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Alameda County

FEB 06 2006

Environmental Health

Mr. Amir Gholami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

January 30, 2006

RECEIVED
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ENVIRONMENTAL HEALTH SERVICES

Re: Groundwater Monitoring Report

Fourth Quarter 2005

Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #130-0105



Dear Mr. Gholami:

On behalf of Mr. Lynn Worthington of Golden Empire Properties, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring Report – Fourth Quarter 2005*. Presented in the report are the fourth quarter 2005 activities and the anticipated first quarter 2006 activities.

If you have any questions or comments regarding this report, please call me at (510) 420-3361.

Sincerely,
Cambria Environmental Technology, Inc.

Subbarao Nagulapathy
Project Engineer

Attachments: Groundwater Monitoring Report - Fourth Quarter 2005

cc: Mr. Lynn Worthington, Golden Empire Properties, Inc. 5942 MacArthur Boulevard, Suite B, Oakland, California 94605

**Cambria
Environmental
Technology, Inc.**

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GROUNDWATER MONITORING REPORT

FOURTH QUARTER 2005

**Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #130-0105**

January 30, 2006



Prepared for:

Mr. Lynn Worthington
Golden Empire Properties, Inc.
5942 MacArthur Boulevard, Suite B
Oakland, California 94605

Prepared by:

Cambria Environmental Technology, Inc.
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Senior Geologist

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GROUNDWATER MONITORING REPORT

FOURTH QUARTER 2005

**Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #130-0105**

January 30, 2006



INTRODUCTION

On behalf of Mr. Lynn Worthington of Golden Empire Properties, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring Report* for the above-referenced site (see Figure 1). Presented in the report are the fourth quarter 2005 groundwater monitoring and corrective action activities and the anticipated first quarter 2006 activities.

FOURTH QUARTER 2005 ACTIVITIES

Monitoring Activities

Field Activities: On December 14, 2005, Cambria subcontracted Muskan Environmental Sampling (MES) to perform quarterly monitoring activities. MES gauged and inspected for separate-phase hydrocarbons (SPH) in all monitoring wells (Figure 1). Groundwater samples were collected from wells MW-1 through MW-4, RW-5, and RW-9. Groundwater monitoring field data sheets are presented in Appendix A. The monitoring data has been submitted to the GeoTracker database. See Appendix C for the GeoTracker electronic delivery confirmation.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and total petroleum hydrocarbons as diesel (TPHd) with silica gel clean-up by modified EPA Method SW8015C; and for benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method SW8021B. The laboratory analytical report is presented as Appendix B. The analytical data has been submitted to the GeoTracker database. See Appendix C for the GeoTracker electronic delivery confirmation.

Monitoring Results

Groundwater Flow Direction: Based on depth to water measurements collected during MES's December 14, 2005 site visit, groundwater beneath the site flows towards the southwest with a gradient of 0.008 ft/ft. The groundwater gradient is generally consistent with historical static groundwater conditions. Groundwater monitoring data is presented in Table 1.

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations were detected in all six sampled wells. TPHg concentrations ranged from 5,200 micrograms per liter ($\mu\text{g/L}$) to 53,000 $\mu\text{g/L}$, with the highest concentration detected in well MW-3. Benzene concentrations ranged from 570 $\mu\text{g/L}$ to 4,700 $\mu\text{g/L}$, with the highest concentration detected in well MW-3. TPHd concentrations ranged from 1,100 $\mu\text{g/L}$ to 49,000 $\mu\text{g/L}$, with the highest concentration detected in well MW-2. MTBE was detected above laboratory detection limits in wells MW-2 and RW-5 at concentrations of 1,000 $\mu\text{g/L}$ and 2,300 $\mu\text{g/L}$, respectively. In general, hydrocarbon concentrations increased this quarter, most notably in well MW-2 but are still within the range of seasonal fluctuations (see Appendix D for individual well concentration trend graphs). Analytical results are summarized in Table 1 and shown on Figure 1.

