

R0129

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April 23, 2004

Mr. Don Hwang
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Groundwater Monitoring Report – First Quarter 2004**

Douglas Parking Company
1721 Webster Street
Oakland, California
File No. 4070
Cambria Project No. 580-0197



Dear Mr. Chan:

On behalf of Mr. Lee Douglas of Douglas Parking Company, Cambria Environmental Technology, Inc. has prepared this *Groundwater Monitoring Report - First Quarter 2004* for the above-referenced site. The report describes the first quarter 2004 activities and results as well as the anticipated second quarter 2004 activities.

If you have any questions or comments, please call me at (510) 420-3305.

Sincerely,
Cambria Environmental Technology, Inc.

Gretchen Hellmann
Project Engineer

Attachment: Groundwater Monitoring Report – First Quarter 2004

**Cambria
Environmental
Technology, Inc.**

cc: Mr. Lee Douglas, Douglas Parking Company, 1721 Webster Street, Oakland, California 94612 (2 copies)

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

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GROUNDWATER MONITORING REPORT – FIRST QUARTER 2004

Douglas Parking Company
1721 Webster Street
Oakland, California
File No. 4070
Cambria Project No. 580-0917

April 23, 2004

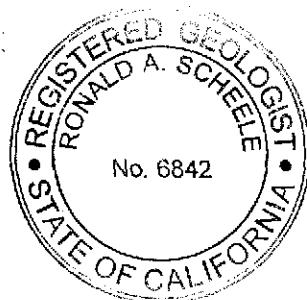


Prepared for:

Mr. Lee Douglas
1721 Webster Street
Oakland, California 94612

Prepared by:

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



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Sanjiv Gill
Staff Scientist

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Ron Scheele, R.G.
Senior Geologist

C A M B R I A

GROUNDWATER MONITORING REPORT – FIRST QUARTER 2004

**Douglas Parking Company
1721 Webster Street
Oakland, California
File No. 4070
Cambria Project No. 580-0917**

April 23, 2004



INTRODUCTION

On behalf of Douglas Parking Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Groundwater Monitoring Report - First Quarter 2004* for the above-referenced site. Presented below are the first quarter 2004 activities and results, and the anticipated second quarter 2004 activities.

Table 1 contains water level measurement and calculated groundwater elevation data. In addition, it presents a summary of historical analytical data, including this event. Figure 1 displays the groundwater elevation and analytical data. Appendix A contains the field data sheets for this monitoring event. Appendix B contains the analytical laboratory report. Appendix C contains the GeoTracker delivery confirmation documentation.

FIRST QUARTER 2004 ACTIVITIES AND RESULTS

Monitoring Activities

Field Activities: On January 15, 2004, Cambria gauged depth-to-water and inspected the groundwater monitoring wells for separate-phase hydrocarbons (SPH). Groundwater samples were collected from monitoring wells MW-2 through MW-7.

Prior to sampling, groundwater levels and SPH thickness were gauged/measured in the wells within approximately 45 minutes to evaluate groundwater elevation and flow patterns at the site. To facilitate groundwater sampling, Cambria attempted to purge between four and ten well-casing volumes of groundwater prior to sampling. However, because of the low permeability materials in which the wells were constructed, only two well-casing volumes were removed prior to the well dewatering. 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 ice at or below 4 degrees Celsius and transported under chain-of-custody to the laboratory. Field data sheets are presented as Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified United States Environmental Protection Agency (EPA) Method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8021B by McCampbell Analytical, Inc. of Pacheco, California, a California-certified laboratory. The analytical laboratory report is included as Appendix B. The analytical data has been submitted to the GeoTracker database (Appendix C).

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water measurements collected on January 15, 2004, groundwater beneath the site flows toward the northeast with a gradient of 0.009 feet per foot (Figure 1). The gradient is consistent with historical data. Depth to water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater: Hydrocarbons were detected in three of the six wells sampled this quarter. The maximum TPHg and benzene concentrations were detected in up- and cross-gradient well MW-6 at 14,000 micrograms per liter ($\mu\text{g/L}$) and 48 $\mu\text{g/L}$, respectively. No hydrocarbon compounds were detected in the groundwater samples from wells MW-4, MW-5, and MW-7. MTBE was not detected in any well (Figure 1, Table 1).

Feasibility Testing

In order to evaluate the effectiveness of a soil vapor extraction and/or air sparge system at the site, Cambria performed a one-day pilot test on October 4, 2003. Feasibility test procedures, observations, results, and complete evaluation are included in Cambria's *Feasibility Test Report*, dated April 22 2004.

