

C A M B R I A

GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

SECOND QUARTER 2002

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



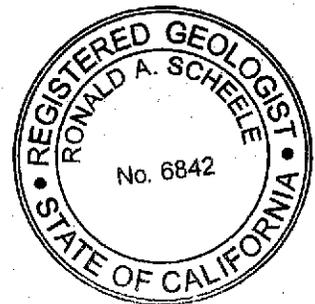
July 30, 2002

Prepared for:

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

Prepared by:

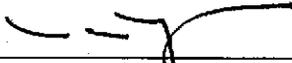
Cambria Environmental Technology, Inc.
6262 Hollis Street
Emeryville, California 94608

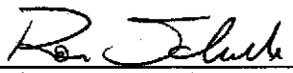


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C A M B R I A GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

SECOND QUARTER 2002

1432 Harrison Street
Oakland, California
Cambria Project #540-0188-037

July 30, 2002

INTRODUCTION



On behalf of Mr. Mark Borsuk, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring and system progress report for the above-referenced site (see Figure 1). Presented in this report are the second quarter 2002 groundwater monitoring and remediation activities and the anticipated third quarter 2002 activities.

SECOND QUARTER 2002 ACTIVITIES AND RESULTS

Monitoring Activities

Field Activities: On June 10, 2002, Cambria conducted quarterly monitoring activities. Cambria gauged and inspected for separate-phase hydrocarbons (SPH) in wells MW-1 through MW-6 (see Figure 1). Groundwater samples were collected from all wells not containing SPH. Please note that a groundwater sample was collected from MW-1 because no SPH was present after the well was purged. Field Data Sheets are presented as Appendix A. Groundwater elevations are shown on Figure 1 and Table 1. The groundwater monitoring results have been submitted to the State's "Geotracker Database." The electronic delivery confirmations are presented in Appendix D.

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 tertiary butyl ether (MTBE) by EPA Method 8021B by McCampbell Analytical, Inc. of Pacheco, California. Any samples containing MTBE were further analyzed for MTBE using EPA Method 8260. Analytical results for the second quarter are included as Appendix B. Hydrocarbon concentrations are shown on Figure 1 and Table 1. Analytical results have been submitted to the State's "Geotracker Database." The electronic delivery confirmations are presented in Appendix D.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water measurements collected during Cambria's June 10, 2002 site visit, groundwater flow beneath the site is mounded. On the south side of the former USTs, groundwater flows towards the south-southwest at a gradient of 0.018, while on the

north side of the former USTs, groundwater flows toward the north-northeast at a gradient of 0.017 feet/foot (Figure 1). This is consistent with historical groundwater flow rates and directions.

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations have decreased in wells MW-4 and MW-5, increased in wells MW-1 and MW-2, and remained the same in other wells compared with previous sampling events. The maximum TPHg and benzene concentrations were detected in well MW-1 at 210,000 and 30,000 micrograms per liter ($\mu\text{g/L}$), respectively. A decreasing hydrocarbon concentration trend is beginning to develop in well MW-2, located northwest of remediation wells VES-4/AS-4. No MTBE concentrations were detected above laboratory detection limits in any of the wells at the site.

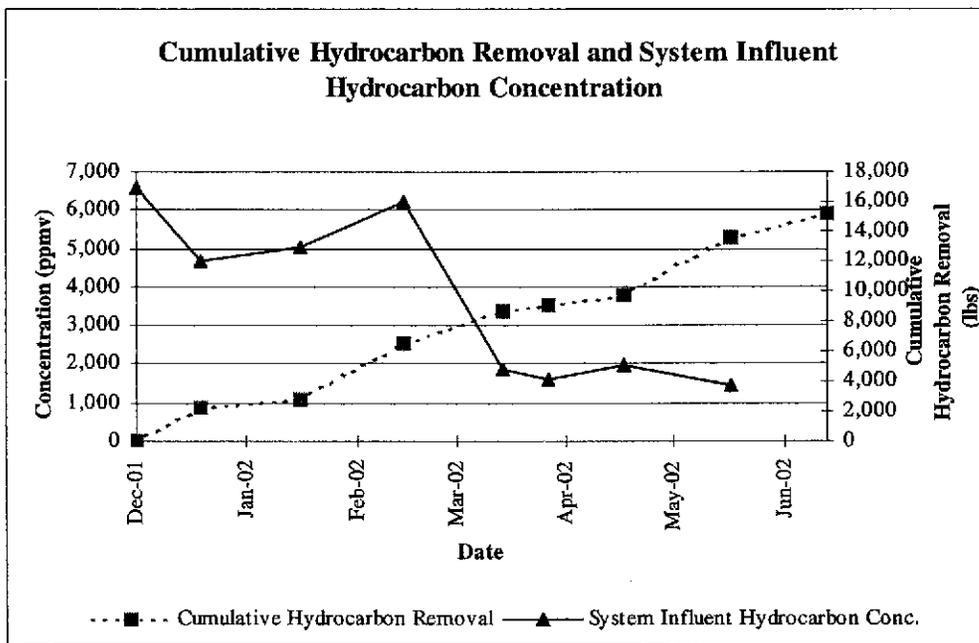
Corrective Action Activities

System Design: The soil vapor extraction (SVE) and air sparging (AS) remediation system consists of a trailer mounted all-electric catalytic oxidizer with heat exchanger, a 10-hp positive-displacement blower, an oil-less air sparge blower, and an auto dialer connected to a phone line to provide remote notification of system operations. Four coaxial remediation wells (VES-1/AS-1, VES-2/AS-2, VES-3/AS-3, VES-4/AS-4) are individually connected to a central manifold in the remediation system enclosure. See Figure 2 for the location of remediation enclosure and wells.

SVE System Operations and Maintenance Activities: During the second quarter, Cambria performed system operation and maintenance of the SVE system approximately two times per month. Individual well flow, vacuum, and hydrocarbon concentration measurements were collected from all SVE wells and from the catalytic oxidizer/blower (See Tables 2 and 3). During site visits, system operation parameters were also recorded in specialized field forms for future system optimization and agency inspection. As per the Bay Area Air Quality Management (BAAQMD) permit, a catalytic oxidizer operating temperature greater than 600 degrees Fahrenheit was maintained, and system operation parameters were continuously measured using a chart recorder. System influent and effluent vapor samples were collected and submitted for laboratory analysis on April 2 and 15, May 6, and June 5, 2002. Air samples were collected twice in April to confirm hydrocarbon removal rates following the closing of the manual air dilution valve. Table 2 summarizes soil vapor extraction system operations and analytical results. The analytical laboratory reports from system vapor sampling are included as Attachment C.



