



October 15, 1996

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

Re: **Second Semi-Annual 1996 Monitoring Report**  
Douglas Parking  
1721 Webster Street  
Oakland, California

Dear Mr. Douglas:

This report summarizes the second semi-annual 1996 (third quarter 1996) ground water monitoring results for the site referenced above (Figure 1). Described below are the second semi-annual 1996 activities, the anticipated first semi-annual 1997 activities, and a discussion of the current hydrocarbon distribution in ground water.

#### **SECOND SEMI-ANNUAL 1996 ACTIVITIES**

**Ground Water Sampling:** On October 2, 1996, Cambria collected and analyzed ground water samples from wells MW-2, MW-3, MW-4 and MW-5 for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene and xylenes (BTEX). Cambria also gauged all site wells and measured any liquid-phase hydrocarbons (LPH). No LPH were detected. The analytic report for ground water is included in Attachment A.

CAMBRIA

ENVIRONMENTAL

TECHNOLOGY, INC.

1144 65TH STREET,

SUITE B

OAKLAND,

CA 94608

PH: (510) 420-0700

FAX: (510) 420-9170

#### **ANTICIPATED FIRST SEMI-ANNUAL 1997 ACTIVITIES**

**Ground Water Sampling:** Cambria will collect and analyze ground water samples from wells MW-2, MW-3, MW-4 and MW-5 for TPHg and BTEX. Cambria will also gauge all site wells and measure any LPH.

Mr. Lee Douglas  
October 15, 1996

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## HYDROCARBON DISTRIBUTION IN GROUND WATER

Ground water elevation data indicates that ground water flows towards the northeast with a gradient of 0.006 ft/ft (Figure 1). Consistent with historic data, hydrocarbon concentrations in ground water are highest in well MW-2, located immediately down gradient of the former underground storage tank area, and no benzene is detected in any other site wells. The extent of hydrocarbons is defined to non-detectable levels in the cross and down gradient directions by wells MW-1 and MW-5, respectively.

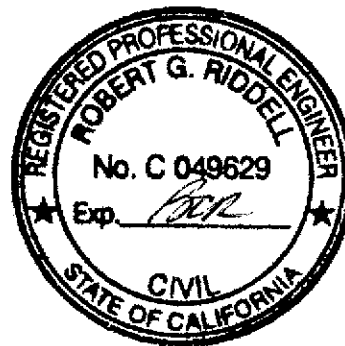
## CLOSING

We appreciate this opportunity to provide environmental consulting services on behalf of Douglas Parking. Please call if you have any questions or comments.

Sincerely,  
Cambria Environmental Technology, Inc.

