inc. (Cambria) is submitting this second quarter 2001 groundwater monitoring report for the above-referenced site. Presented below are the second quarter 2001 activities and the anticipated third quarter 2001 activities.

SECOND QUARTER 2001 ACTIVITIES

Monitoring Activities

Field Activities: On April 11, 2001, Cambria gauged depth-to-water and inspected for separate-phase hydrocarbons (SPH) in site wells MW-1 through MW-5. In addition, dissolved oxygen (DO) concentrations were measured in monitoring well MW-1. Groundwater samples were collected from monitoring wells MW-2, MW-3, MW-4, and MW-5. Well MW-1 is not part of the sampling schedule. Field data sheets are presented as Appendix A.

Sample Analyses: The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015, and benzene, toluene, ethylbenzene and xylene (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method 8020 by McCampbell Analytical, Inc. of Pacheco, California. MTBE concentrations were not detected by EPA Method 8020, so confirmation analysis by EPA Method 8260 was not performed. The laboratory analytical report is included as Appendix B.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water data collected during Cambria's April 11, 2001 site visit, groundwater beneath the site flows toward the northeast with an average gradient of 0.005 ft/ft (see Figure 1). This flow direction is consistent with the historical groundwater flow direction for this site. Depth-to-water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater: No SPH was detected in any site wells. The maximum detected TPHg and benzene concentrations were 97,000 micrograms per liter ($\mu\text{g/l}$) and 9,500 $\mu\text{g/l}$, respectively, in groundwater samples collected from well MW-2. Benzene was not detected in any other wells. Groundwater samples from well MW-4 did not contain petroleum hydrocarbons above laboratory reporting limits during the first and second quarter 2001. Because these analytical results are inconsistent with historical groundwater data for well MW-4, these analytical results are anomalous. Consistent with historical groundwater data, groundwater samples from well MW-5 contained no detectable hydrocarbons above laboratory reporting limits. No MTBE was detected in any analyzed groundwater sample. The analytical results are summarized on Table 1.



ANTICIPATED THIRD QUARTER 2001 ACTIVITIES

Monitoring Activities

Cambria will gauge the site wells, inspect the wells for SPH, and collect groundwater samples from all wells not containing SPH. If MTBE is detected in any groundwater sample, concentrations will be confirmed using EPA Method 8260. Following field activities, Cambria will tabulate the data, contour site groundwater elevations, and prepare a groundwater monitoring report.

Corrective Action Activities

Cambria has prepared a *Feasibility Testing and Feasibility Study Proposal* for UST Cleanup Fund approval. Upon UST Cleanup Fund approval, Cambria will initiate feasibility testing that will evaluate the feasibility of air sparging and soil vapor extraction at the subject site.

