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CAMBRIA

July 21, 2004

Mr. Barney M. Chan
Alameda County Environmental Health Services
UST Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Second Quarter 2004 Monitoring Report**
Former ARCO Service Station
706 Harrison Street
Oakland, California
STID 3749
Cambria Project #230-0116

Dear Mr. Chan:

On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. is submitting this *Second Quarter 2004 Monitoring Report* for the subject site. The report describes the second quarter 2004 activities and results as well as the anticipated third quarter 2004 activities.

If you have any questions or comments regarding this report, please call me at (510) 420-3314.

Sincerely,
Cambria Environmental Technology, Inc.

Matthew A. Meyers
Senior Staff Geologist

Attachments: Second Quarter 2004 Monitoring Report

cc: Mr. Bo K. Gin, 342 Lester Avenue, Oakland, California 94606

Cambria Environmental Technology, Inc.

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

CAMBRIA

SECOND QUARTER 2004 MONITORING REPORT

Former ARCO Service Station
706 Harrison Street
Oakland, California
STID 3749
Cambria Project #230-0116

July 21, 2004

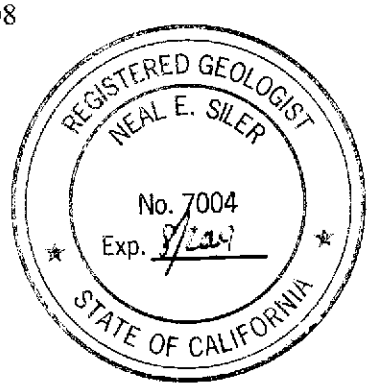
Prepared for:

Mr. Bo K. Gin
342 Lester Avenue
Oakland, California 94606

Prepared by:

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

Written by:



Matthew A. Meyers
Senior Staff Geologist

Neal E. Siler, R.G., R.E.A.
Senior Project Geologist

CAMBRIA

SECOND QUARTER 2004 MONITORING REPORT

Former ARCO Service Station (Bo Gin)
706 Harrison Street
Oakland, California
STID 3749
Cambria Project #230-0116

July 21, 2004

INTRODUCTION

On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Second Quarter 2004 Monitoring Report* for the subject site. Presented below are the second quarter 2004 groundwater monitoring activities and results and the anticipated third quarter 2004 activities.

In addition, it presents a summary of historical hydrochemical data, including this event. Figure 1 displays the groundwater elevation and hydrochemical data. Table 1 contains groundwater level measurement, calculated groundwater elevation data, and historical hydrochemical data. Appendix A contains the field data sheets for this monitoring event. Appendix B contains the analytical laboratory reports. Appendix C contains benzene and MTBE concentration versus groundwater elevation graphs. Appendix D contains the GeoTracker electronic delivery confirmation documentation. The groundwater monitoring and analytical results for the former Shell station are contained in Appendix E.

SECOND QUARTER 2004 ACTIVITIES

Monitoring Activities

Field Activities: On April 7, 2004, Cambria conducted quarterly monitoring and sampling activities. Cambria gauged water levels in monitoring wells MW-1 through MW-7 and collected groundwater samples from monitoring wells MW-1 and MW-2 (see Figure 1) pursuant to the well sampling schedule. On April 12, 2004, Cambria returned to collect groundwater samples from monitoring well MW-4, which was previously inaccessible. Field activities were performed jointly with Aqua Science Engineers, Inc. (Aqua Science) of Danville, California. Aqua Science has been retained by owners of the adjacent lot (a former Shell service station) to perform monitoring and sampling. The groundwater depth measurements have been submitted to the GeoTracker database (Appendix D).

Prior to sampling, groundwater levels were gauged in the wells within approximately 45 minutes to evaluate groundwater elevation and flow patterns at the site. To facilitate groundwater sampling, Cambria purged three well-casing volumes of groundwater prior to sampling. Cambria recorded

groundwater pH, conductivity, and temperature, and evaluated reading stabilization. Groundwater samples were collected using clean, disposable bailers and were decanted into the appropriate containers supplied by the analytical laboratory. Samples were labeled, placed in protective foam sleeves, stored on crushed ice at or below 4 degrees Celsius and transported under chain-of-custody to the laboratory. Field data sheets are presented as Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified United States Environmental Protection Agency (EPA) Method 8015C; and benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. The analytical laboratory report is included as Appendix B. Groundwater analytical results are shown on Table 1 and summarized on Figure 1. The groundwater analytical results have been submitted to the GeoTracker database (Appendix D).

Monitoring Results

Groundwater Gradient: Based on depth-to-water measurements collected during Cambria and Aqua Science's joint monitoring event on April 7, 2004, groundwater generally flows towards the south-southwest with a gradient of 0.011 feet per foot (Figure 1). A localized groundwater high is observed around well MW-6 creating a divide between wells MW-7 and MW-5. Also, a difference in groundwater elevations with the neighboring former Shell station site of approximately 2 feet was observed. The gradient and flow direction is consistent with historical data. However, the divide near MW-6 and the difference in groundwater elevations are anomalous. Future monitoring events will assist in evaluating the significance of these results. Depth-to-water and groundwater elevation data for the site are presented in Table 1. Groundwater elevation and analytical data for the adjacent former Shell station site are presented in Appendix E.

Hydrocarbon Distribution in Groundwater: Hydrocarbons were detected in wells MW-1, MW-2, and MW-4 for this monitoring event (Table 1). The highest hydrocarbon concentrations were detected in well MW-2. TPHg was detected at a concentration of 41,000 micrograms per liter (µg/L). Benzene, toluene, ethylbenzene, and xylenes were detected at concentrations of 2,500 µg/L, 11,000 µg/L, 1,900 µg/L, and 8,000 µg/L, respectively. MTBE was only detected in upgradient monitoring well MW-4, at a concentration of 770 µg/L.

Although hydrocarbon concentrations in wells MW-1, MW-2, and MW-4 have increased as compared to the previous quarter, groundwater sampling results continue to display overall decreasing concentration trends (see Table 1 and Appendix C).

No MTBE was ever stored or used at the former ARCO service station, which suspended activities in 1985 and from which the underground storage tanks were removed in 1991. As a result, the occurrence of MTBE concentrations in upgradient well MW-4 appears to indicate that there is an offsite source.

ANTICIPATED THIRD QUARTER 2004 ACTIVITIES

Monitoring Activities

Cambria will gauge water levels and collect groundwater samples from wells MW-1 through MW-7. Groundwater samples will be analyzed for TPHg by EPA Method 8015C, and BTEX and MTBE by EPA Method 8021B. Should MTBE be detected in a sample, the detection will be confirmed using EPA Method 8260B. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

Corrective Action Activities

Cambria plans to submit a work plan that will propose the preparation of a site-specific Human Health Risk Assessment based on the collection of post-remediation soil, groundwater, and soil vapor samples from the former 6,000-gallon underground storage tank (UST) cavity and from the vicinity of MW-2. A comparison of the remaining benzene concentrations in well MW-2 with the California Regional Water Quality Control Board, San Francisco Bay Region's environmental screening levels (ESLs) indicates a potentially unacceptable risk to human health, which warrants collection and evaluation of soil vapor, in addition to soil and groundwater samples. The work plan will also include hydrogeologic cross-sections, hydrocarbon mass estimates, and a subsurface utility survey.

ATTACHMENTS

Figure 1 – Groundwater Elevation Contour and Hydrocarbon Concentration Map
Table 1 – Groundwater Elevations and Analytical Data
Appendix A – Groundwater Monitoring Field Data Sheets
Appendix B – Laboratory Analytical Reports
Appendix C – Benzene and MTBE Concentration Graphs
Appendix D – GeoTracker Electronic Delivery Confirmations
Appendix E – Former Shell Station Groundwater Monitoring and Analytical Results

