

MARK BORSUK
Attorney at Law
1626 Vallejo Street
San Francisco, CA 94123-5116
(415) 922-4740
FAX 922-1485
mark@borsuk.com

November 19, 2000

Mr. Thomas Peacock
Supervising HMS, LOP
ACHCSA
1131 Harbor Bay Parkway
Alameda, CA 94501
(510) 567-6700 / FAX 337-9335
tpeacock@co.alameda.ca.us

SUBJECT: IIIQ00 Monitoring Report
1432 Harrison Street, Oakland, CA 94612
SITE ID 498

Dear Mr. Peacock:

Attached is the IIIQ00 groundwater monitoring data for the above site. If you have a question, please contact me.

Sincerely yours,



Mark Borsuk

00 NOV 21 PM 3:59

ENVIRONMENTAL PROTECTION

C A M B R I A

November 10, 2000

Mr. Mark Borsuk, Esq.
1626 Vallejo St.
San Francisco, CA 94123-5116

Re: **Third Quarter 2000 Monitoring Report**
1432 Harrison Street
Oakland, California
Cambria Project #540-0188



Dear Mr. Borsuk:

As you requested, Cambria Environmental Technology, Inc. (Cambria) is submitting this third quarter groundwater monitoring report for the above-referenced site. Presented below are the third quarter 2000 activities and results and the anticipated fourth quarter 2000 activities.

If you have any questions or comments regarding this report, please call me at (510) 450-1983.

Sincerely,

Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Geologist

Attachments: Third Quarter 2000 Monitoring Report

Oakland, CA
San Ramon, CA
Sonoma, CA
Portland, OR

**Cambria
Environmental
Technology, Inc.**

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

C A M B R I A

THIRD QUARTER 2000 MONITORING REPORT

1432 Harrison Street
Oakland, California
Cambria Project #540-0188

November 10, 2000



Prepared for:

Mr. Mark Borsuk, Esq.
1626 Vallejo St.
San Francisco, CA 94123-5116

Prepared by:

Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, California 94608



Jason Olson
Staff Environmental Scientist

Ron Scheele, RG
Senior Geologist

C A M B R I A

THIRD QUARTER 2000 MONITORING REPORT

1432 Harrison Street
Oakland, California
Cambria Project #540-0188-030

November 10, 2000

INTRODUCTION



On behalf of Mr. Mark Borsuk, Esq., Cambria Environmental Technology, Inc. (Cambria) is submitting this third quarter groundwater monitoring report for the above-referenced site (see Figure 1). Presented below are the third quarter 2000 activities and results and the anticipated fourth quarter 2000 activities.

THIRD QUARTER 2000 ACTIVITIES AND RESULTS

Monitoring Activities

Field Activities: On September 7, 2000, Cambria conducted quarterly monitoring activities. Cambria gauged and inspected for separate-phase hydrocarbons (SPH) wells MW-1 through MW-6 (see Figure 1). Groundwater samples were collected from wells MW-2, MW-4, MW-5, and MW-6. MW-1 was not sampled due to the presence of SPH (less than 0.01 feet), and MW-3 was not sampled as it is no longer part of the sampling schedule. Field Data Sheets are presented in Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert butyl ether (MTBE) by EPA Method 8020. Samples were further analyzed for MTBE using EPA Method 8260. Analytical results are included as Appendix B. Groundwater elevations are shown on Figure 1.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water measurements collected during Cambria's September 7, 2000 site visit, groundwater flow beneath the site is divided. On the south side of the former USTs, groundwater flows towards the southwest at a rate of 0.044 feet/foot, while on the north side of the former USTs, groundwater flows towards the north-northeast at a rate of 0.067 feet/foot (Figure 1). This is consistent with historical groundwater flow rates and directions

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations detected this quarter are consistent with historical results and remain relatively high in the vicinity of the former USTs. The highest TPHg and benzene concentrations were detected in well MW-2 at 110,000 micrograms per liter ($\mu\text{g/L}$) and 17,000 $\mu\text{g/L}$, respectively. No MTBE concentrations were detected in any of the wells at the site.

Corrective Action Activities



Remediation System: Cambria has prepared a cost estimate detailing remediation system installation costs and has submitted the package to the UST Cleanup Fund for pre-approval

ANTICIPATED FOURTH QUARTER 2000 ACTIVITIES

Groundwater Sampling: Cambria will gauge all wells, check the wells for SPH, and collect groundwater samples from wells MW-1, MW-2, MW-4, MW-5, and MW-6. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8020. Any samples containing MTBE will be confirmed by EPA Method 8260. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

Remediation System: Cambria is awaiting UST Cleanup Fund pre-approval prior to installing the remediation system.