SVE System Performance: From April 2 to July 2, 2002, the SVE system operated continuously except for a week in late April and a week in early May. The system was off during these periods due to electrical shutdowns by vandals. During system startup in December 2001, the SVE system operated with the manual dilution valve open approximately 90%. The air dilution valve was slowly closed during the first and second quarters to correspond with the decreasing well vapor concentrations. In closing the air dilution valve, problems were encountered with the ability of the SVE system to operate with less airflow. A new air proving pressure switch supplied by the equipment vendor was installed on April 15, 2002 to correct this problem and allow the dilution valve to be closed completely. Monthly well vapor hydrocarbon concentrations ranged from 3,800 to 5,100 ppmv and were approximately 10,000 ppmv lower than the previous quarter (See Table 2). Overall well vapor hydrocarbon concentrations exhibit a decreasing trend. Hydrocarbon removal rates ranged from 14 to 37 lbs/day. The increased removal rate calculated on April 15, 2002, may be attributed to air sparging operations (see section below). Vapor sample lab results indicated that the catalytic oxidizer was achieving proper destruction efficiency and was operating within permit requirements. To date, a total of 5,941 pounds of hydrocarbons have been destroyed by soil vapor extraction activities (see graph below and Table 2).



AS System Performance: Air sparging (AS) operations were suspended temporarily during the later part of the first quarter due to the presence of SPH in well MW-1. On April 15, 2002, Cambria re-initiated air sparging due to the reduction of SPH in MW-1 and overall decreasing well vapor

concentrations. Approximately 0.25 gallons of SPH was bailed from MW-1 during the second quarter resulting in no measurable SPH thickness on June 5, 2002. During the quarter, air was injected at a pressure of 5 to 8 psi and at a low air flow rate of 1 to 2 cfm into air sparge wells (AS-2, AS-3, and AS-4). Air sparging was not performed on AS-1 because the well appeared to be plugged. The AS system was setup to cycle on and off every 30 minutes and to operate only between the hours of 7 am to 6 pm to reduce system noise from the air sparge blower during the evening and early morning hours.



ANTICIPATED THIRD QUARTER 2002 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, and MW-5. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8021B. Any samples containing MTBE will be confirmed by EPA Method 8260. Cambria will prepare a quarterly Groundwater Monitoring and System Progress Report and submit groundwater monitoring and sampling results to the State's "Geotracker Database." Included in the report will be a summary of the groundwater monitoring activities and sampling results.

Sampling Frequency Reduction: Cambria will reduce the sampling frequency of wells MW-3 and MW-6 to an annual basis, beginning in the third quarter. No hydrocarbon concentrations have been detected in these wells during the last 6 sampling events. The wells are scheduled for annual sampling during the first quarter of 2003.

Remediation System: Cambria will continue to perform operation and maintenance of the SVE/AS system during the third quarter of 2002. Cambria will also evaluate the performance of the remediation system and combine the results in a quarterly Groundwater Monitoring and System Progress Report. Included in the report will be tables summarizing the concentration, flow, and vacuum of system and individual wells, along with the analytical results.

Cambria will perform system operation, maintenance, and optimization activities twice per month during the third quarter of 2002. Optimization activities may include vacuum and flow adjustments to soil vapor extraction wells and pressure and flow adjustments to air sparging wells as hydrocarbon concentrations change in the individual wells. System influent and effluent samples will be collected on a monthly basis along with Horiba gas analyzer readings from the individual wells. System operation records will be kept for a period of two years for possible future BAAQMD inspection.

APPENDIXES

Figure 1 - Groundwater Elevation and Analytical Summary

Figure 2 – Soil Vapor Extraction/Air Sparging System

Table 1 - Groundwater Elevations and Analytical Data

Table 2 – SVE System Performance and Soil Vapor Analytical Results

Table 3 – SVE System Parameters

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Analytical Results for Quarterly Groundwater Sampling

Appendix C – Analytical Results for SVE System Operation

Appendix D – Electronic Delivery Confirmation



HASB-2004 (UST FUND)\OAKL-188-BORSUK\QMBORSUK QMR 2Q02.DOC

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August 6, 2002

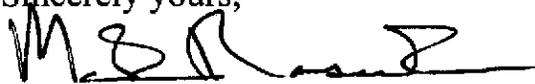
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SUBJECT: IIQ02 Monitoring & SVE System Progress Report
1432 Harrison Street, Oakland, CA 94612
SITE ID 498

Dear Mr. Peacock:

Attached is the IIQ02 Groundwater Monitoring and SVE Systems Progress Report for the above site. If you have a question, please contact me.

Sincerely yours,



Mark Borsuk

July 30, 2002

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

Re: **Groundwater Monitoring and System Progress Report
Second Quarter 2002**
1432 Harrison Street
Oakland, California
Cambria Project #540-0188



Dear Mr. Borsuk:

As you requested, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring and system progress report for the above-referenced site. Presented in the report are the second quarter 2002 activities and results and the anticipated third quarter 2002 activities. Attached are two additional copies for submittal to ACHCSA and BAAQMD regulatory agencies.

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

Sincerely,

Cambria Environmental Technology, Inc.

