CAMBRIA

August 2, 2000

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

Re: **Second Quarter 2000 Monitoring Report**
Former Arco Service Station
706 Harrison Street
Oakland, California
STID 3749
Cambria Project #230-0116-117

Dear Mr. Seto:

On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. (Cambria) is submitting this second quarter 2000 groundwater monitoring report for the above-referenced site. Presented below are the second quarter 2000 activities, the hydrocarbon distribution in groundwater, and the anticipated third quarter 2000 activities.

SECOND QUARTER 2000 ACTIVITIES

Quarterly Groundwater Sampling: On May 25, 2000, Cambria gauged and inspected for separate phase hydrocarbons (SPH) in all site groundwater monitoring wells. Cambria also collected groundwater samples from monitoring wells MW-1, MW-2, and MW-4. The groundwater samples were sent to a California Department of Health Services (DHS) certified analytical laboratory for total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and xylenes (BTEX); and methyl tertiary butyl ether (MTBE). Table 1 summarizes groundwater elevation data and analytical results for the subject site. Figure 1 presents the groundwater elevation contours with benzene and MTBE concentrations for the site. The groundwater sampling laboratory analytical results are included as Attachment A. and water sampling field sheets are included as Attachment B.

Remediation System: Due to the high water levels submerging the vapor extraction well screens, Cambria shut off the Soil Vapor Extraction (SVE) system on February 29, 2000. Cambria is still injecting air into wells VW/SP-3, VW/SP-4, and VW/SP-5 to increase dissolved oxygen concentrations, thereby enhancing aerobic biodegradation.

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

No measurable liquid-phase hydrocarbons (LPH) were detected in any of the site wells. In general, hydrocarbon concentrations remained consistent with historic data. The maximum benzene concentration of 6,300 parts per billion (ppb) and the maximum TPHg concentration of 110,000 ppb were detected in source area well MW-2. The maximum MTBE concentration detected was 12,000 ppb in downgradient well MW-1.

During the third quarter 1999, the maximum MTBE concentration in groundwater beneath the upgradient neighboring site was 16,000 ppb in monitoring well MW-1, located approximately 5 feet downgradient of the extent of excavation of the former underground storage tank pit. This is one order of magnitude greater than historic concentrations for the subject site. MTBE from the neighboring site appears to be impacting groundwater beneath the subject site.

ANTICIPATED THIRD QUARTER 2000 ACTIVITIES

Quarterly Groundwater Sampling: As requested by the Alameda County Department of Environmental Health (ACDEH), Cambria will gauge each monitoring well, measure the thickness of any detected SPH, and collect groundwater samples from selected wells. Cambria will tabulate the data and prepare a quarterly monitoring report.

Remediation System: Cambria will prepare a report requesting that the remediation system operations be discontinued and that regulatory closure be granted.

CLOSING

If you have any questions related to this report, please call Ron Scheele at (510) 420-3318.

Sincerely,
Cambria Environmental Technology, Inc.