Appendices

Figure 1 – Groundwater Elevation Contour Map

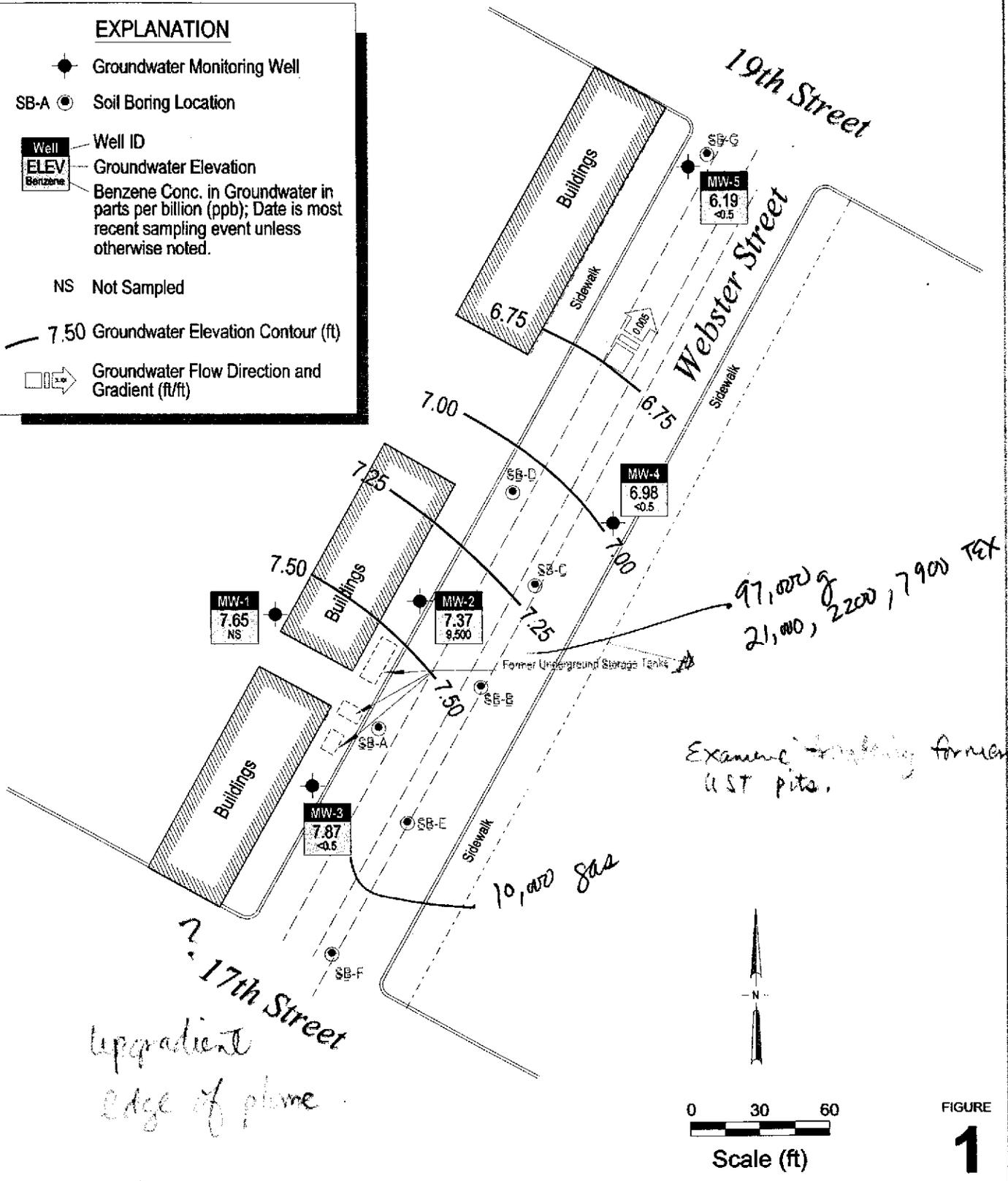
Table 1 – Groundwater Elevation and Analytical Data

Appendix A – Field Data Sheets

Appendix B – Laboratory Analytical Report

EXPLANATION

- Groundwater Monitoring Well
- SB-A** Soil Boring Location
- | | |
|----------------|---|
| Well | Well ID |
| ELEV | Groundwater Elevation |
| Benzene | Benzene Conc. in Groundwater in parts per billion (ppb); Date is most recent sampling event unless otherwise noted. |
- NS** Not Sampled
- 7.50 Groundwater Elevation Contour (ft)
- Groundwater Flow Direction and Gradient (ft/ft)