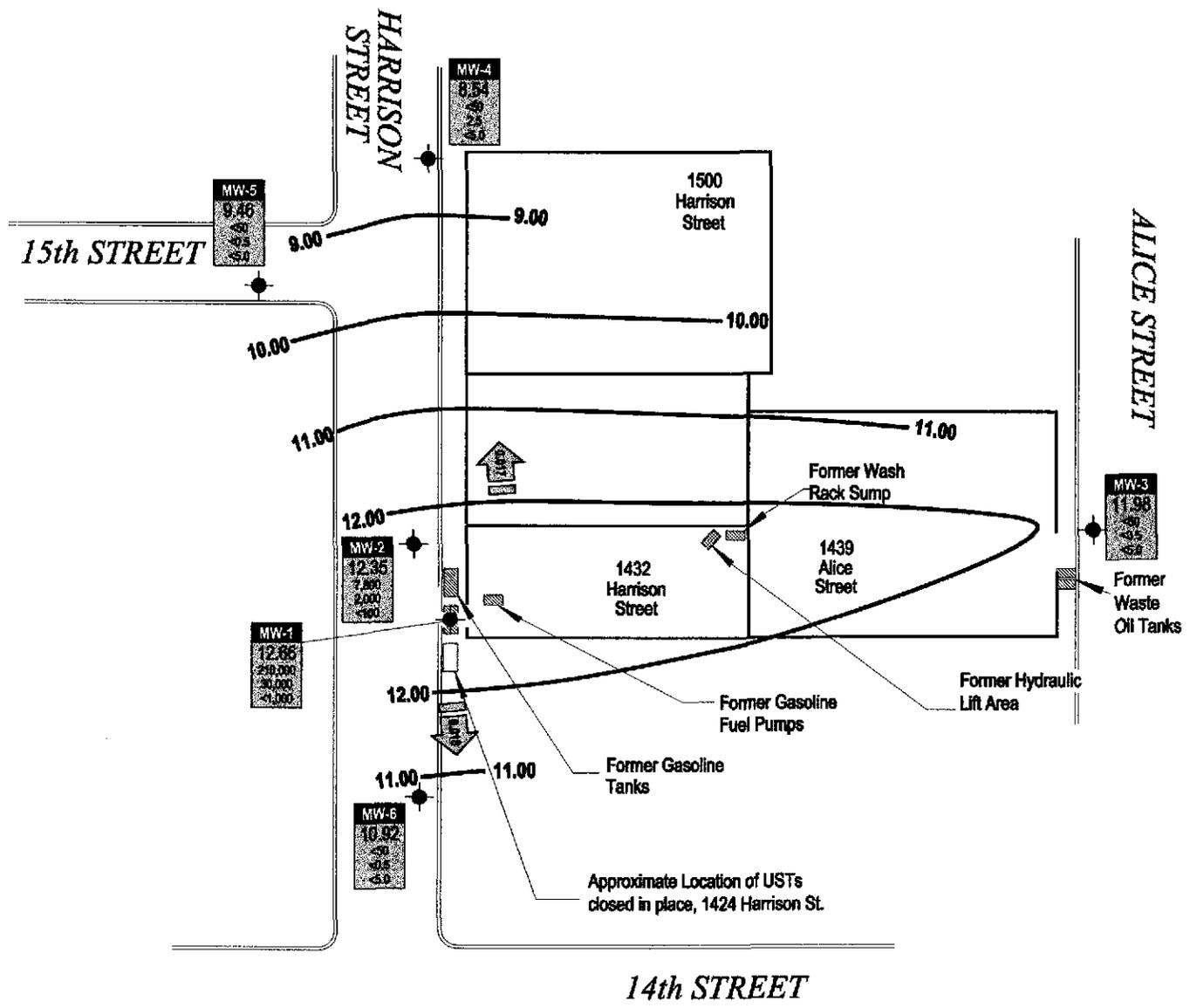
Ron Scheele, RG
Senior Geologist

Attachments: Groundwater Monitoring and System Progress Report, Second Quarter 2002

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EXPLANATION

- Groundwater monitoring well
- Groundwater elevation contour, in feet above msl, dashed where inferred
- Groundwater flow direction and gradient
- Well designation
- Groundwater elevation, in feet above mean sea level (msl)
- Hydrocarbons in groundwater, in micrograms per liter (µg/l)

0 50 100
Scale (ft)

FIGURE 1

1432 Harrison Street

Oakland, California



C A M B R I A

Groundwater Elevation and Analytical Summary

June 10, 2002

H:\ASB-2004\AK-1\B01\FIGURE\B01-2-MP.DWG

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Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID	Date	Top of Casing	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		Elevation	Groundwater	Elevation							
TOC (β)		(ft)	(ft)	(ft)	←————— (μg/L) —————→						
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	--	--
	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
	12/5/00	35.18	20.30	14.88	130,000	19,000	28,000	2,500	11,000	<200	a
	3/6/01	35.18	19.57	15.61	32,000	3,400	3,400	580	2,500	<200	a
	6/8/01	35.18	20.59	14.59	72,000	9,400	9,200	1,300	5,800	<200	a
	8/27/01	35.18	21.79	13.39	110,000	17,000	28,000	2,600	11,000	<950	a
	10/25/01	35.18	22.05	13.13	110,000	15,000	18,000	2,000	8,700	<350	a
	3/1/02	35.18	21.80	13.38	3,100	370	180	62	330	<5.0*	a
	6/10/02	35.18	22.83	12.35	7,800	2,000	1,100	76	570	<100*	a

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Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID	Date	Top of Casing	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		Elevation	Groundwater	Elevation							
TOC (ft)	(ft)	(ft)	(ft)	(ft)	←----- (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
	12/5/00	30.77	19.60	11.17	41,000	11,000	840	930	1,900	<200	a
	3/6/01	30.77	18.24	12.53	1,100	400	5.7	<0.5	20	<5.0	a
	6/8/01	30.77	20.91	9.86	92	19	<0.5	<0.5	1	<5.0	a
	8/27/01	30.77	21.63	9.14	49,000	17,000	1700	1,700	3,200	<260	a
	10/25/01	30.77	21.70	9.07	57,000	16,000	1,500	1,600	2,600	<300	a
	3/1/02	30.77	21.53	9.24	400	140	2.3	<0.5	12	<5.0*	a
	6/10/02	30.77	22.23	8.54	<50	2.5	<0.5	<0.5	<0.5	<5.0*	

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Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene (µg/L)	Ethylbenzene	Xylenes	MTBE	Notes
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	--	--
	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*	--
	12/5/00	31.61	20.25	11.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	31.61	19.07	12.54	91	5.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	31.61	20.77	10.84	290	22.0	0.8	<0.5	<0.5	<5.0	a
	8/27/01	31.61	21.33	10.28	660	24.0	2.2	1.3	4.0	<25	a
	10/25/01	31.61	21.62	9.99	55	3.5	<0.5	<0.5	<0.5	<5.0	a
	3/1/02	31.61	21.49	10.12	200	1.9	0.69	<0.5	<0.5	<5.0*	a
	6/10/02	31.61	22.15	9.46	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--

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Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID <i>TOC (ft)</i>	Date	Top of Casing	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		Elevation	Groundwater	Elevation							
		(ft)	(ft)	(ft)	← (µg/L) →						
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*	--
	12/5/00	32.89	20.50	12.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	32.89	19.54	13.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	32.89	20.92	11.97	<50	<0.5	<0.5	<0.5	<0.5	<5.1	--
	8/27/01	32.89	21.37	11.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/01	32.89	21.59	11.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/02	32.89	21.33	11.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/02	32.89	21.97	10.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					←----- (µg/L) -----→						
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	--

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

x = Groundwater elevation adjusted for free product by the relation:

Groundwater Elevation = Well Elevation - Depth to Water + (0.7 x free product thickness)

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.