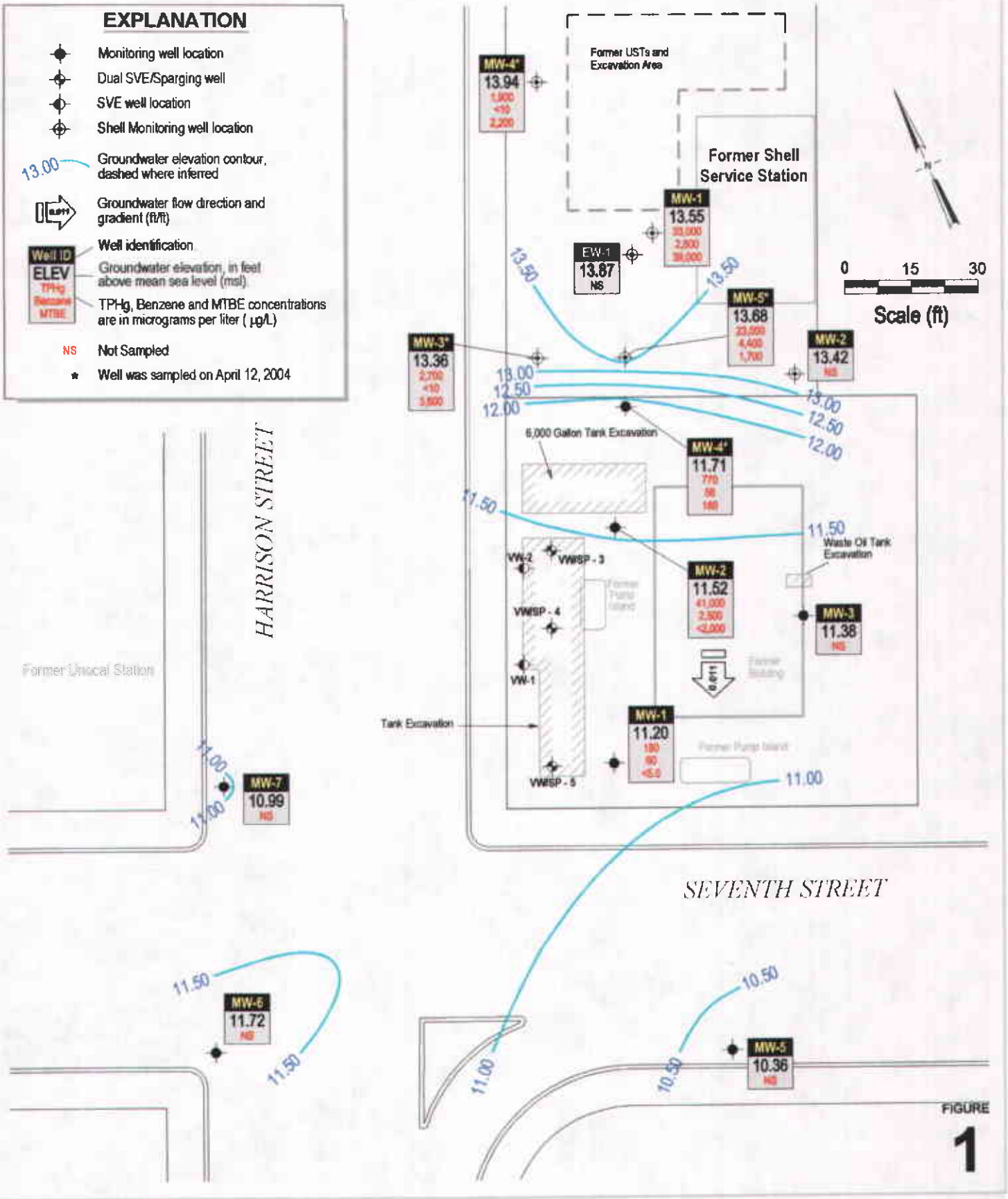


FIGURE
1

Former Arco Station

706 Harrison Street

Oakland, California

CAMBRIA

Groundwater Elevation Contour and Hydrocarbon Concentration Map

April 7, 2004

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
MW-1	8/13/1993	17.40	11.75	20,000	8,500	640	280	440	-	-	
29.15	12/14/1993	17.27	11.88	17,000	9,200	1,200	4,400	540	-	-	
Quarterly	4/15/1994	17.00	12.15	9,500	3,600	530	160	280	-	-	
	12/29/1994	16.40	12.75	-	-	-	-	-	-	-	
	7/19/1996	15.83	13.32	17,000	5,200	1,100	330	530	-	-	sheen/odor
	1/27/1997	13.58	15.57	30,000	9,800	1,300	790	880	400	-	b, sheen/odor
	6/18/1997	16.11	13.04	19,000	5,600	1,400	510	770	1,200	800	a, b
	9/18/1997	16.62	12.53	48,000	18,000	4,400	1,000	1,700	<640	-	b
	12/10/1997	15.93	13.22	22,000	4,900	1,300	580	650	460	260	a, b, odor
	2/18/1998	11.56	17.59	16,000	5,000	750	400	780	1,800	-	b
	5/12/1998	13.53	15.62	19,000	4,600	810	450	770	5,500	-	b, c
	8/18/1998	15.19	13.96	12,000	3,600	1,300	300	570	5,100	3,700	a, b
	11/24/1998	15.67	13.48	13,000	3,600	890	330	380	6,100	-	b
	2/4/1999	15.31	13.84	20,000	5,900	830	450	500	4,900	-	b
	5/18/1999	14.95	14.20	23,000	7,000	1,600	520	830	6,100	-	b
	8/27/1999	15.84	13.31	19,000	5,800	1,700	410	710	1,800	2,100	a, b
	11/18/1999	16.39	12.76	20,000	4,900	630	410	580	4,900	3,600	b
	2/29/2000	13.43	15.72	12,000	2,800	24	290	170	3,100	3,400	a
	5/25/2000	15.08	14.07	12,000	2,200	120	330	260	9,100	12,000	a, b
	8/9/2000	16.09	13.06	13,000	2,500	44	310	140	16,000	-	b
	11/9/2000	15.90	13.25	11,000	2,500	140	380	150	11,000	12,000	b
	1/29/2001	16.05	13.10	9,600	3,100	100	77	200	2,600	2,400	b
	4/16/2001	16.90	12.25	3,300	1,200	4.4	2.7	28	900	940	b
	8/14/2001	17.13	12.02	2,000	500	3.4	24	7.8	68	53	a
	10/22/2001	16.11	13.04	220	83	0.63	2.8	<0.5	<10	5.7	a
	2/1/2002	16.93	12.22	640	220	1.7	4.7	0.57	<10	-	a
	5/10/2002	15.09	14.06	230	26	0.97	<0.5	<0.5	<5.0	-	a
	7/8/2002	15.20	13.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	
	10/2/2002	15.70	13.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	1/23/2003	15.09	14.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/29/2003	13.02	16.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
26.17	7/18/2003	14.50	11.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/9/2003	13.81	12.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	1/28/2004	13.09	13.08	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/7/2004	**14.97**	**11.20**	**180**	**60**	**0.56**	**1.9**	**<0.5**	**<5.0**	-	**a**

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
MW-2	8/13/1993	17.05	13.46	34,000	6,800	10,000	740	3,900	-	-	
30.51	12/14/1993	18.28	12.23	16,000	3,200	4,200	500	1,700	-	-	
Quarterly	4/15/1994	18.10	12.41	23,000	2,500	4,200	470	1,800	-	-	
	12/29/1994	17.40	13.11	-	-	-	-	-	-	-	
	7/19/1996	16.72	13.79	90,000	7,300	14,000	1,600	7,300	-	-	odor
	1/27/1997	14.89	15.62	63,000	7,100	13,000	1,600	7,100	500	-	b, odor
	6/18/1997	17.12	13.39	52,000	5,100	10,000	1,400	6,000	<200	-	b
	9/18/1997	17.63	12.88	110,000	9,400	23,000	2,600	13,000	<890	-	b, sheen/odor
	12/10/1997	16.98	13.53	39,000	2,600	5,300	940	3,900	780	320	b, odor
	2/18/1998	12.61	17.90	85,000	9,000	19,000	2,300	11,000	2,400	-	b
	5/12/1998	14.45	16.06	110,000	9,500	21,000	2,500	12,000	<1,200	-	b
	8/18/1998	16.14	14.37	64,000	6,000	13,000	1,700	7,800	2,000	1,300	a, b
	11/24/1998	16.70	13.81	78,000	5,300	14,000	2,300	11,000	<2,000	-	b, g
	2/4/1999	18.39	12.12	66,000	5,800	16,000	2,600	12,000	3,000	-	b, g
	5/18/1999	15.90	14.61	78,000	6,700	17,000	2,400	10,000	4,300	-	b
	8/27/1999	16.79	13.72	91,000	7,400	17,000	2,300	11,000	1,200	1,000	a, b
	11/18/1999	17.32	13.19	180,000	7,000	20,000	3,300	16,000	<6,000	1,700	b,g
	2/29/2000	14.37	16.14	86,000	5,500	13,000	2,000	9,500	3,500	4,700	a
	5/25/2000	16.01	14.50	110,000	6,300	14,000	2,400	10,000	7,500	6,500	a, b, g
	8/9/2000	17.02	13.49	77,000	5,000	13,000	2,000	8,600	5,900	-	b
	11/9/2000	17.00	13.51	70,000	4,800	12,000	1,900	8,000	9,400	8,300	b
	1/29/2001	18.31	12.20	110,000	8,200	21,000	2,800	13,000	2,500	1,900	b,g
	4/16/2001	18.59	11.92	97,000	7,400	15,000	2,500	12,000	<3,000	<50	b,g
	8/14/2001	18.74	11.77	97,000	6,200	14,000	2,400	13,000	<250	<50	a,j
	10/22/2001	18.27	12.24	71,000	5,900	15,000	2,400	12,000	<1,400	150	a
	2/1/2002	18.05	12.46	1,400	11	88	44	210	<5.0	-	a
	5/10/2002	17.15	13.36	97,000	4,500	15,000	2,500	12,000	<3,000	-	a,g
	7/8/2002	15.30	15.21	42,000	2,100	6,500	2,200	8,800	<1,000	65	a
	10/2/2002	15.89	14.62	70,000	1,700	5,700	1,900	8,300	<1,700	-	a
	1/23/2003	17.51	13.00	40,000	1,900	7,800	1,200	5,600	<1,000	-	a
	4/29/2003	15.31	15.20	82,000	2,500	11,000	2,200	9,400	<2,000	-	a
27.53	7/18/2003	16.84	10.69	57,000	2,100	8,700	2,200	10,000	-	<50	a
	10/9/2003	16.05	11.48	49,000	1,800	7,000	1,700	7,600	<1,500	26	a
	1/28/2004	15.39	12.14	550	21	33	3.0	61	<100	-	a
	4/7/2004	**16.01**	**11.52**	**41,000**	**2,500**	**11,000**	**1,900**	**8,000**	**<2,000**	-	**a**