ANTICIPATED SECOND QUARTER 2004 ACTIVITIES

Monitoring Activities

Cambria will gauge the site wells, inspect the wells for SPH, and collect groundwater samples from all wells not containing SPH. Groundwater samples will be analyzed for TPHg by EPA Method 8015, and BTEX and MTBE by EPA Method 8021B. Fuel oxygenates and lead scavengers will also be analyzed for by EPA Method 8260. Following field activities, Cambria will tabulate the data, contour groundwater elevations, and prepare a quarterly groundwater monitoring report.

Corrective Action Activities

Cambria will begin implementation of remedial activities following the ACHCSA's approval of the recommendations proposed in Cambria's *Feasibility Test Report*.

ATTACHMENTS

Figure 1 – Groundwater Elevation Contours and Hydrocarbon Concentration Map – January 15, 2004

Table 1 – Groundwater Elevation and Analytical Data

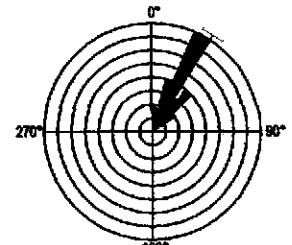


Appendix A – Groundwater Monitoring Field Data Sheets
Appendix B – Laboratory Analytical Report
Appendix C – GeoTracker Electronic Delivery Confirmations

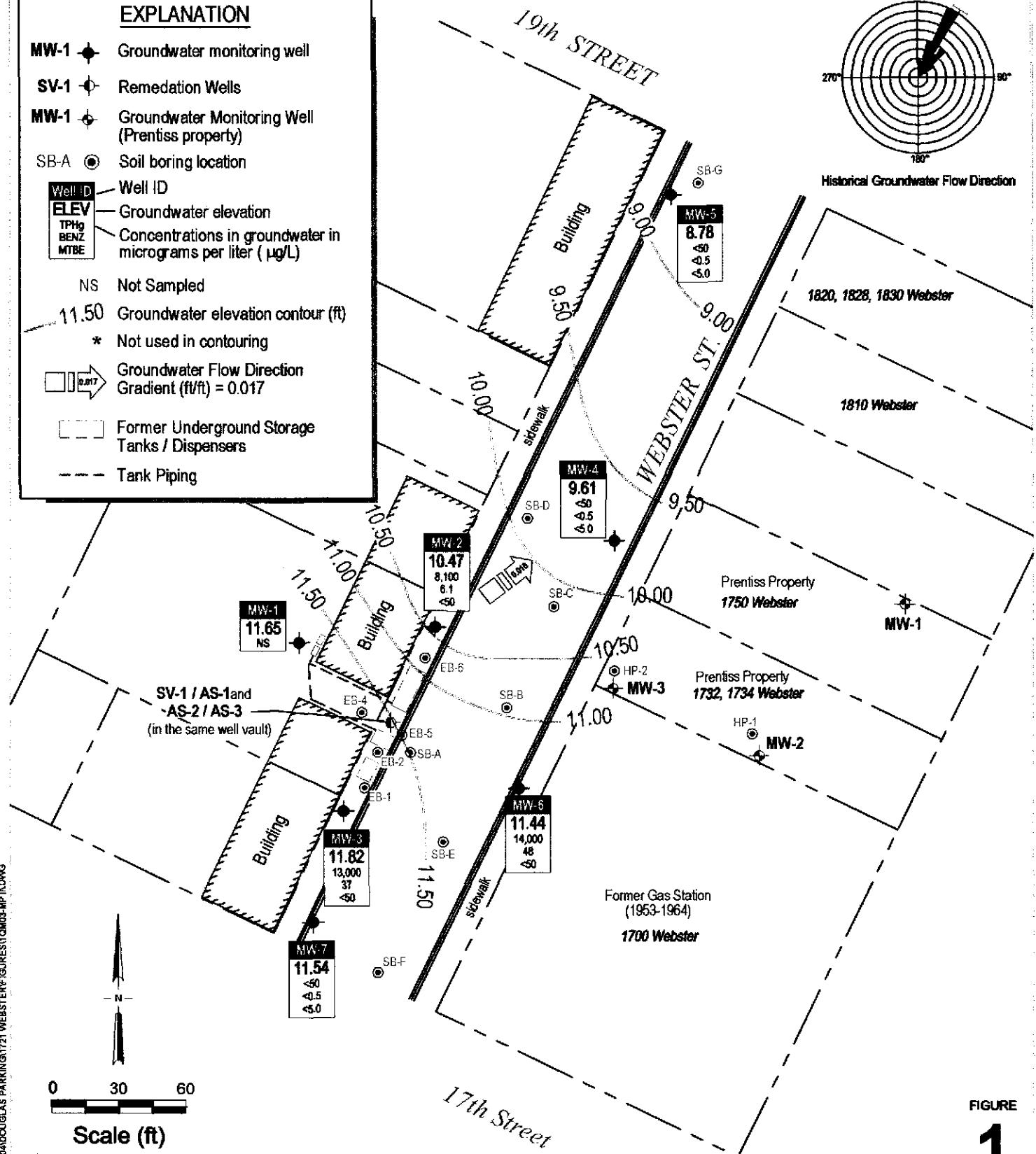
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EXPLANATION