H:\SB-2004\DOUGLAS\1721 Webster\FIGURES\10M01-MP.DWG

Base map from Piers Environmental Services

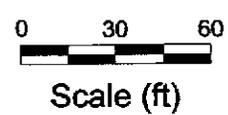


FIGURE 1

Douglas Parking Facility
 1721 Webster Street
 Oakland, California



Groundwater Elevation Contour Map
 April 11, 2001

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Concentrations in µg/l					MTBE	DO (mg/L)	Notes
						Benzene	Toluene	Ethylbenzene	Xylenes				
MW-1	12/2/1994	29.25	19.42	9.83	nd	nd	nd	nd	nd	nd	-	-	1
	3/6/1995	29.73	20.69	9.04	nd	nd	nd	nd	nd	nd	-	-	1
	7/11/1995	29.81	20.65	9.16	nd	nd	nd	nd	nd	nd	-	-	
	5/10/1996	29.81	20.80	9.01	nd	nd	nd	nd	nd	nd	-	-	
	10/2/1996	29.81	21.35	8.46	-	-	-	-	-	-	-	-	2
	2/28/1997	29.81	20.57	9.24	-	-	-	-	-	-	-	-	2
	9/16/1997	29.81	21.50	8.31	-	-	-	-	-	-	-	-	2
	2/5/1998	29.81	20.91	8.90	-	-	-	-	-	-	-	1.90	2
	8/11/1998	29.81	20.50	9.31	-	-	-	-	-	-	-	0.06	2
	2/8/1999	29.81	21.42	8.39	-	-	-	-	-	-	-	6.00	2, 3
	2/24/1999	29.81	22.99	6.82	-	-	-	-	-	-	-	2.00	2, 3
	3/3/1999	29.81	20.84	8.97	-	-	-	-	-	-	-	3.80	2, 3
	3/10/1999	29.81	20.89	8.92	-	-	-	-	-	-	-	3.40	2, 3
	3/17/1999	29.81	20.84	8.97	-	-	-	-	-	-	-	2.80	2, 3
	5/4/1999	29.81	20.80	9.01	-	-	-	-	-	-	-	3.50	2
	7/20/1999	29.81	21.25	8.56	-	-	-	-	-	-	-	3.07	2
	10/5/1999	29.81	21.37	8.44	-	-	-	-	-	-	-	5.40	2
	1/7/2000	29.81	21.65	8.16	-	-	-	-	-	-	-	2.10	2
	4/6/2000	29.81	21.05	8.76	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	3.90	4
	7/31/2000	29.81	21.13	8.68	-	-	-	-	-	-	-	1.80	2
10/3/2000	29.81	21.69	8.12	-	-	-	-	-	-	-	1.42	2	
1/12/2001	29.81	22.00	7.81	-	-	-	-	-	-	-	0.68		
4/11/2001	29.81	22.16	7.65	-	-	-	-	-	-	-	0.51		
MW-2	12/2/1994	27.10	19.50	7.60	61,300	3,000	3,900	160	4,500	-	-	-	1
	3/6/1995	27.10	18.49	8.61	98,000	8,400	16,000	2,000	2,600	-	-	-	1
	7/11/1995	27.40	18.45	8.95	38,000	3,100	7,500	940	3,700	-	-	-	
	5/10/1996	27.40	18.56	8.84	63,000	7,400	16,000	1,500	6,000	-	-	-	
	10/2/1996	27.40	19.15	8.25	21,000	2,200	3,400	430	1,600	-	-	-	
	2/28/1997	27.40	18.43	8.97	39,000	4,700	9,600	950	4,200	nd	-	-	
	9/16/1997	27.40	19.26	8.14	29,000	3,300	5,800	690	2,900	<620	-	-	