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
MW-3	8/13/1993	17.05	12.72	<50	<0.50	<0.50	<0.50	<1.5	-	-	
29.77	12/14/1993	17.70	12.07	<50	<0.50	<0.50	<0.50	<1.5	-	-	
Semi-annually	4/15/1994	17.40	12.37	<50	<0.5	<0.5	<0.5	<0.5	-	-	
	12/29/1994	16.80	12.97	-	-	-	-	-	-	-	
	7/19/1996	16.28	13.49	<50	<0.5	<0.5	<0.5	<0.5	-	-	
	1/27/1997	13.83	15.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	6/18/1997	16.53	13.24	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	9/18/1997	17.07	12.70	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	12/10/1997	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/18/1998	11.80	17.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/12/1998	13.85	15.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	8/18/1998	15.57	14.20	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/24/1998	16.04	13.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/4/1999	17.80	11.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/18/1999	15.29	14.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	8/27/1999	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/18/1999	16.77	13.00	-	-	-	-	-	-	-	
	2/29/2000	13.71	16.06	<50	2	<0.5	<0.5	<0.5	<5.0	-	
	5/25/2000	15.46	14.31	-	-	-	-	-	-	-	
	8/9/2000	16.46	13.31	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/9/2000	16.25	13.52	-	-	-	-	-	-	-	
	1/29/2001	16.52	13.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/16/2001	16.95	12.82	-	-	-	-	-	-	-	
	8/14/2001	17.11	12.66	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/22/2001	16.50	13.27	-	-	-	-	-	-	-	
	2/1/2002	16.90	12.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/10/2002	15.03	14.74	-	-	-	-	-	-	-	
	7/8/2002	14.45	15.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/2/2002	15.03	14.74	-	-	-	-	-	-	-	
	1/23/2003	15.48	14.29	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/29/2003	12.49	17.28	-	-	-	-	-	-	-	
26.79	7/18/2003	14.80	11.99	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/9/2003	14.13	12.66	-	-	-	-	-	-	-	
	1/28/2004	13.47	13.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/7/2004	**15.41**	**11.38**	-	-	-	-	-	-	-	

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
MW-4	12/16/1994	18.10	13.08	2,500	32	6.5	4.5	17	-	-	
31.18	12/29/1994	17.95	13.23	-	-	-	-	-	-	-	
Quarterly	7/19/1996	17.38	13.80	3,300	520	39	67	60	-	-	
	1/27/1997	15.25	15.93	4,500	860	55	100	91	1,100	-	b
	6/18/1997	17.61	13.57	2,700	700	52	81	76	2,200	2,300	a, b
	9/18/1997	18.01	13.17	3,900	760	38	56	64	<170	-	b
	12/10/1997	17.45	13.73	12,000	1,800	120	210	210	2,900	2,600	a, b
	2/18/1998	13.09	18.09	1,700	210	8	6.7	16	200	-	b
	5/12/1998	14.78	16.40	2,100	300	15	36	34	920	-	b, c
	8/18/1998	16.59	14.59	4,700	1,000	130	110	150	5,200	4,900	a, b
	11/24/1998	17.18	14.00	3,000	810	44	76	94	4,800	-	b
	2/4/1999	18.90	12.28	2,800	770	50	69	69	3,100	-	b
	5/18/1999	16.30	14.88	4,000	780	57	7.7	79	4,800	-	b
	8/27/1999	17.21	13.97	4,100	870	51	74	99	3,300	4,100	a, b
	11/18/1999	17.77	13.41	3,000	760	43	67	65	5,100	5,400	b
	2/29/2000	14.85	16.33	4,600	1,000	64	94	170	4,100	4,600	a
	5/25/2000	16.45	14.73	2,600	540	39	59	41	3,500	5,300	b
	8/9/2000	17.47	13.71	4,400	930	66	98	79	9,400	-	b
	11/9/2000	17.45	13.73	4,200	630	34	54	44	7,800	9,400	b
	1/29/2001	18.90	12.28	3,100	710	34	66	51	9,400	8,000	b
	4/16/2001	19.17	12.01	160	1.2	1.3	<0.5	12	22	20	b
	8/14/2001	19.20	11.98	1,700	190	11	35	13	300	250	b
	10/22/2001	18.95	12.23	1,100	120	3.7	29	7.9	<25	16	a
	2/1/2002	19.05	12.13	2,600	25	43	21	280	<5.0	-	a
	5/10/2002	17.69	13.49	490	3.5	2.0	2.1	2.2	<5.0	-	a
	7/8/2002	15.75	15.43	170	0.51	0.62	1.6	1.2	<5.0	2.0	m
	10/2/2002	16.30	14.88	240	1.7	2.0	2.2	0.88	<5.0	-	a
	1/23/2003	17.74	13.44	<50	0.52	4.1	<0.5	1.9	<5.0	-	
	4/29/2003	15.47	15.71	1,300	75	4.8	21	7.3	130	120	a
28.20	7/18/2003	17.08	11.12	<50	<0.5	<0.5	<0.5	<0.5	-	0.74	a
	10/9/2003	16.25	11.95	210	4.7	0.57	1.6	1.1	<10	10	a
	1/28/2004	15.65	12.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	a
	4/7/2004	**16.49**	**11.71**	-	-	-	-	-	-	-	
	4/12/2004	-	-	**770**	**56**	**3.2**	**7.0**	**6.5**	**120**	**160**	**a**

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
MW-5	12/16/1994	16.07	11.97	<50	1.1	<0.5	<0.5	2.4	-	-	
28.04	12/29/1994	16.10	11.94	-	-	-	-	-	-	-	
Semi-annually	7/19/1996	15.49	12.55	<50	<0.5	<0.5	<0.5	<0.5	-	-	
	1/27/1997	13.60	14.44	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	6/18/1997	15.55	12.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	9/18/1997	16.16	11.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	12/10/1997	15.41	12.63	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/18/1998	10.93	17.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/12/1998	13.25	14.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	8/18/1998	14.75	13.29	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/24/1998	15.15	12.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/4/1999	14.61	13.43	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/18/1999	14.15	13.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	8/27/1999	15.43	12.61	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/18/1999	15.97	12.07	-	-	-	-	-	-	-	
	2/29/2000	13.16	14.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/25/2000	14.72	13.32	-	-	-	-	-	-	-	
	8/9/2000	15.68	12.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/9/2000	15.39	12.65	-	-	-	-	-	-	-	
	1/29/2001	15.97	12.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/16/2001	16.24	11.80	-	-	-	-	-	-	-	
	8/14/2001	17.39	10.65	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/22/2001	15.90	12.14	-	-	-	-	-	-	-	
	2/1/2002	16.55	11.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/10/2002	15.12	12.92	-	-	-	-	-	-	-	
	7/8/2002	15.92	12.12	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/2/2002	16.42	11.62	-	-	-	-	-	-	-	
	1/23/2003	14.90	13.14	<50	20	<0.5	<0.5	<0.5	<5.0	-	
	4/29/2003	12.05	15.99	-	-	-	-	-	-	-	
25.07	7/18/2003	14.28	10.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/9/2003	13.36	11.71	-	-	-	-	-	-	-	
	1/28/2004	12.68	12.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/7/2004	**14.71**	**10.36**	-	-	-	-	-	-	-	

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
MW-6	12/16/1994	17.74	11.36	-	-	-	-	-	-	-	
29.10	12/29/1994	17.40	11.70	-	-	-	-	-	-	-	
Semi-annually	7/19/1996	16.60	12.50	<50	<0.5	<0.5	<0.5	<0.5	-	-	
	1/27/1997	14.88	14.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	6/18/1997	16.73	12.37	51	22	<0.5	<0.5	<0.5	<5.0	-	c
	9/18/1997	17.24	11.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	12/10/1997	16.56	12.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/18/1998	12.93	16.17	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/12/1998	14.35	14.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	8/18/1998	15.94	13.16	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/24/1998	16.46	12.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/4/1999	18.25	10.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/18/1999	15.73	13.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	8/27/1999	15.64	13.46	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/18/1999	17.04	12.06	-	-	-	-	-	-	-	
	2/29/2000	14.55	14.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/25/2000	15.86	13.24	-	-	-	-	-	-	-	
	8/9/2000	16.80	12.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/9/2000	16.60	12.50	-	-	-	-	-	-	-	
	1/29/2001	17.00	12.10	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/16/2001	17.15	11.95	-	-	-	-	-	-	-	
	8/14/2001	17.30	11.80	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/22/2001	17.13	11.97	-	-	-	-	-	-	-	
	2/1/2002	16.57	12.53	70	37	<0.5	<0.5	<0.5	<5.0	-	a
	5/10/2002	15.25	13.85	-	-	-	-	-	-	-	
	7/8/2002	15.79	13.31	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/2/2002	16.38	12.72	-	-	-	-	-	-	-	
	1/23/2003	16.03	13.07	<50	21	<0.5	<0.5	<0.5	<5.0	-	
	4/29/2003	14.19	14.91	-	-	-	-	-	-	-	
26.13	7/18/2003	15.47	10.66	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/9/2003	14.73	11.40	-	-	-	-	-	-	-	
	1/28/2004	14.05	12.08	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/7/2004	**14.41**	**11.72**	-	-	-	-	-	-	-	