- MW-1** • Groundwater monitoring well
- SV-1** • Remediation Wells
- MW-1** • Groundwater Monitoring Well (Prentiss property)
- SB-A** ● Soil boring location
- Well ID** Well ID
- ELEV** Groundwater elevation
- TPHg BENZ MTBE** Concentrations in groundwater in micrograms per liter ($\mu\text{g/L}$)
- NS** Not Sampled
- 11.50** Groundwater elevation contour (ft)
- * Not used in contouring
- Groundwater Flow Direction Gradient (ft/ft) = 0.017**
- Former Underground Storage Tanks / Dispensers**
- Tank Piping**



Historical Groundwater Flow Direction



FIGURE

1

Douglas Parking Facility
1721 Webster Street
Oakland, California



Groundwater Elevation and Hydrocarbon Concentration Map
January 15, 2004

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

Well ID (TOC)	Date	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-1	12/2/1994	19.42	9.83	ND	ND	ND	ND	ND	-
29.25	3/6/1995	20.69	9.04	ND	ND	ND	ND	ND	-
29.73	7/11/1995	20.65	9.16	ND	ND	ND	ND	ND	-
29.81	5/10/1996	20.80	9.01	ND	ND	ND	ND	ND	-
	10/2/1996	21.35	8.46	-	-	-	-	-	-
	2/28/1997	20.57	9.24	-	-	-	-	-	-
	9/16/1997	21.50	8.31	-	-	-	-	-	-
	2/5/1998	20.91	8.90	-	-	-	-	-	-
	8/11/1998	20.50	9.31	-	-	-	-	-	-
	2/8/1999	21.42	8.39	-	-	-	-	-	-
	2/24/1999	22.99	6.82	-	-	-	-	-	-
	3/3/1999	20.84	8.97	-	-	-	-	-	-
	3/10/1999	20.89	8.92	-	-	-	-	-	-
	3/17/1999	20.84	8.97	-	-	-	-	-	-
	5/4/1999	20.80	9.01	-	-	-	-	-	-
	7/20/1999	21.25	8.56	-	-	-	-	-	-
	10/5/1999	21.37	8.44	-	-	-	-	-	-
	1/7/2000	21.65	8.16	-	-	-	-	-	-
	4/6/2000	21.05	8.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/31/2000	21.13	8.68	-	-	-	-	-	-
	10/3/2000	21.69	8.12	-	-	-	-	-	-
	1/12/2001	22.00	7.81	-	-	-	-	-	-
	4/11/2001	22.16	7.65	-	-	-	-	-	-
	7/6/2001	22.57	7.24	-	-	-	-	-	-
	10/25/2001	22.71	7.10	-	-	-	-	-	-
	3/4/2002	22.53	7.28	-	-	-	-	-	-
	4/18/2002	22.81	7.00	-	-	-	-	-	-
	7/9/2002	22.95	6.86	-	-	-	-	-	-
	10/4/2002	23.13	6.68	-	-	-	-	-	-
	1/12/2003	22.05	7.76	-	-	-	-	-	-
	4/21/2003	21.17	8.64	-	-	-	-	-	-
32.75	7/21/2003	21.39	11.36	-	-	-	-	-	-
	10/2/2003	21.64	11.11	-	-	-	-	-	-
	1/15/2004	21.10	11.65	-	-	-	-	-	-
MW-2	12/2/1994	19.50	7.60	61,300	3,000	3,900	160	4,500	-
27.10	3/6/1995	18.49	8.61	98,000	8,400	16,000	2,000	2,600	-
27.40	7/11/1995	18.45	8.95	38,000	3,100	7,500	940	3,700	-
	5/10/1996	18.56	8.84	63,000	7,400	16,000	1,500	6,000	-
	10/2/1996	19.15	8.25	21,000	2,200	3,400	430	1,600	-
	2/28/1997	18.43	8.97	39,000	4,700	9,600	950	4,200	ND
	9/16/1997	19.26	8.14	29,000	3,300	5,800	690	2,900	<620
	2/5/1998	18.66	8.74	10,000	1,000	2,000	170	860	<330
	8/11/1998	18.41	8.99	12,000	1,200	2,300	260	1,400	300
	2/8/1999	19.84	7.56	5,500	740	1,200	150	780	60
	2/17/1999	18.94	8.46	-	-	-	-	-	-
	2/24/1999	20.76	6.64	-	-	-	-	-	-
	3/3/1999	18.55	8.85	-	-	-	-	-	-
	3/10/1999	20.74	6.66	-	-	-	-	-	-
	3/17/1999	18.57	8.83	-	-	-	-	-	-
	5/4/1999	18.55	8.85	90,000	9,200	21,000	1,600	10,000	560
	7/20/1999	18.98	8.42	28,000	2,100	3,700	900	4,200	<860
	10/5/1999	19.10	8.30	11,000	870	180	30	1,400	<110