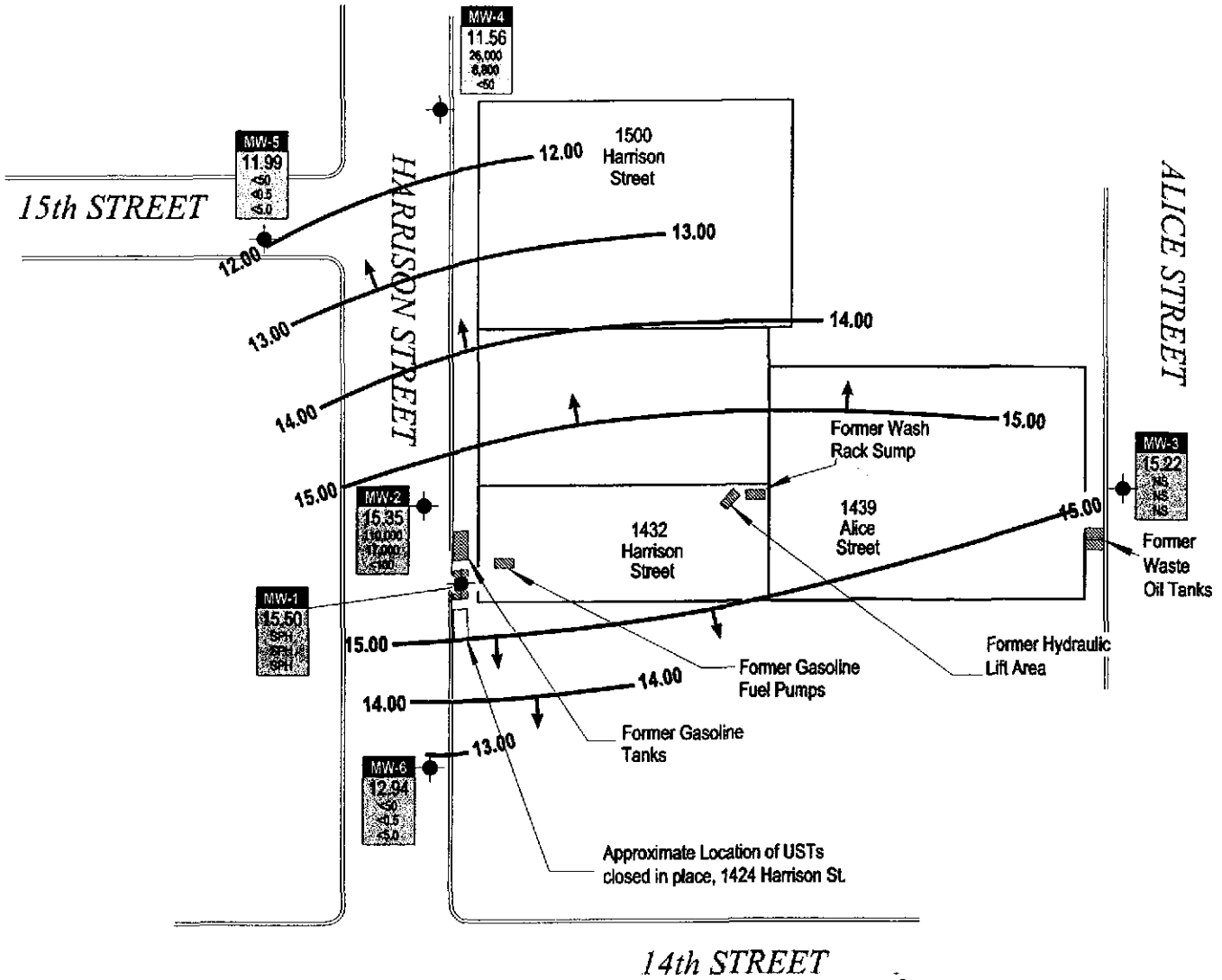
ATTACHMENTS:

Figure 1 - Groundwater Elevation Contours

Table 1 - Groundwater Elevation and Analytical Data

Appendix A - Field Data Sheets

Appendix B - Laboratory Analytical Results



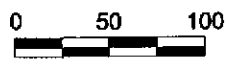
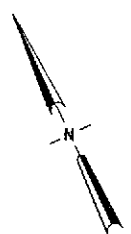
EXPLANATION

- Groundwater monitoring well
- Groundwater elevation contour, in feet above msl, dashed where inferred
- Groundwater flow direction
- | |
|---------|
| Well ID |
| ELEV |
| 1,2-D |
| Benzene |
| MTBE |

 Well designation
- | |
|---------|
| ELEV |
| 1,2-D |
| Benzene |
| MTBE |

 Groundwater elevation, in feet above mean sea level (msl)
- | |
|---------|
| 1,2-D |
| Benzene |
| MTBE |

 Hydrocarbons in groundwater, in ug/l. MTBE analysis for wells MW-2 and MW-4 by EPA Method 8260, all others by EPA Method 8020.