Cathy Bell
Staff Geologist

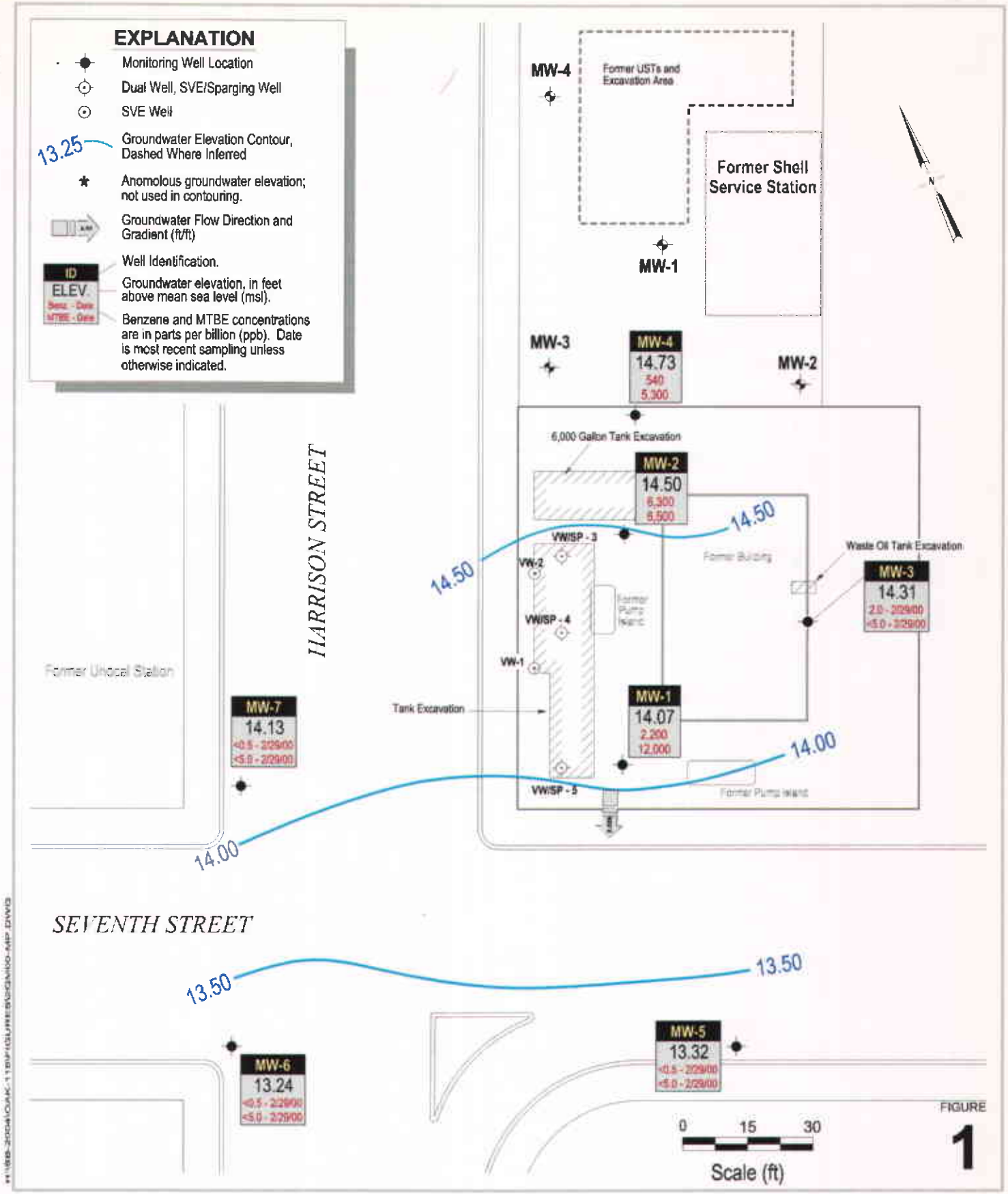
Ron Scheele, RG
Senior Geologist

REGISTERED GEOLOGIST
RONALD A. SCHEELE
No. 6842
STATE OF CALIFORNIA

H:\Sb-2004 (UST Fund)\Oakl-116 - Bo Gin\QM\QM 2000\QM-2-00.WPD

Attachments: Figure 1 - Groundwater Elevation and Hydrocarbon Concentration Map
Table 1 - Groundwater Analytical Data
Attachment A - Laboratory Analytical Report
Attachment B - Field Data Sheets

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



Former Arco Station

706 Harrison Street

Oakland, California

CAMBRIA

Groundwater Elevation Contour Map

May 25, 2000

Table 1. Groundwater Analytical Data - Former Arco Station - 706 Harrison Street, Oakland, California