CAMBRIA

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

Well ID (TOC)	Date	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-2	1/7/2000	19.41	7.99	15,000	1,300	2,100	440	1,800	<14
(cont'd)	4/6/2000	18.80	8.60	17,000	1,800	3,100	500	2,200	<50
	7/31/2000	18.87	8.53	17,000	1,500	2,700	430	2,100	<200
	10/3/2000	19.45	7.95	27,000	2,500	4,000	660	2,900	<50
	1/12/2001	19.80	7.60	25,000	2,700	4,100	670	3,000	<200
	4/11/2001	20.03	7.37	97,000	9,500	21,000	2,200	7,900	<200
	7/6/2001	20.19	7.21	3,500	500	150	11	420	<5.0
	10/25/2001	20.35	7.05	3,800	620	230	70	400	<50
	3/4/2002	20.37	7.03	46,000	7,300	12,000	870	3,200	<500
	4/18/2002	20.15	7.25	68,000	5,100	8,900	1,100	4,000	<1,000
	7/9/2002	21.09	6.31	1,000	200	8.9	0.67	82	<10
	10/4/2002	21.28	6.12	270	100	3.4	0.53	10	<5.0
	1/12/2003	20.59	6.81	67,000	7,600	13,000	1,400	5,600	<500
	4/21/2003	19.98	7.42	78,000	7,700	12,000	1,900	6,900	<500
30.40	7/21/2003	20.08	10.32	1,800	360	16	<5.0	190	<50
	10/2/2003	20.41	9.99	4,000	790	110	60	350	<50
	1/15/2004	19.93	10.47	8,100	6.1	23	44	530	<50
MW-3	12/2/1994	22.15	7.35	394,000	1,200	ND	1,800	4,000	-
29.50	3/6/1995	20.09	9.16	21,000	400	150	24	62	-
29.25	7/11/1995	19.99	9.57	12,000	ND	10	16	99	-
29.56	5/10/1996	20.24	9.32	8,600	ND	7.6	16	84	-
	10/2/1996	20.90	8.66	11,000	ND	7.4	19	92	-
	2/28/1997	20.12	9.44	6,000	ND	4.4	17	88	50
	9/16/1997	20.97	8.59	6,500	<0.5	0.69	1.2	6.7	<5.0
	2/5/1998	20.39	9.17	5,400	<0.5	6.3	15	86	<63
	8/11/1998	19.95	9.61	2,700	<0.5	3.5	3.2	12	<10
	2/8/1999	20.58	8.98	6,100	<0.5	8.1	18	80	<140
	2/17/1999	20.53	9.03	-	-	-	-	-	-
	2/24/1999	22.53	7.03	-	-	-	-	-	-
	3/3/1999	20.28	9.28	-	-	-	-	-	-
	3/10/1999	22.45	7.11	-	-	-	-	-	-
	3/17/1999	20.26	9.30	-	-	-	-	-	-
	5/4/1999	20.24	9.32	11,000	<2	<2	9.8	140	<10
	7/20/1999	20.68	8.88	11,000	<0.5	3.1	13	88	<80
	10/5/1999	20.81	8.75	31,000	62	<0.5	21	170	<90
	1/7/2000	21.09	8.47	13,000	<0.5	<2	21	140	<80
	4/6/2000	20.48	9.08	5,300	1.5	1.4	9.8	60	<30
	7/31/2000	20.62	8.94	7,100	3.5	1.0	12	66	<5.0
	10/3/2000	21.13	8.43	8,000	<0.5	3.3	11	70	<40
	1/12/2001	21.45	8.11	11,000	4.3	6.7	11	73	<70
	4/11/2001	21.69	7.87	10,000	<0.5	<0.5	11	65	<10
	7/6/2001	21.60	7.96	13,000	5.3	1.6	11	58	<5.0
	10/25/2001	21.70	7.86	11,000	<0.5	3.0	15	70	<10
	3/4/2002	21.65	7.91	1,900	1.3	0.8	<0.5	15	<5.0
	4/18/2002	21.77	7.79	1,500	1.0	0.97	1.3	5.8	<5
	7/9/2002	22.03	7.53	13,000	6.8	5.7	13	59	<90
	10/4/2002	22.15	7.41	8,400	<10	<10	<10	42	<100
	1/12/2003	21.13	8.43	9,000	9.5	5.1	8.5	46	<90
	4/21/2003	20.63	8.93	10,000	<5.0	<5.0	8.5	32	<50
32.56	7/21/2003	20.68	11.88	9,600	<2.5	<2.5	7.4	39	48, (<1.0)
	10/2/2003	20.99	11.57	12,000	<5.0	<5.0	10	40	<90
	1/15/2004	20.74	11.82	13,000	37	41	78	930	<50