Scale (ft)

FIGURE 1

1432 Harrison Street

Oakland, California



C A M B R I A

Groundwater Elevation Contours

September 7, 2000

H:\88-2004\0AK-185\FIGURES\3QMOD-MP.DWG

CAMBRIA

Table 1. Groundwater Elevation and Analytic Data - 1432 Harrison St., Oakland, CA.

Well/Boring ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					←------(Concentrations in µg/l)-----→						
<i>Current Investigation Grab Sample Results:</i>											
CB-1-W	7/22/99	--	--	--	110,000	1,300	16,000	2,700	12,000	<3000*	a,b,c
CB-2-W	7/22/99	--	--	--	4,700	21	13	170	76	<50*	a,c
<i>Historical Grab Sample Results:</i>											
SB-A	7/6/95	--	~20	--	330	16	3.6	1.3	4.9	--	i,j
SB-B	7/7/95	--	~20	--	450	55	3.1	5.1	5.0	--	a
SB-C	7/6/95	--	~20	--	44,000	6,600	5,900	980	4,400	--	a
SB-D	7/6/95	--	~20	--	70,000	7,400	10,000	1,600	7,200	--	a
SB-E	7/6/95	--	~20	--	25,000	1,000	3,000	610	2,700	--	a
SB-G	7/7/95	--	~20	--	84,000	9,400	16,000	2,200	9,900	--	a,b
SB-I	7/7/95	--	~20	--	24,000	6,100	1,400	680	1,600	--	a
SB-J	7/7/95	--	~20	--	960	110	66	8.7	71	--	a
SB-K	7/7/95	--	~20	--	72,000	9,600	9,600	1,800	7,000	--	a
<i>Monitoring Well Sample Results:</i>											
MW-1	8/1/94	--	--	--	170,000	35,000	51,000	2,400	13,000	--	--
	12/21/94	34.95	19.53	15.42	180,000	41,000	64,000	3,100	100,000	--	--
	3/13/95	34.95	18.66	16.29	150,000	31,000	45,000	2,500	17,000	--	--
	6/27/95	34.95	18.20	16.75	71,000	17,000	18,000	1,600	7,700	--	--
	7/7/95	34.95	18.35	16.60	71,000	17,000	18,000	1,600	7,700	--	--
	9/28/95	34.95	18.20	16.75	110,000	27,000	34,000	1,700	14,000	--	--
	12/20/95	34.95	19.96	14.99	120,000	33,000	43,000	2,300	15,000	--	--
	3/26/96	34.95	19.27	15.68	140,000	29,000	36,000	1,900	13,000	<200*	d
	6/20/96	34.95	18.64	16.31	110,000	30,000	38,000	2,200	13,000	<200*	--
	9/26/96	34.95	19.35	15.60	170,000	28,000	40,000	2,200	15,000	ND**	--
	10/28/96	34.95	19.58	15.37	--	--	--	--	--	--	--
	12/12/96	34.95	19.68	15.27	110,000	36,000	47,000	2,500	16,000	ND*	--
	3/31/97	34.95	18.80	16.15	160,000	24,000	39,000	1,900	13,000	ND*	--
	6/27/97	34.95	19.26	15.69	130,000	25,000	36,000	2,000	14,000	ND*	--
	9/9/97	34.95	19.70	15.25	99,000	22,000	27,000	1,600	13,000	270*	--
	12/18/97	34.95	19.25	15.70	160,000	30,000	44,000	2,200	15,000	ND***	--
	3/12/98	34.95	17.52	17.43	190,000	20,000	49,000	2,500	18,000	ND***	--

CAMBRIA

Table 1. Groundwater Elevation and Analytic Data - 1432 Harrison St., Oakland, CA.