  
John Espinoza  
Staff Engineer

  
Bob Clark-Riddell, PE  
Principal Engineer



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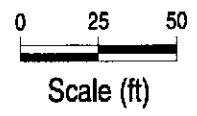
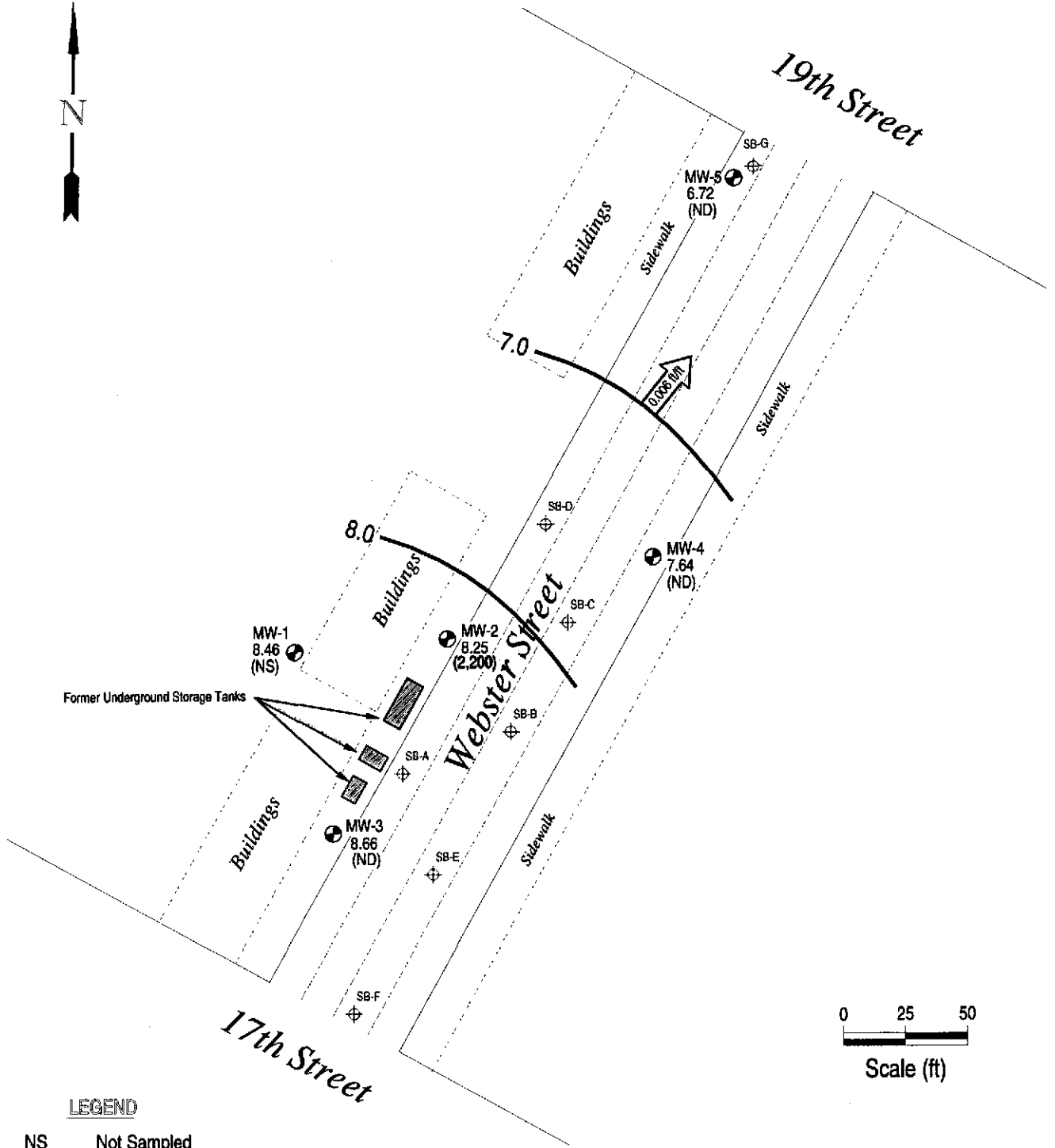
Attachments: A - Analytic Report for Ground Water

cc: Jennifer Eberle, ACDEH, UST Local Oversight Program, 1131 Harbor Bay Parkway, 2nd Floor,  
Alameda, CA 94502

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**ATTACHMENT A**

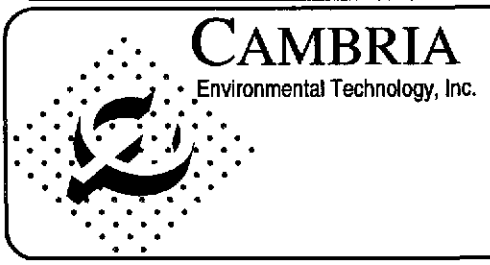
**Analytic Report for Ground Water**



**LEGEND**

- NS Not Sampled
- ND Not Detected
- (XX.XX) Benzene Concentration in Ground Water (ppb)

Base map from Piers Environmental Services



- EXPLANATION**
- Ground Water Monitoring Well
  - ⊕ Boring Location
  - X.XX Ground Water Elevation Contour Line (ft)
  - X.XXX ft/ft Ground Water Flow Direction and Gradient (ft/ft)

Monitoring Well and Boring Locations and Ground Water Flow Direction  
 1721 Webster Street  
 Oakland, California