Table 2. SVE System - Performance and Soil Vapor Analytical Results - Borsuk Site - 1432 Harrison St - Oakland, California

Date	Hour Meter Readings (hrs)	System Uptime (%)	System Flow Rate (prior to dilution) (cfm)	Total Well HC Conc. (prior to dilution) (ppmv)	System Inlet Temp. (degrees F)	System Flow Rate (after dilution) (cfm)	Total System Influent HC Conc. ¹ (ppmv)	Effluent HC Conc. ¹ (ppmv)		HC Removal Rate ² (lbs/day)	Emission Rate ² (lbs/day)		TPHg Destruction Efficiency ³ (%)	Gasoline Cumulative Removal ⁴ (lbs)
								TPHg	Benz		TPHg	Benz		

Notes and Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline

Benz = Benzene

HC Conc. = Hydrocarbon Concentrations

ppmv = Parts per million by volume. Analytical lab results converted from micrograms per liter (ug/l) to ppmv assumes the molecular weight of gasoline to be equal to that of hexane.

at 1 atmosphere of pressure and 20 degrees Celsius.

scfm = standard cubic feet per minute

¹ TPHg and benzene concentrations based on Horiba gas analyzer measurements and/or lab results by Modified EPA Methods 8015 and 8020.

Laboratory analytic results for TPHg and benzene are converted from ug/l to ppmv using conversion rates of 0.28 for TPHg and 0.308 for benzene.

² The hydrocarbon removal/emission rate is based on the Bay Area Air Quality Management's District's (BAAQMD) Procedures for Soil Vapor Extraction where

Rate = concentration (ppmv) x flow rate (cfm) x 1 lb-mole/386x10⁶ft³ x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene) x 1440 min/day.

³ As per BAAQMD Permit, destruction efficiency requirements are waived if system TPHg effluent concentration is <10.

⁴ Gasoline Cumulative Removal = The previous removal rates multiplied by the interval days of operation plus the previous total removal amount.

The total TPHg removal is based on analytic results and/or field measurements.

* = Total System Influent Hydrocarbon Concentrations based on Total Well Hydrocarbon Concentrations collected at the well manifold because manual air dilution valve is closed

CAMBRIA

Table 3. SVE System Parameters - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID	Date	Well Vacuum (inches of H ₂ O)	Flow Rate (cfm)	*Hydrocarbon Vapor Concentration (ppmv)	Status (open/closed)
VES-1	12/13/01	--	--	36,000	open
	12/20/01	25	6.5	43,000	open
	12/27/01	48	12.4	41,000	open
	1/7/02	100	20.5	>10,000	open
	2/8/02	140	27.0	>10,000	open
	3/5/02	34	6.3	>10,000	open
	4/2/02	83	13.5	10070	open
	4/15/02	101	28.2	10070	open
	5/22/02	80	22.5	9980	open
	6/5/02	77	22.1	11110	open
	6/21/02	81	H2O	7810	open
7/2/02	82	25	10400	open	
VES-2	12/13/01	--	--	40,000	open
	12/20/01	25	6.0	42,500	open
	12/27/01	48	12.1	35,000	open
	1/7/02	100	21.5	>10,000	open
	2/8/02	140	25.1	>10,000	open
	3/5/02	34	7.6	>10,000	open
	4/2/02	83	13.2	--	open
	4/15/02	102	24.1	1347	open
	5/22/02	81	26.1	1888	open
	6/5/02	79	20.7	2090	open
	6/21/02	82	47	1820	open
7/2/02	81	28.9	5210	open	
VES-3	12/13/01	--	--	38,000	open
	12/20/01	25	7.0	41,500	open
	12/27/01	48	12.0	61,000	open
	1/7/02	100	22.5	>10,000	open
	2/8/02	140	26.5	>10,000	open
	3/5/02	47	7.5	>10,000	open
	4/2/02	84	11.1	--	open
	4/15/02	102	24.8	4260	open
	5/22/02	85	16.5	7090	open
	6/5/02	85	14.7	5290	open
	6/21/02	80	25.5	3450	open
7/2/02	82	32.2	4820	open	

VES-4	12/13/01	--	--	35,000	open
	12/20/01	25	4.9	46,500	open
	12/27/01	48	12.2	53,000	open
	1/7/02	100	23.0	>10,000	open
	2/8/02	140	28.1	>10,000	open
	3/5/02	47	9.3	>10,000	open
	4/2/02	84	11.5	--	open
	4/15/02	102	22.5	5350	open
	5/22/02	80	21.7	570	open
	6/5/02	80	18	4490	open
	6/21/02	81	41.5	2580	open
	7/2/02	81	38	9690	open

Notes:

* = Hydrocarbon concentrations are measured using a Horiba MEXA-554 gas analyzer. Concentration readings above 10,000 ppmv are above the instrument calibration and are not reliable.

-- = Data not available or not collected

H2O = unable to get reading due to the presence of water

C A M B R I A



APPENDIX A

Groundwater Monitoring Field Data Sheets

WELL SAMPLING FORM

Project Name: <u>BASSUK</u>	Cambria Mgr: <u>RAS</u>	Well ID: <u>MW-6</u>
Project Number: <u>540-0188</u>	Date: <u>6-10-02</u>	Well Yield:
Site Address: <u>1432 Morrison St.</u> <u>Oakland, Ca</u>	Sampling Method; <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SG</u>
Initial Depth to Water: <u>219.7</u>	Total Well Depth: <u>28.00</u>	Water Column Height: <u>603</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>0.96</u>	3 Casing Volumes: <u>2.89</u>
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>3</u>
Start Purge Time: <u>4:19</u>	Stop Purge Time: <u>4:24</u>	Total Time: <u>5mins</u>

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
<u>4:20</u>	<u>1</u>	<u>16.9</u>	<u>7.05</u>	<u>320</u>	
<u>4:22</u>	<u>2</u>	<u>16.9</u>	<u>7.07</u>	<u>651</u>	
<u>4:25</u>	<u>3</u>	<u>16.8</u>	<u>7.11</u>	<u>619</u>	

Fe = mg/L ORP = mV DO = mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-6</u>	<u>6-10-02</u>	<u>4:30</u>	<u>4002</u>	<u>HCl</u>	<u>TPMS & T&E MTR</u>	

WELL SAMPLING FORM

Project Name: Bolsak	Cambria Mgr: RAS	Well ID: MW-5
Project Number: 540-0188	Date: 6-10-02	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 22.15	Total Well Depth: 28.34	Water Column Height: 6.19
Volume/ft: 0.16	1 Casing Volume: 0.99	3 Casing Volumes: 2.97
Purging Device: disposable bailer	Did Well Dewater?: NO	Total Gallons Purged: 3
Start Purge Time: 5:10	Stop Purge Time: 5:24	Total Time: 14 mins

