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1626 Vallejo Street
San Francisco, CA 94123-5116

April 30, 2002

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: IQ02 Monitoring & System Progress Report
1432 Harrison Street, Oakland, CA 94612
SITE ID 498

Dear Mr. Peacock:

Attached is the IQ02 Groundwater Monitoring and Systems Progress Report for the above site. If you have a question, please contact me.

Sincerely yours,

Mark Borsuk

CAMBRIA

April 19, 2002

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

Re: **Groundwater Monitoring and System Progress Report**
First 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 first quarter 2002 activities and results and the anticipated second 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, First Quarter 2002

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
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CAMBRIA

GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FIRST QUARTER 2002

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

April 19, 2002

Prepared for:

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

Prepared by:

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

Matthew A. Meyers
Staff Geologist

Ron Scheele, RG
Senior Geologist

GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FIRST QUARTER 2002

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

April 19, 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 first quarter 2002 groundwater monitoring and remediation activities and the anticipated second quarter 2002 activities.

FIRST QUARTER 2002 ACTIVITIES AND RESULTS

Monitoring Activities

Field Activities: On March 1, 2002, 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 all wells not containing SPH. Field Data Sheets are presented as 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 tertiary butyl ether (MTBE) by EPA Method 8020. Any samples containing MTBE 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 March 1, 2002 site visit, groundwater flow beneath the site is mounded. On the south side of the former USTs, groundwater flows toward the south at a rate of 0.026 feet/feet, while on the north side of the former USTs, groundwater flows toward the north-northeast at a rate of 0.018 feet/feet (Figure 1). This is consistent with historical groundwater flow rates and directions.

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations have decreased significantly in wells MW-2 and MW-4 and remained the same in other wells compared with previous sampling events. The maximum TPHg and benzene concentrations were detected in well MW-2 at 3,100 and 370 micrograms per liter (µg/L), respectively. A SPH layer was also measured in well MW-1 at a thickness of 0.41 ft. Historically, MW-1 has had high hydrocarbon concentrations that are at typical SPH levels. Recent remediation activities are likely the cause of the sudden formation of SPH in MW-1. No MTBE concentrations were detected in any of the wells at the site.

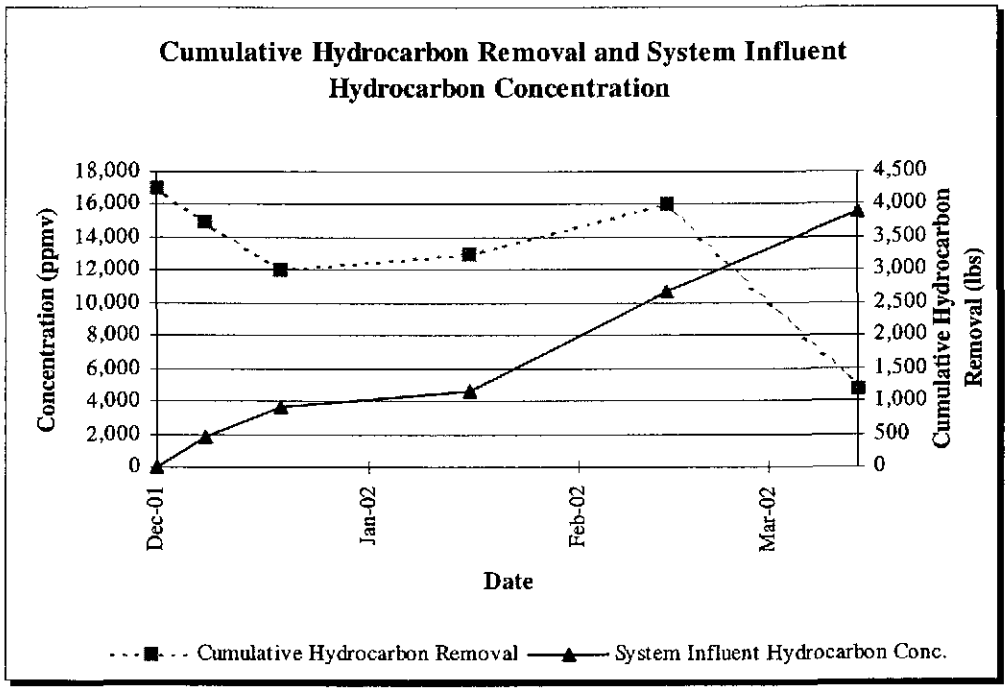
Corrective Action Activities

Remediation System: Cambria completed installation and startup of a soil vapor extraction/air sparging (SVE/AS) system during the fourth quarter 2001. A System Startup Report dated January 17, 2002 was prepared and submitted to the regulatory agency.