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	<------(Concentrations in µg/l)----->						DO (mg/L)	Notes
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
	2/5/1998	27.40	18.66	8.74	10,000	1,000	2,000	170	860	<330	7.90	
	8/11/1998	27.40	18.41	8.99	12,000	1,200	2,300	260	1,400	300	5.40	
	2/8/1999	27.40	19.84	7.56	5,500	740	1,200	150	780	60	3.70	
	2/17/1999	27.40	18.94	8.46	-	-	-	-	-	-	>20	3, 5
	2/24/1999	27.40	20.76	6.64	-	-	-	-	-	-	>20	3, 5
	3/3/1999	27.40	18.55	8.85	-	-	-	-	-	-	>20	3, 5
	3/10/1999	27.40	20.74	6.66	-	-	-	-	-	-	>20	3, 5
	3/17/1999	27.40	18.57	8.83	-	-	-	-	-	-	>20	3, 5
	5/4/1999	27.40	18.55	8.85	90,000	9,200	21,000	1,600	10,000	560	3.20	
	7/20/1999	27.40	18.98	8.42	28,000	2,100	3,700	900	4,200	<860	0.64	
	10/5/1999	27.40	19.10	8.30	11,000	870	180	30	1,400	<110	0.58	
	1/7/2000	27.40	19.41	7.99	15,000	1,300	2,100	440	1,800	<14	0.94	
	4/6/2000	27.40	18.80	8.60	17,000	1,800	3,100	500	2,200	<50	0.64	
	7/31/2000	27.40	18.87	8.53	17,000	1,500	2,700	430	2,100	<200	0.50	
	10/3/2000	27.40	19.45	7.95	27,000	2,500	4,000	660	2,900	<50	0.16	
	1/12/2001	27.40	19.80	7.60	25,000	2,700	4,100	670	3,000	<200	0.35	
	4/11/2001	27.40	20.03	7.37	97,000	9,500	21,000	2,200	7,900	<200	-	a
MW-3	12/2/1994	29.50	22.15	7.35	394,000	1,200	nd	1,800	4,000	-	-	1
	3/6/1995	29.25	20.09	9.16	21,000	400	150	24	62	-	-	1
	7/11/1995	29.56	19.99	9.57	12,000	nd	10	16	99	-	-	
	5/10/1996	29.56	20.24	9.32	8,600	nd	7.6	16	84	-	-	
	10/2/1996	29.56	20.90	8.66	11,000	nd	7.4	19	92	-	-	
	2/28/1997	29.56	20.12	9.44	6,000	nd	4.4	17	88	50	-	
	9/16/1997	29.56	20.97	8.59	6,500	<0.5	1	1	7	<5.0	-	
	2/5/1998	29.56	20.39	9.17	5,400	<0.5	6.3	15	86	<63	1.90	
	8/11/1998	29.56	19.95	9.61	2,700	<0.5	3.5	3.2	12	<10	0.05	
	2/8/1999	29.56	20.58	8.98	6,100	<0.5	8.1	18	80	<140	2.20	
	2/17/1999	29.56	20.53	9.03	-	-	-	-	-	-	>20	3, 5
	2/24/1999	29.56	22.53	7.03	-	-	-	-	-	-	>20	3, 5