Corrective Action Activities

No corrective action activities took place during the fourth quarter 2005.

ANTICIPATED FIRST QUARTER 2006 ACTIVITIES

Monitoring Activities

During the first quarter 2006, Cambria will coordinate with MES to gauge the site wells, check the wells for SPH, and collect groundwater samples from monitoring wells MW-1 through MW-4, RW-5, and RW-9. Groundwater samples will be analyzed for TPHg and TPHd with silica gel clean-up by Modified EPA Method SW8015C; and for BTEX and MTBE by EPA Method SW8021B. Cambria will summarize groundwater monitoring activities and results in the *Groundwater Monitoring Report – First Quarter 2006*.

Corrective Action Activities

On February 22, 2005, Cambria submitted a *Remediation Work Plan* to the Alameda County Health Care Services Agency (ACHCSA) which proposed implementation of in-situ chemical oxidation using ozone to further remediate the site. A revised work plan was submitted to ACHCSA on January 30,

2006 as requested by Mr. Amir Gholami. Cambria will implement the work plan upon receipt of agency approval.

ATTACHMENTS

Figure 1 – Groundwater Elevation and Analytical Summary Map – December 14, 2005

Table 1 – Groundwater Elevations and Analytical Data



- Appendix A – Groundwater Monitoring Field Data Sheets
- Appendix B – Analytical Results for Groundwater Sampling
- Appendix C – GeoTracker Electronic Delivery Confirmations
- Appendix D – TPHg and Benzene Concentration Trend Graphs

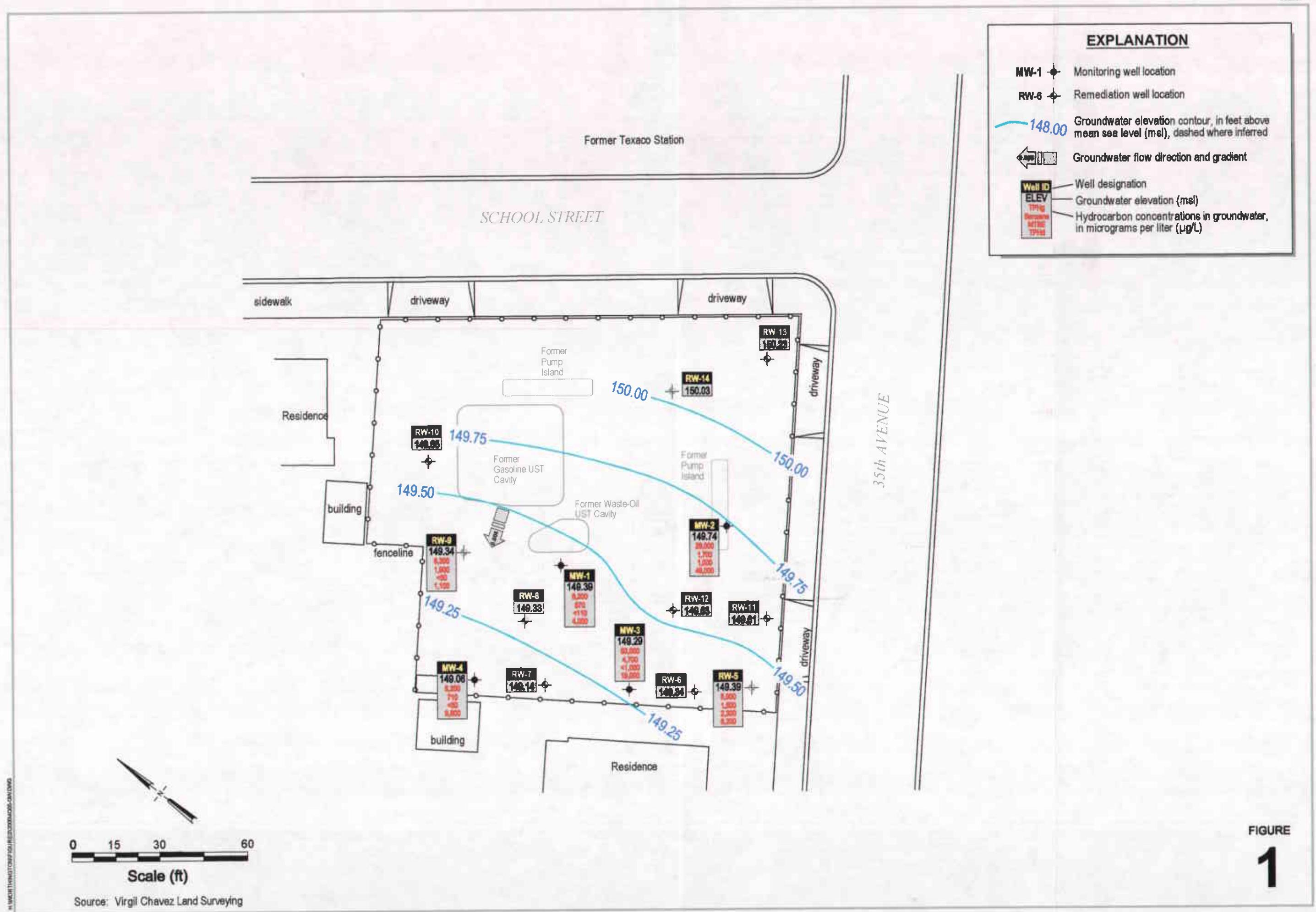
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Groundwater Elevation and Hydrocarbon Concentration Map