Well/Boring ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes	
					-----<------(Concentrations in µg/l)----->-----							
	6/22/98	34.95	18.63	16.32	90,000	19,000	40,000	2,100	16,000	--	--	
	9/18/98	34.95	18.60	16.35	190,000	29,000	48,000	2,400	17,000	--	--	
	12/23/98	34.95	19.18	15.77	140,000	24,000	44,000	2,000	8,200	--	--	
	3/29/99	34.95	18.52	16.43	181,000	22,200	40,100	1,844	12,200	--	--	
	6/23/99	34.95	18.60	16.35	80,000	20,000	33,000	1,600	11,000	--	--	
	9/24/99	34.95	19.05	15.90	117,000	15,100	20,700	1,550	11,800	--	--	
	12/23/99	34.95	19.95	15.00	186,000	25,900	39,000	1,990	12,400	--	--	
	3/21/00	34.95	18.48	16.47	210,000	35,000	42,000	2,200	13,000	<3,000	a	
	7/3/00	34.95	18.95	16.00	200,000	33,000	46,000	2,200	15,000	<200*	a	
	9/7/00	34.95	19.45	15.50	Free Product present (Sheen). No sample taken.							
											--	
MW-2	8/1/94	--	--	--	130,000	28,000	35,000	3,000	12,000	--	--	
	12/21/94	35.18	19.91	15.27	200	140,000	200,000	3,500	22,000	--	--	
	3/13/95	35.18	19.15	16.03	500	9,200	23,000	7,000	36,000	--	--	
	6/27/95	35.18	18.74	16.44	120,000	23,000	30,000	2,700	13,000	--	--	
	7/7/95	35.18	18.80	16.38	120,000	23,000	30,000	2,700	13,000	--	--	
	9/28/95	35.18	19.30	15.88	110,000	23,000	29,000	2,500	11,000	--	--	
	12/20/95	35.18	20.24	14.94	83,000	980	1,800	2,200	10,000	--	--	
	3/26/96	35.18	19.69	15.49	150,000	23,000	32,000	2,800	12,000	<200*	d	
	6/20/96	35.18	19.20	15.98	94,000	15,000	23,000	2,400	12,000	<200*	--	
	9/26/96	35.18	19.80	15.38	150,000	20,000	29,000	2,800	12,000	ND**	--	
	10/28/96	35.18	20.18	15.00	--	--	--	--	--	--	--	
	12/12/96	35.18	20.17	15.01	58,000	3,100	11,000	1,700	8,100	220*	--	
	3/31/97	35.18	19.67	15.51	38,000	6,000	7,900	690	3,300	ND*	--	
	6/27/97	35.18	19.68	15.50	62,000	13,000	16,000	1,300	6,000	ND*	--	
	9/9/97	35.18	20.20	14.98	81,000	16,000	18,000	1,800	8,600	ND***	--	
	12/18/97	35.18	19.80	15.38	110,000	18,000	26,000	2,200	9,500	ND***	--	
	3/12/98	35.18	18.07	17.11	120,000	16,000	26,000	2,200	9,400	ND***	--	
	6/22/98	35.18	18.29	16.89	38,000	9,800	9,500	1,500	6,000	--	--	
	9/18/98	35.18	19.09	16.09	68,000	12,000	16,000	1,400	5,900	--	--	
	12/23/98	35.18	19.67	15.51	180,000	16,000	22,000	2,200	8,300	--	--	
	3/29/99	35.18	18.97	16.21	16,600	1,380	1,920	373	1,840	--	--	

CAMBRIA

Table 1. Groundwater Elevation and Analytic Data - 1432 Harrison St., Oakland, CA.