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	Notes
	3/3/1999	29.56	20.28	9.28	-	-	-	-	-	-	>20	3, 5
	3/10/1999	29.56	22.45	7.11	-	-	-	-	-	-	>20	3, 5
	3/17/1999	29.56	20.26	9.30	-	-	-	-	-	-	>20	3, 5
	5/4/1999	29.56	20.24	9.32	11,000	<2	<2	9.8	140	<10	3.10	
	7/20/1999	29.56	20.68	8.88	11,000	<0.5	3.1	13	88	<80	0.75	
	10/5/1999	29.56	20.81	8.75	31,000	62	<0.5	21	170	<90	0.68	
	1/7/2000	29.56	21.09	8.47	13,000	<0.5	<2	21	140	<80	1.96	
	4/6/2000	29.56	20.48	9.08	5,300	1.5	1.4	9.8	60	<30	4.15	
	7/31/2000	29.56	20.62	8.94	7,100	3.5	1.0	12	66	<5.0	0.35	
	10/3/2000	29.56	21.13	8.43	8,000	<0.5	3.3	11	70	<40	3.66	
	1/12/2001	29.56	21.45	8.11	11,000	4.3	6.7	11	73	<70	0.35	
	4/11/2001	29.56	21.69	7.87	10,000	<0.5	<0.5	11	65	<10	-	b,c
MW-4	5/10/1996	25.29	16.98	8.31	14,000	nd	1,200	720	3,100	-	-	
	10/2/1996	25.29	17.65	7.64	12,000	nd	650	580	2,200	-	-	
	2/28/1997	25.29	16.80	8.49	13,000	nd	1,100	750	2,700	110	-	
	9/17/1997	25.29	17.93	7.36	13,000	<2.5	820	750	2,900	<190	-	
	2/5/1998	25.29	16.78	8.51	13,000	<1.0	690	690	2,900	<170	2.10	
	8/11/1998	25.29	16.59	8.70	15,000	<5	360	520	1,900	280	2.80	
	2/8/1999	25.29	17.10	8.19	9,800	<5	680	770	2,200	300	1.80	3
	2/24/1999	25.29	18.95	6.34	-	-	-	-	-	-	2.20	3
	3/3/1999	25.29	16.80	8.49	-	-	-	-	-	-	4.60	3
	3/10/1999	25.29	16.86	8.43	-	-	-	-	-	-	3.70	3
	3/17/1999	25.29	16.82	8.47	-	-	-	-	-	-	4.30	3
	5/4/1999	25.29	16.86	8.43	11,000	46	600	620	1,900	<100	4.10	
	7/20/1999	25.29	17.30	7.99	13,000	<0.5	470	7.0	2,000	<150	0.38	
	10/5/1999	25.29	17.43	7.86	18,000	4.4	720	800	2,100	<120	0.71	
	1/7/2000	25.29	17.78	7.51	18,000	<2	930	990	2,700	<30	0.98	
	4/6/2000	25.29	17.17	8.12	8,000	31	390	530	1,300	<10	1.33	
	7/31/2000	25.29	17.21	8.08	6,200	13	170	460	850	<10	0.50	
	10/3/2000	25.29	18.00	7.29	14,000	42	820	730	2,000	<50	0.54	
?	1/12/2001	25.29	18.20	7.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.39	
•	4/11/2001	25.29	18.31	6.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	(Concentrations in µg/l)					DO (mg/L)	Notes
						Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
MW-5	5/10/1996	21.97	14.60	7.37	nd	nd	nd	nd	nd	-	-	
	10/2/1996	21.97	15.25	6.72	nd	nd	nd	nd	nd	-	-	
	2/28/1997	21.97	14.31	7.66	nd	nd	nd	nd	nd	nd	-	
	9/17/1997	21.97	15.18	6.79	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/5/1998	21.97	13.64	8.33	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.80	
	8/11/1998	21.97	13.92	8.05	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.05	
	2/8/1999	21.97	14.19	7.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.00	
	2/24/1999	21.97	16.18	5.79	-	-	-	-	-	-	4.90	3
	3/3/1999	21.97	14.23	7.74	-	-	-	-	-	-	3.40	3
	3/10/1999	21.97	14.32	7.65	-	-	-	-	-	-	3.60	3
	3/17/1999	21.97	14.25	7.72	-	-	-	-	-	-	3.90	3
	5/4/1999	21.97	14.41	7.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.20	
	7/20/1999	21.97	14.44	7.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.99	
	10/5/1999	21.97	14.79	7.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.52	
	1/7/2000	21.97	15.23	6.74	-	-	-	-	-	-	-	Well inaccessible
	4/6/2000	21.97	14.74	7.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.67	
	7/31/2000	21.97	14.52	7.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.55	
	10/3/2000	21.97	15.37	6.60	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.51	
	1/12/2001	21.97	15.70	6.27	6,400	13	290	450	1,100	<40	0.71	
	4/11/2001	21.97	15.78	6.19	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	-----<------(Concentrations in µg/l)----->-----						DO (mg/L)	Notes
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
Trip Blank	01/12/01	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	<u>4/11/2001</u>	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	

Notes and Abbreviations:

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8020.

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

MTBE = methyl tertiary butyl ether by EPA Method 8020.

