CAMBRIA

May 30, 1997

3749

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

Re: **First Quarter 1997 Monitoring Report**
Former Arco Station Service Station
706 Harrison Street
Oakland, California
STID 3749
Cambria #230-0116-008

Dear Mr. Klettke:

On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. (Cambria) is submitting this first quarter 1997 ground water monitoring report for the site referenced above. Presented below are the first quarter 1997 activities, the anticipated second quarter 1997 activities, and the current hydrocarbon distribution in ground water.

FIRST QUARTER 1997 ACTIVITIES

Quarterly Ground Water Sampling: On January 27, 1997, Cambria gauged and sampled all onsite and offsite ground water monitoring wells. While a sheen was observed in well MW-1, no measurable liquid-phase hydrocarbons (LPH) were detected in any of the wells. Table 1 summarizes ground water elevation data and analytic results. Figure 1 presents the ground water elevation contours and benzene concentrations. The analytical results of the ground water sampling are included in Attachment A.

Remediation System: Cambria is currently making arrangements for electricity to be supplied to the site in order to power the proposed remediation system.

ANTICIPATED SECOND QUARTER 1997 ACTIVITIES

Quarterly Ground Water Sampling: As requested by the Alameda County Department of Environmental Health, Cambria will gauge and collect water samples from each ground water monitoring well. Cambria will measure the thickness of any detected LPH. In addition, Cambria will analyze the sample by EPA Method 8260, for volatile organic compounds, to confirm the first quarter analytic results for Methyl tert-Butyl Ether (MTBE). Cambria will tabulate the data and prepare a quarterly monitoring report.

CAMBRIA
ENVIRONMENTAL
TECHNOLOGY, INC.
1144 65TH STREET,
SUITE B
OAKLAND,
CA 94608
PH: (510) 420-0700
FAX: (510) 420-9170

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HYDROCARBON DISTRIBUTION IN GROUND WATER

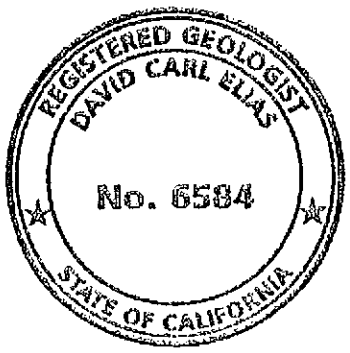
The current hydrocarbon distribution in ground water is consistent with historic site data. The current benzene distribution in ground water is shown in Figure 1. The onsite hydrocarbon concentrations in ground water are highest in wells MW-1 and MW-2, which are located down gradient of the former underground storage tank locations. Lower concentrations of hydrocarbons were detected in up gradient well MW-4. No hydrocarbons were detected in onsite well MW-3 or in any of the three offsite wells located down and cross gradient of the site.

We appreciate the opportunity to provide environmental services on behalf of Mr. Bo K. Gin. Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

David Elias

David Elias, R.G.
Project Geologist



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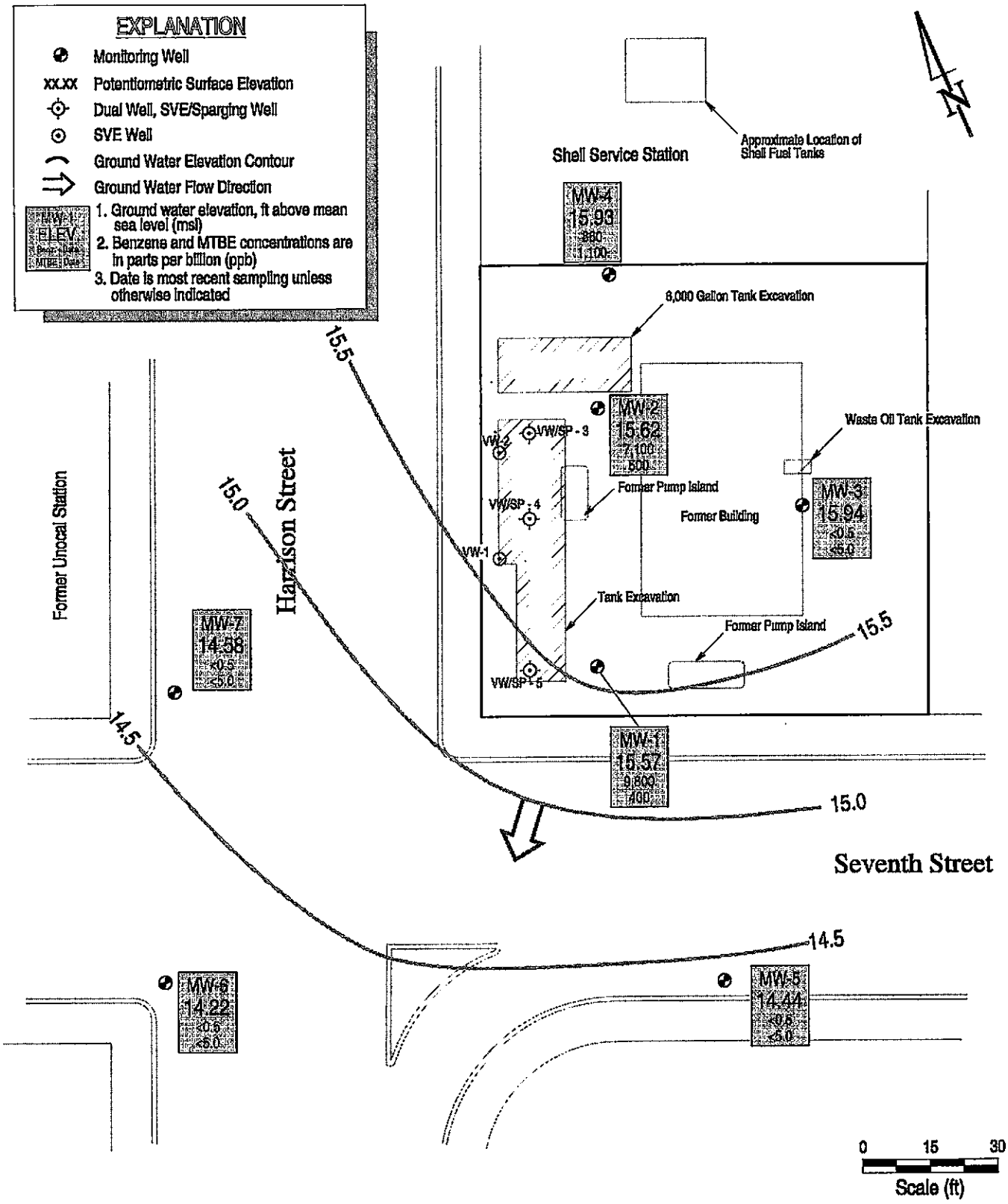
Attachments: A - Analytic Results for Ground Water Sampling