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 first quarter, Cambria performed system operation and maintenance of the SVE system approximately twice 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 January 7, February 4, and March 5, 2002. 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 January 3 to April 2, 2002, the SVE system operated continuously except for the last two weeks of January. The system was off during this period due to blown fuses relating to a faulty heater contactor. A new heater contactor supplied by the equipment vendor was installed on February 1, 2002. During system startup in December 2001, the SVE system was operating with the manual dilution valve open approximately 90%. The manual dilution valve has been slowly closed during the first quarter to correspond with the decreasing influent vapor concentrations. In closing the dilution valve, problems have been encountered with the ability of the SVE system to operate with less air flow. The air proving safety switch was down sized to correct this problem. As of April 2, the dilution valve was open 20%. Individual well vapor concentrations remained above 10,000 ppmv throughout the quarter but are starting to decrease (See Table 3). System influent vapor concentrations (prior to dilution) ranged from 12,000 to 16,000 ppmv. System influent vapor concentrations (after dilution) ranged from 1,000 to 1,400 ppmv. System influent vapor flow (after dilution) ranged from 105 to 150 cfm. System influent and effluent vapor samples were collected and submitted for laboratory analysis on January 7, February 4, and March 5, 2002. 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 3,899 pounds of hydrocarbons have been destroyed by soil vapor extraction activities (see graph below and Table 2).



AS System Performance: Air sparging (AS) was initiated on February 25 due to low vapor flow and decreasing system influent vapor concentrations. Air was injected at a pressure of 10 psi and at a flow rate of 3 cfm into air sparge wells (AS-1, AS-2, and AS-3). 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. The air sparge system was shut off on March 12 to evaluate the appearance of free product in monitoring well MW-1 (0.41 ft on 3/1/02). In response, Cambria turned off the air sparging system and began free product bailing from MW-1 on a biweekly basis. Based on the groundwater being below the typical depth of utilities (~21 ft bgs), the lack of any storm drains in the vicinity, the conservative coaxial design of the air sparge/vapor extraction wells, and the past presence of free product in MW-1, Cambria plans to re-initiate air sparging when well vapor concentrations drop below 5,000 ppmv. Future air sparging activities will help to increase vapor concentrations, reduce utility usage, and facilitate cleanup of the groundwater. To minimize the potential of re-mobilizing any free product trapped below the groundwater table, Cambria will lower the air flow injection rate to approximately 1 cfm. Cambria will continue monitoring all wells for SPH.

ANTICIPATED FIRST 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 8020. Any samples containing MTBE will be confirmed by EPA Method 8260. Cambria will prepare a combined 2nd Quarter 2002, Groundwater Monitoring and System Progress Report. Included in the report will be a summary of the monitoring activities and results.

Remediation System: Cambria will perform bimonthly operation and maintenance of the remediation system during the second quarter 2002. Cambria will also evaluate the performance of the remediation system and combine the results in a 2nd Quarter 2002, 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 continue to perform system operation, maintenance, and optimization activities twice per month during the second quarter of 2002. Optimization activities may include closing dilution air as influent vapor concentrations decrease and initiation of air sparging if hydrocarbon vapor concentrations drop significantly in the individual wells (i.e. below 5,000 ppmv). 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.

Sampling Frequency Reduction: Cambria also wishes to reduce the sampling frequency of wells MW-3 and MW-6. Both wells have had a no detectable hydrocarbon concentrations during the last 6 sampling events. If there is no objection to our request, Cambria plans to reduce the sampling frequency to an annual basis for these wells beginning next quarter. The wells will be scheduled for sampling during the first quarter of the year.