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
MW-7	12/16/1994	17.07	12.60	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
29.67	12/29/1994	17.65	12.02	-	-	-	-	-	-	-	
Semi-annually	7/19/1996	16.44	13.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	1/27/1997	15.09	14.58	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	6/18/1997	16.59	13.08	73	<0.5	0.55	<0.5	<0.5	<5.0	-	d
	9/18/1997	17.06	12.61	94	<0.5	<0.5	<0.5	<0.5	<5.0	-	b, f
	12/10/1997	16.58	13.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/18/1998	12.60	17.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/12/1998	14.81	14.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	8/18/1998	15.67	14.00	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/24/1998	16.30	13.37	200	<0.5	<0.5	<0.5	<0.5	<5.0	-	d
	2/4/1999	15.99	13.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/18/1999	15.42	14.25	200	<0.5	<0.5	<0.5	<0.5	<5.0	-	d
	8/27/1999	16.35	13.32	140	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/18/1999	16.81	12.86	--	--	--	--	--	--	-	
	2/29/2000	14.16	15.51	100	<0.5	<0.5	<0.5	<0.5	<5.0	-	f
	5/25/2000	15.54	14.13	--	--	--	--	--	--	-	
	8/9/2000	16.56	13.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	11/9/2000	16.45	13.22	-	-	-	-	-	-	-	
	1/29/2001	16.92	12.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/16/2001	17.03	12.64	-	-	-	-	-	-	-	
	8/14/2001	17.27	12.40	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/22/2001	16.95	12.72	-	-	-	-	-	-	-	
	2/1/2002	16.14	13.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	5/10/2002	15.30	14.37	-	-	-	-	-	-	-	
	7/8/2002	15.73	13.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/2/2002	16.24	13.43	-	-	-	-	-	-	-	
	1/23/2003	15.70	13.97	<50	23	<0.5	<0.5	<0.5	<5.0	-	
	4/29/2003	12.68	16.99	-	-	-	-	-	-	-	
26.70	7/18/2003	15.19	11.51	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	10/9/2003	14.45	12.25	-	-	-	-	-	-	-	
	1/28/2004	13.88	12.82	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	4/7/2004	**15.71**	**10.99**	-	-	-	-	-	-	-	

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID *TOC* Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Notes
VW-3	3/6/2003	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	i
-	3/25/2003	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	i
VW-4	3/6/2003	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
-	3/25/2003	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	
Trip Blank	11/9/2000	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	

Abbreviations and Analyses:

TOC = Top of casing elevation with respect to mean sea level

ft = measured in feet

ft-msl = measured in feet relative to mean sea level

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

Benzene, ethylbenzene, toluene and xylenes by EPA Method 8020.

MTBE = Methyl tertiary butyl ether by EPA Method 8020 and/or 8260.

µg/L = Micrograms per liter

- = not sampled, not analyzed, or not applicable

Data prior to 12/16/94 provided by previous consultant.

Wells were re-surveyed on October 27, 2003 to City of Oakland benchmark 25A.

Notes

a = Analytical laboratory notes that unmodified or weakly modified gasoline is significant.

b = Analytical laboratory notes that heavier gasoline range compounds are significant.

c = Analytical laboratory notes that lighter gasoline range compounds are significant.

d = Analytical laboratory notes that isolated peaks are present.

f = Analytical laboratory notes hydrocarbons with no recognizable patterns are present.

g = Analytical laboratory notes lighter than water immiscible sheen is present.

j = Sample diluted due to high organic content.

i = Sample contains greater than ~2 vol. % sediment.

APPENDIX A

Groundwater Monitoring Field Data Sheets

CAMBRIA

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	Comments
MW-1	11:30		14.97	24.50				
MW-2	10:30		16.01	25.50				
MW-3	10:40		15.41					
MW-4	11:15		16.49	25.40				
MW-5	12:00		14.71					
MW-6	11:50		14.41					
MW-7	11:45		15.71					

Project Name: Bo Gin

Project Number/Task: 230-0116/141

Technician: T. Fulmer

Date: 4/7/04

CAMBRIA

WELL SAMPLING FORM

oject Name: Bo Gin	Cambria Mgr: MM	Well ID: MW-1
oject Number: 230-0116	Date: 4/7/04	Well Yield:
te Address: 706 Harrison St Oakland	Sampling Method: Disposable Bailer	Well Diameter: 2" ☐ pvc
		Technician(s): TF
itial Depth to Water: 14.97	Total Well Depth: 24.20	Water Column Height: 9.23
olume/ft: .16	1 Casing Volume: 1.47	3 Casing Volumes: 4.45
urging Device: Disposable Bailer	Did Well Dewater?: No	Total Gallons Purged: 5
tart Purge Time: 1:15	Stop Purge Time: 1:29	Total Time: 14 min

sing 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
1:20	1.5	21.7	7.26	592	
1:25	3	21.3	6.88	638	
1:30	4.5	20.1	6.88	624	

e = mg/L ORP = mV DO = mg/L

ample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	4/7/04	1:30	3 VOAs	HCl		

EMPLATE\FORMS\FIELD\WELLSAMP2.WPD
5/31/94

CAMBRIA

WELL SAMPLING FORM

oject Name: Bo Gin	Cambria Mgr: MM	Well ID: MW-2
oject Number: 230-0116	Date: 4/7/04	Well Yield:
te Address: 706 Harrison St Oakland	Sampling Method: Disposable Bailer	Well Diameter: 2" ☐ pvc
		Technician(s): TF
itial Depth to Water: 16.01	Total Well Depth: 25.50	Water Column Height: 9.49
olume/ft: 0.16	1 Casing Volume: 1.51	3 Casing Volumes: 4.55
irging Device: Disposable Bailer	Did Well Dewater?: No	Total Gallons Purged: 5.5
art Purge Time: 1:30	Stop Purge Time: 1:49	Total Time: ~~5.5~~ (9min

sing Volume = Water column beight 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
1:35	1.5	22.3	6.41	693	
1:40	3	24.0	7.45	692	
1:45	4.5	22.2	6.61	738	
1:50	5.5	21.4	6.88	734	

'e = mg/L ORP = mV DO = mg/L

ample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	4/7/04	1:55	3 Vials	HCl		

EMPLATE\FORMS\FIELD\WELLSAMP2.WPD
5/31/94

CAMBRIA

WELL SAMPLING FORM

oject Name: Bo Gin	Cambria Mgr: MM	Well ID: MW-4
oject Number: 230-0116	Date: 4/7/04	Well Yield:
te Address: 706 Harrison St Oakland	Sampling Method: Disposable Bailer	Well Diameter: ☐ pvc
		Technician(s): TF
itial Depth to Water: 16.49	Total Well Depth: 25.40	Water Column Height: 8.91
olume/ft: .16	1 Casing Volume: 1.42	3 Casing Volumes: 4.27
urging Device:	Did Well Dewater?:	Total Gallons Purged:
tart Purge Time:	Stop Purge Time:	Total Time:

sing 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
Inaccessible					

e = mg/L ORP = mV DO = mg/L

ample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	4/7/04		3 Vots	HCl		

CAMBRIA

DAILY FIELD REPORT

Project Name: Bo Gin	Cambria Mgr: MM	Field Person: T. Fulmer
Project Number: 230-0116	Date: 4/12/04	Site Address: 709 Harrison
General Tasks: Sample well MW-4 w/ small bailer		

Time	Activity/Comments	Code	Hours
11:00	Homeless individual was not present at site, however it appears as though his stuff is still there, red wagon w/ stuff in it + other items.		
	Same Nissan Xterm parked over MW-4 has been there for maybe 5 days in a row. Takes about 1 hr. to set up + purge well with 1"x2" bailer		

F:\TEMPLATE\FORMS\FIELD\FIELDRPT.WPD
NSM 8/16/94

CAMBRIA

WELL SAMPLING FORM

Project Name: Bo Gin	Cambria Mgr: MM	Well ID: MW-4
Project Number: 230-0116	Date: 4/12/04	Well Yield:
Site Address: 709 Harrison, Oakland	Sampling Method: 2" Bailer	Well Diameter: 2" ☐ pvc
		Technician(s): TF
Initial Depth to Water: 14.98	Total Well Depth: 25.40	Water Column Height: 10.42
Volume/ft: 0.16	1 Casing Volume: 1.66	3 Casing Volumes: 5.00
Purging Device: 1"x2" bailer	Did Well Dewater?: No	Total Gallons Purged: 5
Start Purge Time: 10:40	Stop Purge Time: 11:24	Total Time: 44 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. (°C)	pH	Cond. (uS)	Comments
10:55	1.7	19.1	6.36	807	
11:10	2.8	18.9	6.47	704	
11:25	5	19.1	6.55	652	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	4/12/04	11:40	3 VOA	HCl		

APPENDIX B

Laboratory Analytical Reports

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: #230-0116; BoGin	Date Sampled: 04/07/04
5900 Hollis St, Suite A		Date Received: 04/09/04
Emeryville, CA 94608	Client Contact: Matt Meyers	Date Reported: 04/15/04
	Client P.O.:	Date Completed: 07/14/04

WorkOrder: 0404123

July 14, 2004

Dear Matt:

Enclosed are:

1). the results of **2** analyzed samples from your **#230-0116; BoGin 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

040423

McCAMPBELL ANALYTICAL INC.

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

CHAIN OF CUSTODY RECORD

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

EDF Required? ☒ Yes ☐ No

Report To: Matt Meyers Bill To: Cambria

Company: Cambria Environmental Technology Inc.

5900 Hollis Street Ste-A

Emeryville, CA 94608 E-mail: mmeyers@cambria-env.com

Tele: 510 420-0700 Fax: 510-

Project #: 230-0116 Project Name: Bo Gin

Project Location: 706 Harrison, Oakland

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	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
+ MW-1		4/1/04	1:30	3	VOA	X					X	X			X																X
+ MW-2		4/1/04	1:55	3	VOA	X					X	X			Y																X

Relinquished By:	Date:	Time:	Received By:
T. Fulmer	4/1/04	5:00	Secure Location
UPS #280	4/9	11:37	UPS #280
UPS	4/9	15:00	

Remarks: Lowest Possible detection limits email results

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0404123 **ClientID: CETE**

Report to:
Matt Meyers
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #230-0116; BoGin
PO:

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

Requested TAT: 5 days
Date Received: 4/9/04
Date Printed: 7/14/04

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
0404123-001	MW-1	Water	4/7/04 1:30:00 PM	☐	A	A													
0404123-002	MW-2	Water	4/7/04 1:55:00 AM	☐	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: Maria Venegas

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.