cc: Mr. Bo K. Gin, 288 11th Street, Oakland, CA 94706



CAMBRIA
Environmental Technology, Inc.

Former Arco Station
706 Harrison Street
Oakland, California

F:\PROJECT\SB-2004\OAK-116\FIGURES\1QM97-MP.DWG

Ground Water Elevation Contours

January 27, 1997

FIGURE 1

Table 1. Ground Water Analytic Data - Former Arco Station - 706 Harrison Street Oakland, California

Well ID (TOC)	Date Sampled	Depth to Water (ft)	Ground Water Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				Concentrations in parts per billion						
MW-1	8/13/93	17.40	11.75	20,000	8,500	640	280	440		
(29.15)	12/14/93	17.27	11.88	17,000	9,200	1,200	4,400	540		
	4/15/94	17.00	12.15	9,500	3,600	530	160	280		
	12/29/94	16.40	12.75	-	-	-	-	-		
	7/19/96	15.83	13.32	17,000	5,200	1,100	330	530		sheen/odor
	1/27/97	13.58	15.57	30,000	9,800	1,300	790	880	400	b, sheen/odor
MW-2	8/13/93	17.05	13.46	34,000	6,800	10,000	740	3,900		
(30.51)	12/14/93	18.28	12.23	16,000	3,200	4,200	500	1,700		
	4/15/94	18.10	12.41	23,000	2,500	4,200	470	1,800		
	12/29/94	17.40	13.11	-	-	-	-	-		
	7/19/96	16.72	13.79	90,000	7,300	14,000	1,600	7,300		odor
	1/27/97	14.89	15.62	63,000[b]	7,100	13,000	1,600	7,100	500	odor
MW-3	8/13/93	17.05	12.72	<50	<0.50	<0.50	<0.50	<1.5		
(29.77)	12/14/93	17.70	12.07	<50	<0.50	<0.50	<0.50	<1.5		
	4/15/94	17.40	12.37	<50	<0.5	<0.5	<0.5	<0.5		
	12/29/94	16.80	12.97	-	-	-	-	-		
	7/19/96	16.28	13.49	<50	<0.5	<0.5	<0.5	<0.5		
	1/27/97	13.83	15.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-4	12/16/94	18.10	13.08	2,500	32	6.5	4.5	17		
(31.18)	12.29/94	17.95	13.23	-	-	-	-	-		
	7/19/96	17.38	13.80	3,300	520	39	67	60		
	1/27/97	15.25	15.93	4,500[b]	860	55	100	91	1,100	

Table continued on next page

Table 1. Ground Water Analytic Data - Former Arco Station - 706 Harrison Street Oakland, California

