

C A M B R I A

ENVIRONMENTAL  
PROTECTION

February 23, 2000

00 FEB 30 PM 3: 34

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

Re: **First Quarter 2000 Monitoring Report**

Douglas Parking  
1721 Webster Street  
Oakland, California  
Cambria Project# 580-0197



Dear Mr. Douglas:

This report summarizes the first quarter 2000 groundwater monitoring results for the above-referenced site. Described below are the first quarter 2000 activities, the hydrocarbon distribution in groundwater, and the anticipated future activities.

**FIRST QUARTER 2000 ACTIVITIES**

**Groundwater Sampling:** On January 7, 2000, Cambria collected and analyzed groundwater samples from wells MW-2, MW-3, and MW-4 for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tert-butyl ether (MTBE), and dissolved oxygen (DO) concentrations. Cambria attempted to sample well MW-5, but the well was inaccessible. Cambria also gauged all site wells and inspected the wells for separate-phase hydrocarbons (SPH). No SPH were detected. The groundwater elevation and analytical data are summarized in Table 1. The laboratory analytical report for groundwater is included as Attachment A. Well sampling forms are included as Attachment B.


**Remedial Action:** Cambria conducted site visits to assess drill rig accessibility, to review subsurface utility locations, and to mark the site for underground service alert. Well installation is the first phase of the approved remedial work plan.

Oakland, CA  
Sonoma, CA  
Portland, OR  
Seattle, WA

**Cambria  
Environmental  
Technology, Inc.**

1144 65th Street  
Suite B  
Oakland, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

## HYDROCARBON DISTRIBUTION IN GROUNDWATER



Groundwater elevation data indicate that groundwater flows towards the north-northeast with a gradient of 0.006 ft/ft (Figure 1). Consistent with historical site data, hydrocarbons were detected in wells MW-2, MW-3 and MW-4. The maximum detected benzene concentration was 1,300 ug/l, in the downgradient well MW-2. Benzene was not detected in any other sampled well. The hydrocarbon concentrations in these wells continue to demonstrate an overall decreasing trend. The planned remedial action should improve groundwater quality near wells MW-2 and MW-3. The extent of hydrocarbons in groundwater is defined to below method reporting limits in the northern, crossgradient direction by well MW-1 and in the downgradient direction by well MW-5.

## ANTICIPATED FUTURE ACTIVITIES


**Groundwater Sampling:** As requested by the ACDEH, Cambria will perform groundwater monitoring on a quarterly basis. During each monitoring event, Cambria will gauge all site wells; inspect for SPH; and collect and analyze groundwater samples from wells MW-2, MW-3, MW-4 and MW-5 for TPHg, BTEX, MTBE, and DO. If MTBE is detected in wells MW-2 or MW-4, concentrations will be confirmed by re-analysis using EPA Method 8260. Cambria will summarize the quarterly monitoring activities in a written report.

**Remedial Action:** Cambria plans to install and test vapor extraction and air sparging wells within the second quarter of 2000. The remediation wells will be located between monitoring wells MW-2 and MW-3.


**CLOSING**

Cambria appreciates the opportunity to provide environmental services to Douglas Parking. If you have any questions or comments, please call me at (510) 420- 3328 or call Bob Clark-Riddell at (510) 420-3303.

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



Mark Erickson  
Staff Engineer



Bob Clark-Riddell, PE  
Principal Engineer



Attachments: A - Laboratory Analytical Report  
B - Well Sampling Forms

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

H:\SB-2004\DOUGLAS\1721 Webster\QMS\QM-1-00.WPD

**EXPLANATION**

- Groundwater Monitoring Well
- SB-A ● Soil Boring Location
- Well ID
- ELEV Groundwater Elevation
- Benzene Benzene Conc. in Groundwater in parts per billion (ppb)
- NS Not Sampled
- 7.50 Groundwater Elevation Contour (ft)
- Groundwater Flow Direction and Gradient (ft/ft)

