RO 266

MARK BORSUK
Attorney at Law
(415) 922-4740 / FAX 922-1485 / CELL 264-8364
mark@borsuk.com / www.borsuk.com
1626 Vallejo Street
San Francisco, CA 94123-5116

May 5, 2004

Mr. Don Hwang
Hazardous Materials Specialist
ACHCSA
1131 Harbor Bay Parkway
Alameda, CA 94501
(510) 567-6700 / FAX 337-9335

SUBJECT: IQ04 Monitoring/SVE System Progress Report
1432 Harrison Street, Oakland, CA 94612
SITE ID 498

Dear Mr. Hwang:

Attached is the IQ04 Groundwater Monitoring/SVE Systems Progress Report for the above site. If you have a question, please contact me.

Sincerely yours,

Mark Borsuk

P.S. What is your email address?

CAMBRIA

April 30, 2004

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

Re: **Groundwater Monitoring and System Progress Report**
First Quarter 2004
Allright Parking
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 – First Quarter 2004*. Presented in the report are the first quarter 2004 activities and results, and the anticipated second quarter 2004 activities. Attached are two additional copies for submittal to the Alameda County Health Care Service Agency (ACHCSA) and for your file.

If you have any questions or comments regarding this report, please call me at (510) 420-3305.

Sincerely,
Cambria Environmental Technology, Inc.

Gretchen Hellmann

Gretchen Hellmann
Project Engineer

Attachments: Groundwater Monitoring and System Progress Report - First Quarter 2004
(2 copies)

Cambria Environmental Technology, Inc.

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

CAMBRIA

GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FIRST QUARTER 2004

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

April 30, 2004

Prepared for:

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

Prepared by:

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, California 94608

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

for

Rowan Fennell
Staff Scientist

Ron Scheele, R.G.
Senior Geologist

CAMBRIA

GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FIRST QUARTER 2004

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

April 30, 2004

INTRODUCTION

On behalf of Mr. Mark Borsuk, Cambria Environmental Technology, Inc. (Cambria) has prepared this Groundwater Monitoring and System Progress Report – First Quarter 2004 for the above-referenced site (see Figure 1). Presented in this report are the first quarter 2004 groundwater monitoring and remediation activities, and the anticipated second quarter 2004 activities.

FIRST QUARTER 2004 ACTIVITIES AND RESULTS

Monitoring Activities

Field Activities: On March 10, 2004, Cambria conducted quarterly monitoring activities. Cambria gauged and inspected for separate-phase hydrocarbons (SPH) in all monitoring wells. SPH was not detected in any of the wells and groundwater samples were collected from all wells, including wells MW-3 and MW-6 which are sampled annually. Groundwater monitoring field data sheets are presented as Appendix A. The groundwater monitoring data has been submitted to the GeoTracker database. See Appendix D for the GeoTracker electronic delivery confirmation.

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 MTBE by EPA Method 8021B by McCampbell Analytical, Inc. of Pacheco, California. The laboratory analytical report is included as Appendix B. Hydrocarbon concentrations are shown on Figure 1 and Table 1. The analytical data was submitted to the GeoTracker database. See Appendix D for the GeoTracker electronic delivery confirmation.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water measurements collected during Cambria's March 10, 2004 site visit, groundwater beneath the site generally flows toward the northeast at a gradient of 0.006 feet/foot. The overall gradient is consistent with previous quarters, including the

groundwater mounding around well MW-1 that is being induced by soil vapor extraction (SVE) operations. Depth to water and groundwater elevation data is presented in Figure 1 and Table 1.

Hydrocarbon Distribution in Groundwater: No SPH was detected in well MW-1 this quarter as a result of active SVE / air sparge (AS) operations on the well. Hydrocarbon concentrations were detected in four of the six wells. TPHg and benzene concentrations were detected in wells MW-1, MW-2, MW-4, and MW-5. TPHg concentrations ranged from 990 micrograms per liter (µg/L) to 22,000 µg/L with the highest concentration detected in well MW-1. Benzene concentrations ranged from 190 µg/L to 4,800 µg/L, with the highest concentration detected in well MW-4. MTBE was not detected above laboratory detection limits in any of the wells. Hydrocarbon concentrations in wells MW-1 and MW-4 are significantly less than previous quarters, and concentrations in well MW-1 are at all-time low levels due to active remediation on the well. Hydrocarbon concentrations in wells MW-2 and MW-5 increased slightly as compared to the previous quarter. Concentrations for all other wells continued on the decreasing trend.

Corrective Action Activities

System Design: The SVE/AS remediation system consists of a trailer mounted, all-electric catalytic oxidizer with heat exchanger, a positive-displacement blower belt-driven by a 10-horsepower electric motor, an oil-less air sparge blower directly driven by a 5-horsepower electric motor, and an auto dialer connected to a phone line to provide remote notification of system status. Four coaxial remediation wells (VES-1/AS-1, VES-2/AS-2, VES-3/AS-3, VES-4/AS-4) and one former monitoring well (MW-1) are individually connected to a central manifold in the remediation system enclosure. See Figure 2 for the location of remediation enclosure and wells.

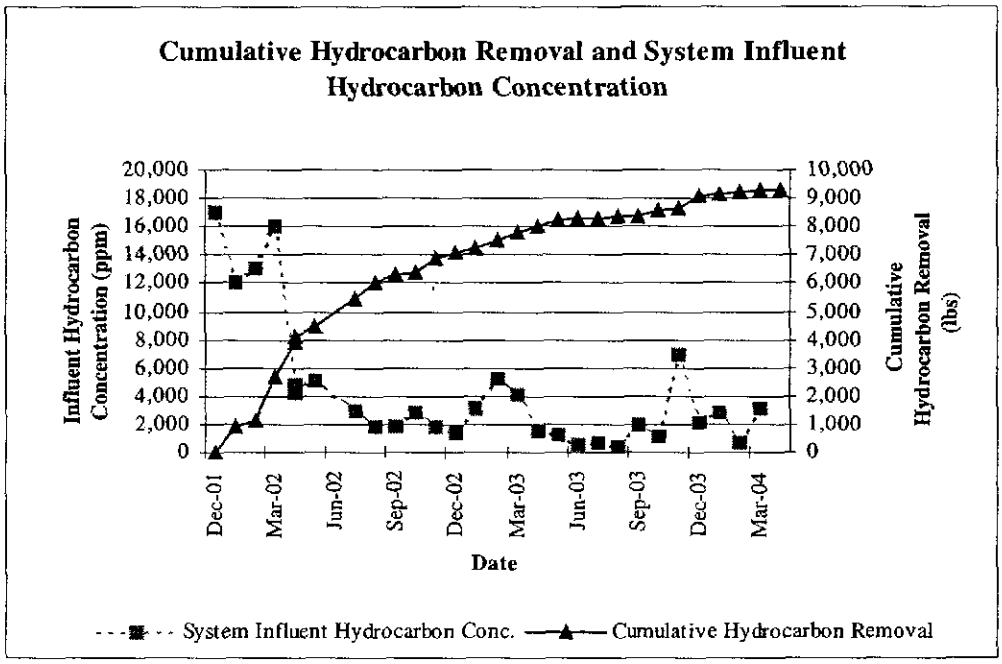
System Modification: To enhance the removal of SPH in well MW-1, in-well air sparging was initiated in the well on February 6, 2004. A ¼-inch diameter copper sparge tube was lowered into the well casing approximately 3 feet below the groundwater level and sealed at the wellhead. Because of the existing vacuum on the well casing from the SVE system, ambient air is drawn from outside the well through the sparge tube and into the water column. This unique modification enables the volatilization of any SPH which is subsequently removed through SVE piping. The beneficial attributes of in-well sparging of MW-1 will be continually monitored and optimized during system operation and maintenance (O&M) events.

SVE/AS System Operation and Maintenance Activities: During the first quarter, Cambria performed O&M on the SVE/AS system approximately three 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). Flow and pressure measurements from the air sparge wells were also collected. Air sparge activities were turned off from February 11 to March 3, 2004 while pump maintenance and repairs were made and air sparge flow gauges were cleaned. During site visits, system operation parameters were recorded in specialized field forms for future system optimization and agency inspection. As per the Bay Area Air Quality Management District (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 11, and March 24, 2004. Vapor sample results indicated that the catalytic oxidizer was achieving proper destruction efficiency and was operating within BAAQMD air permit requirements. Table 2 summarizes SVE system operations and analytical results. The analytical laboratory reports from system vapor sampling are included as Appendix C.

SVE System Performance: The SVE system automatically shutdown several times during the first quarter due to electrical service interruptions and air pressure alarms resulting from low extraction flowrates and seasonally high groundwater levels. To increase available well screen and maximize extraction flowrate, system vacuum levels and air sparge flowrates were reduced, and all extraction wells remained open for the duration of the quarter. System monitoring events were performed throughout the quarter to record hydrocarbon concentrations in individual wells for future system optimization.

From January 7 through April 2, 2004, the SVE system operated for a total of 1,898 hours, a run-time of approximately 92 percent. Influent vapor concentrations ranged from 760 to 3,100 parts per million by volume (ppmv) and vapor flow rates ranged from 3.2 to 5.2 standard cubic feet per minute (see Table 2). Hydrocarbon removal rates ranged from approximately 1.0 to 5.1 pounds per day. The fluctuation in hydrocarbon removal rates is primarily due to lower system vacuum and hydrocarbon concentrations in soil vapor. As of April 2, 2004, approximately 9,321 pounds of hydrocarbons have been extracted and destroyed by soil vapor extraction activities (see graph below and Table 2).