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: #230-0116; BoGin	Date Sampled: 04/07/04
		Date Received: 04/09/04
5900 Hollis St, Suite A	Client Contact: Matt Meyers	Date Extracted: 04/10/04
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 04/10/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0404123

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	180,a	ND	60	0.56	1.9	ND	1	110
002A	MW-2	W	41,000,a	ND<2000	2500	11,000	1900	8000	100	105
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 ~1 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; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

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: 0404123

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 11068 Spiked Sample ID: 0404123-001A

	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) £	82.14	60	95	93.7	0.537	105	102	2.92	70	130
MTBE	ND	10	86.2	102	12.4	105	96.8	8.50	70	130
Benzene	60.34	10	NR	NR	NR	106	115	8.10	70	130
Toluene	0.56	10	106	106	0	106	109	3.28	70	130
Ethylbenzene	1.95	10	109	114	4.11	110	114	3.71	70	130
Xylenes	ND	30	96	100	4.08	100	100	0	70	130
%SS:	110	10	116	115	1.20	99.9	107	7.09	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 applicable or 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 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: #230-0116; Bo Gin	Date Sampled: 04/12/04
5900 Hollis St, Suite A		Date Received: 04/13/04
Emeryville, CA 94608	Client Contact: Matt Meyers	Date Reported: 04/20/04
	Client P.O.:	Date Completed: 04/20/04

WorkOrder: 0404170

April 20, 2004

Dear Matt:

Enclosed are:

1). the results of 1 analyzed sample from your **#230-0116; Bo Gin project,**

2). a QC report for the above sample

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: #230-0116; Bo Gin	Date Sampled: 04/12/04
5900 Hollis St, Suite A		Date Received: 04/13/04
Emeryville, CA 94608	Client Contact: Matt Meyers	Date Extracted: 04/15/04
	Client P.O.:	Date Analyzed: 04/15/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0404170

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-4	W	770,a	120	56	3.2	7.0	6.5	1	104

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

Cambria Env. Technology	Client Project ID: #230-0116; Bo Gin	Date Sampled: 04/12/04
5900 Hollis St, Suite A		Date Received: 04/13/04
Emeryville, CA 94608	Client Contact: Matt Meyers	Date Extracted: 04/19/04
	Client P.O.:	Date Analyzed: 04/19/04

Methyl tert-Butyl Ether*

Extraction method: SW5030B Analytical methods: SW8260B Work Order: 0404170

Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS
001A	MW-4	W	160	5	105

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

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

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: 0404170

EPA Method: SW8021B/8015Cm	Extraction: SW5030B	BatchID: 11098	Spiked Sample ID: 0404167-003A

	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	103	102	0.771	97.7	99.2	1.54	70	130
MTBE	ND	10	104	100	3.64	88.2	94.9	7.34	70	130
Benzene	ND	10	116	112	3.99	109	117	6.30	70	130
Toluene	ND	10	109	107	1.33	107	112	4.32	70	130
Ethylbenzene	ND	10	113	112	0.851	112	117	4.65	70	130
Xylenes	ND	30	103	100	3.28	100	107	6.45	70	130
%SS:	98.9	10	106	104	2.52	103	106	2.80	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

TL QA/QC Officer

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 SW8260B

Matrix: W WorkOrder: 0404170

EPA Method: SW8260B	Extraction: SW5030B			BatchID: 11153		Spiked Sample ID: 0404231-014B				
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
tert-Amyl methyl ether (TAME)	ND	10	88.4	89.4	1.11	95.8	96.1	0.255	70	130
Benzene	ND	10	111	111	0	117	117	0	70	130
t-Butyl alcohol (TBA)	ND	50	88.4	86.4	2.32	95.3	96.5	1.24	70	130
Chlorobenzene	ND	10	103	102	0.991	105	105	0	70	130
1,2-Dibromoethane (EDB)	ND	10	94.9	92.7	2.31	100	98	2.23	70	130
1,2-Dichloroethane (1,2-DCA)	ND	10	103	103	0	111	109	1.70	70	130
1,1-Dichloroethene	ND	10	94.3	96.8	2.61	105	103	1.60	70	130
Diisopropyl ether (DIPE)	ND	10	93	94.7	1.76	100	100	0	70	130
Ethyl tert-butyl ether (ETBE)	ND	10	86.8	89.3	2.85	96.8	95.5	1.28	70	130
Methyl-t-butyl ether (MTBE)	ND	10	82.7	86.3	4.28	94.3	93.3	1.08	70	130
Toluene	ND	10	100	99.1	1.19	103	103	0	70	130
Trichloroethene	ND	10	78.5	80	1.94	84.9	84.7	0.234	70	130
%SS1:	101	10	103	102	1.25	97.5	97.3	0.258	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.

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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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: 0404170 **ClientID: CETE**

Report to:
Matt Meyers
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #230-0116; Bo Gin
PO:

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

Requested TAT: 5 days
Date Received: 4/13/04
Date Printed: 4/19/04

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
0404170-001	MW-4	Water	4/12/04 11:40:00	☐	A	A	A												

Test Legend:

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

Prepared by: Melissa Valles

Comments: Mtbe confirmation added 4/19

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.

0404170

McCAMPBELL ANALYTICAL INC.

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

CHAIN OF CUSTODY RECORD

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

EDF Required? ☒ Yes ☐ No

Report To: Matt Meyers Bill To: Cambria

Company: Cambria Environmental Technology Inc.

5900 Hollis Street STE-A

Emeryville, CA 94608 E-mail: mmeyers@cambria-env.com

Tele: 510 420-0700 Fax: 510-

Project #: 230-0116 Project Name: Bo Gin

Project Location: 709 Harrison

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-4		4/12/04	11:40	3	VOA	X					X	X		

Analysis Request	Other	Comments
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 Grab MTBE only by 8260

Relinquished By:	Date:	Time:	Received By:
T. Fulmer	4/12/04	4:00	Secure Location
	4/13/04	2:20	
	4/13	5pm	

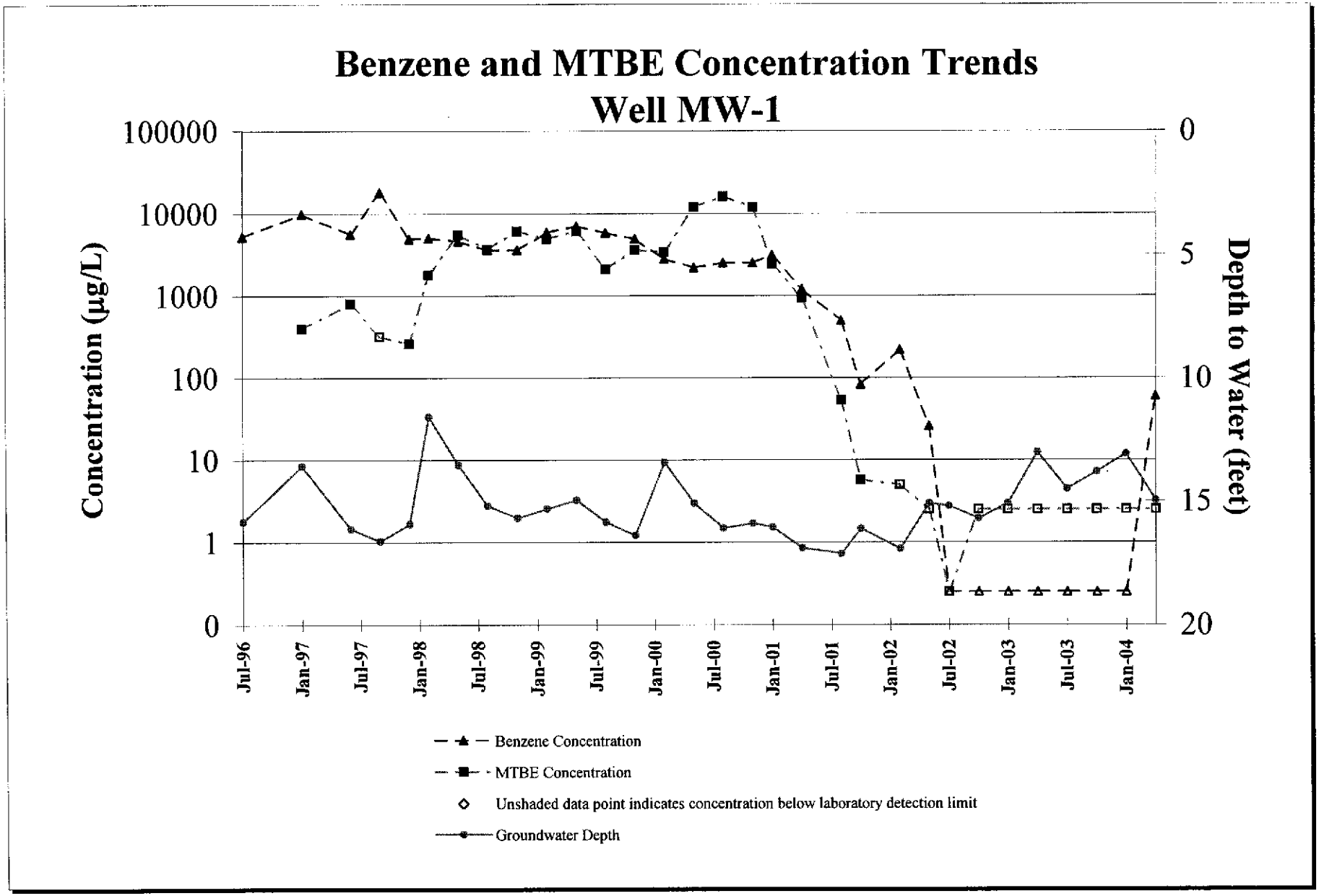
Remarks:

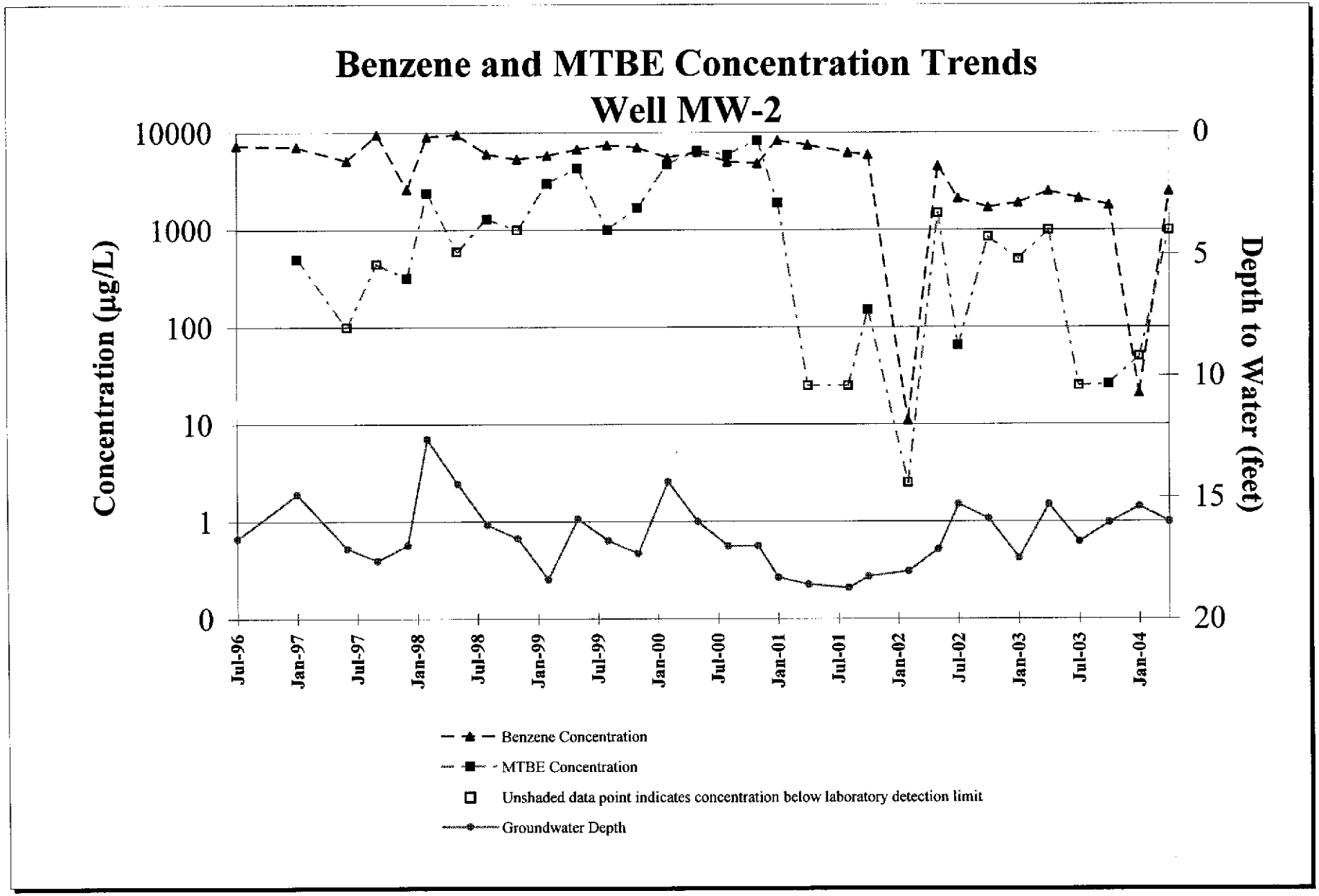
ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE ✓
CONTAINERS
PRESERVED IN LAB