Well/Boring ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					<------(Concentrations in µg/l)----->						
	6/23/99	35.18	18.25	16.93	41,000	10,000	9,400	1,100	5,000	--	--
	9/24/99	35.18	19.60	15.58	40,600	4,880	3,490	1,090	4,560	--	--
	12/23/99	35.18	20.21	14.97	61,900	6,710	9,320	1,150	5,360	--	--
	3/21/00	35.18	18.93	16.25	98,000	14,000	21,000	1,600	6,900	<1600	a
	7/3/00	35.18	19.38	15.80	140,000	18,000	33,000	2,600	11,000	<200*	a
	9/7/00	35.18	19.83	15.35	110,000	17,000	21,000	2,200	9,700	<100***	a,l
MW-3	8/1/94	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
	12/21/94	33.97	18.82	15.15	<50	<0.5	<0.5	<0.5	<0.5	--	e
	3/13/95	33.97	17.86	16.11	<50	<0.5	<0.5	<0.5	<0.5	--	f,g
	7/7/95	33.97	18.25	15.72	--	--	--	--	--	--	h
	9/28/95	33.97	18.00	15.97	--	--	--	--	--	--	--
	12/20/95	33.97	18.74	15.23	--	--	--	--	--	--	--
	3/26/96	33.97	18.25	15.72	--	--	--	--	--	--	--
	6/20/96	33.97	18.35	15.62	--	--	--	--	--	--	--
	9/26/96	33.97	19.12	14.85	--	--	--	--	--	--	--
	10/28/96	33.97	19.11	14.86	--	--	--	--	--	--	--
	12/12/96	33.97	18.61	15.36	--	--	--	--	--	--	--
	3/31/97	33.97	18.35	15.62	--	--	--	--	--	--	--
	6/27/97	33.97	18.81	15.16	--	--	--	--	--	--	--
	9/9/97	33.97	19.18	14.79	--	--	--	--	--	--	--
	12/18/97	33.97	18.64	15.33	--	--	--	--	--	--	--
	3/12/98	33.97	17.56	16.41	--	--	--	--	--	--	--
	6/22/98	33.97	18.64	15.33	--	--	--	--	--	--	--
	9/18/98	33.97	18.33	15.64	--	--	--	--	--	--	--
	12/23/98	33.97	18.60	15.37	--	--	--	--	--	--	--
	3/29/99	33.97	17.85	16.12	--	--	--	--	--	--	--
	6/23/99	33.97	18.67	15.30	--	--	--	--	--	--	--
	9/24/99	33.97	18.64	15.33	--	--	--	--	--	--	--
	12/23/99	33.97	19.32	14.65	--	--	--	--	--	--	--
	3/21/00	33.97	17.89	16.08	--	--	--	--	--	--	--
	7/3/00	33.97	18.40	15.57	--	--	--	--	--	--	--
	9/7/00	33.97	18.75	15.22	--	--	--	--	--	--	--

CAMBRIA

Table 1. Groundwater Elevation and Analytic Data - 1432 Harrison St., Oakland, CA.

Well/Boring ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					------(Concentrations in µg/l)----->						
MW-4	10/28/96	30.77	19.32	11.45	10,000	3,900	420	400	360	<200*	--
	12/12/96	30.77	19.42	11.35	11,000	4,200	410	420	260	32*	--
	3/31/97	30.77	18.67	12.10	ND	ND	ND	ND	ND	ND*	--
	6/27/97	30.77	19.08	11.69	160	49	1.2	ND	5.9	ND*	--
	9/9/97	30.77	19.33	11.44	7,400	5,000	410	230	470	33*	--
	12/18/97	30.77	19.17	11.60	710	170	8.0	ND	39	ND***	--
	3/12/98	30.77	17.68	13.09	1,300	410	21	ND	57	ND***	--
	6/22/98	30.77	17.63	13.14	ND	ND	ND	ND	ND	--	--
	9/18/98	30.77	18.58	12.19	ND	42	1.6	ND	4.8	--	--
	12/23/98	30.77	19.01	11.76	1,900	1,000	76	50	120	--	--
	3/29/99	30.77	18.35	12.42	ND	ND	ND	ND	ND	--	--
	6/23/99	30.77	17.58	13.19	ND	ND	ND	ND	ND	--	--
	9/24/99	30.77	19.05	11.72	9,150	3,270	131	34	537	--	--
	12/23/99	30.77	19.41	11.36	12,200	5,360	275	424	592	--	--
	3/21/00	30.77	18.42	12.35	45,000	16,000	1,100	1,400	1,900	1400* (<35)***	a,l
7/3/00	30.77	18.82	11.95	33,000	10,000	720	840	1,800	<200*	a	
9/7/00	30.77	19.21	11.56	26,000	8,800	800	740	1,500	<50***	a,l,m	
MW-5	10/28/96	31.61	19.88	11.73	90	4.0	0.6	<0.50	<0.50	16*	--
	12/12/96	31.61	20.09	11.52	230	5.6	0.9	ND	0.9	3.6*	--
	3/31/97	31.61	19.24	12.37	90	3.1	ND	ND	ND	ND*	--
	6/27/97	31.61	19.16	12.45	ND	ND	ND	ND	ND	ND*	--
	9/9/97	31.61	19.93	11.68	ND	ND	ND	ND	ND	ND*	--
	12/18/97	31.61	19.77	11.84	ND	ND	ND	ND	ND	ND***	--
	3/12/98	31.61	19.77	11.84	79	2.3	ND	0.8	ND	ND*	--
	6/22/98	31.61	18.08	13.53	ND	ND	ND	ND	ND	--	--
	9/18/98	31.61	19.12	12.49	ND	ND	ND	ND	ND	--	--
	12/23/98	31.61	19.60	12.01	ND	0.8	0.9	ND	ND	--	--
	3/29/99	31.61	18.88	12.73	ND	ND	ND	ND	ND	--	--
	6/23/99	31.61	18.05	13.56	ND	ND	ND	ND	ND	--	--
9/24/99	31.61	19.61	12.00	ND	ND	ND	ND	ND	--	--	

CAMBRIA

Table 1. Groundwater Elevation and Analytic Data - 1432 Harrison St., Oakland, CA.