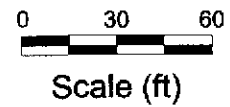
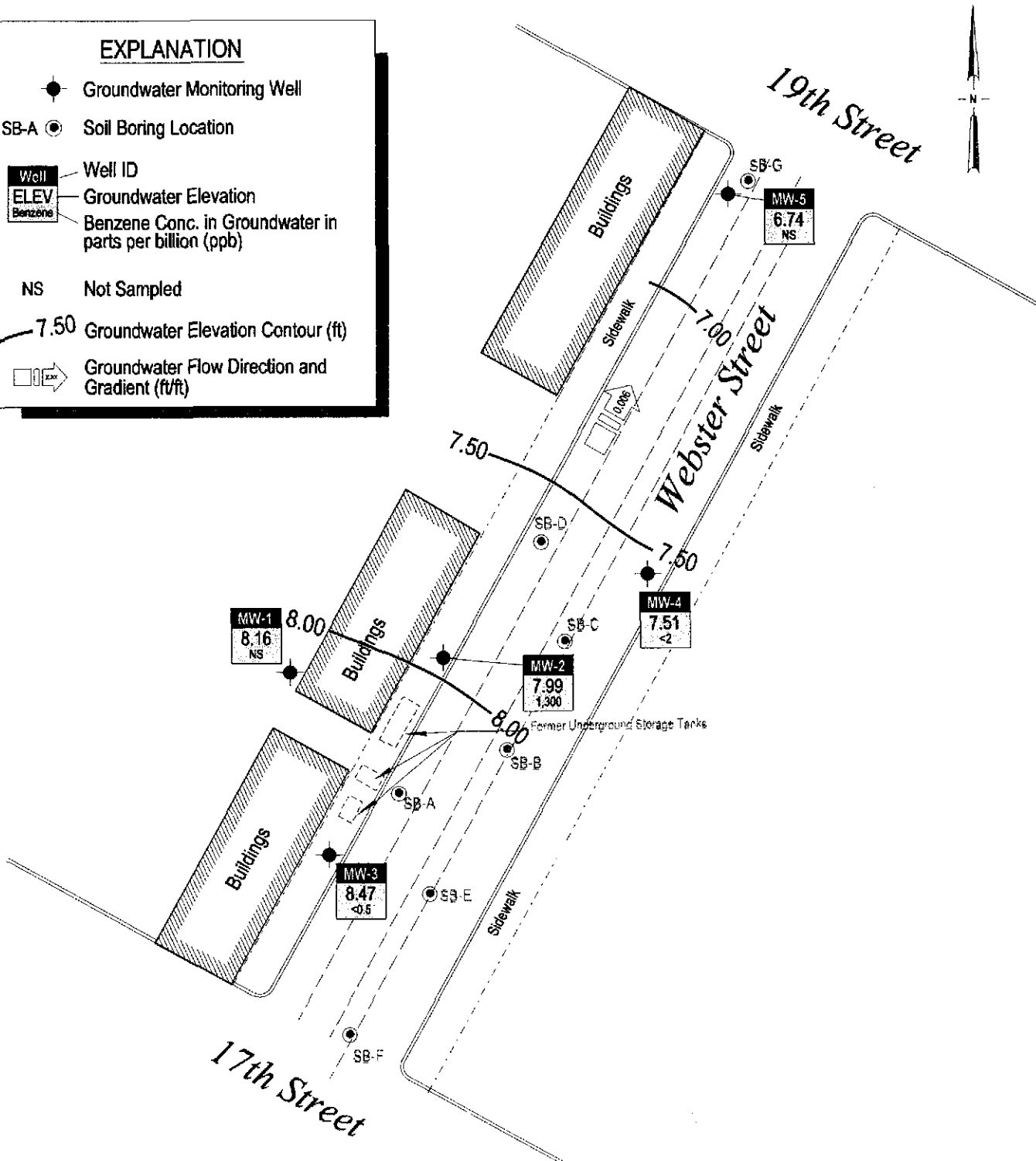