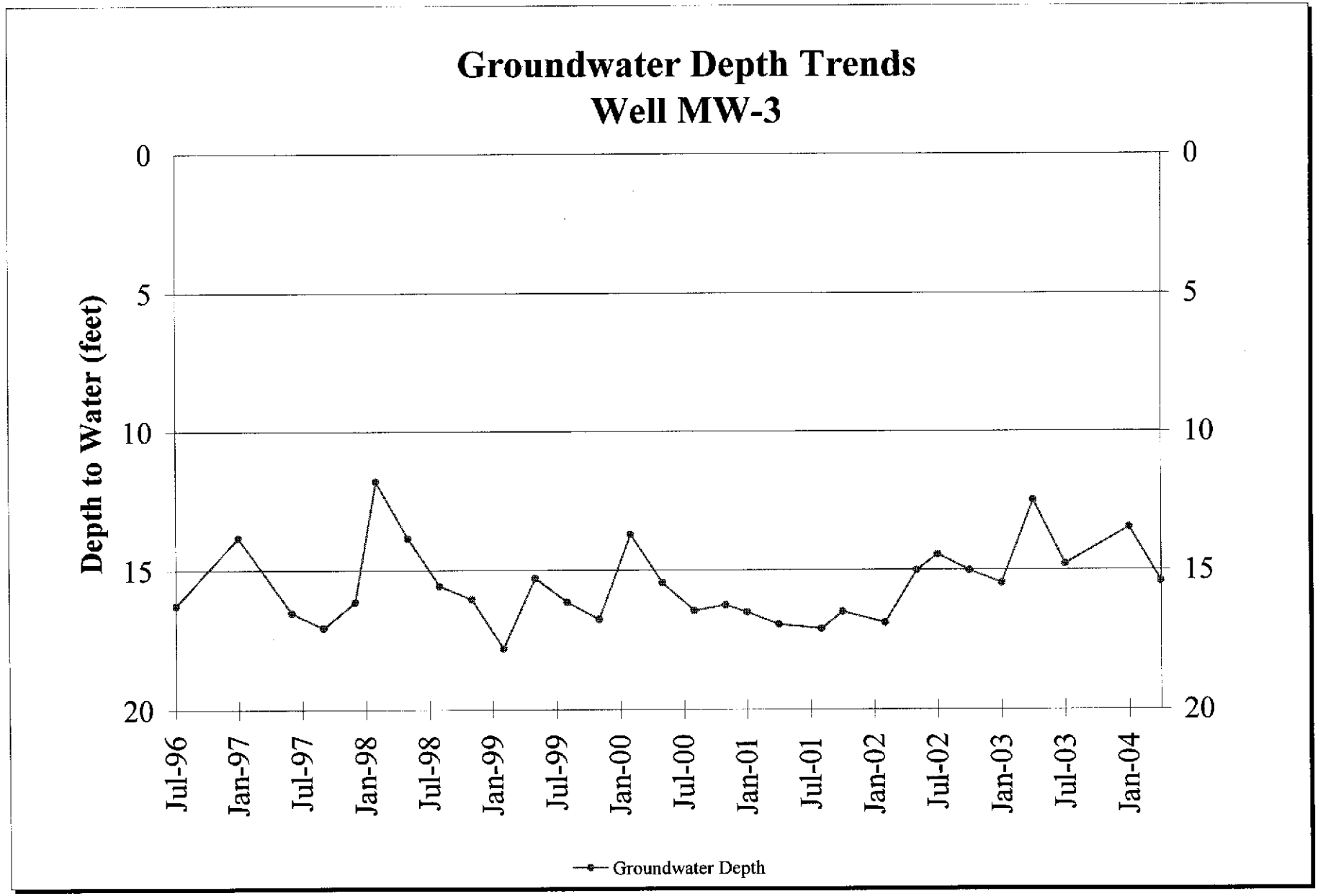
PRESERVATION	VOAS ✓	O&G	METALS	OTHER

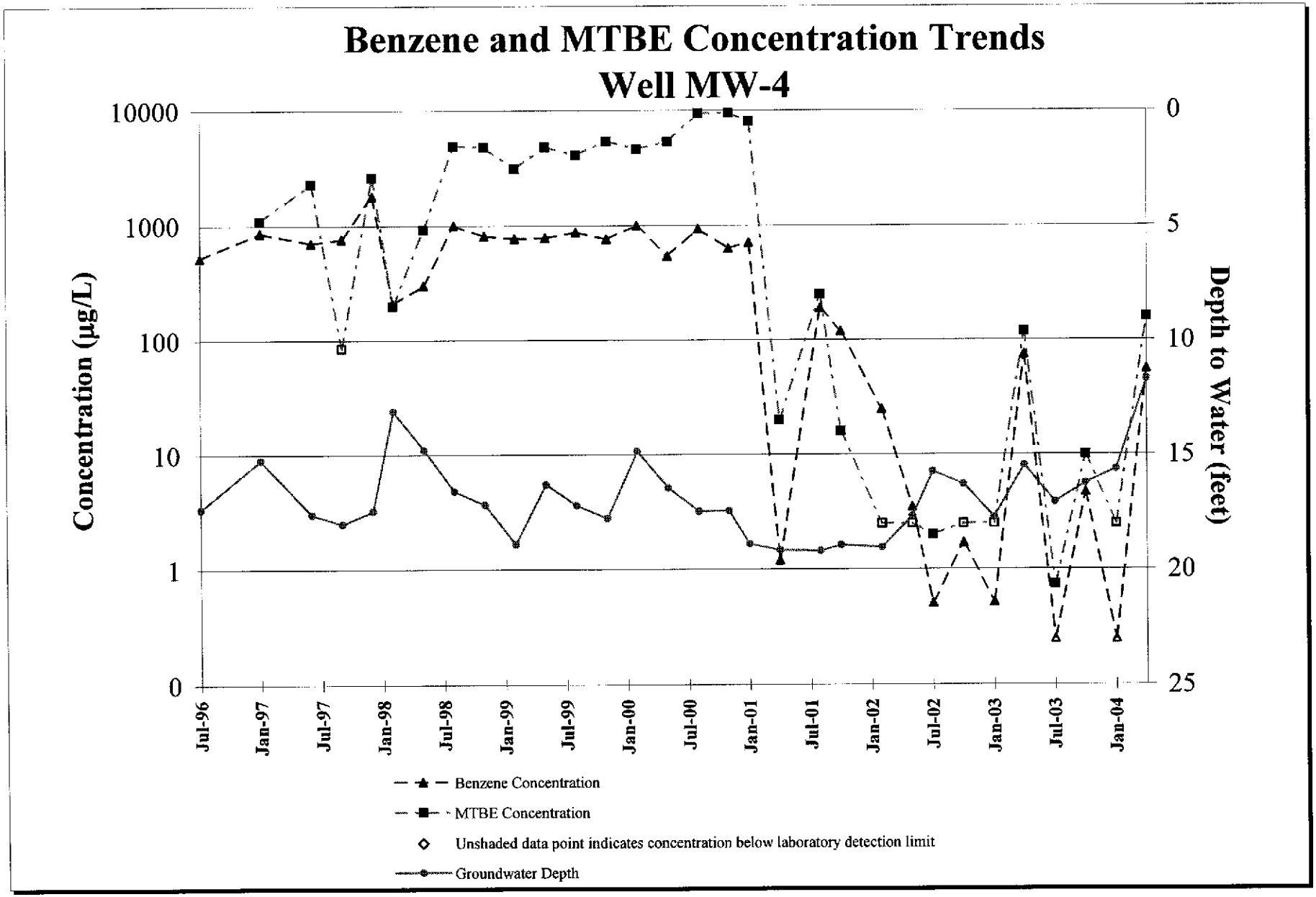
APPENDIX C

Benzene and MTBE Concentration Graphs


Benzene and MTBE Concentration Trends
Well MW-1
Concentration (µg/L)
100000
10000
1000
100
10
1
0
Depth to Water (feet)
0
5
10
15
20
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
Jan-03
Jul-03
Jan-04
Benzene Concentration
MTBE Concentration
Unshaded data point indicates concentration below laboratory detection limit
Groundwater Depth


Benzene and MTBE Concentration Trends
Well MW-2
Concentration (µg/L)
10000
1000
100
10
1
0
Depth to Water (feet)
0
5
10
15
20
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
Jan-03
Jul-03
Jan-04
Benzene Concentration
MTBE Concentration
Unshaded data point indicates concentration below laboratory detection limit
Groundwater Depth


Groundwater Depth Trends
Well MW-3
Depth to Water (feet)
0
5
10
15
20
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
Jan-03
Jul-03
Jan-04
Groundwater Depth


Benzene and MTBE Concentration Trends
Well MW-4
Concentration (µg/L)
10000
1000
100
10
1
0
Depth to Water (feet)
0
5
10
15
20
25
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
Jan-03
Jul-03
Jan-04
Benzene Concentration
MTBE Concentration
Unshaded data point indicates concentration below laboratory detection limit
Groundwater Depth

APPENDIX D

GeoTracker Electronic Delivery Confirmations

Electronic Submittal Information

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

Your EDF file has been successfully uploaded!

Confirmation Number: 4817006587
Date/Time of Submittal: 7/13/2004 1:04:46 PM
Facility Global ID: T0600100985
Facility Name: OAKLAND AUTO PARTS
Submittal Title: 2nd Qtr 2004, GW Analytical Data
Submittal Type: GW Monitoring Report

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OAKLAND AUTO PARTS 706 HARRISON ST OAKLAND, CA 94607	**Regional Board - Case #: 01-1068** SAN FRANCISCO BAY RWQCB (REGION 2) - **(BG)** **Local Agency (lead agency) - Case #: 3749** ALAMEDA COUNTY LOP - **(BC)**

CONF #	TITLE	QUARTER
4817006587	2nd Qtr 2004, GW Analytical Data	Q2 2004

SUBMITTED BY	SUBMIT DATE	STATUS
Matt Meyers	7/13/2004	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	2
# FIELD POINTS WITH DETECTIONS	2
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	2
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	SW8021F
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- SW8021F REQUIRES ETBE TO BE TESTED	
- SW8021F REQUIRES TAME TO BE TESTED	
- SW8021F REQUIRES DIPE TO BE TESTED	
- SW8021F REQUIRES TBA TO BE TESTED	
- SW8021F REQUIRES DCA12 TO BE TESTED	
- SW8021F REQUIRES EDB TO BE TESTED	
LAB NOTE DATA QUALIFIERS	N

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	N
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	N
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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Date/Time of Submittal: 7/13/2004 1:05:43 PM
Facility Global ID: T0600100985
Facility Name: OAKLAND AUTO PARTS
Submittal Title: 2nd Qtr 2004 GW Analytical Data
Submittal Type: GW Monitoring Report

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OAKLAND AUTO PARTS
706 HARRISON ST
OAKLAND, CA 94607

Regional Board - Case #: 01-1068
SAN FRANCISCO BAY RWQCB (REGION 2) - **(BG)**
Local Agency (lead agency) - Case #: 3749
ALAMEDA COUNTY LOP - **(BC)**

CONF #	TITLE	QUARTER
6700253665	2nd Qtr 2004 GW Analytical Data	Q2 2004

SUBMITTED BY	SUBMIT DATE	STATUS
Matt Meyers	7/13/2004	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	1
# FIELD POINTS WITH DETECTIONS	1
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	SW8021F,SW8260B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	N

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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Submittal Date/Time:	**7/13/2004 12:17:17 PM**
Confirmation Number:	**3327107071**

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APPENDIX E

Former Shell Station Groundwater Monitoring and Analytical Results

TABLE ONE

Groundwater Elevation Data
Former Chan's Shell Station
726 Harrison St., Oakland, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Le	Depth to Water (feet)	Groundwate Elevation project data
MW-1	12/15/1998	31.95*	17.32	14.63
	3/4/1999		15.52	16.43
	6/17/1999		16.9	15.05
	8/27/1999		17.39	14.56
	12/9/1999		18.03	13.92
	3/7/2000		15.11	16.84
	6/7/2000		16.66	15.29
	10/11/2000		18.08	13.87
	1/18/2001		17.96	13.99
	4/5/2001		16.35	15.60
	7/17/2001		16.94	15.01
	10/5/2001	28.98	17.35	11.63
	1/18/2002		15.40	13.58
	4/11/2002		15.76	13.22
	7/8/2002		16.17	12.81
	10/9/2002		16.72	12.26
	1/29/2003		16.26	12.72
	4/11/2003		16.56	12.42
	7/18/2003		16.42	12.56
	10/9/2003		16.88	12.10
	1/28/2004		16.10	12.88
	4/7/2004		**15.43**	**13.55**
MW-2	12/15/1998	32.40*	18.03	14.37
	3/4/1999		16.11	16.29
	6/17/1999		17.72	14.68
	8/27/1999	Inaccessible		
	12/9/1999	Inaccessible		
	3/7/2000	Inaccessible		
	6/7/2000		17.67	14.73
	10/11/2000		18.91	13.49
	1/18/2001		18.66	13.74
	4/5/2001		16.97	15.43
	7/17/2001		17.54	14.86
	10/5/2001	29.44	17.98	11.46
	1/18/2002		15.87	13.57
	4/11/2002		16.36	13.08
	7/8/2002		16.72	12.72
	10/9/2002		17.33	12.11
	1/29/2003		16.82	12.62
	4/11/2003		17.15	12.29
	7/18/2003		17.05	12.39
	10/9/2003		17.52	11.92
	1/28/2004		16.70	12.74
	4/7/2004		**16.02**	**13.42**
MW-3	12/15/1998	31.61*	17.26	14.35
	3/4/1999		15.47	16.14
	6/17/1999		16.92	14.69
	8/27/1999		17.40	14.21
	12/9/1999		18.01	13.60
	3/7/2000		16.15	15.46
	6/7/2000		16.85	14.76
	10/11/2000		18.07	13.54
	1/18/2001		17.89	13.72
	4/5/2001		16.21	15.40