AS System Performance: AS activities were temporarily shut off from February 11 to March 3, 2004, for pump maintenance and repairs. AS activities were periodically evaluated and optimized during the quarter. Air sparging parameters were adjusted to increase hydrocarbon concentrations while minimizing the potential for soil fracturing and offsite vapor migration. The AS system was set to cycle each AS well between 15 and 30 minutes, and to operate only between the hours of 7 am to 6 pm to reduce system noise during the evening and early morning hours. AS injection flow rates and intervals were adjusted during optimization events. Air pressures ranged from 1 to 11 pounds per square inch (psi) and injection flow rates ranged from 1 to 3 cubic feet per minute (cfm).

ANTICIPATED SECOND QUARTER 2004 ACTIVITIES

Monitoring Activities

Cambria will gauge all monitoring wells, check wells for SPH, and collect groundwater samples from wells not containing SPH. As per the sampling schedule, wells MW-1, MW-2, MW-4, and MW-5 will be sampled during the second quarter event. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8021B. If MTBE is detected above laboratory detection limits in any sample, confirmation analysis by EPA Method 8260 will be

performed. Groundwater monitoring and sampling results will be submitted to the State's GeoTracker Database. Cambria will summarize groundwater monitoring activities and results in the *Groundwater Monitoring and System Progress Report - Second Quarter 2004.*

Corrective Action Activities

System Modification: Based on the low hydrocarbon vapor removal rates (approximately 2-3 lbs/day) and high electricity usage, continued operation of a catalytic oxidizer is no longer cost effective. Cambria proposes that the existing oxidizer be replaced with a more appropriate method of vapor abatement consisting of vapor-phase carbon. The modified remediation system would be comprised of a vacuum blower, knock-out tank, and soil vapor abatement using two 2,000 pound carbon vessels in series. The air sparge portion of the system would remain unchanged.

This proposed system modification would significantly lower monthly operational costs by lowering the system rental (reduced from $3,112/mo to ~$1,100/mo), utilities (reduced from $700/mo to ~$300/mo), and operation and maintenance labor by improving system reliability and uptime.

The modified SVE/AS system would continue to operate until hydrocarbon vapor removal rates reach asymptotic levels. Cambria anticipates operation of the SVE system for approximately 12 months at which time a request will be made to remove the remediation system.

Until agency approval is received for the proposed system modification, Cambria will continue to perform operation and maintenance visits of the SVE/AS system approximately two to three times per month during the second quarter of 2004. Optimization activities will include system vacuum adjustments to maximize subsurface air flow and extraction flow rates. In-well sparging will continue in well MW-1 to further enhance the removal of hydrocarbons. System influent and effluent vapor samples will be collected on a monthly basis. Cambria will evaluate the performance of the remediation system and include the results with the *Groundwater Monitoring and System Progress Report - Second Quarter 2004.*

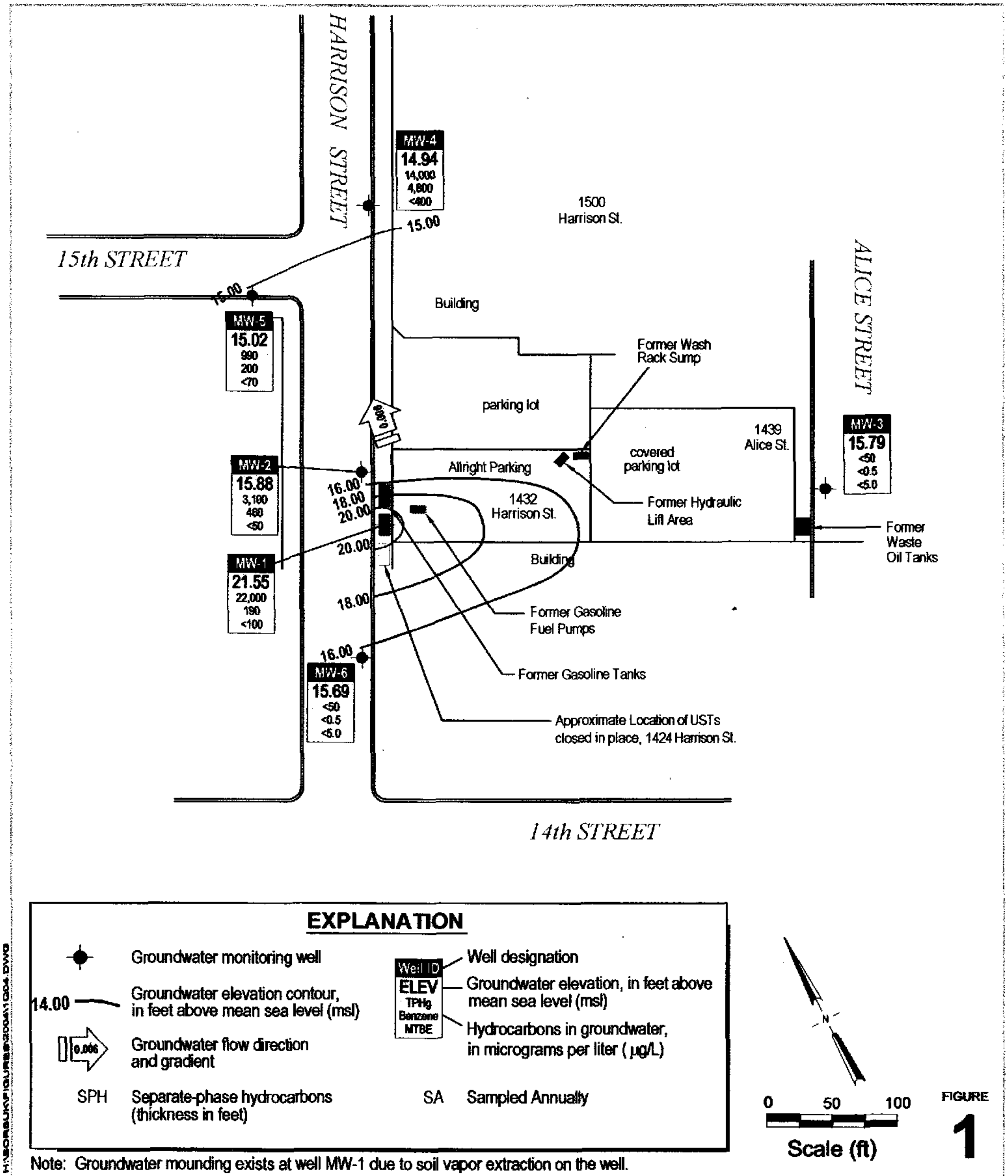
APPENDICES

Figure 1 - Groundwater Elevation and Hydrocarbon Concentration Map
Figure 2 - Soil Vapor Extraction/Air Sparging System Site Plan

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 Groundwater Sampling
Appendix C - Analytical Results for SVE System Operation
Appendix D – Geotracker Electronic Delivery Confirmations

H:\BORSUK - OAKLAND\QM\2004\BORSUK QMR 1Q04.DOC



Allright Parking

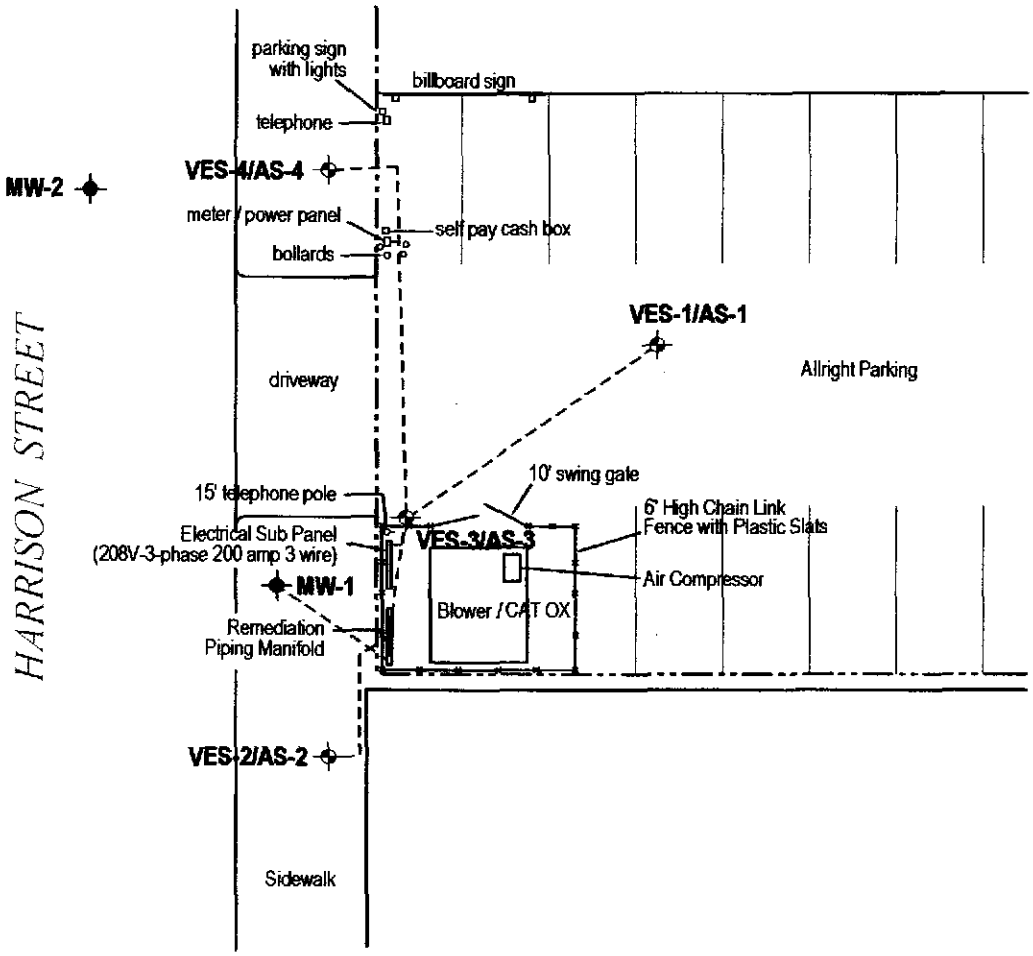
1432 Harrison Street

Oakland, California

CAMBRIA

Groundwater Elevation and Hydrocarbon Concentration Map

March 10, 2004



EXPLANATION

VES-1/AS-1 — Vapor Extraction / Air Sparging Coaxial Well Location

MW-1 — Monitoring Well Location

---------- Underground Remediation Piping

Note: Monitoring well MW-1 is being utilized for vapor extraction

N

0 10 20

Scale (ft)