FIGURE  
**1**

H:\SB-2004\DOUGLAS\1721 Webster\FIGURES\1\0006-MP.DWG

Base map from Piers Environmental Services

**Douglas Parking Facility**  
1721 Webster Street  
Oakland, California



**Groundwater Elevation Contour Map**  
January 7, 2000

# CAMBRIA

**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-1	12/02/94	29.25	19.42	9.83	nd	nd	nd	nd	nd	-	-	1
	03/06/95	29.73	20.69	9.04	nd	nd	nd	nd	nd	-	-	1
	07/11/95	29.81	20.65	9.16	nd	nd	nd	nd	nd	-	-	
	05/10/96	29.81	20.80	9.01	nd	nd	nd	nd	nd	-	-	
	10/02/96	29.81	21.35	8.46	-	-	-	-	-	-	-	2
	02/28/97	29.81	20.57	9.24	-	-	-	-	-	-	-	2
	09/16/97	29.81	21.50	8.31	-	-	-	-	-	-	-	2
	02/05/98	29.81	20.91	8.90	-	-	-	-	-	-	1.9	2
	08/11/98	29.81	20.50	9.31	-	-	-	-	-	-	0.06	2
	02/08/99	29.81	21.42	8.39	-	-	-	-	-	-	6.0	2, 3
	02/24/99	29.81	22.99	6.82	-	-	-	-	-	-	2.0	2, 3
	03/03/99	29.81	20.84	8.97	-	-	-	-	-	-	3.8	2, 3
	03/10/99	29.81	20.89	8.92	-	-	-	-	-	-	3.4	2, 3
	03/17/99	29.81	20.84	8.97	-	-	-	-	-	-	2.8	2, 3
	05/04/99	29.81	20.80	9.01	-	-	-	-	-	-	3.5	2
	07/20/99	29.81	21.25	8.56	-	-	-	-	-	-	3.1	2
10/05/99	29.81	21.37	8.44	-	-	-	-	-	-	5.4	2	
<b>01/07/00</b>	<b>29.81</b>	<b>21.65</b>	<b>8.16</b>	-	-	-	-	-	-	<b>2.1</b>	<b>2</b>	
MW-2	12/02/94	27.10	19.50	7.60	61,300	3,000	3,900	160	4,500	-	-	1
	03/06/95	27.10	18.49	8.61	98,000	8,400	16,000	2,000	2,600	-	-	1
	07/11/95	27.40	18.45	8.95	38,000	3,100	7,500	940	3,700	-	-	
	05/10/96	27.40	18.56	8.84	63,000	7,400	16,000	1,500	6,000	-	-	
	10/02/96	27.40	19.15	8.25	21,000	2,200	3,400	430	1,600	-	-	
	02/28/97	27.40	18.43	8.97	39,000	4,700	9,600	950	4,200	nd	-	
	09/16/97	27.40	19.26	8.14	29,000	3,300	5,800	690	2,900	<620	-	
	02/05/98	27.40	18.66	8.74	10,000	1,000	2,000	170	860	<330	7.9	
	08/11/98	27.40	18.41	8.99	12,000	1,200	2,300	260	1,400	300	5.4	
	02/08/99	27.40	19.84	7.56	5,500	740	1,200	150	780	60	3.7	3
	02/17/99	27.40	18.94	8.46	-	-	-	-	-	-	>20	3
	02/24/99	27.40	20.76	6.64	-	-	-	-	-	-	>20	3
	03/03/99	27.40	18.55	8.85	-	-	-	-	-	-	>20	3
	03/10/99	27.40	20.74	6.66	-	-	-	-	-	-	>20	3
	03/17/99	27.40	18.57	8.83	-	-	-	-	-	-	>20	3
	05/04/99	27.40	18.55	8.85	90,000	9,200	21,000	1,600	10,000	560	3.2	3
07/20/99	27.40	18.98	8.42	28,000	2,100	3,700	900	4,200	<860	0.6	3	