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

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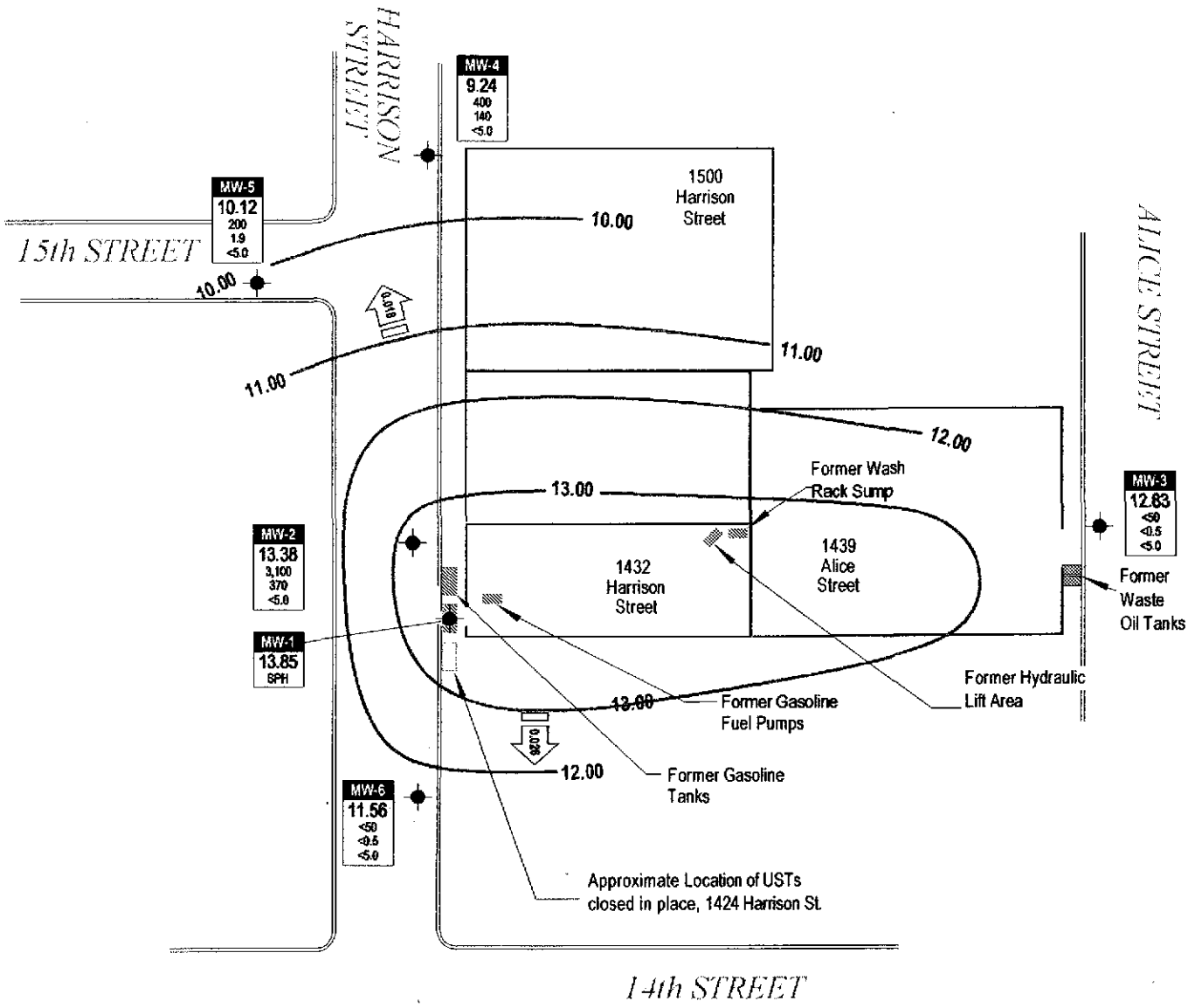

EXPLANATION

- Groundwater monitoring well
- 12.00 — Groundwater elevation contour, in feet above mean sea level (msl)
- 0.025 — Groundwater flow direction and gradient
- SPH — Seperate phase hydrocarbons present
- Well ID — Well designation
- ELEV — Groundwater elevation, in feet above mean sea level (msl)
- TPHg / Benzene / MTBE — Hydrocarbons in groundwater, in micrograms per liter (µg/L)

N

0 50 100

Scale (ft)

FIGURE 1

H:\SB-2004\OAK-165\FIGURES\1GM02-MP.DWG

1432 Harrison Street

Oakland, California

CAMBRIA

Groundwater Elevation and Analytical Summary

March 1, 2002

Borsuk Properties

1432 Harrison Street

Oakland, California

MW-2

PG

HARRISON STREET

Electric
(208V-single-phase 200 amp

MW-1

Re
Piping

VES

Soil Vapor Extraction / Air Sparge System (As-Built)