FIGURE

2

Allright Parking

1432 Harrison Street

Oakland, California

CAMBRIA

Soil Vapor Extraction/ Air Sparge System Site Plan

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID *TOC (feet)*	Date	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation (feet)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-1	8/1/94	--	--	--	170,000	35,000	51,000	2,400	13,000	--	--
34.95	12/21/94	19.53	--	15.42	180,000	41,000	64,000	3,100	100,000	--	--
	3/13/95	18.66	--	16.29	150,000	31,000	45,000	2,500	17,000	--	--
	6/27/95	18.20	--	16.75	71,000	17,000	18,000	1,600	7,700	--	--
	7/7/95	18.35	--	16.60	71,000	17,000	18,000	1,600	7,700	--	--
	9/28/95	18.20	--	16.75	110,000	27,000	34,000	1,700	14,000	--	--
	12/20/95	19.96	--	14.99	120,000	33,000	43,000	2,300	15,000	--	--
	3/26/96	19.27	--	15.68	140,000	29,000	36,000	1,900	13,000	<200*	d
	6/20/96	18.64	--	16.31	110,000	30,000	38,000	2,200	13,000	<200*	--
	9/26/96	19.35	--	15.60	170,000	28,000	40,000	2,200	15,000	ND**	--
	10/28/96	19.58	--	15.37	--	--	--	--	--	--	--
	12/12/96	19.68	--	15.27	110,000	36,000	47,000	2,500	16,000	ND*	--
	3/31/97	18.80	--	16.15	160,000	24,000	39,000	1,900	13,000	ND*	--
	6/27/97	19.26	--	15.69	130,000	25,000	36,000	2,000	14,000	ND*	--
	9/9/97	19.70	--	15.25	99,000	22,000	27,000	1,600	13,000	270*	--
	12/18/97	19.25	--	15.70	160,000	30,000	44,000	2,200	15,000	ND***	--
	3/12/98	17.52	--	17.43	190,000	20,000	49,000	2,500	18,000	ND***	--
	6/22/98	18.63	--	16.32	90,000	19,000	40,000	2,100	16,000	--	--
	9/18/98	18.60	--	16.35	190,000	29,000	48,000	2,400	17,000	--	--
	12/23/98	19.18	--	15.77	140,000	24,000	44,000	2,000	8,200	--	--
	3/29/99	18.52	--	16.43	181,000	22,200	40,100	1,844	12,200	--	--
	6/23/99	18.60	--	16.35	80,000	20,000	33,000	1,600	11,000	--	--
	9/24/99	19.05	--	15.90	117,000	15,100	20,700	1,550	11,800	--	--
	12/23/99	19.95	--	15.00	186,000	25,900	39,000	1,990	12,400	--	--
	3/21/00	18.48	--	16.47	210,000	35,000	42,000	2,200	13,000	<3,000	a
	7/3/00	18.95	--	16.00	200,000	33,000	46,000	2,200	15,000	<200*	a
	9/7/00	19.45	Sheen	15.50	--	--	--	--	--	--	--
	12/5/00	19.90	--	15.05	220,000	42,000	57,000	2,700	17,000	<200	a
	3/6/01	18.20	--	16.75	180,000	27,000	39,000	2,000	13,000	<1200 (<20)	a,l
	6/8/01	20.14	--	14.81	170,000	28,000	40,000	1,900	13,000	<200	a
	8/27/01	21.19	--	13.76	130,000	24,000	33,000	1,600	11,000	<350	a
	10/25/01	21.74	--	13.21	160,000	22,000	28,000	1,500	10,000	<350	a
	3/1/02	21.39	0.41	13.85	--	--	--	--	--	--	--
	6/10/02	22.30	--	12.65	210,000	30,000	51,000	3,100	22,000	<1,000*	a
34.96	9/3/02	21.40	--	13.56	2,500,000	31,000	170,000	29,000	170,000	2,500,000	a
	12/22/02	20.50	--	14.46	89,000	2,600	9,300	530	28,000	<1,700	a,m
	1/23/03	18.57	--	16.39	130,000	600	1,600	<100	41,000	<50***	a,b,l
	6/12/03	19.10	0.07	15.91	--	--	--	--	--	--	--
	7/23/03	19.42	0.07	15.59	--	--	--	--	--	--	--
*35.37**	12/22/03	17.09	0.01	18.29	--	--	--	--	--	--	--
	3/10/04	**13.82**	**--**	**21.55**	**22,000**	**190**	**250**	**<10**	**5,100**	**<100**	**a,c**

Table 1. Groundwater Elevations and Analytical Data - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID	Date	Depth to Groundwater	SPH Thickness	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (feet)		(feet)	(feet)	(feet)	←		(µg/L)			→	
MW-2	8/1/94	--	--	--	130,000	28,000	35,000	3,000	12,000	--	--
35.18	12/21/94	19.91	--	15.27	200	140,000	200,000	3,500	22,000	--	--
	3/13/95	19.15	--	16.03	500	9,200	23,000	7,000	36,000	--	--
	6/27/95	18.74	--	16.44	120,000	23,000	30,000	2,700	13,000	--	--
	7/7/95	18.80	--	16.38	120,000	23,000	30,000	2,700	13,000	--	--
	9/28/95	19.30	--	15.88	110,000	23,000	29,000	2,500	11,000	--	--
	12/20/95	20.24	--	14.94	83,000	980	1,800	2,200	10,000	--	--
	3/26/96	19.69	--	15.49	150,000	23,000	32,000	2,800	12,000	<200*	d
	6/20/96	19.20	--	15.98	94,000	15,000	23,000	2,400	12,000	<200*	--
	9/26/96	19.80	--	15.38	150,000	20,000	29,000	2,800	12,000	ND**	--
	10/28/96	20.18	--	15.00	--	--	--	--	--	--	--
	12/12/96	20.17	--	15.01	58,000	3,100	11,000	1,700	8,100	220*	--
	3/31/97	19.67	--	15.51	38,000	6,000	7,900	690	3,300	ND*	--
	6/27/97	19.68	--	15.50	62,000	13,000	16,000	1,300	6,000	ND*	--
	9/9/97	20.20	--	14.98	81,000	16,000	18,000	1,800	8,600	ND***	--
	12/18/97	19.80	--	15.38	110,000	18,000	26,000	2,200	9,500	ND***	--
	3/12/98	18.07	--	17.11	120,000	16,000	26,000	2,200	9,400	ND***	--
	6/22/98	18.29	--	16.89	38,000	9,800	9,500	1,500	6,000	--	--
	9/18/98	19.09	--	16.09	68,000	12,000	16,000	1,400	5,900	--	--
	12/23/98	19.67	--	15.51	180,000	16,000	22,000	2,200	8,300	--	--
	3/29/99	18.97	--	16.21	16,600	1,380	1,920	373	1,840	--	--
	6/23/99	18.25	--	16.93	41,000	10,000	9,400	1,100	5,000	--	--
	9/24/99	19.60	--	15.58	40,600	4,880	3,490	1,090	4,560	--	--
	12/23/99	20.21	--	14.97	61,900	6,710	9,320	1,150	5,360	--	--
	3/21/00	18.93	--	16.25	98,000	14,000	21,000	1,600	6,900	<1600	a
	7/3/00	19.38	--	15.80	140,000	18,000	33,000	2,600	11,000	<200*	a
	9/7/00	19.83	--	15.35	110,000	17,000	21,000	2,200	9,700	<100***	a,l
	12/5/00	20.30	--	14.88	130,000	19,000	28,000	2,500	11,000	<200	a
	3/6/01	19.57	--	15.61	32,000	3,400	3,400	580	2,500	<200	a
	6/8/01	20.59	--	14.59	72,000	9,400	9,200	1,300	5,800	<200	a
	8/27/01	21.79	--	13.39	110,000	17,000	28,000	2,600	11,000	<950	a
	10/25/01	22.05	--	13.13	110,000	15,000	18,000	2,000	8,700	<350	a
	3/1/02	21.80	--	13.38	3,100	370	180	62	330	<5.0*	a
	6/10/02	22.83	--	12.35	7,800	2,000	1,100	76	570	<100*	a
35.21	9/3/02	22.03	--	13.18	21,000	2,400	2,900	320	1,400	<500	a
	12/22/02	22.70	--	12.51	630	48	56	19	82	<5.0	a
	1/23/03	20.49	--	14.72	1,100	27	32	19	150	<25	a
	6/12/03	21.03	--	14.18	10,000	2,100	1,600	150	660	<250	a
	7/23/03	21.40	--	13.81	28,000	4,800	4,800	380	1,700	<500	a
	12/22/03	19.33	--	15.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/10/04	**19.33**	--	**15.88**	**3,100**	**460**	**290**	**38**	**240**	**<50**	**a**