# CAMBRIA

**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		
	10/05/99	27.40	19.10	8.30	11,000	870	180	30	1,400	<110	0.6	3
	<b>01/07/00</b>	<b>27.40</b>	<b>19.41</b>	<b>7.99</b>	<b>15,000</b>	<b>1,300</b>	<b>2,100</b>	<b>440</b>	<b>1,800</b>	<b>&lt;14</b>	<b>0.9</b>	<b>3</b>
MW-3	12/02/94	29.50	22.15	7.35	394,000	1,200	nd	1,800	4,000	-	-	1
	03/06/95	29.25	20.09	9.16	21,000	400	150	24	62	-	-	1
	07/11/95	29.56	19.99	9.57	12,000	nd	10	16	99	-	-	
	05/10/96	29.56	20.24	9.32	8,600	nd	7.6	16	84	-	-	
	10/02/96	29.56	20.90	8.66	11,000	nd	7.4	19	92	-	-	
	02/28/97	29.56	20.12	9.44	6,000	nd	4.4	17	88	50	-	
	09/16/97	29.56	20.97	8.59	6,500	<0.5	1	1	7	<5.0	-	
	02/05/98	29.56	20.39	9.17	5,400	<0.5	6.3	15	86	<63	1.9	
	08/11/98	29.56	19.95	9.61	2,700	<0.5	3.5	3.2	12	<10	0.05	
	02/08/99	29.56	20.58	8.98	6,100	<0.5	8.1	18	80	<140	2.2	3
	02/17/99	29.56	20.53	9.03	-	-	-	-	-	-	>20	3
	02/24/99	29.56	22.53	7.03	-	-	-	-	-	-	>20	3
	03/03/99	29.56	20.28	9.28	-	-	-	-	-	-	>20	3
	03/10/99	29.56	22.45	7.11	-	-	-	-	-	-	>20	3
	03/17/99	29.56	20.26	9.30	-	-	-	-	-	-	>20	3
	05/04/99	29.56	20.24	9.32	11,000	<2	<2	9.8	140	<10	3.1	3
	07/20/99	29.56	20.68	8.88	11,000	<0.5	3.1	13	88	<80	0.8	3
10/05/99	29.56	20.81	8.75	31,000	62	<0.5	21	170	<90	0.7	3	
	<b>01/07/00</b>	<b>29.56</b>	<b>21.09</b>	<b>8.47</b>	<b>13,000</b>	<b>&lt;0.5</b>	<b>&lt;2</b>	<b>21</b>	<b>140</b>	<b>&lt;80</b>	<b>1.96</b>	<b>3</b>
MW-4	05/10/96	25.29	16.98	8.31	14,000	nd	1,200	720	3,100	-	-	
	10/02/96	25.29	17.65	7.64	12,000	nd	650	580	2,200	-	-	
	02/28/97	25.29	16.80	8.49	13,000	nd	1,100	750	2,700	110	-	
	09/17/97	25.29	17.93	7.36	13,000	<2.5	820	750	2,900	<190	-	
	02/05/98	25.29	16.78	8.51	13,000	<1.0	690	690	2,900	<170	2.1	
	08/11/98	25.29	16.59	8.70	15,000	<5	360	520	1,900	280	2.8	
	02/08/99	25.29	17.10	8.19	9,800	<5	680	770	2,200	300	1.8	3
	02/24/99	25.29	18.95	6.34	-	-	-	-	-	-	2.2	3
	03/03/99	25.29	16.80	8.49	-	-	-	-	-	-	4.6	3
	03/10/99	25.29	16.86	8.43	-	-	-	-	-	-	3.7	3
	03/17/99	25.29	16.82	8.47	-	-	-	-	-	-	4.3	3
05/04/99	25.29	16.86	8.43	11,000	46	600	620	1,900	<100	4.1	3	
07/20/99	25.29	17.30	7.99	13,000	<0.5	470	7.0	2,000	<150	0.4	3	

# CAMBRIA

**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		
	10/05/99	25.29	17.43	7.86	18,000	4.4	720	800	2,100	<120	0.7	3
	01/07/00	25.29	17.78	7.51	18,000	<2	930	990	2,700	<30	0.98	3
MW-5	05/10/96	21.97	14.60	7.37	nd	nd	nd	nd	nd	-	-	
	10/02/96	21.97	15.25	6.72	nd	nd	nd	nd	nd	-	-	
	02/28/97	21.97	14.31	7.66	nd	nd	nd	nd	nd	nd	-	
	09/17/97	21.97	15.18	6.79	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	02/05/98	21.97	13.64	8.33	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.8	
	08/11/98	21.97	13.92	8.05	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.05	
	02/08/99	21.97	14.19	7.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.0	3
	02/24/99	21.97	16.18	5.79	-	-	-	-	-	-	4.9	3
	03/03/99	21.97	14.23	7.74	-	-	-	-	-	-	3.4	3
	03/10/99	21.97	14.32	7.65	-	-	-	-	-	-	3.6	3
	03/17/99	21.97	14.25	7.72	-	-	-	-	-	-	3.9	3
	05/04/99	21.97	14.41	7.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.2	3
	07/20/99	21.97	14.44	7.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.0	3
	10/05/99	21.97	14.79	7.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.5	3
	01/07/00	21.97	15.23	6.74	-	-	-	-	-	-	-	Well inaccessible