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
5:15	1	16.9	7.19	3170	
5:20	2	16.8	7.25	1015	
5:25	3	16.7	7.29	1071	

Fe = mg/L ORP = mV DO = mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	6-10-02	5:30	4000	MLL	TPMS BTEX MTSE	

WELL SAMPLING FORM

Project Name: <i>Borsu Jr</i>	Cambria Mgr: <i>RAS</i>	Well ID: <i>MW-4</i>
Project Number: <i>540-0188</i>	Date: <i>6-10-02</i>	Well Yield:
Site Address: <i>1432 Harrison St. Oakland, Ca</i>	Sampling Method: <i>disposable bailer</i>	Well Diameter: <i>2" pvc</i>
		Technician(s): <i>SG</i>
Initial Depth to Water: <i>22.23</i>	Total Well Depth: <i>24.50</i>	Water Column Height: <i>2.27</i>
Volume/ft: <i>0.16</i>	1 Casing Volume: <i>0.36</i>	3 Casing Volumes: <i>1.08</i>
Purging Device: <i>disposable bailer</i>	Did Well Dewater?: <i>no</i>	Total Gallons Purged: <i>1</i>
Start Purge Time: <i>4:40</i>	Stop Purge Time: <i>4:54</i>	Total Time: <i>14 mins</i>

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
<i>4:45</i>	<i>0.25</i>	<i>16.9</i>	<i>7.11</i>	<i>725</i>	
<i>4:50</i>	<i>0.75</i>	<i>16.8</i>	<i>7.05</i>	<i>913</i>	
<i>4:55</i>	<i>1.00</i>	<i>16.9</i>	<i>7.09</i>	<i>970</i>	

Fe = mg/L ORP = mV DO = mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<i>MW-4</i>	<i>6-10-02</i>	<i>5:00</i>	<i>4000</i>	<i>HCl</i>	<i>TPH, BTEX MIXE</i>	

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW-3
Project Number: 540-0188	Date: 6-10-02	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" pvc
		Technician(s): SC
Initial Depth to Water: 21.99	Total Well Depth: 23.90	Water Column Height: 1.91
Volume/ft: 0.16	1 Casing Volume: 0.30	3 Casing Volumes: 0.90
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 1.0
Start Purge Time: 6:40	Stop Purge Time: 6:54	Total Time: 14 mins

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
6:45	.25	16.9	7.24	9029	
6:50	.75	16.9	7.15	740	
6:55	1.00	16.9	7.13	792	

Fe = mg/L ORP = mV DO = mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	6-10-02	7:00	4v0a	HCl	TPHs BC&X MISE	

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW-2
Project Number: 540-0188	Date: 6-10-02	Well Yield:
Site Address: 1432 Harrison St Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 22.83	Total Well Depth: 25.40	Water Column Height: 2.57
Volume/ft: 0.16	1 Casing Volume: 0.41	3 Casing Volumes: 1.23
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 1.5
Start Purge Time: 5:40	Stop Purge Time: 9:54	Total Time: 14 mins

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
5:45	.5	17.1	7.19	520	
5:50	1.0	16.9	7.05	891	
5:55	1.5	16.9	7.09	859	

Fe = mg/L ORP = mV DO = mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	6-10-02	6:00	400a	MCU	TPH, BTEX, MISE	

WELL SAMPLING FORM

Project Name: <u>Borsak</u>	Cambria Mgr: <u>RAS</u>	Well ID: <u>MW-1</u>
Project Number: <u>540-0188</u>	Date: <u>6-10-02</u>	Well Yield:
Site Address: <u>1432 Harrison St</u> <u>Oakland, Ca</u>	Sampling Method: <u>Disposable bailer</u>	Well Diameter: <u>4" pvc</u>
		Technician(s): <u>SG</u>
Initial Depth to Water: <u>22.30</u>	Total Well Depth: <u>25.05</u>	Water Column Height: <u>2.75</u>
Volume/ft: <u>0.65</u>	1 Casing Volume: <u>1.78</u>	3 Casing Volumes: <u>5.36</u>
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>6</u>
Start Purge Time: <u>6:10</u>	Stop Purge Time: <u>6:24</u>	Total Time: <u>14 mins</u>

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
<u>6:15</u>	<u>2</u>	<u>16.9</u>	<u>7.53</u>	<u>2157</u>	
<u>6:20</u>	<u>4</u>	<u>17.4</u>	<u>7.40</u>	<u>2931</u>	
<u>6:25</u>	<u>6</u>	<u>17.5</u>	<u>7.41</u>	<u>2870</u>	

Fe = mg/L ORP = mV DO = mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-1</u>	<u>6-10-02</u>	<u>6:30</u>	<u>UV00</u>	<u>HCl</u>	<u>TPH₃ BTEX METE</u>	

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #107
PACIFICCO, 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: **Ron Scheels**

Bill To: **Cambria Env. Tech.**

Company: Cambria Environmental Technology

6262 Hollis Street

Emeryville, CA 94608

Tele: (510) 450-1983

Fax: (510) 450-8295

Project #: **540-0188-037**

Project Name: **Borsuk**

Project Location: **1432 Harrison St. Oakland, Ca**

Sampler Signature: **J. Hall**

Analysis Request

Other

Comments

- DTEX & TPH as Gas (602/8020 + 8015) MIDE
- 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

Confidential MIBF by 8260

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED						
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other			
MW-1		6-10-02	6:30	4	VOL	X						X	X				
MW-2		6-10-02	6:00	4	VOL	X						X	X				
MW-3		6-10-02	4:00	4	VOL	X						X	X				
MW-4		6-10-02	5:00	4	VOL	X						X	X				
MW-5		6-10-02	5:30	4	VOL	X						X	X				
MW-6		6-10-02	4:30	4	VOL	X						X	X				

Relinquished By: J. Hall	Date: 6-12-02	Time: 1:30	Received By: Secure location
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks: **Report results in EDF format**

C A M B R I A



APPENDIX B

Analytical Results for Quarterly Groundwater Sampling



McC Campbell 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 Env. Technology 6262 Hollis St. Emeryville, CA 94608	Client Project ID: 540-0188-037; Borsuk	Date Sampled: 06/10/02
		Date Received: 06/12/02
	Client Contact: Ron Scheele	Date Reported: 06/18/02
	Client P.O.:	Date Completed: 06/18/02

June 18, 2002

Dear Ron:

Enclosed are:

- 1). the results of 6 samples from your 540-0188-037; 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. McC Campbell 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,

Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Cm

BatchID: 2411

Matrix: W

WorkOrder: 0206199

EPA Method: SW8021B/8015Cm Extraction: SW5030B Ext. Date: 6/12/02 Spiked Sample ID: 0206179-011A										
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(gas)	ND	60	98	98.1	0.144	101	102	0.82	80	120
MTBE	ND	10	90.9	111	20.0	91.7	93.2	1.6	80	120
Benzene	ND	10	96.9	107	10.1	105	106	0.16	80	120
Toluene	ND	10	102	113	10.6	107	108	0.20	80	120
Ethylbenzene	ND	10	101	111	9.32	110	110	0.011	80	120
Xylenes	ND	30	103	110	6.25	107	110	3.1	80	120
%SS	101	10	101	104	2.61	101	99.2	2.1	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike, or analyte concentration in sample exceeds spike amount.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / (MS + MSD) * 2$.

* MS and / or MSD spike recoveries may not be near 100% or their RPDs near 0% if: a) the sample is inhomogeneous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.



McC Campbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 http://www.mcccampbell.com E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

BatchID: 2420

Matrix: W

WorkOrder: 0206199

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		Ext. Date: 6/12/02		Spiked Sample ID: 0206199-003A				
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(gas)	ND	60	108	108	0.0685	99.2	103	4.1	80	120
MTBE	ND	10	90.7	91.5	0.864	94.9	93.1	1.9	80	120
Benzene	ND	10	96.1	103	6.88	83.8	104	22	80	120
Toluene	ND	10	100	106	5.81	89.4	107	18	80	120
Ethylbenzene	ND	10	100	106	6.09	80.2	108	30	80	120
Xylenes	ND	30	99.7	110	9.86	100	110	9.5	80	120
%SS	99.7	10	99.7	100	0.743	95.2	99.4	4.3	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike, or analyte concentration in sample exceeds spike amount.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / (MS + MSD) * 2$.

* MS and / or MSD spike recoveries may not be near 100% or their RPDs near 0% if: a) the sample is inhomogeneous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

McC Campbell Analytical Inc.

110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0206199

Client:

Cambria Env. Technology
6262 Hollis St.
Emeryville, CA 94608

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: 540-0188-037; B
PO:

12-Jun-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests
					8021B/8015
0206199-001	MW-1	Water	6/10/02	A	A
0206199-002	MW-2	Water	6/10/02		A
0206199-003	MW-3	Water	6/10/02		A
0206199-004	MW-4	Water	6/10/02		A
0206199-005	MW-5	Water	6/10/02		A
0206199-006	MW-6	Water	6/10/02		A

Comments:

Date/Time

Date/Time

Relinquished by:

Received by:

Relinquished by:

Received by:

Relinquished by:

Received by:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

C A M B R I A



APPENDIX C

Analytical Results for SVE System Operation



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 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 04/02/02
		Date Received: 04/03/02
	Client Contact: Ron Scheele	Date Extracted: 04/03/02
	Client P.O:	Date Analyzed: 04/03/02

04/10/02

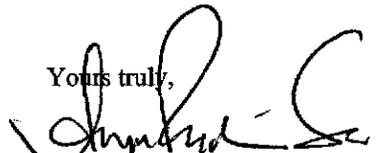
Dear Ron:

Enclosed are:

- 1). the results of 3 samples from your #540-0188-44; 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 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 04/02/02
	Client Contact: Ron Scheele	Date Received: 04/03/02
	Client P.O:	Date Extracted: 04/04/02
		Date Analyzed: 04/04/02

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	Ethylbenzene	Xylenes	% Recovery Surrogate
0204059-001	INF	Air	4800,a	ND<15	40	94	13	110	---#
0204059-002	MID	Air	390,a	ND<7	2.3	6.3	0.79	7.7	---#
0204059-003	EFF	Air	ND	ND	ND	0.16	ND	0.61	104

* ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	Air	10 uL/L	1.5	0.15	0.15	0.15	0.15	0.25
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	0.005

* water and air samples are reported in uL/L(ppmv), 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

QC REPORT

EPA 8015m + 8020

Date: 04/04/02

Extraction: EPA 5030

Matrix: Air

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

SampleID: 40402

Instrument GC-12

Surrogate1	ND	97.0	93.0	100.00	97	93	4.2
Xylenes	ND	32.5	32.6	30.00	108	109	0.3
Ethylbenzene	ND	10.6	10.5	10.00	106	105	0.9
Toluene	ND	10.4	10.3	10.00	104	103	1.0
Benzene	ND	10.5	10.3	10.00	105	103	1.9
MTBE	ND	10.2	10.2	10.00	102	102	0.0
TPH (gas)	ND	93.2	93.7	100.00	93	94	0.6

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

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

RPD means Relative Percent Deviation

020405420614 doc

McCAMPBELL ANALYTICAL INC.

170 2ND AVENUE SOUTH, #127
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: Ron Scheele

Bill To: SAME

Company: Camera Environmental Technology

6262 Hottis Street

Emeryville, CA 94608

Tele: (510) 450-1983

Fax: (510) 450-8295

Project # 540-0188-44

Project Name: BORSUK

Project Location: 1432 HARRISON ST OAKLAND CA

Sampler Signature: *[Signature]*

Analysis Request

Other

Comments

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃			
INF	Oakland	4/2/02	12:30p	1	Bag			X								
MID	↓	↓	↓	1	Bag			X								
EFF	↓	↓	↓	1	Bag			X								

- TPH as Diesel (8015)
- Total Petroleum Oil & Grease (5520 E&F/R&F)
- Total Petroleum Hydrocarbons (418-J)
- EPA 901/9010
- HEX ONLY (EPA 602/8020)
- EPA 907/9090
- EPA 608/8080 (C1-C10) 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

NO
HEAD SPACE ABSENT

PRESENTATION
APPROPRIATE
CONTAINERS

Relinquished By: <i>[Signature]</i>	Date: 4/2	Time: 3:00pm	Received By: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i>	Date: 4/2	Time: 11:00	Received By: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i>	Date: 4/3	Time: 1:55	Received By: <i>[Signature]</i>

Remarks: Report in ppmv; 10 ppmv limit
20 ml injection volume
PLEASE FAX RESULTS

TB.W

McC Campbell Analytical Inc.