Table 1. Groundwater Elevations and Analytical Data - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID *TOC (feet)*	Date	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation (feet)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					←		(µg/L)			→	
MW-3	8/1/94	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
33.97	12/21/94	18.82	--	15.15	<50	<0.5	<0.5	<0.5	<0.5	--	e
(annual sampling)	3/13/95	17.86	--	16.11	<50	<0.5	<0.5	<0.5	<0.5	--	f,g
	7/7/95	18.25	--	15.72	--	--	--	--	--	--	h
	9/28/95	18.00	--	15.97	--	--	--	--	--	--	--
	12/20/95	18.74	--	15.23	--	--	--	--	--	--	--
	3/26/96	18.25	--	15.72	--	--	--	--	--	--	--
	6/20/96	18.35	--	15.62	--	--	--	--	--	--	--
	9/26/96	19.12	--	14.85	--	--	--	--	--	--	--
	10/28/96	19.11	--	14.86	--	--	--	--	--	--	--
	12/12/96	18.61	--	15.36	--	--	--	--	--	--	--
	3/31/97	18.35	--	15.62	--	--	--	--	--	--	--
	6/27/97	18.81	--	15.16	--	--	--	--	--	--	--
	9/9/97	19.18	--	14.79	--	--	--	--	--	--	--
	12/18/97	18.64	--	15.33	--	--	--	--	--	--	--
	3/12/98	17.56	--	16.41	--	--	--	--	--	--	--
	6/22/98	18.64	--	15.33	--	--	--	--	--	--	--
	9/18/98	18.33	--	15.64	--	--	--	--	--	--	--
	12/23/98	18.60	--	15.37	--	--	--	--	--	--	--
	3/29/99	17.85	--	16.12	--	--	--	--	--	--	--
	6/23/99	18.67	--	15.30	--	--	--	--	--	--	--
	9/24/99	18.64	--	15.33	--	--	--	--	--	--	--
	12/23/99	19.32	--	14.65	--	--	--	--	--	--	--
	3/21/00	17.89	--	16.08	--	--	--	--	--	--	--
	7/3/00	18.40	--	15.57	--	--	--	--	--	--	--
	9/7/00	18.75	--	15.22	--	--	--	--	--	--	--
	12/5/00	19.03	--	14.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	18.12	--	15.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	20.02	--	13.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	8/27/01	21.09	--	12.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/01	21.29	--	12.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/02	21.14	--	12.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/02	21.99	--	11.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
34.01	9/3/02	21.17	--	12.84	--	--	--	--	--	--	--
	12/22/02	21.94	--	12.07	--	--	--	--	--	--	--
	1/23/03	20.08	--	13.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/12/03	20.95	--	13.06	--	--	--	--	--	--	--
	7/23/03	21.28	--	12.73	--	--	--	--	--	--	--
	12/22/03	19.05	--	14.96	--	--	--	--	--	--	--
	3/10/04	**18.22**	--	**15.79**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	--

Table 1. Groundwater Elevations and Analytical Data - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID *TOC (feet)*	Date	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation (feet)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-4	10/28/96	19.32	--	14.43	10,000	3,900	420	400	360	<200*	n
33.75	12/12/96	19.42	--	14.33	11,000	4,200	410	420	260	32*	--
	3/31/97	18.67	--	15.08	ND	ND	ND	ND	ND	ND*	--
	6/27/97	19.08	--	14.67	160	49	1.2	ND	5.9	ND*	--
	9/9/97	19.33	--	14.42	7,400	5,000	410	230	470	33*	--
	12/18/97	19.17	--	14.58	710	170	8.0	ND	39	ND***	--
	3/12/98	17.68	--	16.07	1,300	410	21	ND	57	ND***	--
	6/22/98	17.63	--	16.12	ND	ND	ND	ND	ND	--	--
	9/18/98	18.58	--	15.17	ND	42	1.6	ND	4.8	--	--
	12/23/98	19.01	--	14.74	1,900	1,000	76	50	120	--	--
	3/29/99	18.35	--	15.40	ND	ND	ND	ND	ND	--	--
	6/23/99	17.58	--	16.17	ND	ND	ND	ND	ND	--	--
	9/24/99	19.05	--	14.70	9,150	3,270	131	34	537	--	--
	12/23/99	19.41	--	14.34	12,200	5,360	275	424	592	--	--
	3/21/00	18.42	--	15.33	45,000	16,000	1,100	1,400	1,900	1400* (<35)***	a,l
	7/3/00	18.82	--	14.93	33,000	10,000	720	840	1,800	<200*	a
	9/7/00	19.21	--	14.54	26,000	8,800	800	740	1,500	<50***	a,c,l
	12/5/00	19.60	--	14.15	41,000	11,000	840	930	1,900	<200	a
	3/6/01	18.24	--	15.51	1,100	400	5.7	<0.5	20	<5.0	a
	6/8/01	20.91	--	12.84	92	19	<0.5	<0.5	1	<5.0	a
	8/27/01	21.63	--	12.12	49,000	17,000	1700	1,700	3,200	<260	a
	10/25/01	21.70	--	12.05	57,000	16,000	1,500	1,600	2,600	<300	a
	3/1/02	21.53	--	12.22	400	140	2.3	<0.5	12	<5.0*	a
	6/10/02	22.23	--	11.52	<50	2.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/02	21.85	--	11.90	31,000	9,700	300	650	1,100	<1,000	a
	12/22/02	22.39	--	11.36	35,000	13,000	310	1,100	1,800	<1,500	a
	1/23/03	20.61	--	13.14	51,000	18,000	430	1,500	2,200	<5.0***	a,l
	6/12/03	21.20	--	12.55	80	12	<0.5	<0.5	1.0	<10	a
	7/23/03	21.51	--	12.24	20,000	7,600	100	65	660	<250	a
	12/22/03	19.60	--	14.15	26,000	9,500	200	380	1,100	<150	a
	3/10/04	**18.81**	**--**	**14.94**	**14,000**	**4,800**	**150**	**320**	**530**	**<400**	a

Table 1. Groundwater Elevations and Analytical Data - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID	Date	Depth to Groundwater	SPH Thickness	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (feet)		(feet)	(feet)	(feet)	←		(µg/L)			→	
MW-5	10/28/96	19.88	--	14.75	90	4.0	0.6	<0.50	<0.50	16*	n
34.63	12/12/96	20.09	--	14.54	230	5.6	0.9	ND	0.9	3.6*	--
	3/31/97	19.24	--	15.39	90	3.1	ND	ND	ND	ND*	--
	6/27/97	19.16	--	15.47	ND	ND	ND	ND	ND	ND*	--
	9/9/97	19.93	--	14.70	ND	ND	ND	ND	ND	ND*	--
	12/18/97	19.77	--	14.86	ND	ND	ND	ND	ND	ND***	--
	3/12/98	19.77	--	14.86	79	2.3	ND	0.8	ND	ND*	--
	6/22/98	18.08	--	16.55	ND	ND	ND	ND	ND	--	--
	9/18/98	19.12	--	15.51	ND	ND	ND	ND	ND	--	--
	12/23/98	19.60	--	15.03	ND	0.8	0.9	ND	ND	--	--
	3/29/99	18.88	--	15.75	ND	ND	ND	ND	ND	--	--
	6/23/99	18.05	--	16.58	ND	ND	ND	ND	ND	--	--
	9/24/99	19.61	--	15.02	ND	ND	ND	ND	ND	--	--
	12/23/99	20.01	--	14.62	ND	ND	ND	ND	ND	--	--
	3/21/00	19.05	--	15.58	140	<0.5	<0.5	<0.5	<0.5	<5.0	k
	7/3/00	19.40	--	15.23	85	8.1	3.1	1.6	7.8	<5.0*	a
	9/7/00	19.62	--	15.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	12/5/00	20.25	--	14.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	19.07	--	15.56	91	5.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	20.77	--	13.86	290	22.0	0.8	<0.5	<0.5	<5.0	a
	8/27/01	21.33	--	13.30	660	24.0	2.2	1.3	4.0	<25	a
	10/25/01	21.62	--	13.01	55	3.5	<0.5	<0.5	<0.5	<5.0	a
	3/1/02	21.49	--	13.14	200	1.9	0.69	<0.5	<0.5	<5.0*	a
	6/10/02	22.15	--	12.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/02	21.50	--	13.13	60	1.9	<0.5	<0.5	0.77	<5.0	a
	12/22/02	22.19	--	12.44	82	0.57	<0.5	0.68	<0.5	<5.0	a
	1/23/03	20.27	--	14.36	<50	2.1	<0.5	<0.5	<0.5	<5.0	--
	6/12/03	21.10	--	13.53	<50	0.88	<0.5	<0.5	<0.5	<5.0	--
	7/23/03	21.47	--	13.16	<50	4.0	<0.5	<0.5	<0.5	<5.0	--
	12/22/03	19.57	--	15.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/10/04	**19.61**	**--**	**15.02**	**990**	**200**	**2.9**	**4.0**	**20**	**<70**	**a**