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

Well ID (TOC)	Date	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-4 25.29	5/10/1996	16.98	8.31	14,000	ND	1,200	720	3,100	-
	10/2/1996	17.65	7.64	12,000	ND	650	580	2,200	-
	2/28/1997	16.80	8.49	13,000	ND	1,100	750	2,700	110
	9/17/1997	17.93	7.36	13,000	<2.5	820	750	2,900	<190
	2/5/1998	16.78	8.51	13,000	<1.0	690	690	2,900	<170
	8/11/1998	16.59	8.70	15,000	<5	360	520	1,900	280
	2/8/1999	17.10	8.19	9,800	<5	680	770	2,200	300
	2/24/1999	18.95	6.34	-	-	-	-	-	-
	3/3/1999	16.80	8.49	-	-	-	-	-	-
	3/10/1999	16.86	8.43	-	-	-	-	-	-
	3/17/1999	16.82	8.47	-	-	-	-	-	-
	5/4/1999	16.86	8.43	11,000	46	600	620	1,900	<100
	7/20/1999	17.30	7.99	13,000	<0.5	470	7.0	2,000	<150
	10/5/1999	17.43	7.86	18,000	4.4	720	800	2,100	<120
	1/7/2000	17.78	7.51	18,000	<2	930	990	2,700	<30
	4/6/2000	17.17	8.12	8,000	31	390	530	1,300	<10
	7/31/2000	17.21	8.08	6,200	13	170	460	850	<10
	10/3/2000	18.00	7.29	14,000	42	820	730	2,000	<50
	1/12/2001	18.20	7.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/11/2001	18.31	6.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/6/2001	18.35	6.94	470	2.3	1.6	0.81	43	<5.0
	10/25/2001	18.47	6.82	110	0.70	<0.5	<0.5	3.3	<5.0
	3/4/2002	18.43	6.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/18/2002	18.61	6.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/9/2002	19.50	5.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/4/2002	19.83	5.46	310	2.0	2.9	13	16	<0.5
	1/12/2003	19.07	6.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/21/2003	18.71	6.58	<50	<0.5	<0.5	<0.5	<0.5	<5.0
28.29	7/21/2003	18.81	9.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/2/2003	19.02	9.27	59	0.78	<0.5	1.1	0.91	<5.0
	1/15/2004	18.68	9.61	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-5 21.97	5/10/1996	14.60	7.37	ND	ND	ND	ND	ND	-
	10/2/1996	15.25	6.72	ND	ND	ND	ND	ND	-
	2/28/1997	14.31	7.66	ND	ND	ND	ND	ND	ND
	9/17/1997	15.18	6.79	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	2/5/1998	13.64	8.33	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/11/1998	13.92	8.05	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/8/1999	14.19	7.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/24/1999	16.18	5.79	-	-	-	-	-	-
	3/3/1999	14.23	7.74	-	-	-	-	-	-
	3/10/1999	14.32	7.65	-	-	-	-	-	-
	3/17/1999	14.25	7.72	-	-	-	-	-	-
	5/4/1999	14.41	7.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/20/1999	14.44	7.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/5/1999	14.79	7.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	1/7/2000*	15.23	6.74	-	-	-	-	-	-
	4/6/2000	14.74	7.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/31/2000	14.52	7.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/3/2000	15.37	6.60	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	1/12/2001	15.70	6.27	6,400	13	290	450	1,100	<40
	4/11/2001	15.78	6.19	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/6/2001	15.97	6.00	<50	<0.5	<0.5	<0.5	<0.5	<5.0