CAMBRIA

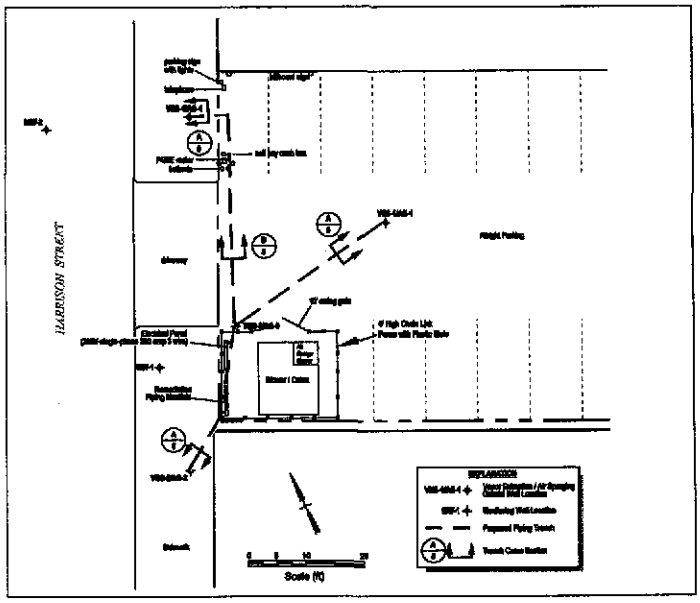

FIGURE 2

04/23/02

CAMBRIA

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

Well ID	Date	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft)		(ft)	(ft)	(ft)	←			(µg/L)		→	
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***	--
	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.						
	12/5/00	34.95	19.90	15.05	220,000	42,000	57,000	2,700	17,000	<200	a
	3/6/01	34.95	18.20	16.75	180,000	27,000	39,000	2,000	13,000	<1200 (<20)	a,l
	6/8/01	34.95	20.14	14.81	170,000	28,000	40,000	1,900	13,000	<200	a
	8/27/01	34.95	21.19	13.76	130,000	24,000	33,000	1,600	11,000	<350	a
	10/25/01	34.95	21.74	13.21	160,000	22,000	28,000	1,500	10,000	<350	a
	3/1/02	**34.95**	**21.39**	**13.85x**	**Free Product present (thickness of 0.41ft). No sample taken.**						
											--

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

Well ID	Date	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft)		(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

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

Well ID	Date	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft)		(ft)	(ft)	(ft)	←			(µg/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	--	--	--	--	--	--	--
	12/5/00	33.97	19.03	14.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	33.97	18.12	15.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	33.97	20.02	13.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	8/27/01	33.97	21.09	12.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/01	33.97	21.29	12.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/02	**33.97**	**21.14**	**12.83**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0***	**--**

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

Well ID	Date	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (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**
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	--	--

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

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

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

Well ID	Date	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft)		(ft)	(ft)	(ft)	←			(µg/L)		→	
	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***	--
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 greather 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. [2] (ppmv)		HC Removal Rate [3] (lbs/day)	Emission Rate (lbs/day)		TPHg Destruction Efficiency [5] (%)	Gasoline Cumulative Removal (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
12/20/01	13.0	--	--	17,000	825	170	920	<10	<0.15	50.18	<0.545	<0.007	-- [5]	0
1/7/02	443.8	100%	--	12,000	1017	105	1400	<10	<0.15	47.16	<0.337	<0.005	-- [5]	901
2/4/02	576.2	20%	--	13,000	916	150	1100	<10	<0.15	52.94	<0.481	<0.007	-- [5]	1161
3/5/02	1268.2	99%	--	16,000	1020	135	1000	<10	<0.15	43.31	<0.433	<0.006	-- [5]	2687
4/2/02	1939.9	100%	--	4,800	--	--	--	--	--	--	--	--	--	3899

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.

[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 (acfm) x 1 lb-mole/386x$10^6$$ft^3$ x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene) x 1440 min/day.

[3] Total TPHg 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.

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

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

Well ID	Date	Well Vacuum (inches of H_2O)	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	>10,000	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	>10,000	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	34	7.5	>10,000	open
	4/2/02	85	11.1	>10,000	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	34	9.3	>10,000	open
	4/2/02	85	11.5	>10,000	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

APPENDIX A

Groundwater Monitoring Field Data Sheets

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WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-1	5:10	20.98	21.39			Stong odor dark brown SPH 10 Sample taken
MW-2	4:45	[illegible]	21.80		25.40	
MW-3	4:30	[illegible]	21.14		23.90	
MW-4	4:50		21.53		24.50	
MW-5	4:55		21.49		28.34	
MW-6	4:40		21.33		28.00	