Table 1. Groundwater Elevations and Analytical Data - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID	Date	Depth to Groundwater	SPH Thickness	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (feet)		(feet)	(feet)	(feet)	←		(µg/L)			→	
MW-6	10/28/96	20.02	--	15.87	<50	<0.50	<0.50	<0.50	<0.50	<2.0*	n
35.89	12/12/96	20.18	--	15.71	ND	ND	ND	ND	ND	ND*	--
(annual sampling)	3/31/97	19.81	--	16.08	--	--	--	--	--	--	--
	6/27/97	19.76	--	16.13	--	--	--	--	--	--	--
	9/9/97	20.06	--	15.83	ND	ND	ND	ND	ND	ND*	--
	12/18/97	19.90	--	15.99	ND	ND	ND	ND	ND	--	--
	3/12/98	18.00	--	17.89	ND	ND	ND	ND	ND	ND*	--
	6/22/98	18.43	--	17.46	ND	ND	ND	ND	ND	--	--
	9/18/98	19.10	--	16.79	ND	ND	ND	ND	ND	--	--
	12/23/98	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	3/29/99	18.92	--	16.97	ND	ND	ND	ND	ND	--	--
	6/23/99	18.41	--	17.48	ND	ND	ND	ND	ND	--	--
	9/24/99	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	12/23/99	20.30	--	15.59	ND	ND	ND	ND	ND	--	--
	3/21/00	18.97	--	16.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/00	19.46	--	16.43	59	5.1	2.3	1.1	5.3	<5.0*	a
	9/7/00	19.95	--	15.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	12/5/00	20.50	--	15.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	19.54	--	16.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	20.92	--	14.97	<50	<0.5	<0.5	<0.5	<0.5	<5.1	--
	8/27/01	21.37	--	14.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/01	21.59	--	14.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/02	21.33	--	14.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/02	21.97	--	13.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/02	21.55	--	14.34	--	--	--	--	--	--	--
	12/22/02	22.25	--	13.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	1/23/03	20.47	--	15.42	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/12/03	21.09	--	14.80	--	--	--	--	--	--	--
	7/23/03	21.42	--	14.47	--	--	--	--	--	--	--
	12/22/03	19.49	--	16.40	--	--	--	--	--	--	--
	3/10/04	**20.20**	**--**	**15.69**	**<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	--

Table 1. Groundwater Elevations and Analytical Data - Borsuk Site, 1432 Harrison Street, Oakland, California

Well ID	Date	Depth to Groundwater	SPH Thickness	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (feet)		(feet)	(feet)	(feet)	←		(µg/L)			→	

Abbreviations

TPHg = Total petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes by EPA method 8020.

-- = Not Sampled/Not Analyzed

<n = Not detected in sample above n µg/L.

ND = Not detected at minimum quantitation limit. See laboratory reports.

µg/L = micrograms per liter

MTBE = Methyl tert-butyl ether

* = MTBE by EPA Method 8020

** = MTBE by EPA Method 8240

*** = MTBE by EPA Method 8260

VOCs = volatile organic compounds

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

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

* = The wellhead elevation was raised by 0.41 feet when well MW-1 was connected to the SVE system on October 31, 2003.

Notes

a = Unmodified or weakly modified gasoline is significant.

b = Lighter than water immiscible sheen is present.

c = Liquid sample that contains greater than ~2 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 hydrocarbons 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 ~2 vol. % sediment.

n = TOC well elevation was increased by 3 ft based on a benchmark discrepancy discovered during a well survey performed on September 11, 2002

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

Date	Hour Meter Readings (hrs)	System Uptime (%)	System Vacuum ('H2O)	Total Well Flow Rate (prior to dilution) (scfm)	Total Well HC Conc. (ppmv) TPHg	System Inlet Temp. (degrees F)	System Flow Rate (after dilution) (cfm)	System Influent HC Conc. [1] (ppmv) TPHg	Effluent HC Conc. [1] (ppmv) TPHg	Effluent HC Conc. [1] (ppmv) Benz	HC Removal Rate [2] (lbs/day) TPHg	Emission Rate [2] (lbs/day) TPHg	Emission Rate [2] (lbs/day) Benz	TPHg Destruction Efficiency [3] (%)	Gasoline Cumulative Removal [4] (lbs)
12/20/01	13.0	--		--	17,000	825	170	920	<10	<0.15	50.18	<0.545	<0.007	--[3]	0
1/7/02	443.8	100%		--	12,000	1017	105	1,400	<10	<0.15	47.16	<0.337	<0.005	--[3]	901
2/4/02	576.2	20%		--	13,000	916	150	1,100	<10	<0.15	52.94	<0.481	<0.007	--[3]	1161
3/5/02	1268.2	99%		--	16,000	1020	135	1,000	<10	<0.15	43.31	<0.433	<0.006	--[3]	2687
4/2/02	1939.9	100%		--	4,800	715	114	390	<10	<0.15	14.26	<0.366	<0.005	--[3]	3899
4/15/02	2253.2	100%	136	18.3	4,200	709	*	*	28	<0.15	24.67	0.16	<0.001	99.3	4086
5/6/02	2655.2	80%	77	10.1	5,100	735	*	*	14	<0.15	16.58	0.05	<0.000	99.7	4499
6/5/02	3373.2	100%	80	15.1	3,800	652	*	*	14	<0.15	18.41	0.07	<0.001	99.6	4995
7/2/02	4024.9	101%	80	16.3	3,000	672	*	*	<15	0.16	15.70	<0.078	<0.001	99.5	5495
8/5/02	4838.8	100%	80	11.6	1,900	667	*	*	<10	<0.15	7.10	<0.037	<0.001	--[3]	6027
9/10/02	5700.9	100%	80	10.5	1,800	609	*	*	<10	<0.15	6.08	<0.034	<0.000	--[3]	6282
10/2/02	6229.7	100%	81	14.0	2,900	801	*	*	<10	<0.15	13.04	<0.045	<0.001	--[3]	6416

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

Date	Hour Meter Readings (hrs)	System Uptime (%)	System Vacuum ("H2O)	Total Well Flow Rate (prior to dilution) (scfm)	Total Well HC Conc. (ppmv) TPHg	System Inlet Temp. (degrees F)	System Flow Rate (after dilution) (cfm)	System Influent HC Conc. [1] (ppmv) TPHg	Effluent HC Conc. [1] (ppmv) TPHg	Effluent HC Conc. [1] (ppmv) Benz	HC Removal Rate [2] (lbs/day) TPHg	Emission Rate [2] (lbs/day) TPHg	Emission Rate [2] (lbs/day) Benz	TPHg Destruction Efficiency [3] (%)	Gasoline Cumulative Removal [4] (lbs)
11/6/02	7073.8	100%	82	12.1	1,900	848	*	*	<10	<0.15	7.40	<0.039	<0.001	--[3]	6875
12/5/02	7771.5	100%	90	8.4	1,400	840	*	*	<10	<0.15	3.78	<0.027	<0.000	--[3]	7090
1/8/03	8580.5	99%	91	9.5	3,100	813	*	*	<10	<0.15	9.42	<0.030	<0.000	--[3]	7217
2/12/03	9424.0	100%	93	7.6	5,200	801	*	*	<10	<0.15	12.61	<0.024	<0.000	--[3]	7548
3/4/03	9902.8	100%	90	5.5	4,100	798	*	*	<10	<0.15	7.27	<0.018	<0.000	--[3]	7800
4/3/03	10623.3	100%	115	9.5	1,600	802	*	*	<10	<0.15	4.86	<0.030	<0.000	--[3]	8018
5/15/03	11629.8	100%	119	6.7	1,300	840	*	*	<10	<0.15	2.80	<0.022	<0.000	--[3]	8222
6/2/03	12061.5	100%	116	4.4	526	805	*	*	<10	<0.15	0.75	<0.014	<0.000	--[3]	8272
7/2/03	12779.5	100%	120	9.0	680	836	*	*	<10	<0.15	1.95	<0.029	<0.000	--[3]	8295
8/7/03	13643.9	100%	117	7.6	370	749	*	*	<10	<0.15	0.90	<0.024	<0.000	--[3]	8365
9/3/03	14288.9	100%	116	9.7	2,000	737	*	*	<10	<0.15	6.19	<0.031	<0.000	--[3]	8389

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

Date	Hour Meter Readings (hrs)	System Uptime (%)	System Vacuum ('H2O)	Total Well Flow Rate (prior to dilution) (scfm)	Total Well HC Conc. (ppmv) TPHg	System Inlet Temp. (degrees F)	System Flow Rate (after dilution) (cfm)	System Influent HC Conc. [1] (ppmv) TPHg	Effluent HC Conc. [1] (ppmv) TPHg	Effluent HC Conc. [1] (ppmv) Benz	HC Removal Rate [2] (lbs/day) TPHg	Emission Rate [2] (lbs/day) TPHg	Emission Rate [2] (lbs/day) Benz	TPHg Destruction Efficiency[3] (%)	Gasoline Cumulative Removal[4] (lbs)
10/7/2003	15109.8	100%	119	4.5	1,100	752	*	*	<10	<0.15	1.57	<0.014	<0.000	--[3]	8601
11/11/2003	15881.9	92%	90	9.0	7,000	765	38	3,700	7.3	0.18	20.11	0.021	0.000	--[3]	8652
12/2/2003	16378.9	99%	96	3.0	2,100	717	*	*	<10	<0.15	2.01	<0.010	<0.000	--[3]	9068
1/7/2004	17180.9	93%	98	3.2	2,900	905	*	*	<10	<0.15	2.97	<0.010	<0.000	--[3]	9135
2/11/2004	18021.0	100%	62	4.2	760	853	*	*	<10	<0.15	1.01	<0.013	<0.000	--[3]	9239
3/24/2004	18861.7	83%	82	5.2	3,100	796	*	*	<10	<0.15	5.16	<0.017	<0.000	--[3]	9275
4/2/2004	19078.6	92%	81	5.2	--	--	*	*	--	--	--	--	--	--	9321

2064:00:00

Notes and Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline

Benz = Benzene

HC = Hydrocarbon vapor concentrations measured as TPHg and/or benzene

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/386x10^6R[1] 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.