**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, as described in November 11, 1998 Remedial Workplan.

C A M B R I A



**ATTACHMENT A**

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](mailto:main@mccampbell.com)

Cambria Environmental Technology 1144 65 <sup>th</sup> Street, Suite C Oakland, CA 94608	Client Project ID: #580-0197; Douglas	Date Sampled: 01/07/00
	Client Contact: Jacquelyn Jones	Date Received: 01/10/00
	Client P.O:	Date Extracted: 01/12-01/14/00
		Date Analyzed: 01/12-01/14/00

**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) <sup>+</sup>	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
28863	MW2	W	15,000,a	ND<14	1300	2100	440	1800	100
28864	MW3	W	13,000,b,j	ND<80	ND	ND<2	21	140	120
28865	MW4	W	18,000,b,j	ND<30	ND<2	930	990	2700	99
28866	Trip Blank	W	ND	ND	ND	ND	ND	ND	99
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	
	S		1.0 mg/kg	0.05	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.



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](mailto:main@mccampbell.com)

## QC REPORT

Date: 01/12/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	

SampleID: 27979

Instrument: GC-3

Xylenes	0.000	300.0	299.0	300.00	100	100	0.3
Ethyl Benzene	0.000	100.0	100.0	100.00	100	100	0.0
Toluene	0.000	107.0	108.0	100.00	107	108	0.9
Benzene	0.000	108.0	109.0	100.00	108	109	0.9
MTBE	0.000	97.0	98.0	100.00	97	98	1.0
GAS	0.000	953.4	952.2	1000.00	95	95	0.1

SampleID: 28283

Instrument: GC-2 A

TPH (diesel)	0.000	299.0	299.0	300.00	100	100	0.0
--------------	-------	-------	-------	--------	-----	-----	-----

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

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

18485 ZC.101

McCAMPBELL ANALYTICAL INC.

110 2<sup>nd</sup> 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: Jacquelyn Jones

Bill To: *Cambria*

Company: Cambria Environmental Technology

1144 65<sup>th</sup> Street, Suite C

Oakland, CA 94608

Tele: (510) 420-0700

Fax: (510) 420-9170

Project #: 580-0197

Project Name: *Douglas*

Project Location: *1721 Webster St. Oakland*

Sampler Signature: *[Signature]*

Analysis Request

Other

Comments

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				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	Comments								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other																									
MW2		1/7/00	12:20	4	VDA	X					X	X																											
MW3			12:55	↓	↓	↓					↓	↓																											28863
MW4			1:40	↓	↓	↓					↓	↓																										28864	
Trip Blank		-	-	1	↓	↓					↓	↓																										28865	
																																						28866	

*Confirm all MTBE kits by 8260*

Relinquished By:

Date:

Time:

Received By:

Relinquished By:

Date:

Time:

Received By:

Relinquished By:

Date:

Time:

Received By:

Remarks:

ICE/GOOD CONDITION ✓  
LEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE CONTAINERS ✓

VOAS | O&G | METALS | OTHER

C A M B R I A



**ATTACHMENT B**

Well Sampling Forms

WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW1	10:53	—	21.65	—	24.63	DO = 2.11 mg/L
MW2	11:15	—	19.41	—	27.08	
MW3	11:10	—	21.09	—	28.05	
MW4	11:03	—	17.78	—	29.88	
MW5	10:58	—	15.23	—	24.63	

Project Name: Douglas Parking

Project Number: 580-0197

Measured By: [Signature]