Project Name: Borsuk

Project Number: 180-0214

Measured By: S. Mill

Date: 3-1-02

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WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: **RAS**	Well ID: MW- 2
Project Number: **433-1593**	Date:3/01/02	Well Yield:
Site Address: **1432 Harrison St Oakland Ca.**	Sampling Method: **Disposable bailer**	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 21.80	Total Well Depth: 25.40	Water Column Height: 3.60
Volume/ft: 0.16	1 Casing Volume: 0.57	3 Casing Volumes: 1.72
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 2
Start Purge Time: 7:10	Stop Purge Time: 7:39	Total Time: 29 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.	pH	Cond.	Comments
7:20	.5	16.4	7.08	850	
7:30	1.5	16.8	7.15	927	slow recharge
7:40	2	16.7	7.11	935	
					DO= 0.35mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 2	~~2-28-02~~ 3-1-02	7:45	4 VOAs	**HCl**	**TPHg BTEX MTBE**	**8015/8260**

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NSM 5/31/94

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: **RAS**	Well ID: MW- 3
Project Number: **433-1593**	Date:3/01/02	Well Yield:
Site Address: **1432 Harrison St Oakland Ca.**	Sampling Method: **Disposable bailer**	Well Diameter: 2 " pvc
		Technician(s): SG
Initial Depth to Water: 21.14	Total Well Depth: 23.90	Water Column Height: 2.76
Volume/ft: 0.16	1 Casing Volume: 0.44	3 Casing Volumes: 1.32
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 1.5
Start Purge Time: 5:30	Stop Purge Time: 5:59	Total Time: 29mins

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.	pH	Cond.	Comments
5:40	0.5	16.3	7.14	821	Slow recharge
5:50	1.0	16.5	7.20	870	
6:00	1.5	16.3	7.22	894	
					0.59 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 3	2/28-02 3-1-02	6:05	4 VOAs	HCl	TPHg BTEX MTBE	8015/8260

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NSM 5/31/94

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WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: **RAS**	Well ID: MW-4
Project Number: **433-1593**	Date:3/01/02	Well Yield:
Site Address: **1432 Harrison St Oakland Ca.**	Sampling Method: **Disposable bailer**	Well Diameter: 2" **pvc** Technician(s): SG
Initial Depth to Water: 21.53	Total Well Depth: 24.50	Water Column Height: 2.97
Volume/ft: 0.16	1 Casing Volume: 0.47	3 Casing Volumes: 1.42
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 1.5
Start Purge Time: 8:00	Stop Purge Time: 8:29	Total Time: 29 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.	pH	Cond.	Comments
8:10	0.5	16.4	7.15	1025	
8:20	1.0	16.4	7.18	870	slow recharge
8:30	1.5	16.8	7.23	822	
					DO= 0.70 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	~~2-28-02~~ 3-1-02	8:35	4 VOAs	**HCl**	**TPHg BTEX MTBE**	**8015/8260**

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NSM 5/31/94

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WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: **RAS**	Well ID: MW- 5
Project Number: **433-1593**	Date:3/01/02	Well Yield:
Site Address: **1432 Harrison St Oakland Ca.**	Sampling Method: **Disposable bailer**	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 21.49	Total Well Depth: 28.34	Water Column Height: 6.85
Volume/ft: 0.16	1 Casing Volume: 1.09	3 Casing Volumes: 3.28
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 8:50	Stop Purge Time: 9:19	Total Time: 29 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.	pH	Cond.	Comments
9:00	1	16.3	7.20	920	
9:10	2	16.7	7.37	874	
9:20	3	16.5	7.41	914	slow recharge
					DO = 0.59 mg/l

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 5	~~2/28/02~~ 3-1-02	9:25	**4 VOAs**	**HCl**	**TPHg BTEX MTBE**	**8015/8260**

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WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: **RAS**	Well ID: MW- 6
Project Number: **433-1593**	Date:3/01/02	Well Yield:
Site Address: **1432 Harrison St Oakland Ca.**	Sampling Method: **Disposable bailer**	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 21.33	Total Well Depth: 28.00	Water Column Height: 6.67
Volume/ft: 0.16	1 Casing Volume: 1.06	3 Casing Volumes: 3.18
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 6:20	Stop Purge Time: 6:49	Total Time: 29 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.	pH	Cond.	Comments
6:30	1	16.9	7.31	1029	
6:40	2	16.8	7.35	1084	slow recharge
6:50	3	16.9	7.38	1050	
					DO = 0.57 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 6	~~2/28/02~~ 3-1-02	6:55	4 VOAs	**HCl**	**TPHg BTEX MTBE**	**8015/8260**

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: Ron Scheele Bill To: Cambria Env.

Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608

Tele: (510) 450-1983 Fax: (510) 450-8295

Project #: 433-1593-036 Project Name: Borsuk

Project Location: 1432 Harrison St.

Sampler Signature: S. Hall

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
MW-2		3-1-02		4	VOA	X					X	X		
MW-3		3-1-02		4	VOA	X					X	X		
MW-4		3-1-02		4	VOA	X					X	X		
MW-5		3-1-02		4	VOA	X					X	X		
MW-6		3-1-02		4	VOA	X					X	X		

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
X															Confirm all MTBE hits by 8260	
X															X	
X															X	
X															X	
X															X	

Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks:

Report results in EDF format

Sent By: McCampbell Analytical, Inc.; 1 925 798 4612; Sep-5-01 8:42AM; Page 2/2

APPENDIX B

Analytical Results for Quarterly Sampling

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: #433-1593-036; Borsuk	Date Sampled: 03/01/2002
		Date Received: 03/07/2002
	Client Contact: Ron Scheele	Date Extracted: 03/07/2002
	Client P.O:	Date Analyzed: 03/07/2002

03/14/02

Dear Ron:

Enclosed are:

1). the results of **5** samples from your **#433-1593-036; 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	Client Project ID: #433-1593-036; Borsuk	Date Sampled: 03/01/2002
6262 Hollis Street		Date Received: 03/07/2002
Emeryville, CA 94608	Client Contact: Ron Scheele	Date Extracted: 03/07-03/11/2002
	Client P.O:	Date Analyzed: 03/07-03/11/2002

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	Ethyl-benzene	Xylenes	% Recovery Surrogate
0203125-001	MW-2	W	3100,a	ND	370	180	62	330	110
0203125-002	MW-3	W	ND	ND	ND	ND	ND	ND	110
0203125-003	MW-4	W	400,a	ND	140	2.3	ND	12	120
0203125-004	MW-5	W	200,a	ND	1.9	0.69	ND	ND	120
0203125-005	MW-6	W	ND	ND	ND	ND	ND	ND	110
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd 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: 03/07/02 **Extraction:** EPA 5030 **Matrix:** Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 30502					Instrument:	GC-3	
Surrogate1	ND	105.0	106.0	100.00	105	106	0.9
Xylenes	ND	32.0	32.9	30.00	107	110	2.8
Ethylbenzene	ND	10.8	11.2	10.00	108	112	3.6
Toluene	ND	11.1	11.4	10.00	111	114	2.7
Benzene	ND	10.5	10.9	10.00	105	109	3.7
MTBE	ND	9.5	9.9	10.00	95	99	4.1
TPH (gas)	ND	94.3	94.8	100.00	94	95	0.5

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

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

RPD means Relative Percent Deviation

2099.doc 0203125

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

Report To: Ron Scheele Bill To: Cambria Env.
Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608
Tele: (510) 450-1983 Fax: (510) 450-8295
Project #: 433-1593-036 Project Name: Borsuk
Project Location: 1432 Harrison St.
Sampler Signature: R. Hall

CHAIN OF CUSTODY RECORD

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

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
MW-2		3-1-02	7:45	4	VOA	X					X	X		
MW-3		3-1-02	6:05	4	VOA	X					X	X		
MW-4		3-1-02	8:35	4	VOA	X					X	X		
MW-5		3-1-02	9:25	4	VOA	X					X	X		
MW-6		3-1-02	6:55	4	VOA	X					X	X		

ICE/t° ✓
HEAD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓
VOAS | O&G | METALS | OTHER

Relinquished By:	Date:	Time:	Received By:
R. Hall	3-7-02	3:00	D. Miller 3/7/02 2:50
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Analysis Request	Other	Comments
DTEX & TPH as Gas (602/8020 + 8015) MTBE	X	X Confirm all MTBE hits by 8260
TPH as Diesel (8015)	X	
Total Petroleum Oil & Grease (5520 E&F/B&F)		
Total Petroleum Hydrocarbons (418.1)		
EPA 601 / 8010		
BTEX ONLY (EPA 602 / 8020)	X	
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)	X	
RCI	X	

Remarks:

Report results in EDF format

Sent By: McCampbell Analytical, Inc.; 1 925 798 4612; Sep-5-01 8:42AM; Page 2/2

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0203125

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

TEL:
FAX:
ProjectNo: 3433-1593-036;
PO:

07-Mar-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests						
					8021B/8015						
0203125-001	MW-2	Water	3/1/02 7:45:00 AM		A						
0203125-002	MW-3	Water	3/7/02 6:05:00 AM		A						
0203125-003	MW-4	Water	3/7/02 8:35:00 AM		A						
0203125-004	MW-5	Water	3/7/02 9:25:00 AM		A						
0203125-005	MW-6	Water	3/7/02 6:55:00 AM		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

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: 01/07/02
		Date Received: 01/08/02
	Client Contact: Ron Scheele	Date Extracted: 01/08/02
	Client P.O:	Date Analyzed: 01/08/02

01/15/02

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: 01/07/02
		Date Received: 01/08/02
	Client Contact: Ron Scheele	Date Extracted: 01/08-01/09/02
	Client P.O:	Date Analyzed: 01/08-01/09/02

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	Ethylben-zene	Xylenes	% Recovery Surrogate
87891	INF	Air	12,000,c,a	ND<10	190	190	20	57	---[#]
87892	MID	Air	1400,c,a	ND	24	29	3.6	13	---[#]
87893	EFF	Air	ND	ND	ND	0.15	ND	1.0	109
[%] 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.

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

EPA 8015m + 8020

Date: 01/08/02 **Extraction:** EPA 5030 **Matrix:** Air

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 10802					Instrument:	GC-3	
Surrogate1	ND	105.0	105.0	100.00	105	105	0.0
Xylenes	ND	31.6	32.9	30.00	105	110	4.0
Ethylbenzene	ND	10.5	10.9	10.00	105	109	3.7
Toluene	ND	10.3	10.7	10.00	103	107	3.8
Benzene	ND	9.7	10.1	10.00	97	101	4.0
MTBE	ND	9.5	9.1	10.00	95	91	4.3
TPH (gas)	ND	84.1	86.8	100.00	84	87	3.2

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

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

RPD means Relative Percent Deviation

29545 ZC556.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: 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, OAKLAND, CA
Sampler Signature: Ronn Scheele

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
INF	BORSUK	1/7/02	10:32a	1	Bag			X						
MID	BORSUK	1/7/02	10:32a	1	Bag			X						
EFF	BORSUK	1/7/02	10:30a	1	Bag			X						

Analysis Request

SAMPLE ID	BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
INF	X														
MID	X														
EFF	X														

Other: 87891 87892 87893

Comments:

ICE/® GOOD CONDITION ✓ HEAD SPACE ABSENT
PRESERVATION APPROPRIATE CONTAINERS
VOAS | O&G | METALS | OTHER

Relinquished By:	Date:	Time:	Received By:
Ronn Scheele	1/7/02	4pm	Secure Location
Ron Scheele	1/8/02	1143	Tim Perry 298 1/8/02
Tim Perry 298	1/8/02	1230	V. Miller 1/8/02 12:30

Remarks:
REPORT IN PPMV
10 PPMV LIMIT
20ml injection vol
FAX RESULTS ASAP

Sent By: McCampbell Analytical, Inc.; 1 925 798 4612; Sep-5-01 8:42AM; Page 2/2

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: 02/04/02
		Date Received: 02/05/02
	Client Contact: Ron Scheele	Date Extracted: 02/05/02
	Client P.O:	Date Analyzed: 02/05/02

02/12/02

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

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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: 02/04/02
		Date Received: 02/05/02
	Client Contact: Ron Scheele	Date Extracted: 02/05-02/06/02
	Client P.O:	Date Analyzed: 02/05-02/06/02

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	Ethyl-benzene	Xylenes	% Recovery Surrogate
89628	INF	Air	47,000,a,j	ND<320	410	450	18	51	---[#]
89629	MID	Air	4000,a,j	ND<25	38	52	5.9	26	---[#]
89630	EFF	Air	ND	ND	ND	ND	ND	ND	107
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		Air	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

[+]The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd 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: 02/05/02 **Extraction:** EPA 5030 **Matrix:** Air

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 20702					Instrument:	GC-7	
Surrogate1	ND	108.0	109.0	100.00	108	109	0.9
Xylenes	ND	32.3	33.2	30.00	108	111	2.7
Ethylbenzene	ND	10.9	11.0	10.00	109	110	0.9
Toluene	ND	11.3	11.4	10.00	113	114	0.9
Benzene	ND	10.8	10.9	10.00	108	109	0.9
MTBE	ND	9.4	9.0	10.00	94	90	4.3
TPH (gas)	ND	106.4	105.2	100.00	106	105	1.1