* = Flow Rate and Hydrocarbon Concentrations are now measured from the well manifold because there is no longer any dilution air affecting the calculation of the hydrocarbon removal rate.

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)
MW-1	11/11/03	105	1.0	26,000	open
	11/17/03	85	0.7	3,530	open
	12/2/03	94	1.0	5,700	open
	12/10/03	93	1.6	11,000	open
	12/23/03	95	0.8	10,000	open
	1/7/04	98	0.9	5,050	open
	1/23/04	82	0.59	13,100	open
	1/30/04	81	*	--	open
	2/11/04	62	2.6	160	open
	3/3/04	47	1.0	1,200	open
	3/3/04	150	4.8	589	open
	3/10/04	146	3.0	233	open
	3/24/04	74	0.9-2.5	3,950	open
	4/2/04	81	3.2	225	open
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	>10,000	open
	3/5/02	34	6.3	>10,000	open
	4/2/02	83	13.5	10,070	open
	4/15/02	101	28.2	10,070	open
	5/22/02	80	22.5	9,980	open
	5/27/02	81	4.5	27,000	open
	6/5/02	77	22.1	11,110	open
	6/21/02	81	*	7,810	open
	7/2/02	82	25	10,400	open
	7/26/02	81	22.5	5,210	open
	8/5/02	80	5.5	6,020	open
	9/10/02	80	5.2	9,180	open
	10/2/02	80	10.5	11,070	open
	11/6/02	82	9.0	4,850	open
	12/5/02	90	8.5	4,000	open
	1/8/03	92	5.1	2,340	open
	1/24/03	95	4.0	2,350	open
	3/4/03	90	3.6	1,750	open
	3/17/03	93	7.5	1,360	open
	4/3/03	115	4.0	720	open
	4/14/03	116	--	1,180	open
	5/7/03	117	3.5	660	open
	5/15/03	119	6.0	1,950	open
	5/27/03	117	4.1	1,600	open
	6/13/03	118	3.9	1,525	open
	6/23/03	118	--	--	open
	7/2/03	119	25*	1,270	open
	7/11/03	118	3.5*	--	open
	8/7/03	117	*	50	open
	8/15/03	117	1.4*	105	closed
	8/26/03	120	4.0	200	open
	9/3/03	116	2.9*	190	open

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	10/2/2003	116	7.0	70	closed
	10/7/2003	114	21	2	closed
	10/15/2003	118	23*	1,650	open
	10/21/2003	117	21	1,090	open
	11/17/2003	85	0.7	2,050	open
	12/2/2003	94	0.67	1,550	open
	12/10/2003	92	0.63	5,700	open
	12/23/2003	95	0.8	7,000	open
	1/7/2004	98	0.5	3,750	open
	1/23/2004	82	0.57	12,500	open
	1/30/2004	81	0.5	--	open
	2/11/2004	62	0.25	5,520	open
	3/3/2004	47	0.31	1,515	open
	3/3/2004	150	5.9	5,130	open
	3/10/2004	146	0.7	1,867	open
	3/24/2004	74	1.0	4,150	open
	4/2/2004	81	0.9	135	open
VES-2	12/13/2001	--	--	40,000	open
	12/20/2001	25	6.0	42,500	open
	12/27/2001	48	12.1	35,000	open
	1/7/2002	100	21.5	>10,000	open
	2/8/2002	140	25.1	>10,000	open
	3/5/2002	34	7.6	>10,000	open
	4/2/2002	83	13.2	--	open
	4/15/2002	102	24.1	1,347	open
	5/22/2002	81	26.1	1,888	open
	5/27/2002	81	9.5	4,710	open
	6/5/2002	79	20.7	2,090	open
	6/21/2002	82	47	1,820	open
	7/2/2002	81	28.9	5,210	open
	7/26/2002	81	13.1	1,515	open
	8/5/2002	80	10.5	1,925	open
	9/10/2002	80	8.9	1,850	open
	10/2/2002	80	8.5	3,370	open
	11/6/2002	82	9.0	2,180	open
	12/5/2002	90	--	1,870	open
	1/8/2003	92	--	6,210	open
	1/24/2003	95	4.0	9,630	open
	3/4/2003	90	2.5	5,790	open
	3/17/2003	93	--	2,020	open
	4/3/2003	115	--	3,230	open
	4/14/2003	116	--	2,980	open
	5/7/2003	117	9.0	700	open
	5/15/2003	119	8.0	475	open
	5/27/2003	117	5.3	515	open
	6/13/2003	118	4.1	525	open
	6/23/2003	118	--	--	open
	7/2/2003	119	9*	365	open
	7/11/2003	118	5*	--	open
	8/7/2003	117	15.2*	250	open

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-2	8/15/2003	117	8.5*	365	open
	8/26/2003	121	4.2	245	open
	9/3/2003	116	*	1,295	open
	10/2/2003	120	4.0	410	open
	10/7/2003	118	17	1,120	open
	10/15/2003	119	21	1,550	open
	10/21/2003	119	21	1,675	open
	11/17/2003	85	1.9	1,115	open
	12/2/2003	94	2.0*	460	open
	12/10/2003	92	2.0	1,740	open
	12/23/2003	95	1.5	1,510	open
	1/7/2004	98	1.6	600	open
	1/23/2004	82	1.6	90	open
	1/30/2004	81	*	–	open
	2/11/2004	62	2.1*	130	open
	3/3/2004	47	0.87	3,460	open
	3/3/2004	150	6.8	883	open
	3/10/2004	146	*	3,930	open
	3/24/2004	74	1.9	6,800	open
	4/2/2004	81	1.0	3,350	open
VES-3	12/13/2001	--	--	38,000	open
	12/20/2001	25	7.0	41,500	open
	12/27/2001	48	12	61,000	open
	1/7/2002	100	22.5	>10,000	open
	2/8/2002	140	26.5	>10,000	open
	3/5/2002	47	7.5	>10,000	open
	4/2/2002	84	11.1	--	open
	4/15/2002	102	24.8	4,260	open
	5/22/2002	85	16.5	7,090	open
	5/27/2002	81	6.7	7,010	open
	6/5/2002	85	14.7	5,290	open
	6/21/2002	80	25.5	3,450	open
	7/2/2002	82	32.2	4,820	open
	7/26/2002	81	9.3	3,400	open
	8/5/2002	80	4.5	3,380	open
	9/10/2002	80	7.1	3,150	open
	10/2/2002	80	4.0	2,140	open
	11/6/2002	82	5.5	1,215	open
	12/5/2002	90	4.5	1,015	open
	1/8/2003	92	5.5	3,840	open
	1/24/2003	95	3.0	6,040	open
	3/4/2003	90	3.5	3,430	open
	3/17/2003	93	1.3	1,980	open
	4/3/2003	115	3.5	1,900	open
	4/14/2003	116	--	1,950	open
	5/7/2003	117	1.5	1,320	open
	5/15/2003	119	2.6	1,530	open
	5/27/2003	117	1.6	1,250	open
	6/13/2003	118	1.5	1,000	open
	6/23/2003	118	–	–	open

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-3	7/2/03	119	14*	850	open
	7/11/03	118	1.9	--	open
	8/7/03	117	2.5	375	open
	8/15/03	117	2.7	380	open
	8/26/03	123	2.4	5	closed
	9/3/03	116	3.9*	3,430	open
	10/2/03	121	30*	25	closed
	10/7/03	117	19	225	closed
	10/15/03	118	23	30	closed
	10/21/03	118	21	70	closed
	11/17/03	86	2.0	1,425	open
	12/2/03	94	1.3	280	close
	12/10/03	92	2.2	100	open
	12/23/03	95	2.0	50	open
	1/7/04	98	0.6	4,810	open
	1/23/04	82	0.25	3,620	open
	1/30/04	81	0.7	--	open
	2/11/04	62	0.3	1,280	open
	3/3/04	47	0.39	3,320	open
	3/3/04	150	5.6	1,990	open
	3/10/04	146	3.7	285	open
	3/24/04	74	19.7**	40	open
	4/2/04	81	0.5	1,240	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	>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	5,350	open
	5/22/02	80	21.7	570	open
	5/27/02	81	6.3	10,460	open
	6/5/02	80	18	4,490	open
	6/21/02	81	41.5	2,580	open
	7/2/02	81	38	9,690	open
	7/26/02	81	2.3	2,230	open
	8/5/02	80	4.4	6,160	open
	9/10/02	80	5.5	2,410	open
	10/2/02	80	3.5	1,777	open
	11/6/02	82	4.5	920	open
	12/5/02	90	7.0	420	open
	1/8/03	92	4.0	1,805	open
	1/24/03	95	5.0	2,720	open
	3/4/03	90	4.0	1,390	open
	3/17/03	93	1.0	1,300	open
	4/3/03	115	2.3	1,090	open
	4/14/03	116	--	1,050	open
	5/7/03	117	1.8	610	open
	5/15/03	119	2.7	2,100	open