CAMBRIA

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

Well ID (TOC)	Date	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)
MW-5	10/25/2001	16.05	5.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0
(cont'd)	3/4/2002	16.21	5.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/18/2002	16.59	5.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/9/2002	16.94	5.03	170	1.0	0.65	2.1	4.0	<15
	10/4/2002	17.14	4.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	1/12/2003	16.58	5.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/21/2003	15.90	6.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0
24.99	7/21/2003	16.03	8.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/2/2003	16.33	8.66	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	1/15/2004	16.21	8.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-6	6/30/2003	19.60	11.39	68,000	950	6,000	2,400	10,000	<1,000
30.99	7/21/2003	19.67	11.32	120,000	170	1,400	1,100	10,000	<1,000
	10/2/2003	19.97	11.02	16,000	7.6	200	38	1,800	<100
	1/15/2004	19.55	11.44	14,000	48	51	94	1,100	<50
MW-7	6/30/2003	21.40	11.71	170	<0.5	2.1	2.0	8.7	<5.0
33.11	7/21/2003	21.44	11.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/2/2003	21.73	11.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	1/15/2004	21.57	11.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0
Trip Blank	01/12/01	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/11/2001	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/6/2001	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/4/2002	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/2/2003	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0

Notes and Abbreviations:

* = Well inaccessible

$\mu\text{g/L}$ = micrograms per liter

ND = Not Detected

DO = dissolved oxygen

<nd = Below laboratory detection limit

ft-msl = feet above mean sea level

TOC = top of casing elevations in feet above mean sea level

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 8021B, and by EPA Method 8260 in parenthesis

a = Unmodified or weakly modified gasoline is significant.

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

c = No recognizable pattern.

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.

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

On July 31, 2003, Virgil Chavez Land Surveying of Vallejo, California surveyed monitoring wells using a benchmark in the top of the curb near the SW return of the NW corner of 34th and Broadway

C A M B R I A



APPENDIX A

Groundwater Monitoring Field Data Sheets

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Product Thickness	Amount of Product Removed	Casing Diam.	Comment
MW-1	7:00		21.10				
MW-2	7:50		19.93			25.72	
MW-3	7:40		20.74			26.66	
MW-4	7:20		18.68			29.21	
MW-5	7:10		16.21			24.31	
MW-6	8:00		19.55			27.51	
MW-7	7:30		21.57			28.95	

Project Name: Douglas Parkins

Project Number/Task: 580-019-7/067

Measured By: J. M.H.

Date: 1-15-04

WELL SAMPLING FORM

Project Name: Douglas Parking	Cambria Mgr: MHF	Well ID: MW-2
Project Number: 580-0197	Date: 1-15-04	Well Yield:
Site Address: 721 Webster St Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" pvc Technician(s): SL
Initial Depth to Water: 19.93	Total Well Depth: 25.72	Water Column Height: 5.79
Volume/ft: 0.16	1 Casing Volume: 0.92	3 Casing Volumes: 2.77
Purging Device: disposable bails	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 11:45	Stop Purge Time: 12:09	Total Time: 24 mins

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

Casing Volume = Water column height x Volume/ ft.

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
11:55	1	18.6	7.10	619	
12:05	2	18.9	7.14	680	
12:10	3	18.9	7.15	695	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	1-15-04	12:15	3voo	HCl		

WELL SAMPLING FORM

Project Name: <i>Douglas Parkings</i>	Cambria Mgr: <i>MHF</i>	Well ID: <i>MW-3</i>
Project Number: <i>580-0197</i>	Date: <i>1-15-04</i>	Well Yield:
Site Address: <i>721 Webster St Oakland, Ca</i>	Sampling Method:	Well Diameter: <i>2" pvc</i>
	<i>disposable bailer.</i>	Technician(s): <i>SG</i>
Initial Depth to Water: <i>20.74</i>	Total Well Depth: <i>26.66</i>	Water Column Height: <i>5.92</i>
Volume/ft: <i>0.16</i>	1 Casing Volume: <i>0.94</i>	3 Casing Volumes: <i>2.84</i>
Purging Device: <i>disposable bails</i>	Did Well Dewater?: <i>no</i>	Total Gallons Purged: <i>3</i>
Start Purge Time: <i>10:55</i>	Stop Purge Time: <i>11:24</i>	Total Time: <i>29 mins</i>

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

Casing Volume = Water column height x Volume/ ft.