µg/L = micrograms per liter

mg/L = milligrams per liter

ft-msl = feet above mean sea level

TOC = top of casing

nd = not detected

DO = dissolved oxygen

1 = Data prior to 7/11/95 from Gen Tech and Piers Environmental Quarterly Groundwater Monitoring Reports dated December 2, 1994 and March 6, 1995, respectively.

2 = Sampling no longer required in well MW-1 per September 17, 1996, ACDEH letter to Douglas Parking.

3 = DO monitoring event (no hydrocarbon analyses), as described in November 11, 1998 Remedial Workplan.

4 = Sampled well once to confirm well is still not impacted.

5 = Hydrogen peroxide injection occurring per our Remedial Workplan, dated November 11, 1998.

a = Unmodified or weakly modified gasoline is significant.

b = Heavier gasoline range compounds are significant (aged gasoline?).

c = No recognizable pattern.

APPENDIX A

Field Data Sheets

WELL SAMPLING FORM

Project Name: Douglas Parking	Cambria Mgr: JR	Well ID: MW- 2
Project Number: 580-0197	Date: 4/11/01	Well Yield: -----
Site Address: 1721 Webster Street Oakland, California	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SJ
Initial Depth to Water: 20.03	Total Well Depth: 25.70	Water Column Height: 5.67
Volume/ft: 0.16	1 Casing Volume: 0.90	3 Casing Volumes: 2.70
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 8:20	Stop Purge Time: 8:25	Total Time: 5 mins

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

Pre-purge DO: _____ mg/L

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

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
8:22	1 1	15.5	7.40	621	
8:24	2 2	14.8	7.49	618	
8:26	3 3	14.5	7.44	653	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 2	4/8/00 4-11-01	8:31	4 voa's	HCL	TPHg, BTEX, MTBE * Confirm MTBE hits	8020 8015 8260

WELL SAMPLING FORM

Project Name: Douglas Parking	Cambria Mgr: JR	Well ID: MW- 3
Project Number: 580-0197	Date: 4/11/01	Well Yield: -----
Site Address: 1721 Webster Street Oakland, California	Sampling Method: Disposable bailer	Well Diameter: "pvc 2
		Technician(s): SG
Initial Depth to Water: 21.69	Total Well Depth: 26.65	Water Column Height: 4.96
Volume/ft: 0.16	1 Casing Volume: 0.79	3 Casing Volumes: 237
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 2.5
Start Purge Time: 8:35	Stop Purge Time: 8:39	Total Time: 4mins

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

Pre-purge DO: _____ mg/L

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

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
8:37	1 1	15.4	7.12	615	
8:39	2 1.5	14.9	7.39	894	
8:41	3 2.5	15.1	7.22	790	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 3	4/6/00 4-11-01	8:46	4 voa's	HCL	TPHg, BTEX, MTBE * Confirm MTBE hits	8020 8015 8260

WELL SAMPLING FORM

Project Name: Douglas Parking	Cambria Mgr: JR	Well ID: MW- 4
Project Number: 580-0197	Date: 4/11/01	Well Yield: -----
Site Address: 1721 Webster Street Oakland, California	Sampling Method:	Well Diameter: " pvc 2
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 18.31	Total Well Depth: 29.20	Water Column Height:
Volume/ft: 0.16	1 Casing Volume: 1.71	3 Casing Volumes: 5.13
Purging Device: disposable bailer	Did Well Dewater?: NO	Total Gallons Purged: 5
Start Purge Time: 7:55	Stop Purge Time: 8:02	Total Time: 7mins

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

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

Pre-purge DO: mg/L

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
7:57	1 1.5	15.3	7.55	420	
7:59	2 3	15.5	7.72	619	
8:03	3 5	15.8	7.51	651	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 4	4/11/01	8:08	4 voa's	HCL	TPHg, BTEX, MTBE * Confirm MTBE hits	8020 8015 8260