110 Second Avenue South, #D7
 Pacheco, CA 94553-5560
 (925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0204059

Client:

Cambria Env. Technology
 6262 Hollis St.
 Emeryville, CA 94608

TEL:
 FAX:
 ProjectNo: #540-0188-44; B
 PO:

03-Apr-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests							
					8021B/8015							
0204059-001	INF	Air	4/2/02		A							
0204059-002	MID	Air	4/2/02		A							
0204059-003	EFF	Air	4/2/02		A							

Comments: Report in ppmv; 10 ppmv limit 20ml injection volume

	Date/Time		Date/Time
Relinquished by: _____		Received by: _____	
Relinquished by: _____		Received by: _____	
Relinquished by: _____		Received by: _____	

NOTICE: Solid samples are discarded after 60 days and Non-Solid samples are discarded after 30 days unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other



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 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 04/15/02
		Date Received: 04/16/02
	Client Contact: Ron Scheele	Date Extracted: 04/16/02
	Client P.O:	Date Analyzed: 04/16/02

04/23/02

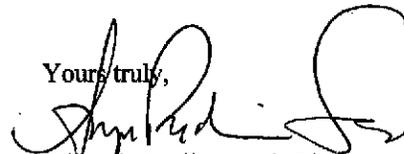
Dear Ron:

Enclosed are:

- 1). the results of 2 samples from your #540-0188-44 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.

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<http://www.mccampbell.com> E-mail: main@mccampbell.com

Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 04/15/02
	Client Contact: Ron Scheele	Date Received: 04/16/02
	Client P.O:	Date Extracted: 04/16/02
		Date Analyzed: 04/16/02

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	Ethylbenzene	Xylenes	% Recovery Surrogate
0204273-001	INF	Air	4200,a	ND<40	24	48	3.8	56	---
0204273-002	EFF	Air	28,a	ND	ND	0.29	ND	1.5	107

* ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	Air	10 uL/L	1.5	0.15	0.15	0.15	0.25
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005

* water and air samples are reported in uL/L(ppmv), 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 Avenue 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

EPA 8015m + 8020

Date: 04/16/02

Extraction: EPA 5030

Matrix: Air

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

SampleID: 41502

Instrument GC-3

Surrogate1	ND	101.0	101.0	100.00	101	101	0.0
Xylenes	ND	32.2	32.5	30.00	107	108	0.9
Ethylbenzene	ND	10.9	11.0	10.00	109	110	0.9
Toluene	ND	10.6	10.7	10.00	106	107	0.9
Benzene	ND	10.2	10.4	10.00	102	104	1.9
MTBE	ND	9.6	9.3	10.00	96	93	3.2
TPH (gas)	ND	84.9	86.0	100.00	85	86	1.2

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

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

RPD means Relative Percent Deviation

McC Campbell Analytical Inc.

110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0204273

Client:

Cambria Env. Technology
6262 Hollis St.
Emeryville, CA 94608

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo:
PO:

16-Apr-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	8021B/8015	Requested Tests
0204273-001	INF	Air	4/15/02 3:30:00 PM		A	
0204273-002	EFF	Air	4/15/02 3:30:00 PM		A	

Comments:

Date/Time

Date/Time

Relinquished by:

Received by:

Relinquished by:

Received by:

Relinquished by:

Received by:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

0204273

McCAMPBELL ANALYTICAL INC.
 110 2ND AVENUE SOUTH, #102
 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: Ron Scheele Bill To: **SAME**
 Company: Cambria Environmental Technology
 6262 Hollis Street
 Emeryville, CA 94608
 Tele: (510) 450-1983 Fax: (510) 450-8295
 Project #: **540-0188-44** Project Name: **BORSUK**
 Project Location: **1432 HARRISON ST OAKLAND CA**
 Sampler Signature: *[Signature]*

Analysis Request Other Comments

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other					
INF	BORSUK	4/15/2	3:30pm	1	Bag			X											
EFF	BORSUK	4/15/2	3:30pm	1	Bag			X											

ETEX & TPH as Gas (802/8020 / 8015) <input checked="" type="checkbox"/>	TPH as Diesel (8015) <input checked="" type="checkbox"/>	Total Petroleum Oil & Grease (5320 E&F/R&F)	Total Petroleum Hydrocarbons (418.1)	EPA 8017/8010	ETEX OILY (EPA 602 / 8080)	EPA 608 / 8080	EPA 808 / 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					
---	--	---	--------------------------------------	---------------	----------------------------	----------------	---------------------------	-----------------------	----------------	--	---------------	---------------	-----------------------------	-----	--	--	--	--	--

Relinquished By: *[Signature]* Date: 4/15/2 Time: 7am Received By: *[Signature]* Location
 Relinquished By: *[Signature]* Date: 4/16 Time: 11 Received By: *[Signature]*
 Relinquished By: *[Signature]* Date: 4/16 Time: 12:20 Received By: *[Signature]*

Remarks:
 Report in PPMV
 10 PPMV Limit
 20 ml injection volume
 FAX RESULTS

McC Campbell 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 Env. Technology 6262 Hollis St. Emeryville, CA 94608	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 05/06/02
		Date Received: 05/07/02
	Client Contact: Ron Scheele	Date Reported: 05/13/02
	Client P.O.:	Date Completed: 05/13/02

May 13, 2002

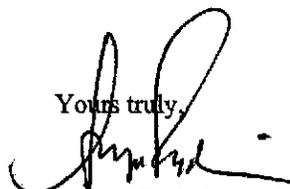
Dear Ron:

Enclosed are:

- 1). the results of 2 samples from your #540-0188-44; 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. McC Campbell 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,



Angela Rydelius, Lab Manager



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 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 05/06/02
	Client Contact: Ron Scheele	Date Received: 05/07/02
	Client P.O:	Date Extracted: 05/07/02
		Date Analyzed: 05/07/02

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	Ethylbenzene	Xylenes	% Recovery Surrogate
0205084-001	INF	Air	5100,a	ND<30	31	56	4.3	65	---#
0205084-002	EFF	Air	14,a	ND	ND	ND	ND	0.42	112

* ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	Air	10 uL/L	1.5	0.15	0.15	0.15	0.15	0.25	
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	0.005	

* water and air samples are reported in uL/L(ppmv), 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 Avenue 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

EPA 8015m + 8020

Date: 05/07/02

Extraction: EPA 5030

Matrix: Water/Air

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

SampleID: 50702

Instrument GC-12

Surrogate1	ND	102.0	101.0	100.00	102	101	1.0
Xylenes	ND	29.9	30.0	30.00	100	100	0.3
Ethylbenzene	ND	11.0	10.0	10.00	110	100	9.5
Toluene	ND	10.0	10.0	10.00	100	100	0.0
Benzene	ND	10.0	10.0	10.00	100	100	0.0
MTBE	ND	9.0	9.1	10.00	90	91	1.1
TPH (gas)	ND	95.3	97.2	100.00	95	97	2.0

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

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

RPD means Relative Percent Deviation

McC Campbell Analytical Inc.