Well ID (TOC)	Date Sampled	Depth to Water (ft)	Ground Water Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				Concentrations in parts per billion						
MW-5	12/16/94	16.07	11.97	<50	1.1	<0.5	<0.5	2.4		
(28.04)	12/29/94	16.10	11.94	-	-	-	-	-		
	7/19/96	15.49	12.55	<50	<0.5	<0.5	<0.5	<0.5		
	1/27/97	13.60	14.44	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-6	12/16/94	17.74	11.36	<50	<0.5	<0.5	<0.5	<0.5		
(29.10)	12/29/94	17.40	11.70	-	-	-	-	-		
	7/19/96	16.60	12.50	<50	<0.5	<0.5	<0.5	<0.5		
	1/27/97	14.88	14.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-7	12/16/94	17.07	12.60	<50	<0.5	<0.5	<0.5	<0.5		
(29.67)	12/29/94	17.65	12.02	-	-	-	-	-		
	7/19/96	16.44	13.23	<50	<0.5	<0.5	<0.5	<0.5		
	1/27/97	15.09	14.58	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
parts per billion is equivalent to µg/L in water
TOC = Top of casing elevation with respect to mean sea level

Notes:

a = MTBE concentrations not confirmed by EPA Method 8260.
b = Analytic laboratory notes that unmodified or weakly modified gasoline is significant.

MTBE analyzed by EPA Method 8020.
TPHg analyzed by modified EPA Method 8015.
Benzene, ethylbenzene, toluene and xylenes analyzed by EPA Method 8020.
Data prior to 12/16/94 provided by previous consultant.

ATTACHMENT A

Analytic Results for Ground Water Sampling

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Cambria Environmental Technology	Client Project ID: # 23-116-8	Date Sampled: 01/27/97
1144 65th Street, Suite C		Date Received: 01/28/97
Oakland, CA 94608	Client Contact: Adam Sevi	Date Extracted: 01/28-01/29/97
	Client P.O:	Date Analyzed: 01/28-01/29/97

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	Ethylben-zene	Xylenes	% Rec. Surrogate
73245	MW-1	W	30,000,a	400	9800	1300	790	880	102
73246	MW-2	W	63,000,a	500	7100	13,000	1600	7100	103
73247	MW-3	W	ND	ND	ND	ND	ND	ND	100
73248	MW-4	W	4500,a	1100	860	55	100	91	103
73249	MW-5	W	ND	ND	ND	ND	ND	ND	101
73250	MW-6	W	ND	ND	ND	ND	ND	ND	99
73251	MW-7	W	ND	ND	ND	ND	ND	ND	101
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, 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.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 01/28/97 Matrix: Water

Analyte	Concentration (mg/L) Sample (#73163)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	93.2	88.5	100.0	93.2	88.5	5.2
Benzene	0.0	9.2	9.5	10.0	92.0	95.0	3.2
Toluene	0.0	9.3	9.6	10.0	93.0	96.0	3.2
Ethyl Benzene	0.0	9.4	9.6	10.0	94.0	96.0	2.1
Xylenes	0.0	27.8	28.7	30.0	92.7	95.7	3.2
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

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 01/29/97-01/30/97 Matrix: Water

Analyte	Concentration (mg/L) Sample (#73220)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	95.0	91.8	100.0	95.0	91.8	3.4
Benzene	0.0	9.2	8.7	10.0	92.0	87.0	5.6
Toluene	0.0	9.2	8.9	10.0	92.0	89.0	3.3
Ethyl Benzene	0.0	9.3	9.0	10.0	93.0	90.0	3.3
Xylenes	0.0	27.9	26.7	30.0	93.0	89.0	4.4
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

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

8014 AC 164

McCAMPBELL ANALYTICAL

110 2nd AVENUE, # D7
PACHECO, CA 94553
(510) 798-1620 FAX (510) 798-1622

CHAIN OF CUSTODY RECORD

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

REPORT TO: Adam Sevi BILL TO: 23-116-8

COMPANY: CAMBRIA ENVIRONMENTAL

1144 65TH ST Suite C
OAKLAND, CA 94608

TELE: 510 420-9183 FAX #: 510 420-9170

PROJECT NUMBER: 23-116-8 PROJECT NAME: Bo Gin

PROJECT LOCATION: 706 HARRISON OAKLAND, CA SAMPLER SIGNATURE:

ANALYSIS REQUEST

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO_3	OTHER	BTEX & TPH as Gasoline (602/8020 & 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/5520 B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502/8010	EPA 602/8020	EPA 608/8080	EPA 608/8081 - PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RUSH	OTHER: MTBE	COMMENTS
+	MW-1	1/23/96		3	VOA	X					X			X															X	73245
+	MW-2					X					X			X															X	73246
+	MW-3					X					X			X															X	73247
+	MW-4					X					X			X															X	73248
+	MW-5					X					X			X															X	73249
+2	MW-6					X					X			X															X	73250
+	MW-7					X					X			X															X	73251

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
	1/26/97	10:30	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
	1/26/97	11:40	MAE
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:

REMARKS:

	VOAS	O&G	METALS	OTHER
ICE/T				
GOOD CONDITION				
HEAD SPACE ABSENT				
PRESERVATIVE APPROPRIATE				
CONTAINERS				