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
11:05	1	18.9	7.13	1019	
11:15	2	18.9	7.17	1071	
11:25	3	18.9	7.15	1045	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	1-15-04	11:30	3voo	HCl		

WELL SAMPLING FORM

Project Name: <u>Douglas Parking</u>	Cambria Mgr: <u>MHF</u>	Well ID: <u>MW-4</u>
Project Number: <u>580-0197</u>	Date: <u>1-15-04</u>	Well Yield:
Site Address: <u>721 Webster St</u> <u>Oakland, Ca</u>	Sampling Method: <u>disposable bails,</u>	Well Diameter: <u>2" pvc</u>
Initial Depth to Water: <u>18.68</u>	Total Well Depth: <u>29.21</u>	Water Column Height: <u>10.53</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>1.68</u>	3 Casing Volumes: <u>5.05</u>
Purging Device: <u>disposable bails,</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>5</u>
Start Purge Time: <u>9:15</u>	Stop Purge Time: <u>9:44</u>	Total Time: <u>29mins</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
9:25	1.5	18.8	7.21	764	
9:35	3	18.7	7.18	895	
9:45	5	18.8	7.17	932	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	1-15-04	9:50	3voo	HCl		

WELL SAMPLING FORM

Project Name: Douglas Parkings	Cambria Mgr: MHF	Well ID: MW-5
Project Number: 580-0197	Date: 1-15-04	Well Yield:
Site Address: 721 Webster St Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" pvc Technician(s): SG
Initial Depth to Water: 16.21	Total Well Depth: 24.31	Water Column Height: 8.10
Volume/ft: 0.16	1 Casing Volume: .29	3 Casing Volumes: 3.88
Purging Device: disposable bails	Did Well Dewater?: no	Total Gallons Purged: 4
Start Purge Time: 8:30	Stop Purge Time: 8:49	Total Time: 19mins

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
8:35	1.5	18.9	7.20	1039	
8:40	3	18.9	7.17	942	
8:50	6.1	18.9	7.18	913	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	1-15-04	8:55	3voo	HCl		

WELL SAMPLING FORM

Project Name: Douglas Parkings	Cambria Mgr: MHF	Well ID: MW-6
Project Number: 580-0197	Date: 1-15-04	Well Yield:
Site Address: 721 Webster St Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" pvc Technician(s): Sh
Initial Depth to Water: 19.55	Total Well Depth: 27.51	Water Column Height: 7.96
Volume/ft: 0.16	1 Casing Volume: 1.27	3 Casing Volumes: 3.82
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 4
Start Purge Time: 12:30	Stop Purge Time: 12:54	Total Time: 24 mins

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

Casing Volume = Water column height x Volume/ ft.

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
12:35	1.5	18.9	7.20	850	
12:45	3	18.8	7.22	895	
12:55	4	18.8	7.21	918	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	1-15-04	1:00	3vooa	HCl		

WELL SAMPLING FORM

Project Name: Douglas Parkin	Cambria Mgr: MHF	Well ID: MW-7
Project Number: 580-0197	Date: 1-15-04	Well Yield:
Site Address: 721 Webster St Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" pvc Technician(s): SG
Initial Depth to Water: 21.57	Total Well Depth: 28.95	Water Column Height: 7.38
Volume/ft: 0.16	1 Casing Volume: 1.18	3 Casing Volumes: 3.54
Purging Device: disposable bails	Did Well Dewater?: no	Total Gallons Purged: 35
Start Purge Time: 10:05	Stop Purge Time: 10:34	Total Time: 29mins

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

Casing Volume = Water column height x Volume/ ft.

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
10:15	1.5	18.9	7.21	610	
10:25	2.5	18.9	7.14	840	
10:35	3.5	18.9	7.15	871	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-7	1-15-04	10:40	3vooa	HCl		

C A M B R I A



APPENDIX B

Laboratory Analytical Report



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 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #580-0197/067; Douglas Parking	Date Sampled: 01/15/04
		Date Received: 01/20/04
	Client Contact: Mary C. Holland-Ford	Date Reported: 01/26/04
	Client P.O.:	Date Completed: 01/26/04

WorkOrder: 0401216

January 26, 2004

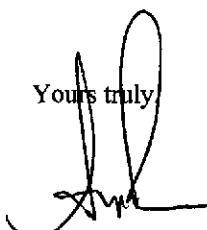
Dear Mary:

Enclosed are:

- 1). the results of 6 analyzed samples from your #580-0197/067; Douglas Parking 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 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #580-0197/067; Douglas Parking	Date Sampled: 01/15/04
		Date Received: 01/20/04
	Client Contact: Mary C. Holland-Ford	Date Extracted: 01/20/04-01/21/04
	Client P.O.:	Date Analyzed: 01/20/04-01/21/04

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0401216

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-2	W	8100,a	ND<50	6.1	23	44	530	10	--#
002A	MW-3	W	13,000,a	ND<50	37	41	78	930	10	--#
003A	MW-4	W	ND	ND	ND	ND	ND	ND	1	111
004A	MW-5	W	ND	ND	ND	ND	ND	ND	1	116
005A	MW-6	W	14,000,a	ND<50	48	51	94	1100	10	107
006A	MW-7	W	ND	ND	ND	ND	ND	ND	1	116

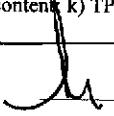
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~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

 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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0401216

	EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 10024		Spiked Sample ID: 0401216-006A			
	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) ^E	ND	60	90.5	88.9	1.73	94.3	94.3	0	70	130
MTBE	ND	10	92	94	2.14	92.5	91.7	0.882	70	130
Benzene	ND	10	110	109	1.17	105	104	1.15	70	130
Toluene	ND	10	115	113	2.07	108	107	0.184	70	130
Ethylbenzene	ND	10	112	111	1.32	106	108	1.36	70	130
Xylenes	ND	30	107	100	6.45	107	110	3.08	70	130
%SS:	116	10	120	118	1.74	114	113	0.977	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 = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

* 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.