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

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

RPD means Relative Percent Deviation

29931ZC568

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: Ron Scheele Bill To: SAME
Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608
Tele: (510) 450-1983 Fax: (510) 450-8295
Project #: 540-988-14 Project Name: BORSUK
Project Location: 1432 HARRISON ST OAKLAND
Sampler Signature: Ronny Scheele

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
INF	BORSUK	2/4/2	3pm	1	Bag			X							X																89628
MID	BORSUK	2/4/2	3pm	1	Bag			X							X																
EFF	BORSUK	2/4/2	3pm	1	Bag			X							X																89629
																															89630

Relinquished By:	Date:	Time:	Received By:
	2/4/2	5:30	Secured Location
	2/5/02	1005am	288
288	2/6/02	1485	210S 300

Remarks:

ICE/t° _____ ✓
GOOD CONDITION _____ ✓
HEAD SPACE ABSENT _____
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

VOAS | O&G | METALS | OTHER

✓ ✓

Sent By: McCampbell Analytical, Inc.; 1 925 798 4612; Sep-5-01 8:42AM; Page 2/2

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: 03/05/2002
		Date Received: 03/06/2002
	Client Contact: Ron Scheele	Date Extracted: 03/06/2002
	Client P.O:	Date Analyzed: 03/06/2002

03/13/02

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	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 03/05/2002
6262 Hollis Street		Date Received: 03/06/2002
Emeryville, CA 94608	Client Contact: Ron Scheele	Date Extracted: 03/06-03/07/2002
	Client P.O:	Date Analyzed: 03/06-03/07/2002

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
0203101-001	INF	Air	16000,c,a	ND<70	230	220	8.5	36	---[#]
0203101-002	MID	Air	1000,c,a	ND<10	14	18	1.3	8.2	---[#]
0203101-003	EFF	Air	ND	ND	ND	0.16	ND	ND	110

*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.

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

EPA 8015m + 8020

Date: 03/06/02 **Extraction:** EPA 5030 **Matrix:** Air

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 30502					Instrument:	GC-3	
Surrogate1	ND	99.0	101.0	100.00	99	101	2.0
Xylenes	ND	30.0	30.5	30.00	100	102	1.7
Ethylbenzene	ND	9.9	10.1	10.00	99	101	2.0
Toluene	ND	9.6	10.0	10.00	96	100	4.1
Benzene	ND	9.3	9.5	10.00	93	95	2.1
MTBE	ND	8.3	9.4	10.00	83	94	12.4
TPH (gas)	ND	89.1	87.2	100.00	89	87	2.1

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

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

RPD means Relative Percent Deviation

0203101 - 20516.doc

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

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:

CHAIN OF CUSTODY RECORD

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

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: 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 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	Other	Comments
INF	Oakland	3/5/2	12:30	1	Bag			X							X															
MID	↓	↓	↓	1	Bag			X							X															
EFF	↓	↓	↓	1	Bag			X							X															

VOAS | O&G | METALS | OTHER
PRESERVATION APPROPRIATE
CONTAINERS
HEAD SPACE ABSENT
ICE
BLUE DECHLORINATION

Relinquished By:	Date:	Time:	Received By:
	3/5/2	4pm	Secured Location
	3/6/02	1200	
	3/6/2	1745	3/16/02

Remarks:
REPORT IN ppmv; 10 ppmv limit
20 ml injection volume
PLEASE FAX RESULTS

Sent By: McCampbell Analytical, Inc.; 1 925 798 4612; Sep-5-01 8:42AM; Page 2/2

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0203101

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

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

06-Mar-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests						
					8021B/8015						
0203101-001	INF	Air	3/5/02 12:30:00 PM		A						
0203101-002	MID	Air	3/5/02 12:30:00 PM		A						
0203101-003	EFF	Air	3/5/02 12:30:00 PM		A						

Comments:

	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

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Cambria Environmental Technology	Client Project ID: #540-0188-44; Borsuk	Date Sampled: 02/04/02
6262 Hollis Street		Date Received: 02/05/02
Emeryville, CA 94608	Client Contact: Ron Scheele	Date Extracted: 02/05-02/06/02
	Client P.O:	Date Analyzed: 02/05-02/06/02

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	Ethylben-zene	Xylenes	% Recovery Surrogate
89628	INF	Air	13,000,a,j	ND<90	130	120	4.1	12	---#
89629	MID	Air	1100,a,j	ND<7	12	14	1.3	5.9	---#
89630	EFF	Air	ND	ND	ND	ND	ND	ND	107
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	

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

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cluttered chromatogram; sample peak coelutes with surrogate peak

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