Date: 1/7/00

WELL SAMPLING FORM

Project Name: <b>Douglas Parking</b>	Cambria Mgr: <b>RWS</b>	Well ID: <b>MW2</b>
Project Number: <b>580-0197</b>	Date: <b>1/7/00</b>	Well Yield: <b>—</b>
Site Address: <b>1721 Webster Street Oakland, California</b>	Sampling Method:  <b>Disposable bailer</b>	Well Diameter: <b>2" pvc</b>
		Technician(s): <b>[Signature]</b>
Initial Depth to Water: <b>19.41'</b>	Total Well Depth: <b>27.08'</b>	Water Column Height: <b>7.67'</b>
Volume/ft: <b>0.16</b>	1 Casing Volume: <b>1.23 gal</b>	3 Casing Volumes: <b>3.68 gal</b>
Purging Device: <b>disposable bailer</b>	Did Well Dewater?: <b>NO</b>	Total Gallons Purged: <b>4 gal</b>
Start Purge Time: <b>12:05</b>	Stop Purge Time: <b>12:12</b>	Total Time: <b>7 min</b>

Casing Volume = Water column height x Volume/ft.

Pre-purge DO: 0.90 mg/L

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

Time	Casing Volume	Temp. <del>°C</del> °F	pH	Cond. µS	Comments
12:05	1	63.7	7.57	394	
12:09	2	62.8	7.46	299	
12:12	3	63.3	7.32	356	

post purge DO = 0.94 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW2	1/7/00	12:20	4 voa's	HCL	TPHg, BTEX, MTBE	8020 8015

WELL SAMPLING FORM

Project Name: <b>Douglas Parking</b>	Cambria Mgr: <b>RWS</b>	Well ID: <b>MW3</b>
Project Number: <b>580-0197</b>	Date: <b>1/7/00</b>	Well Yield: <b>—</b>
Site Address: <b>1721 Webster Street Oakland, California</b>	Sampling Method:  <b>Disposable bailer</b>	Well Diameter: <b>2" pvc</b>
		Technician(s): <b>JF</b>
Initial Depth to Water: <b>21.09'</b>	Total Well Depth: <b>28.05'</b>	Water Column Height: <b>6.96'</b>
Volume/ft: <b>0.16</b>	1 Casing Volume: <b>1.12 gal</b>	3 Casing Volumes: <b>3.34 gal</b>
Purging Device: <b>disposable bailer</b>	Did Well Dewater?: <b>NO</b>	Total Gallons Purged: <b>3.5 gal</b>
Start Purge Time: <b>12:35</b>	Stop Purge Time: <b>12:42</b>	Total Time: <b>7 min</b>

Casing Volume = Water column height x Volume/ft.

Pre-purge DO: 1.25 mg/L

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

Time	Casing Volume	Temp. °F	pH	Cond. µS	Comments
12:35	1	65.4	7.17	333	
12:38	2	65.3	7.28	348	
12:42	3	65.4	7.19	309	

post purge DO = 1.96 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW3	1/7/00	12:55	4 voa's	HCL	TPHg, BTEX, MTBE	8020 8015

WELL SAMPLING FORM

Project Name: <b>Douglas Parking</b>	Cambria Mgr: <b>RWS</b>	Well ID: <b>MW4</b>
Project Number: <b>580-0197</b>	Date: <b>1/7/00</b>	Well Yield:
Site Address: <b>1721 Webster Street Oakland, California</b>	Sampling Method:  <b>Disposable bailer</b>	Well Diameter: <b>2 " pvc</b>
		Technician(s): <b>JF</b>
Initial Depth to Water: <b>17.78'</b>	Total Well Depth: <b>29.88'</b>	Water Column Height: <b>12.10'</b>
Volume/ft: <b>0.16</b>	1 Casing Volume: <b>1.94 gal</b>	3 Casing Volumes: <b>5.81 gal</b>
Purging Device: <b>disposable bailer</b>	Did Well Dewater?: <b>NO</b>	Total Gallons Purged: <b>6 gal</b>
Start Purge Time: <b>11:25</b>	Stop Purge Time: <b>11:34</b>	Total Time: <b>9 min</b>

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

Pre-purge DO: 0.83 mg/L

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

Time	Casing Volume	Temp. °F	pH	Cond. µS	Comments
1125	1	62.6	7.53	516	
1130	2	62.5	7.26	578	
1134	3	61.8	7.41	563	

post purge DO = 0.98 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW4	1/7/00	1140	4 voa's	HCL	TPHg, BTEX, MTBE	8020 8015