TABLE ONE

Groundwater Elevation Data
Former Chan's Shell Station
726 Harrison St., Oakland, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Le	Depth to Water (feet)	Groundwate Elevation project data
	7/17/2001		16.90	14.71
	10/5/2001	28.64	17.32	11.32
	1/18/2002		15.35	13.29
	4/11/2002		15.82	12.82
	7/8/2002		16.15	12.49
	10/9/2002		16.67	11.97
	1/29/2003		16.19	12.45
	4/11/2003		16.49	12.15
	7/18/2003		16.42	12.22
	10/9/2003		16.80	11.84
	1/28/2003		15.94	12.70
	4/7/2004		**15.28**	**13.36**
MW-4	12/15/1998	32.53*	17.59	14.94
	3/4/1999		15.88	16.65
	6/17/1999		17.14	15.39
	8/27/1999		17.65	14.88
	12/9/1999		18.28	14.25
	3/7/2000		15.41	17.12
	6/7/2000		17.09	15.44
	10/11/2000		18.33	14.20
	1/18/2001		18.23	14.30
	4/5/2001		16.69	15.84
	7/17/2001		17.32	15.21
	10/5/2001	29.58	17.71	11.87
	1/18/2002		15.85	13.73
	4/11/2002		16.14	13.44
	7/8/2002		16.56	13.02
	10/9/2002		17.09	12.49
	1/29/2003		16.65	12.93
	4/11/2003		16.93	12.65
	7/18/2003		16.78	12.80
	10/9/2003		17.26	12.32
	1/28/2004		16.38	13.20
	4/7/2004		**15.64**	**13.94**
MW-5	8/29/2001	29.06	17.42	11.64
	1/18/2002		15.68	13.38
	4/11/2002		16.17	12.89
	7/8/2002		16.51	12.55
	10/9/2002		17.10	11.96
	1/29/2003		16.58	12.48
	4/11/2003		16.87	12.19
	7/18/2003		16.77	12.29
	10/9/2003		17.21	11.85
	1/28/2004		16.34	12.72
	4/7/2004		**15.38**	**13.68**
EW-1	1/18/2002	28.89	15.35	13.54
	4/11/2002		15.73	13.16
	7/8/2002		16.13	12.76
	10/9/2002		16.70	12.19
	1/29/2003		16.20	12.69
	4/11/2003		16.52	12.37
	7/18/2003		16.38	12.51
	10/9/2003		16.84	12.05
	1/28/2004		15.94	12.95
	4/7/2004		**15.02**	**13.87**

* Top of casing elevation relative to arbitrary project datum

TABLE THREE

Certified Analytical Results for GROUNDWATER Samples
Former Chan's Shell Station
726 Harrison St., Oakland, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-1						
7/3/1997	18,000	2,700	350	450	900	7,400
12/5/1998	18,000	1,500	270	260	560	14,000
3/4/1999	44,000	2,800	400	440	960	43,000
6/17/1999	33,000	2,200	250	460	660	25,000
8/27/1999	6,000	1,000	97	190	230	14,000/ 16,000*
12/9/1999	15,000	1,500	160	220	420	17,000
3/7/2000	9,300	1,500	210	66	530	12,000
6/7/2000	26,000**	1,700	< 250	360	580	30,000
10/11/2000	13,000**	1,600	< 100	140	160	19,000
1/18/2001	14,000**	450	< 100	110	230	9,600
4/5/2001	38,000	2,200	180	290	590	35,000
7/17/2001	35,000**	1,800	< 100	300	170	35,000
10/5/2001	17,000	1,500	210	420	790	27,000
1/18/2002	18,000	1,500	120	160	220	22,000
4/11/2002	41,000	2,700	210	340	380	30,000
7/8/2002	36,000	2,800	140	360	300	31,000
10/9/2002	30,000	1,700	310	< 100	< 100	19,000
1/29/2003	26,000	2,400	< 100	310	520	20,000
4/11/2003	22,000	1,700	< 100	270	580	16,000
7/18/2003	40,000	3,200	290	480	830	39,000
10/9/2003	54,000**	3,300	< 130	350	310	49,000
1/28/2004	26,000***	3,000	310	420	800	31,000
4/7/2004	**33,000*****	**2,800**	**13**	**310**	**310**	**39,000**
MW-2						
12/5/1998	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
3/4/1999		Inaccessible due to car parked over well				
6/17/1999	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
8/27/1999		Inaccessible due to car parked over well				
12/9/1999		Inaccessible due to car parked over well				
3/7/2000		Inaccessible due to car parked over well				
6/7/2000	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/11/2000	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/18/2001	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
4/5/2001	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/17/2001			No Longer Sampled			
MW-3						
12/5/1998	6,500***	< 50	50	60	50	3,900
3/4/1999	2,800	< 25	< 25	< 25	< 25	1,600
6/17/1999	1,000	< 10	< 10	< 10	< 10	1,400
8/27/1999	230	< 0.5	0.51	0.5	1	1,500/ 1,600*
12/9/1999	870**	< 0.5	< 0.5	< 0.5	< 0.5	2,100
3/7/2000	150**	4	< 0.5	< 0.5	< 0.5	830
6/7/2000	140**	< 0.5	< 0.5	< 0.5	< 0.5	1,100
10/11/2000	620**	< 5.0	< 5.0	< 5.0	< 5.0	1,500
1/18/2001	1,200**	< 5.0	< 5.0	< 5.0	< 5.0	1,000
4/5/2001	1,700**	< 5.0	< 5.0	< 5.0	< 5.0	1,900
7/17/2001	1,400**	< 10	< 10	< 10	< 10	1,700
10/5/2001	< 1,000	< 10	< 10	< 10	< 10	1,700
1/18/2002	1,600	26	20	16	54	2,100
4/11/2002	2,600	21	16	< 10	21	2,300
7/8/2002	2,800	< 10	< 10	< 10	< 10	3,800
10/9/2002	6,000	< 50	< 50	< 50	< 50	4,900
1/29/2003	1,800	< 10	< 10	< 10	< 10	2,300
4/11/2003	2,900	< 25	< 25	< 25	< 25	3,100
7/18/2003	3,400	< 10	< 10	< 10	< 10	3,200
10/9/2003	2,300	< 10	< 10	< 10	< 10	2,700
1/28/2003	1,700**	< 10	< 10	< 10	< 10	2,900
4/12/2004	**2,700****	**< 10**	**< 10**	**< 10**	**< 20**	**3,600**

TABLE THREE

Certified Analytical Results for GROUNDWATER Samples
Former Chan's Shell Station
726 Harrison St., Oakland, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-4						
12/5/1998	860	3	< 0.5	< 0.5	< 0.5	950
3/4/1999	3,800	< 25	< 25	< 25	< 25	3,700
6/17/1999	2,700	< 25	< 25	< 25	< 25	2,700
8/27/1999	440	4.7	1.1	0.58	1.3	1,600/ 1,700*
12/9/1999	1,100**	< 2.5	< 2.5	< 2.5	< 2.5	1,700
3/7/2000	< 250	< 2.5	< 2.5	< 2.5	< 2.5	1,700
6/7/2000	530**	8.8	< 2.5	< 2.5	< 2.5	440
10/11/2000	700**	3.9	< 2.5	< 2.5	< 2.5	680
1/18/2001	2,000**	< 2.5	< 2.5	< 2.5	< 2.5	780
4/5/2001	810**	< 2.5	< 2.5	< 2.5	< 2.5	620
7/17/2001	880**	< 2.5	< 2.5	< 2.5	< 2.5	570
10/5/2001	550**	< 2.5	< 2.5	< 2.5	< 2.5	710
1/18/2002	960**	< 5.0	< 5.0	< 5.0	< 5.0	1,300
4/11/2002	1,100**	< 5.0	< 5.0	< 5.0	< 5.0	550
7/8/2002	1,200**	< 5.0	< 5.0	< 5.0	< 5.0	890
10/9/2002	1,300**	< 5.0	< 5.0	< 5.0	< 5.0	880
1/29/2003	530**	< 1.0	< 1.0	< 1.0	< 1.0	190
4/11/2003	690**	< 2.5	< 2.5	< 2.5	< 2.5	310
7/18/2003	1,600**	< 10	< 10	< 10	< 10	1,300
10/9/2003	1500***	< 10	< 10	< 10	< 10	1,400
1/28/2004	1,200**	< 10	< 10	< 10	< 10	1,900
4/12/2004	**1,900****	**< 10**	**< 10**	**< 10**	**< 20**	**2,200**
MW-5						
8/29/2001	14,000	1,300	470	230	800	14,000
1/18/2002	24,000	3,200	1,300	390	1,500	5,700
4/11/2002	23,000	2,700	980	38	950	4,300
7/8/2002	19,000	3,300	25	360	1,100	2,100
10/9/2002	24,000	2,800	990	360	820	2,400
1/29/2003	17,000	2,100	1,400	380	1,400	< 250
4/11/2003	26,000	2,900	2,200	590	2,200	630
7/18/2003	26,000	3,500	1,700	480	1,300	1,300
10/9/2003	27,000	3,800	1,900	510	1,700	1,200
1/28/2004	29,000	4,800	2,900	770	2,300	3,300
4/12/2004	**23,000**	**4,400**	**2,700**	**720**	**2,200**	**1,700**
EW-1						
1/18/2002	11,000	1,000	< 100	220	350	6,700
4/11/2002	17,000	1,000	< 100	120	140	9,700
7/8/2002	21,000	1,300	< 100	< 100	200	12,000
10/9/2002	12,000	900	< 25	< 25	200	9,200
1/29/2003	12,000	860	73	130	500	4,500
4/11/2003	8,700	890	< 25	< 25	82	5,400
7/18/2003	8,200	650	77	99	140	4,300
10/9/2003	5,700**	500	28	53	35	3,600
1/28/2004	17,000***	1,600	90	250	280	9,700
4/12/2004			No Longer Sampled			
ESL	400	46	130	290	13	1,800

Notes:

* EPA Method 8020/EPA Method 8260 (MTBE confirmation)

** Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standa

*** Sample contains a discrete peak in addition to gasoline

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document

Most current data is in **Bold**

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory method reporting limit.