110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0205084

Client:

Cambria Env. Technology
6262 Hollis St.
Emeryville, CA 94608

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #540-0188-44; B
PO:

07-May-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests							
					8021B/8015							
0205084-001	INF	Air	5/6/02 4:00:00 PM		A							
0205084-002	EFF	Air	5/6/02 4:00:00 PM		A							

Comments:

	Date/Time		Date/Time
Relinquished by: _____		Received by: _____	
Relinquished by: _____		Received by: _____	
Relinquished by: _____		Received by: _____	

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other



McC Campbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mcccampbell.com> E-mail: main@mcccampbell.com

Cambria Env. Technology 6262 Hollis St. Emeryville, CA 94608	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 06/05/02
		Date Received: 06/06/02
	Client Contact: Ron Scheele	Date Reported: 06/13/02
	Client P.O.:	Date Completed: 06/13/02

June 13, 2002

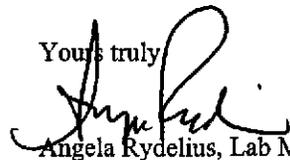
Dear Ron:

Enclosed are:

- 1). the results of 2 samples from your #540-0188-44; 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. McC Campbell 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


Angela Rydelius, Lab Manager



McC Campbell 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

QC SUMMARY REPORT FOR SW8021B/8015Cm

BatchID: 2314

Matrix: A

WorkOrder: 0206083

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		Ext. Date: 6/06/02		Spiked Sample ID: N/A				
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	u/L/L	u/L/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(gas)	N/A	60	N/A	N/A	N/A	115	109	5.0	80	120
MTBE	N/A	10	N/A	N/A	N/A	110	91.3	18	80	120
Benzene	N/A	10	N/A	N/A	N/A	95.4	96.8	1.5	80	120
Toluene	N/A	10	N/A	N/A	N/A	98.2	101	2.3	80	120
Ethylbenzene	N/A	10	N/A	N/A	N/A	99.2	101	1.5	80	120
Xylenes	N/A	30	N/A	N/A	N/A	100	103	3.3	80	120
%SS	N/A	10	N/A	N/A	N/A	100	100	0.15	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike, or analyte concentration in sample exceeds spike amount.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / (MS + MSD) * 2$.

* MS and / or MSD spike recoveries may not be near 100% or their RPDs near 0% if: a) the sample is inhomogeneous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

McCampbell Analytical Inc.

110 Second Avenue South, #D7
 Pacheco, CA 94553-5560
 (925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0206083

Client:

Cambria Env. Technology
 6262 Hollis St.
 Emeryville, CA 94608

TEL: (510) 450-1983
 FAX: (510) 450-8295
 ProjectNo: #540-0188-44; B
 PO:

06-Jun-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests						
					8021B/8015						
0206083-001	INF	Air	6/5/02 12:00:00 PM		A						
0206083-002	EFF	Air	6/5/02 12:00:00 PM		A						

Comments:

	Date/Time		Date/Time
Relinquished by: _____		Received by: _____	
Relinquished by: _____		Received by: _____	
Relinquished by: _____		Received by: _____	

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CETE

0206083

zc641.doc

McCAMPBELL ANALYTICAL INC.

170 2nd AVENUE SOUTH, #127
PACIFIC CO, 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: Ron Scheele

Bill To: SAME

Company: Cambria Environmental Technology

6262 Hollis Street

Emeryville, CA 94608

Tele: (510) 450-1983

Fax: (510) 450-8295

Project #: 540-0188-44

Project Name: BORSOK

Project Location: 1432 HARRISON ST OAKLAND

Sampler Signature: *Tommy Hill*

Analysis Request

Other

Comments

TPH as Diene (8015)	
Total Petroleum Oil & Grease (520 E&F/R&F)	
Total Petroleum Hydrocarbons (418 J)	
EPA 801 / 8010	
HTEX ONLY (EPA 602 / 8020)	
EPA 808 / 8080	
EPA 808 / 8080-PCB'S ONLY	
EPA 624 / 8240 / 8260	
EPA 625 / 8270	
PAH's / PNA's by EPA 625 / 8270 / 8310	
CAM-17 Metals	
LUT 5 Metals	
Lead (7240/7421/239/26010)	
RCI	

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				
INF	BORSOK	6/5/02	12pm	1	Bag			X										
EFF	BORSOK	6/5/02	12pm	1	Bag			X										

Relinquished By:

Date: 6/5/02

Time: 7am

Received By:

Scanned Location

Relinquished By:

Date: 6/6

Time: 2:30

Received By:

B. B. Butts

Relinquished By:

Date: 6/6

Time: 3:00

Received By:

[Signature]

Remarks:

Report in PPMV - 10 PPMV LIMIT

20 ml injection volume

PLEASE FAX RESULTS

T.B.W.

C A M B R I A



APPENDIX D

Electronic Delivery Confirmation

AB2886 Electronic Delivery

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UPLOADING A GEO_MAP FILE

YOUR IMAGE UPLOAD WAS SUCCESSFUL!

Facility Name: A BACHARACH TR & B
BORSUK

Global ID: T0600100682

Submittal Type: GEO_MAP

Submittal Date/Time: 7/15/2002 1:07:20 PM

**Confirmation
Number:** 9040174186

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Your EDF file has been successfully uploaded!

Confirmation Number: 6608408391

Date/Time of Submittal: 7/16/2002 11:27:03 AM

Facility Global ID: T0600100682

Facility Name: A BACHARACH TR & B BORSUK

Submittal Title: 2nd Qtr 2002 Analytical Groundwater Data

Submittal Type: GW Monitoring Report

Logged in as CAMBRIA-EM (AUTH_RP)

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UPLOADING A GEO_WELL FILE

**Processing is complete. No errors were found!
Your file has been successfully submitted!**

Submittal Title: Borsuk, 2nd Qtr 2002, Groundwater
Depths

Submittal Date/Time: 8/5/2002 5:02:09 PM

**Confirmation
Number:** 4646427750

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UPLOADING A GEO_Z FILE

**Processing is complete. No errors were found!
Your file has been successfully submitted!**

**Submittal Title: Borsuk, Well Elevation
Data**

Submittal Date/Time: 8/5/2002 4:59:52 PM

**Confirmation
Number: 9670200943**

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