Well ID *TOC* monitoring frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				<----------Concentrations in parts per billion (µg/L)---------->						
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	-	
Quarterly	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
	6/18/97	16.11	13.04	19,000	5,600	1,400	510	770	1,200 (800)	a, b
	9/18/97	16.62	12.53	48,000	18,000	4,400	1,000	1,700	<640	b
	12/10/97	15.93	13.22	22,000	4,900	1,300	580	650	460 (260)	a, b, odor
	2/18/98	11.56	17.59	16,000	5,000	750	400	780	1,800	b
	5/12/98	13.53	15.62	19,000	4,600	810	450	770	5,500	b, c
	8/18/98	15.19	13.96	12,000	3,600	1,300	300	570	5,100(3,700)	a, b
	11/24/98	15.67	13.48	13,000	3,600	890	330	380	6,100	b
	2/4/99	15.31	13.84	20,000	5,900	830	450	500	4,900	b
	5/18/99	14.95	14.20	23,000	7,000	1,600	520	830	6,100	b
	8/27/99	15.84	13.31	19,000	5,800	1,700	410	710	1,800 (2,100)	a, b
	11/18/99	16.39	12.76	20,000	4,900	630	410	580	4,900 (3,600)	b
	2/29/00	13.43	15.72	12,000	2,800	24	290	170	3,100 (3,400)	a
	5/25/00	**15.08**	**14.07**	**12,000**	**2,200**	**120**	**330**	**260**	**9,100 (12,000)**	**a, b**
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	-	
Quarterly	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	7,100	13,000	1,600	7,100	500	b, odor

Table continued on next page

Table 1. Groundwater Analytical Data - Former Arco Station - 706 Harrison Street, Oakland, California

Well ID *TOC* monitoring frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				<----------Concentrations in parts per billion (µg/L)---------->						
	6/18/97	17.12	13.39	52,000	5,100	10,000	1,400	6,000	<200	b
	9/18/97	17.63	12.88	110,000	9,400	23,000	2,600	13,000	<890	b, sheen/odor
	12/10/97	16.98	13.53	39,000	2,600	5,300	940	3,900	780 (320)	b, odor
	2/18/98	12.61	17.90	85,000	9,000	19,000	2,300	11,000	2,400	b
	5/12/98	14.45	16.06	110,000	9,500	21,000	2,500	12,000	<1,200	b
	8/18/98	16.14	14.37	64,000	6,000	13,000	1,700	7,800	2,000(1,300)	a, b
	11/24/98	16.70	13.81	78,000	5,300	14,000	2,300	11,000	<2,000	b, g
	2/4/99	18.39	12.12	66,000	5,800	16,000	2,600	12,000	3,000	b, g
	5/18/99	15.90	14.61	78,000	6,700	17,000	2,400	10,000	4,300	b
	8/27/99	16.79	13.72	91,000	7,400	17,000	2,300	11,000	1,200 (1,000)	a, b
	11/18/99	17.32	13.19	180,000	7,000	20,000	3,300	16,000	<6,000 (1,700)	b,g
	2/29/00	14.37	16.14	86,000	5,500	13,000	2,000	9,500	3,500 (4,700)	a
	5/25/00	**16.01**	**14.50**	**110,000**	**6,300**	**14,000**	**2,400**	**10,000**	**7,500 (6,500)**	**a, b, g**
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	-	
Biannually	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	
	6/18/97	16.53	13.24	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	9/18/97	17.07	12.70	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/10/97	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/18/98	11.80	17.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/12/98	13.85	15.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/18/98	15.57	14.20	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/24/98	16.04	13.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/4/99	17.80	11.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

Table continued on next page

Table 1. Groundwater Analytical Data - Former Arco Station - 706 Harrison Street, Oakland, California

Well ID *TOC* monitoring frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				<----------Concentrations in parts per billion (µg/L)---------->						
	5/18/99	15.29	14.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/27/99	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/18/99	16.77	13.00	--	--	--	--	--	--	
	2/29/00	13.71	16.06	<50	2.0	<0.5	<0.5	<0.5	<5.0	
	5/25/00	**15.46**	**14.31**	**--**	**--**	**--**	**--**	**--**	**--**	
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	-	-	-	-	-	-	
Quarterly	7/19/96	17.38	13.80	3,300	520	39	67	60	-	
	1/27/97	15.25	15.93	4,500	860	55	100	91	1,100	b
	6/18/97	17.61	13.57	2,700	700	52	81	76	2,200 (2,300)	a, b
	9/18/97	18.01	13.17	3,900	760	38	56	64	<170	b
	12/10/97	17.45	13.73	12,000	1,800	120	210	210	2,900 (2,600)	a, b
	2/18/98	13.09	18.09	1,700	210	8.0	6.7	16	200	b
	5/12/98	14.78	16.40	2,100	300	15	36	34	920	b, c
	8/18/98	16.59	14.59	4,700	1,000	130	110	150	5,200(4,900)	a, b
	11/24/98	17.18	14.00	3,000	810	44	76	94	4,800	b
	2/4/99	18.90	12.28	2,800	770	50	69	69	3,100	b
	5/18/99	16.30	14.88	4,000	780	57	7.7	79	4,800	b
	8/27/99	17.21	13.97	4,100	870	51	74	99	3,300 (4,100)	a, b
	11/18/99	17.77	13.41	3,000	760	43	67	65	5,100 (5,400)	b
	2/29/00	14.85	16.33	4,600	1,000	64	94	170	4,100 (4,600)	a
	5/25/00	**16.45**	**14.73**	**2,600**	**540**	**39**	**59**	**41**	**3,500 (5,300)**	**a, b**
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	-	-	-	-	-	-	
Biannually	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	