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-4	5/27/2003	117	2.0	1,850	open
	6/13/2003	118	2.0	1,800	open
	6/23/2003	118	--	--	open
	7/2/2003	119	17*	1,550	open
	7/11/2003	118	2.2	--	open
	8/7/2003	117	2.6	1,550	open
	8/15/2003	117	2.8	630	open
	8/26/2003	122	3.7	465	open
	9/3/2003	--	--	25	closed
	10/2/2003	117	7.5	2,550	open
	10/7/2003	116	17	15	close
	10/15/2003	117	30	75	closed
	10/21/2003	117	28	50	closed
	11/17/2003	86	3.0	70	closed
	12/10/2003	92	3.0	2,850	open
	12/23/2003	95	0.5	2,300	open
	1/7/2004	98	1.0	46,000	open
	1/23/2004	82	0.65	12,000	open
	1/30/2004	81	*	--	open
	2/11/2004	62	0.45	4,770	open
	3/3/2004	47	0.93	7,010	open
	3/3/2004	150	2.2	4,270	open
	3/10/2004	146	1.6	65	open
	3/24/2004	74	0.7	3,500	open
	4/2/2004	81	0.9	120	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

* = Unable to get reading due to the presence of water

** = Well seal cracked, allowing ambient air to short-circuit vapor extraction. Well seal replaced.

CAMBRIA

APPENDIX A

Groundwater Monitoring Field Data Sheets

CAMBRIA

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Product Thickness	Amount of Product Removed	Casing Diam.	Comment
MW-1			~~13.82~~				total - 23.42' depth
MW-2	11:45		19.33				
MW-3	11:25		18.22				
MW-4	11:30		18.81				
MW-5	11:35		19.61				
MW-6	11:40		20.20				

Project Name: Beaut

Project Number/Task: 540-0188/057

Measured By: Tyson Fulmer

Date: 3/10/04

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: GH	Well ID: MW-1
Project Number: 540-0188|057	Date: 3|10|04	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 4" ☐ pvc
		Technician(s): SG | TF
Initial Depth to Water: 13.82	Total Well Depth: 23.42	Water Column Height: 9.60
Volume/ft: .65	1 Casing Volume: 6.24	3 Casing Volumes: 18.72
Purging Device: 4" Bailer	Did Well Dewater?: Yes	Total Gallons Purged: 8
Start Purge Time: 3:30	Stop Purge Time: 3:39	Total Time: 9mins

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
3:35	6.24	23.0	7.11	731	3:40 well Dewatered
~~3:40~~	~~12.5~~				total gallons purged
~~3:45~~	~~19~~				

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	3|10|04	3:55	3VOA	HCl	TPHg BTEX MTBE	8015/8020 8260

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: GH	Well ID: MW-2
Project Number: 540-0138/057	Date: 3/10/04	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" ☐ pvc
		Technician(s): SG/TF
Initial Depth to Water: 19.33	Total Well Depth: 25.40	Water Column Height: 6.10
Volume/ft: 0.16	1 Casing Volume: 0.97	3 Casing Volumes: 2.92
Purging Device: Disposable Bailers	Did Well Dewater?: NO	Total Gallons Purged: 3
Start Purge Time: 2:25	Stop Purge Time: 2:39	Total Time: 14mins

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
2:30	1	23.5	6.15	215	
2:35	2	23.8	6.18	227	
2:40	3	23.8	6.05	195	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	3/10/04	2:45	3VOA	HCl	TPHg BTEX MTBE	8015/8020 8260

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: GH	Well ID: MW-3
Project Number: 540-0188/057	Date: 3/10/04	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" ☐ pvc
		Technician(s): SH/TF
Initial Depth to Water: 18.22	Total Well Depth: 23.90	Water Column Height: 5.68
Volume/ft: 0.16	1 Casing Volume: 0.90	3 Casing Volumes: 2.72
Purging Device: Disposable Bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 12:10	Stop Purge Time: 12:39	Total Time: 29mins

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
12:20	1	21.1	6.29	384	
12:30	2	19.9	6.45	398	
12:40	3	20.7	6.50	406	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	3/10/04	12:45	3voa	HCl	TPHg BTEX MTBE	8015/8020 8260

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: GH	Well ID: MW-4
Project Number: 540-0138/057	Date: 3/10/04	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" 0 pvc
		Technician(s): SG / TF
Initial Depth to Water: 18.81	Total Well Depth: 24.50	Water Column Height: 5.69
Volume/ft: 0.16	1 Casing Volume: 0.91	3 Casing Volumes: 2.73
Purging Device: Disposable Bailer	Did Well Dewater?: NO	Total Gallons Purged: 3
Start Purge Time: 12:50	Stop Purge Time: 1:19	Total Time: 29mins

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
1:00	1	22.3	6.17	508	
1:10	2	22.4	6.24	522	
1:20	3	22.7	6.28	543	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	3/10/04	1:25	3 VOA	HCl	TPHg BTEX MTBE	8015/8020 8260

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: GH	Well ID: MW-5
Project Number: 540-0138/057	Date: 3/10/04	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" ☐ pvc
		Technician(s): SG / TF
Initial Depth to Water: 19.61	Total Well Depth: 28.34	Water Column Height: 8.73
Volume/ft: FB 0.16	1 Casing Volume: 1.39	3 Casing Volumes: 4.19
Purging Device: Disposable Bailer	Did Well Dewater?: NO	Total Gallons Purged: 4
Start Purge Time: 1:35	Stop Purge Time: 1:49	Total Time: 19 mins

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
1:40	1.5	21.7	6.39	725	
1:45	3	20.8	6.46	689	
1:50	4	20.1	6.49	688	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	3/10/04	1:55	3 VOA	HCl	TPHg BTEX MTBE	8015/8020 8260

CAMBRIA

6

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: GH	Well ID: MW-6
Project Number: 540-0188/057	Date: 3/10/04	Well Yield:
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method: disposable bailer	Well Diameter: 2" ☐ pvc Technician(s): SG / TF
Initial Depth to Water: 20.20	Total Well Depth: 28.00	Water Column Height: 7.80
Volume/ft: 0.16	1 Casing Volume: 1.24	3 Casing Volumes: 3.74
Purging Device: Disposable Bailers	Did Well Dewater?: no	Total Gallons Purged: 3.5
Start Purge Time: 2:00	Stop Purge Time: 2:14	Total Time: 14 mins

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
2:05	1.5	22.2	6.49	315	
2:10	2.5	21.5	6.52	312	
2:15	3.5	21.7	6.54	299	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	3/10/04	2:20	3 VOA	HCl	TPHg BTEX MTBE	8015/8020 8260

CAMBRIA

APPENDIX B

Analytical Results for Groundwater Sampling

McCampbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #540-0188/057; Borsuk-Oakland	Date Sampled: 03/10/04
		Date Received: 03/11/04
	Client Contact: Gretchen Hellmann	Date Reported: 03/18/04
	Client P.O.:	Date Completed: 03/18/04

WorkOrder: 0403192

March 18, 2004

Dear Gretchen:

Enclosed are:

1). the results of 6 analyzed samples from your **#540-0188/057; Borsuk-Oakland 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,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

Cambria Env. Technology	Client Project ID: #540-0188/057; Borsuk-Oakland	Date Sampled: 03/10/04
5900 Hollis St, Suite A		Date Received: 03/11/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 03/15/04-03/17/04
	Client P.O.:	Date Analyzed: 03/15/04-03/17/04

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0403192

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	22,000,a,i	ND<100	190	250	ND<10	5100	20	85.4
002A	MW-2	W	3100,a	ND<50	460	290	38	240	10	103
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	86.4
004A	MW-4	W	14,000,a	ND<400	4800	150	320	530	50	95.2
005A	MW-5	W	990,a	ND<70	200	2.9	4.0	20	3.3	104
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	87.0

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0403192

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10722 Spiked Sample ID: 0403199-001A

	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(btex)£	ND	60	98.3	102	3.72	103	101	1.95	70	130
MTBE	ND	10	101	97	3.66	104	97.3	6.32	70	130
Benzene	ND	10	112	109	2.67	109	107	2.22	70	130
Toluene	ND	10	105	102	2.38	103	102	1.74	70	130
Ethylbenzene	ND	10	108	109	0.415	110	107	2.09	70	130
Xylenes	ND	30	96	100	4.08	100	96.3	3.74	70	130
%SS:	100	10	110	106	3.92	103	102	0.256	70	130

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.

% 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 the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0403192

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #540-0188/057; Borsuk-Oakland
PO:

Bill to:
Accounts Payable
Cambria Env. Technology
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days
Date Received: 3/11/04
Date Printed: 3/11/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0403192-001	MW-1	Water	3/10/04 3:55:00 PM	☐	A	A													
0403192-002	MW-2	Water	3/10/04 2:45:00 PM	☐	A														
0403192-003	MW-3	Water	3/10/04 12:45:00	☐	A														
0403192-004	MW-4	Water	3/10/04 1:25:00 PM	☐	A														
0403192-005	MW-5	Water	3/10/04 1:55:00 PM	☐	A														
0403192-006	MW-6	Water	3/10/04 2:20:00 PM	☐	A														

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments:

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.

0403192

CHAIN OF CUSTODY RECORD

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

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

EDF Required? ☒ Yes ☐ No

Report To: Gretchen Hellmann Bill To: Cambria Env

Company: Cambria Environmental Technology Inc.