Well/Boring ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					------(Concentrations in µg/l)----->						
	12/23/99	31.61	20.01	11.60	ND	ND	ND	ND	ND	--	--
	3/21/00	31.61	19.05	12.56	140	<0.5	<0.5	<0.5	<0.5	<5.0	k
	7/3/00	31.61	19.40	12.21	85	8.1	3.1	1.6	7.8	<5.0*	a
	9/7/00	31.61	19.62	11.99	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
MW-6	10/28/96	32.89	20.02	12.87	<50	<0.50	<0.50	<0.50	<0.50	<2.0*	--
	12/12/96	32.89	20.18	12.71	ND	ND	ND	ND	ND	ND*	--
	3/31/97	32.89	19.81	13.08	--	--	--	--	--	--	--
	6/27/97	32.89	19.76	13.13	--	--	--	--	--	--	--
	9/9/97	32.89	20.06	12.83	ND	ND	ND	ND	ND	ND*	--
	12/18/97	32.89	19.90	12.99	ND	ND	ND	ND	ND	--	--
	3/12/98	32.89	18.00	14.89	ND	ND	ND	ND	ND	ND*	--
	6/22/98	32.89	18.43	14.46	ND	ND	ND	ND	ND	--	--
	9/18/98	32.89	19.10	13.79	ND	ND	ND	ND	ND	--	--
	12/23/98	32.89	19.61	13.28	ND	ND	ND	ND	ND	--	--
	3/29/99	32.89	18.92	13.97	ND	ND	ND	ND	ND	--	--
	6/23/99	32.89	18.41	14.48	ND	ND	ND	ND	ND	--	--
	9/24/99	32.89	19.61	13.28	ND	ND	ND	ND	ND	--	--
	12/23/99	32.89	20.30	12.59	ND	ND	ND	ND	ND	--	--
	3/21/00	32.89	18.97	13.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/00	32.89	19.46	13.43	59	5.1	2.3	1.1	5.3	<5.0*	a
	9/7/00	32.89	19.95	12.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
Trip Blank	3/21/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	9/7/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--

CAMBRIA

Table 1. Groundwater Elevation and Analytic Data - 1432 Harrison St., Oakland, CA.

Well/Boring ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					<------(Concentrations in µg/l)----->						

Abbreviations

TPHg = Total petroleum hydrocarbons as gasoline by EPA method Modified 8015.
 Benzene, toluene, ethylbenzene, xylenes by EPA method 8020.
 -- = Not Sampled/Not Analyzed
 <n = Not detected in sample above n µg/l.
 ND = Not detected at minimum quantitation limit. See laboratory reports.
 µg/l = micrograms per liter
 MTBE = Methyl tert-butyl ether
 * = MTBE by EPA Method 8020
 ** = MTBE by EPA Method 8240
 *** = MTBE by EPA Method 8260
 VOCs = volatile organic compounds

Notes

a = Unmodified or weakly modified gasoline is significant.
 b = Lighter than water immiscible sheen is present.
 c = Liquid sample that contains greater than ~5 vol. % sediment.
 d = MTBE result confirmed by secondary column or GC/MS analysis.
 e = Sample analyzed for purgeable hydrocarbons by EPA method 8010, no purgeable halocarbons were detected.
 f = Sample analyzed for VOCs by EPA method 8240, no non-BTEX compounds were detected.
 g = Sample analyzed for Total Petroleum Hydrocarbons as motor oil (TPHmo) by EPA method Modified 8015, no TPHmo was detected.
 h = Analytic sampling discontinued. Approved by Alameda County Department of Environmental Health.
 i = Lighter than gasoline range compounds are significant.
 j = Gasoline range compounds having broad chromatographic peaks are significant.
 k = No recognizable pattern.
 l = Sample diluted due to high organic content.
 m = Liquid sample that contains greater than 5 vol. % sediment.