Table continued on next page

Table 1. Groundwater Analytical Data - Former Arco Station - 706 Harrison Street, Oakland, California

Well ID *TOC* monitoring frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				<----------Concentrations in parts per billion (µg/L)---------->						
	6/18/97	15.55	12.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	9/18/97	16.16	11.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/10/97	15.41	12.63	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/18/98	10.93	17.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/12/98	13.25	14.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/18/98	14.75	13.29	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/24/98	15.15	12.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/4/99	14.61	13.43	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/18/99	14.15	13.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/27/99	15.43	12.61	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/18/99	15.97	12.07	--	--	--	--	--	--	
	2/29/00	13.16	14.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/25/00	**14.72**	**13.32**	--	--	--	--	--	--	--
MW-6	12/16/94	17.74	11.36	-	-	-	-	-	-	
29.10	12/29/94	17.40	11.70	-	-	-	-	-	-	
Biannually	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	
	6/18/97	16.73	12.37	51	22	<0.5	<0.5	<0.5	<5.0	c
	9/18/97	17.24	11.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/10/97	16.56	12.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/18/98	12.93	16.17	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/12/98	14.35	14.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/18/98	15.94	13.16	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/24/98	16.46	12.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/4/99	18.25	10.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/18/99	15.73	13.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/27/99	15.64	13.46	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

Table continued on next page

Table 1. Groundwater Analytical Data - Former Arco Station - 706 Harrison Street, Oakland, California

Well ID *TOC* monitoring frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				<----------Concentrations in parts per billion (µg/L)---------->						
	11/18/99	17.04	12.06	-	-	-	-	-	-	
	2/29/00	14.55	14.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/25/00	**15.86**	**13.24**	--	--	--	--	--	--	
MW-7	12/16/94	17.07	12.60	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
29.67	12/29/94	17.65	12.02	-	-	-	-	-	-	
Biannually	7/19/96	16.44	13.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	1/27/97	15.09	14.58	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	6/18/97	16.59	13.08	73	<0.5	0.55	<0.5	<0.5	<5.0	d
	9/18/97	17.06	12.61	94	<0.5	<0.5	<0.5	<0.5	<5.0	e, f
	12/10/97	16.58	13.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/18/98	12.60	17.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/12/98	14.81	14.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/18/98	15.67	14.00	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/24/98	16.30	13.37	200	<0.5	<0.5	<0.5	<0.5	<5.0	d
	2/4/99	15.99	13.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/18/99	15.42	14.25	200	<0.5	<0.5	<0.5	<0.5	<5.0	d
	8/27/99	16.35	13.32	140	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/18/99	16.81	12.86	-	-	-	-	-	-	a, d
	2/29/00	14.16	15.51	100	<0.5	<0.5	<0.5	<0.5	<5.0	f
	5/25/00	**15.54**	**14.13**	--	--	--	--	--	--	

Table continued on next page

Table 1. Groundwater Analytical Data - Former Arco Station - 706 Harrison Street, Oakland, California

Well ID *TOC* monitoring frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[a]	Notes
				<----------Concentrations in parts per billion (µg/L)---------->						

Abbreviations and Analyses:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
Benzene, ethylbenzene, toluene and xylenes by EPA Method 8020.
MTBE = Methyl tert-butyl ether by EPA Method 8020 and 8260.
µg/L = Micrograms per liter
TOC = Top of casing elevation with respect to mean sea level
— = not sampled

Notes:

a = Result in parentheses indicates MTBE by EPA Method 8260.
b = Analytical laboratory notes that unmodified or weakly modified gasoline is significant.
c = Analytical laboratory notes that lighter gasoline range compounds are significant.
d = Analytical laboratory notes that isolated peaks are present.
e = Analytical laboratory notes that heavier gasoline range compounds are significant.
f = Analytical laboratory notes hydrocarbons with no recognizable patterns are present.
g = Analytical laboratory notes lighter than water immiscible sheen is present.
Data prior to 12/16/94 provided by previous consultant.