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FIGURE  
**1**

**Table 1. Ground Water Elevation and Analytic Data - Douglas Parking Company, 1721 Webster Street, Oakland, California**

Well ID	Date	Well	G W	G W	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Notes
		Elev. (ft)	Depth (ft)	Elev. (ft)						
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						not sampled <sup>2</sup>
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	a
	05/10/96	27.40	18.56	8.84	63,000	7,400	16,000	1,500	6,000	a
	10/02/96	27.40	19.15	8.25						a
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	b,c,d
	05/10/96	29.56	20.24	9.32	8,600	nd	7.6	16	84	b,d
	10/02/96	29.56	20.90	8.66	11,000	nd	7.4	19	92	b,d
MW-4	05/10/96	25.29	16.98	8.31	14,000	nd	1,200	720	3,100	b
	10/02/96	25.29	17.65	7.64	12,000	nd	650	580	2,200	b,d
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	

**Notes and Abbreviations**

G W = Ground water

TPHg = Total petroleum hydrocarbons as gasoline per Modified EPA Method 8015.

Elev. = Elevation

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 = Per letter dated September 17, 1996 to Douglas Parking from ACDEH, sampling no longer required in well MW-1.

a - Unmodified or weakly modified gasoline is significant

b - Analytic laboratory reports that heavier gasoline range compounds are significant (possible aged gasoline)

c - Analytic laboratory reports that lighter gasoline range compounds (the most mobile fraction) are significant

d - Analytic laboratory reports that gasoline range compounds having broad chromatographic peaks are significant; possible biologically altered gasoline

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**ATTACHMENT A**

Analytic Report for Ground Water

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553

Tele: 510-798-1620 Fax: 510-798-1622

10/11/96

Dear Sam:

Enclosed are:

- 1). the results of 4 samples from your **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.

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,



Edward Hamilton, Lab Director

Cambria Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: Douglas Parking ✓	Date Sampled: 10/02/96 ✓
		Date Received: 10/04/96
	Client Contact: Sam Rangaraian	Date Extracted: 10/05-10/08/96
	Client P.O:	Date Analyzed: 10/05-10/08/96

**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	% Rec. Surrogate
69792	MW-2	W	21,000,a ✓	---	2200 ✓	3400 ✓	430	1600	97
69793	MW-3	W	11,000,b,d ✓	---	ND < 1 ✓	7.4	19	92	104
69794	MW-4	W	12,000,b,d ✓	---	ND ✓	650	580	2200	101
69795	MW-5	W	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	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, soil and sludge samples in mg/kg, and all TCLP extracts 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 (?); 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.



## QC REPORT FOR HYDROCARBON ANALYSES

Date: 10/05/96

Matrix: Water

Analyte	Concentration (ug/L) Sample (#69717)			Amount Spiked	% Recovery		
	MS	MSD			MS	MSD	RPD
TPH (gas)	0.0	102.9	98.1	100.0	102.9	98.1	4.8
Benzene	0.0	9.1	9.5	10.0	91.0	95.0	4.3
Toluene	0.0	9.1	9.4	10.0	91.0	94.0	3.2
Ethyl Benzene	0.0	8.9	9.3	10.0	89.0	93.0	4.4
Xylenes	0.0	26.8	26.4	30.0	89.3	88.0	1.5
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

## QC REPORT FOR HYDROCARBON ANALYSES

Date: 10/08/96

Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		
	Sample (#69801)	MS	MSD		MS	MSD	RPD
TPH (gas)	0.0	108.8	103.4	100.0	108.8	103.4	5.0
Benzene	0.0	11.0	10.2	10.0	110.0	102.0	7.5
Toluene	0.0	12.0	10.3	10.0	120.0	103.0	15.2
Ethyl Benzene	0.0	11.3	10.3	10.0	113.0	103.0	9.3
Xylenes	0.0	36.0	30.8	30.0	120.0	102.7	15.6
TPH (diesel)	0	153	167	150	102	111	8.5
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