6262 Hollis Street

Emeryville, CA 94608 E-mail:

Tele: 510 420-0700 ext 105 Fax: 510-450-8295

Project #: 540-0189/057 Project Name: Barsuk - Oakland

Project Location: 1432 Harrison St, Oakland CA

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other
MW-1		3/10	3:55	3	VOA	X					X	X		
MW-2		3/10	2:45	3	VOA	X					X	X		
MW-3		3/10	12:45	3	VOA	X					X	X		
MW-4		3/10	1:25	3	VOA	X					X	X		
MW-5		3/10	1:55	3	VOA	X					X	X		
MW-6		3/10	2:20	3	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
X														
X														
X														
X														
X														
X														

Other

Comments: Confirm all MTBE hits by 8260

Relinquished By:	Date:	Time:	Received By:
	3/10-04	5:00	secure location
Relinquished By:	Date:	Time:	Received By:
			3/11 11:15
Relinquished By:	Date:	Time:	Received By:
	3/11	4:50	

Remarks:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

PRESERVATION: VOAS ✓ | O&G | METALS | OTHER

CAMBRIA

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 Env. Technology	Client Project ID: #540-0188-61; BORSUK	Date Sampled: 01/07/04
5900 Hollis St, Suite A		Date Received: 01/08/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 01/13/04
	Client P.O.:	Date Completed: 01/13/04

WorkOrder: 0401068

January 13, 2004

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#540-0188-61; 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,

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 Env. Technology	Client Project ID: #540-0188-61; BORSUK	Date Sampled: 01/07/04
5900 Hollis St, Suite A		Date Received: 01/08/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 01/08/04
	Client P.O.:	Date Analyzed: 01/08/04

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0401068

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	2900,a	ND<45	20	19	ND<5.0	46	20	113
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	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 for DF =1; ND means not detected at or above the reporting limit	A	10	1.5	0.15	0.15	0.15	0.15	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0401068

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9933 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	93.3	94.9	1.66	70	130
MTBE	N/A	10	N/A	N/A	N/A	98.7	101	1.93	70	130
Benzene	N/A	10	N/A	N/A	N/A	108	109	0.775	70	130
Toluene	N/A	10	N/A	N/A	N/A	112	110	1.21	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	111	111	0	70	130
Xylenes	N/A	30	N/A	N/A	N/A	110	110	0	70	130
%SS:	N/A	100	N/A	N/A	N/A	111	110	0.776	70	130

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.

% 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 the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0401068

Report to:
Ron Scheele
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #540-0188-61; BORSUK
PO:

Bill to:
Accounts Payable
Cambria Env. Technology
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days
Date Received: 1/8/04
Date Printed: 1/8/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0401068-001	INF	Air	1/7/04 3:30:00 PM	☐	A														
0401068-002	EFF	Air	1/7/04 3:30:00 PM	☐	A														

Test Legend:

1	G-MBTEX_PPMV	2		3		4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments:

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.

0401068

CHAIN OF CUSTODY RECORD

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

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

EDF Required? ☐ Yes ☒ No

Report To:	Gretchen Hellmann	Bill To:	SAME
Company:	Cambria Environmental Technology, Inc.		
	5900 Hollis Street Suite A		
	Emeryville, CA 94608	E-mail:	ghellmann@cambria-env.com
Tele:	510 420-3305	Fax:	510 420-9170
Project #:	540-0188-61	Project Name:	BORSUK
Project Location:	1432 Harrison Street, Oakland, California		
Sampler Signature:			

SAMPLE ID (Field Point Name)	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	System	1/7/04	3:30p	1	Tb			X							X																
EFF	System	1/7/04	3:30p	1	Tb			X							X																

Relinquished By:	Date:	Time:	Received By:
	1/7/04	5pm	Secured Location
	1/8	9:15	ULTREX #280
ULTREX #280	1/8	14:00	

Remarks: Report in ppm(v); Reporting Limit is 10 ppm(v).

Use 20 mL injection volume.

Please email results.

PRESERVATION	VOAs	O&G	METALS	OTHER
ICE/t°				
GOOD CONDITION	✓			
HEAD SPACE ABSENT				
DECHLORINATED IN LAB				
APPROPRIATE CONTAINERS	✓			
PRESERVED IN LAB				

McCampbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #540-0188-61; BORSUK	Date Sampled: 02/11/04
		Date Received: 02/12/04
	Client Contact: Gretchen Hellmann	Date Reported: 02/18/04
	Client P.O.:	Date Completed: 02/18/04

WorkOrder: 0402172

February 18, 2004

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#540-0188-61; 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,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

Cambria Env. Technology	Client Project ID: #540-0188-61; BORSUK	Date Sampled: 02/11/04
5900 Hollis St, Suite A		Date Received: 02/12/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 02/13/04
	Client P.O.:	Date Analyzed: 02/13/04

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0402172

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	760,a	ND<6.0	2.8	1.7	ND<0.50	3.5	2	98.9
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	97.2

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 for DF =1; ND means not detected at or above the reporting limit	A	10	1.5	0.15	0.15	0.15	0.15	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0402172

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10344 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	102	103	1.49	70	130
MTBE	N/A	10	N/A	N/A	N/A	95.7	98.1	2.47	70	130
Benzene	N/A	10	N/A	N/A	N/A	102	106	3.67	70	130
Toluene	N/A	10	N/A	N/A	N/A	98.5	101	2.23	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	105	107	2.05	70	130
Xylenes	N/A	30	N/A	N/A	N/A	96.3	100	3.74	70	130
%SS:	N/A	10	N/A	N/A	N/A	98	103	4.84	70	130

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.

% 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 the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

CETE 040217

CHAIN OF CUSTODY RECORD

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

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

EDF Required? ☐ Yes ☒ No

Report To:	Gretchen Hellmann	Bill To:	SAME
Company:	Cambria Environmental Technology, Inc.		
	5900 Hollis Street Suite A		
	Emeryville, CA 94608	E-mail:	ghellmann@cambria-env.com
Tele:	510 420-3305	Fax:	510 420-9170
Project #:	540-0188-61	Project Name:	BORSUK
Project Location:	1432 Harrison Street, Oakland, California		
Sampler Signature:			

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Other	Other	Other	Comments
INF	System	2/11/04	4pm	1	Tb			X							X																			AIR SAMPLES
EFF	System	2/11/04	4pm	1	Tb			X							X																			

ICE/T°
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB
PRESERVATION: VOAS | O&G | METALS | OTHER

Relinquished By:	Date: 2/11/04	Time: 6pm	Received By: Courier location
Relinquished By:	Date:	Time:	Received By: 2/12 1:30
Relinquished By:	Date: 2/12	Time: 4:45	Received By:

Remarks: Report in ppm(v); Reporting Limit is 10 ppm(v).

Use 20 mL injection volume.

Please email results.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0402172

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #540-0188-61; BORSUK
PO:

Bill to:
Accounts Payable
Cambria Env. Technology
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days
Date Received: 2/12/2004
Date Printed: 2/12/2004

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0402172-001	INF	Air	02/11/2004	☐	A														
0402172-002	EFF	Air	02/11/2004	☐	A														

Test Legend:

1 G-MBTEX_PPMV	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Prepared by: Elisa Venegas

Comments: REPORT IN PPMV; REPORTING LIMIT IS 10PPMV; PLEASE EMAIL RESULTS

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.

McCampbell Analytical, Inc.

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

Cambria Env. Technology	Client Project ID: #540-0188-01; BORSUK	Date Sampled: 03/24/04
5900 Hollis St, Suite A		Date Received: 03/25/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 03/26/04
	Client P.O.:	Date Analyzed: 03/26/04

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0403415

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	3100,a	ND<50	20	20	ND<10	27	40	70.3
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	105

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 for DF =1; ND means not detected at or above the reporting limit	A	10	1.5	0.15	0.15	0.15	0.15	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

ett

0403415

CHAIN OF CUSTODY RECORD

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

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

EDF Required? ☐ Yes ☒ No

Report To: Gretchen Hellmann	Bill To: SAME
Company: Cambria Environmental Technology, Inc.	
5900 Hollis Street Suite A	
Emeryville, CA 94608	E-mail: ghellmann@cambria-env.com
Tele: 510 420-3305	Fax: 510 420-9170
Project #: 540-0188-61	Project Name: BORSUK
Project Location: 1432 Harrison Street, Oakland, California	
Sampler Signature:	

SAMPLE ID (Field Point Name)	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	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	System	3/24/04	2:30	1	Tb			X							X																
EFF	System	3/24/04	2:30	1	Tb			X							X																

SEAL
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB
PRESERVATION: VOAS | O&G | METALS | OTHER

Relinquished By:	Date:	Time:	Received By:
	3/24/04	3:30	Location
Relinquished By:	Date:	Time:	Received By:
			3/25 12:10
Relinquished By:	Date: 3/25	Time: 5:10	Received By:

Remarks: Report in ppm(v); Reporting Limit is 10 ppm(v).

Use 20 mL injection volume.

Please email results.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0403415 **ClientID: CETE**

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #540-0188-01; BORSUK
PO:

Bill to
Accounts Payable
Cambria Env. Technology
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: /25/2004
Date Printed: /30/2004

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0403415-001	INF	Air	03/24/2004	☐	A														
0403415-002	EFF	Air	03/24/2004	☐	A														

Test Legend:

1	G-MBTEX_PPMV	2		3		4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments:

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.

CAMBRIA

APPENDIX D

GeoTracker Electronic Delivery Confirmations

AB2886 Electronic Delivery

Your EDF file has been succcessfully uploaded!

Confirmation Number: 6192644000
Date/Time of Submittal: 4/30/2004 12:18:32 PM
Facility Global ID: T0600100682
Facility Name: A BACHARACH TR & B BORSUK
Submittal Title: 1st Qtr 2004, GW Analyical Data
Submittal Type: GW Monitoring Report

Logged in as CAMBRIA-EM (AUTH_RP) CONTACT SITE ADMINISTRATOR.

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_WELL FILE

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

Submittal Title:	**1st Qtr 2004, GW Depth Data for 1432 Harrison St, Oakland**
Submittal Date/Time:	**4/30/2004 12:21:41 PM**
Confirmation Number:	**8411854386**

Back to Main Menu

Logged in as CAMBRIA-EM (AUTH_RP) CONTACT SITE ADMINISTRATOR.