^E 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.

DHS Certification No. 1644

TL QA/QC Officer

McCAMPBELL ANALYTICAL INC.

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

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0401216

Report to:

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

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #580-0197/067; Douglas Parking
PO:

Bill to:

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

Requested TAT: **5 days****Date Received:** 1/20/04**Date Printed:** 1/20/04

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
0401216-001	MW-2	Water	1/15/04 12:15:00		<input type="checkbox"/>	A	A												
0401216-002	MW-3	Water	1/15/04 11:30:00		<input type="checkbox"/>	A													
0401216-003	MW-4	Water	1/15/04 9:50:00 PM		<input type="checkbox"/>	A													
0401216-004	MW-5	Water	1/15/04 8:55:00 PM		<input type="checkbox"/>	A													
0401216-005	MW-6	Water	1/15/04 1:00:00 PM		<input type="checkbox"/>	A													
0401216-006	MW-7	Water	1/15/04 10:40:00		<input type="checkbox"/>	A													

Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT
7	
12	

3	
8	
13	

4	
9	
14	

5	
10	
15	

Prepared by: Melissa Valles**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.

0461214

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

Report To: Mary Holland-Ford

Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology Inc.

5700 Hollis Street STE-A

Emeryville, CA 94608

E-mail:

Tele: 510-420-3307

Fax: 510-420-9170

Project #: 580-0197/067

Project Name: Douglas Parking

Project Location: 1721 Webster St. Oakland, CA

Sampler Signature: J. J. W.

CHAIN OF CUSTODY RECORD

TURN AROUND TIME:

RUSH 24 HOUR 48 HOUR 5 DAY

EDF Required? Yes No

Analysis Request

Other

Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	MATRIX				METHOD PRESERVED	BTEX & TPH as Gas (602/8020 + 8015Y 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 / 8250 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	Confirm MTBE by 8060											
		Date	Time		Water	Soil	Air	Sludge		Ice	HCl	HNO ₃																	
MW-2		1-15-04	12:15	3	Vac	X				X	X	X																	
MW-3		1-15-04	11:30	3		X				XX																			
MW-4		1-15-04	9:50	3		X				XX																			
MW-5		1-15-04	8:55	3		X				XX																			
MW-6		1-15-04	1:00	3		X				XX																			
MW-7		1-15-04	10:40	3	X	X				XX																			
Relinquished By:		Date:	Time:	Received By:				Remarks:																					
<i>J. J. W.</i>		1-15-04	3:00	<i>Seguse location</i>																									
Relinquished By:		Date:	Time:	Received By:																									
<i>J. J. W.</i>		1/20	12:00	<i>1/17 BTEX F280</i>																									
Relinquished By:		Date:	Time:	Received By:																									
<i>1/17 BTEX F280</i>		1/20		<i>MW Hall</i>																									

ICE/Y ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ✓
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ✓
VOAS ✓ OAG ✓ METALS ✓ OTHER ✓
PRESERVATION ✓

C A M B R I A



APPENDIX C

GeoTracker Electronic Delivery Confirmations

AB2886 Electronic Delivery

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

UPLOADING A GEO_WELL FILE

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

Submittal Title: 1st Qtr 2004, GW Depth Data for 1721 Webster St.,
Oakland

Submittal Date/Time: 4/22/2004 3:48:56 PM

**Confirmation
Number:** 2682621598

[Back to Main Menu](#)

Logged in as CAMBRIA-EM (AUTH_RP)

CONTACT SITE [ADMINISTRATOR](#).

AB2886 Electronic Delivery

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

Your EDF file has been successfully uploaded!

Confirmation Number: 4309501528

Date/Time of Submittal: 4/22/2004 3:47:08 PM

Facility Global ID: T0600100140

Facility Name: DOUGLAS PARKING COMPANY

Submittal Title: 1st Qtr 2004, GW Analytical Data

Submittal Type: GW Monitoring Report

Logged in as CAMBRIA-EM (AUTH_RP)

CONTACT SITE ADMINISTRATOR