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

Cambria Environmental Technology	Client Project ID: #230-0116; Bo Gin	Date Sampled: 05/25/2000
1144 65th Street, Suite C		Date Received: 05/26/2000
Oakland, CA 94608	Client Contact: Jacquelyn Jones	Date Extracted: 05/26-05/30/2000
	Client P.O:	Date Analyzed: 05/26-05/30/2000

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	% Recovery Surrogate
38959	MW-1	W	12,000,a	9100	2200	120	330	260	96
38960	MW-2	W	110,000,a,h	7500	6300	14,000	2400	10,000	108
38961	MW-4	W	2600,a	3500	540	39	59	41	96
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.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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 Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #230-0116; Bo Gin	Date Sampled: 05/25/2000
		Date Received: 05/26/2000
	Client Contact: Jacquelyn Jones	Date Extracted: 06/01/2000
	Client P.O:	Date Analyzed: 06/01/2000

Methyl tert-Butyl Ether *

EPA method 8260 modified

Lab ID	Client ID	Matrix	MTBE*	% Recovery Surrogate
38959	MW-1	W	12,000	119
38960	MW-2	W	6500	112
38961	MW-4	W	5300	122
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	1.0 ug/L	
		S	5.0 ug/kg	

* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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: 05/26/00-05/27/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 6100					Instrument: GC-7		
Surrogate1	0.000	98.0	98.0	100.00	98	98	0.0
Xylenes	0.000	294.0	306.0	300.00	98	102	4.0
Ethyl Benzene	0.000	94.0	98.0	100.00	94	98	4.2
Toluene	0.000	95.0	99.0	100.00	95	99	4.1
Benzene	0.000	94.0	97.0	100.00	94	97	3.1
MTBE	0.000	100.0	103.0	100.00	100	103	3.0
GAS	0.000	970.1	986.0	1000.00	97	99	1.6
SampleID: 53000					Instrument: GC-2 B		
Surrogate1	0.000	109.0	110.0	100.00	109	110	0.9
TPH (diesel)	0.000	288.0	280.0	300.00	96	93	2.8

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

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 200$$

RPD means Relative Percent Deviation

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

VOCs (EPA 8240/8260)

Date: 06/01/00-06/02/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 61700				Instrument: GC-4			
Surrogate	0.000	116.0	115.0	100.00	116	115	0.9
Tolune	0.000	129.0	125.0	100.00	129	125	3.1
Benzene	0.000	124.0	117.0	100.00	124	117	5.8
Chlorobenzene	0.000	115.0	110.0	100.00	115	110	4.4
Trichloroethane	0.000	88.0	84.0	100.00	88	84	4.7
1,1-Dichloroethene	0.000	124.0	119.0	100.00	124	119	4.1
Surrogate	0.000	102.0	106.0	100.00	102	106	3.8
tert-Amyl Methyl Ether	0.000	118.0	92.0	100.00	118	92	24.8
Methyl tert-Butyl Ether	0.000	116.0	85.0	100.00	116	85	30.8
Ethyl tert-Butyl Ether	0.000	128.0	109.0	100.00	128	109	16.0
Di-isopropyl Ether	0.000	125.0	120.0	100.00	125	120	4.1

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

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

RPD means Relative Percent Deviation

2040520 159.doc

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: Jacquelyn Jones Bill To: Cambria
Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608
Tele: (510) 420-0700 Fax: (510) 420-9170
Project #: 230-0116 Project Name: Bo Gin
Project Location: 706 Harrison St., Oakland, CA
Sampler Signature: Catherine M. Bell