APPENDIX A

Field Data Sheets

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW-1
Project Number: 180-0214	Date: 09-07-00	Well Yield: -----
Site Address: 1432 Harrison St Oakland, CA.	Sampling Method: Disposable bailer	Well Diameter: "pvc 4"
		Technician(s): SG
Initial Depth to Water: 09:35 19.45	Total Well Depth: 24.95	Water Column Height: 5.50
Volume/ft: 0.65	1 Casing Volume: 3.57	3 Casing Volumes: 10.71
Purging Device: disposable bailer	Did Well Dewater?: NO	Total Gallons Purged: 3
Start Purge Time: 12:20	Stop Purge Time: 12:22	Total Time:

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. uS	Comments
					casing did not have a cap
NO	SAMPLE TAKEN		DTP=21.33		
			DTW=21.36		Sheen at the end of 1st case volume
			SPH		
			visual inspection		

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	09-07-00		4 voa's	HCL	TPHg, BTEX, MTBE* Confirm MTBE	8020 8015 8260

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW- 2
Project Number: 180-0214	Date: 09-07-00	Well Yield: -----
Site Address: 1432 Harrison St Oakland, CA.	Sampling Method:	Well Diameter: "pvc 2"
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 19.83 ^{Ⓞ 9:30}	Total Well Depth: 25.23	Water Column Height: 5.45
Volume/ft: 0.16	1 Casing Volume: 0.87	3 Casing Volumes: 2.61
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 11:46	Stop Purge Time: 11:49	Total Time: 3 min

I 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
11:47	1	20.5	7.32	679	Strong
11:48	2	21.2	6.95	670	odor
11:50	3	20.7	7.01	664	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 2	09-07-00	11:55	4 voa's	HCL	TPHg, BTEX, MTBE* Confirm MTBE	8020 8015 8260

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW- 3
Project Number: 180-0214	Date: 09-07-00	Well Yield: -----
Site Address: 1432 Harrison St Oakland, CA.	Sampling Method: Disposable bailer	Well Diameter: " pvc
		Technician(s): SG
Initial Depth to Water: ^{09:40} 18.75	Total Well Depth: 23.69	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: disposable bailer	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

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. uS	Comments

Casing only
NO Sample

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 3			4 voa's	HCL	TPHg, BTEX, MTBE* Confirm MTBE	8020 8015 8260

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW-4
Project Number: 180-0214	Date: 09-07-00	Well Yield: -----
Site Address: 1432 Harrison St Oakland, CA.	Sampling Method:	Well Diameter: "pvc 2"
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 19.21 ^{19.24}	Total Well Depth: 24.60 ✓✓✓	Water Column Height: 5.39
Volume/ft: 0.16	1 Casing Volume: 0.86	3 Casing Volumes: 2.58
Purging Device: disposable bailer	Did Well Dewater?: NO	Total Gallons Purged: 3
Start Purge Time: 11:17	Stop Purge Time: 11:22	Total Time: 5 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. uS	Comments
11:19	1	21.7	7.51	631	odes
11:21	2	20.6	7.54	639	
11:23	3	20.5	7.51	641	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 41	09-07-00	11:28	4 voa's	HCL	TPHg, BTEX, MTBE* Confirm MTBE	8020 8015 8260

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW-5
Project Number: 180-0214	Date: 09-07-00	Well Yield: -----
Site Address: 1432 Harrison St Oakland, CA.	Sampling Method:	Well Diameter: "pvc 2"
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 19.62 ^{at 7:20}	Total Well Depth: 28.55	Water Column Height: 8.93
Volume/ft: 0.16	1 Casing Volume: 1.42	3 Casing Volumes: 4.28
Purging Device: disposable bailer	Did Well Dewater?: NO	Total Gallons Purged: 5
Start Purge Time: 10:52	Stop Purge Time: 10:58	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. uS	Comments
10:54	2	20.2	7.51	573	
10:56	3.5	20.7	7.51	547	
10:59	5	21.1	7.29	533	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	09-07-00	11:04	4 voa's	HCL	TPHg, BTEX, MTBE* Confirm MTBE	8020 8015 8260
Du+						->

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW- 6
Project Number: 180-0214	Date: 09-07-00	Well Yield: -----
Site Address: 1432 Harrison St Oakland, CA.	Sampling Method:	Well Diameter: "pvc 2"
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 19.95 ^{09:15}	Total Well Depth: 27.30 ✓✓	Water Column Height: 7.35
Volume/ft: 0.16	1 Casing Volume: 1.17	3 Casing Volumes: 3.51
Purging Device: disposable bailer	Did Well Dewater?: 10	Total Gallons Purged: 3.5
Start Purge Time: 10:27	Stop Purge Time: 10:30	Total Time: 3 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. uS	Comments
10:28	1	19.4	7.73	940	very slow recharge
10:29	2	18.9	7.56	960	
10:31	3.5	18.7	7.59	965	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 6	09-07-00	10:36	4 voa's	HCL	TPHg, BTEX, MTBE* Confirm MTBE	8020 8015 8260