WELL SAMPLING FORM

Project Name: Douglas Parking	Cambria Mgr: JR	Well ID: MW- 5
Project Number: 580-0197	Date: 4/11/01	Well Yield: -----
Site Address: 1721 Webster Street Oakland, California	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 15.78	Total Well Depth: 24.30	Water Column Height: 8.52
Volume/ft: 0.16	1 Casing Volume: 1.36	3 Casing Volumes: 4.08
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 4
Start Purge Time: 7:30	Stop Purge Time: 7:39	Total Time: 9mins

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

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

Pre-purge DO: _____ mg/L

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
7:35	1 1.5	15.1	7.28	794	
7:37	2 3	15.21	7.50	721	
7:40	3 4	15.7	7.53	701	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 5	4/6/00 4-11-01	7:45	4 voa's	HCL	TPHg, BTEX, MTBE * Confirm MTBE hits	8020 8015 8260

APPENDIX B

Laboratory Analytical Report



McCAMPBELL ANALYTICAL INC.

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

QC REPORT

Date: 04/15/01-04/16/01 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 41301				Instrument: GC-7			
Surrogate1	0.000	93.0	96.0	100.00	93	96	3.2
Xylenes	0.000	26.6	27.9	30.00	89	93	4.8
Ethyl Benzene	0.000	8.4	8.8	10.00	84	88	4.7
Toluene	0.000	8.4	8.9	10.00	84	89	5.8
Benzene	0.000	8.2	8.5	10.00	82	85	3.6
MTBE	0.000	10.6	8.7	10.00	106	87	19.7
GAS	0.000	96.0	93.3	100.00	96	93	2.8
SampleID: 41801				Instrument: GC-11 B			
Surrogate1	0.000	108.0	108.0	100.00	108	108	0.0
TPH (diesel)	0.000	7325.0	7550.0	7500.00	98	101	3.0

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



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

Cambria Environmental Technology 1144 65 th Street, Suite C Oakland, CA 94608	Client Project ID: #580-0197-040; Douglas Parking	Date Sampled: 04/11/01
	Client Contact: John Riggi	Date Received: 04/13/01
	Client P.O:	Date Extracted: 04/16/01
		Date Analyzed: 04/16/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
65417	MW-2	W	97,000,a	ND<200	9500	21,000	2200	7900	97
65418	MW-3	W	10,000,b,j	ND<10	ND	ND	11	65	---#
65419	MW-4	W	ND	ND	ND	ND	ND	ND	95
65420	MW-5	W	ND	ND	ND	ND	ND	ND	106
65421	TB	W	ND	ND	ND	ND	ND	ND	97
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	0.5	
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP 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 (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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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: John Riggi Bill To: Cambria Env

Company: Cambria Environmental Technology

1144 65th Street, Suite C

Oakland, CA 94608

Tele: (510) 420-0700

Fax: (510) 420-9170

Project #: 580-0197-040

Project Name: Douglas Parking

Project Location: 1721 Webster St. Oakland, Ca

Sampler Signature: [Signature]

Analysis Request

Other

Comments

BTX & TPH as Gas (602/8020 + 8015) MTDE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5320 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
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for MW-2 confirm
all MTBE hits by 8260

(f)
(A)
(S)
(S)
✓

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other
MW-2		4-11-01	8:31	4	VOA	X					X	X		
MW-3		4-11-01	8:46	4	VOA	X					X	X		
MW-4		4-11-01	8:08	4	VOA	X					X	X		
MW-5		4-11-01	7:45	4	VOA	X					X	X		
TS		4-11-01		2	VOA	X					X	X		

65417

65418

65419

65420

65421

Relinquished By: <u>[Signature]</u>	Date: <u>4-13</u>	Time: <u>10:55</u>	Received By: <u>David Welden</u>
Relinquished By: <u>David Welden</u>	Date:	Time:	Received By: <u>Yen Cao @ MAC 4/13/01 11:50am</u>
Relinquished By:	Date:	Time:	Received By:

Remarks:

ICE/+ PRESERVATION APPROPRIATE
 HEAD SPACE ABSENT CONTAINERS

VOAS/O&G/METALS/OTHER

TS-W