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	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	MTBE confirm - EPA 8260				
MW-1		5/25/00	5:08	4	VOA	X					X	X			X															X				38959
MW-2		5/25	4:55	4	VOA	X					X	X			X															X				38960
MW-4		5/25	4:58	4	VOA	X					X	X			X															X				38961

Relinquished By:	Date:	Time:	Received By:
	5/25	20:45	
Relinquished By:	Date:	Time:	Received By:
	5/26	5:41	
Relinquished By:	Date:	Time:	Received By:

Remarks:

ICE/T ___
GOOD CONDITION ___
HEAD SPACE ABSENT ___
PRESERVATION APPROPRIATE ___
CONTAINERS ___

VOAS | O&G | METALS | OTHER

ATTACHMENT B

Field Data Sheets

CAMBRIA

WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-3	3:52	—	16.46			replaced wellcap
MW4	3:55	—	16.45			needs new well cap
MW-2	4:00	—	16.01			
MW1	4:04	—	15.08			
MW5	4:11	—	14.72			
MW6	4:15	—	15.86			
MW7	4:19	—	15.54			

Project Name: Bo Gin

Project Number: 230-0116

Measured By: JH/BO/CB

Date: 5/25/00

F:\TEMPLATE\FORMS\FIELD\GW-DEPTH.WPD

CAMBRIA

WELL SAMPLING FORM

Project Name: **Bo Gin**	Cambria Mgr: **DCE**	Well ID: MW-1
Project Number: **230-0116**	Date: 5/25/00	Well Yield: —
Site Address: **706 Harrison Street Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): SS/SO/CB
Initial Depth to Water: 15.08'	Total Well Depth: 25.82'	Water Column Height: 10.74'
Volume/ft: .16 gal/ft	1 Casing Volume: 1.72 gal	3 Casing Volumes: 5.16 gal
Purging Device: Bailer	Did Well Dewater?: NO	Total Gallons Purged: 6 gal
Start Purge Time: 4:50	Stop Purge Time: 5:02	Total Time: 12 min

1 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. µS	Comments
4:54		5.4	9.3		Ph meter
4:57		5.2	7.9		Malfunction — won't do cond.

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	5/25	~~5:05~~ ~~5:08~~ 5:08	4 voa's	HCL	TPHg, BTEX, MTBE	8020 8015

CAMBRIA

WELL SAMPLING FORM

Project Name: **Bo Gin**	Cambria Mgr: **DCE**	Well ID: MW-2
Project Number: **230-0116**	Date: 5/25/00	Well Yield: —
Site Address: **706 Harrison Street Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): JH/DO/CB
Initial Depth to Water: 16.01'	Total Well Depth: 25.55'	Water Column Height: 9.54'
Volume/ft: 0.16	1 Casing Volume: 1.53g	3 Casing Volumes: 4.59 g
Purging Device: Bailer	Did Well Dewater?: no	Total Gallons Purged: 5 gal
Start Purge Time: 429	Stop Purge Time: 435	Total Time: 6 min.

1 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. µS	Comments
430	1	21.1	8.0	1795	
433	2	20.2	7.4	637	
435	3	19.9	7.3	599	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW2	5/25	455p	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

D:\TEMPLATE\FORMS\FIELD\WELLSAMP.WPD
NSM 5/31/94

CAMBRIA

WELL SAMPLING FORM

Project Name: **Bo Gin**	Cambria Mgr: **DCE**	Well ID: MW-4
Project Number: **230-0116**	Date: 5/25/00	Well Yield: —
Site Address: **706 Harrison Street Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): JR/BO/CB
Initial Depth to Water: 16.45'	Total Well Depth: 29.12'	Water Column Height: 12.67'
Volume/ft: 0.16	1 Casing Volume: 2.03 gal	3 Casing Volumes: 6.08 gal
Purging Device: bailer	Did Well Dewater?: no	Total Gallons Purged: 6 gal
Start Purge Time: 430	Stop Purge Time: 442	Total Time: 12 minutes

1 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. µS	Comments
430	1	19.2	8.0	~~410~~ 709	
434	2	19.2	7.3	757	
438	3	18.8	7.2	660	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	5/25/00	4:58	4 voa's	HCL	TPHg, BTEX, MTBE	8020 8015