APPENDIX B

Laboratory Analytical Results



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 65 th Street, Suite C Oakland, CA 94608	Client Project ID: #180-0214; Borsuk	Date Sampled: 09/07/2000
		Date Received: 09/11/2000
	Client Contact: Cathy Bell	Date Extracted: 09/11/2000
	Client P.O:	Date Analyzed: 09/11/2000

09/26/2000

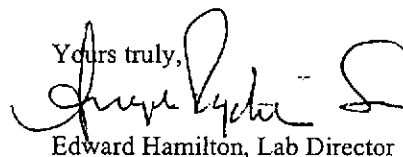
Dear Cathy:

Enclosed are:

- 1). the results of 5 samples from your #180-0214; Borsuk 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,



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 65 th Street, Suite C Oakland, CA 94608	Client Project ID: #180-0214; Borsuk	Date Sampled: 09/07/2000
	Client Contact: Cathy Bell	Date Received: 09/11/2000
	Client P.O:	Date Extracted: 09/19/2000
		Date Analyzed: 09/19/2000

Methyl tert-Butyl Ether *

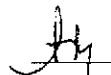
EPA method 8260 modified

Lab ID	Client ID	Matrix	MTBE*	% Recovery Surrogate
47179	MW-2	W	ND<100,j	112
47180	MW-4	W	ND<50,j,i	116
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: 09/10/00-09/11/00 Matrix: Water

Extraction: N/A

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

SampleID: 40793

Instrument: GC-3

Surrogate1	0.000	100.0	97.0	100.00	100	97	3.0
Xylenes	0.000	289.0	281.0	300.00	96	94	2.8
Ethyl Benzene	0.000	97.0	95.0	100.00	97	95	2.1
Toluene	0.000	99.0	96.0	100.00	99	96	3.1
Benzene	0.000	102.0	99.0	100.00	102	99	3.0
MTBE	0.000	116.0	111.0	100.00	116	111	4.4
GAS	0.000	865.4	860.1	1000.00	87	86	0.6

SampleID: 9800

Instrument: GC-6 A

Surrogate1	0.000	80.0	103.0	100.00	80	103	25.1
TPH (diesel)	0.000	307.0	337.0	300.00	102	112	9.3

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

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



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: 09/19/00-09/20/00 Matrix: Water

Extraction: N/A

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

SampleID: 92800

Instrument: GC-10

Surrogate	0.000	103.0	104.0	100.00	103	104	1.0
tert-Amyl Methyl Ether	0.000	102.0	103.0	100.00	102	103	1.0
Methyl tert-Butyl Ether	0.000	103.0	104.0	100.00	103	104	1.0
Ethyl tert-Butyl Ether	0.000	101.0	102.0	100.00	101	102	1.0
Di-isopropyl Ether	0.000	101.0	104.0	100.00	101	104	2.9
Surrogate	0.000	105.0	99.0	100.00	105	99	5.9
Toluene	0.000	104.0	103.0	100.00	104	103	1.0
Benzene	0.000	99.0	99.0	100.00	99	99	0.0
Chlorobenzene	0.000	113.0	113.0	100.00	113	113	0.0
Trichloroethane	0.000	112.0	106.0	100.00	112	106	5.5
1,1-Dichloroethene	0.000	111.0	108.0	100.00	111	108	2.7

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

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

21903-ZC267.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: Cathy Bell Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology

1144 65th Street, Suite C

Oakland, CA 94608

Tele: (510) 420-0700

Fax: (510) 420-9170

Project #: 180-0214

Project Name: Borsuk

Project Location: 1432 Harrison St. Oakland, CA

Sampler Signature: [Signature]

Analysis Request

Other

Comments

Confirm
MTBE
by 8260

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 <u>8260</u> MTBE Confirm	EPA 625 / 8270 <u>Add-on 9-19-03</u>	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 ₃	Other																						
MW-2	-	09-07-03	11:55	4	Voc	X					X	X																						47179	X	
MW-4	-		11:28																																47180	St
MW-5	-		11:04																																47181	St
MW-6	-		10:36	4																															47182	St
TS	-			2								X																							47183	✓

Relinquished By: [Signature] Date: 9/11 Time: 1105 Received By: [Signature]
 Relinquished By: [Signature] Date: 9/11 Time: 1143 Received By: [Signature]
 Relinquished By: [Signature] Date: Time: Received By:

Remarks: VOAS (O&G) METALS OTHER
 ICE/✓
 GOOD CONDITION ✓
 HEAD SPACE ABSENT ✓
 PRESERVATION ✓
 APPROPRIATE CONTAINERS ✓

[Signature]