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FIGURE 1

Former Exxon Station
3055 35th Avenue
Oakland, California



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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID TOC	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
		Depth (ft)	(ft)	Elev. (ft)	<----- Concentrations in micrograms per liter ($\mu\text{g/L}$) ----->	(mg/L)	Status							
MW-1	5/25/1994	16.79	Sheen	84.06	120,000	25,000	<50,000	22,000	17,000	2,800	16,000	---	---	
100.85	7/19/1994	20.77	---	80.08	---	---	---	---	---	---	---	---	---	
	8/18/1994	21.04	Sheen	79.81	925,000	---	---	16,500	6,200	1,000	9,400	---	---	
	11/11/1994	15.80	---	85.05	57,000	---	---	14,000	4,400	1,400	6,400	---	---	
	2/27/1995	15.53	---	85.32	45,000	---	---	2,900	2,500	760	4,100	---	---	
	5/23/1995	15.29	---	85.56	22,000	---	---	9,900	990	790	2,000	---	---	
	8/22/1995	20.90	---	79.95	23,000	---	---	6,900	340	1,200	1,900	---	---	
	11/29/1995	22.19	---	78.66	37,000	---	---	9,900	530	1,600	2,900	---	---	
	2/21/1996	11.69	---	89.16	33,000	4,300	---	10,000	480	1,000	1,800	3,300	---	
	5/21/1996	14.62	---	86.23	36,000	8,500	---	8,500	1,400	1,300	2,800	1,900	---	
	8/22/1996	22.30	---	78.55	41,000	6,200	---	8,600	1,300	1,500	2,900	<200	8.0	
	11/27/1996	17.24	Sheen	83.61	38,000	6,100	---	9,600	950	1,600	3,100	<400	5.6	
	3/20/1997	16.65	---	84.20	33,000	10,000	---	6,100	560	970	2,200	<400	8.5	
	6/25/1997	19.77	---	81.08	31,000	7,400 ^a	---	7,400	440	890	1,800	<400	3.7	
	9/17/1997	20.12	---	80.73	32,000 ^d	3,500 ^e	---	9,100	550	1,000	2,000	<1,000	2.1	
	12/22/1997	12.95	---	87.90	26,000 ^d	5,800 ^e	---	7,900	370	920	1,500	<790	0.7	
	3/18/1998	12.34	Sheen	88.51	30,000 ^d	4,200 ^{e,f}	---	7,800	820	840	2,000	<1,100	1.3	
	7/14/1998	17.34	---	83.51	41,000 ^d	8,900 ^{e,f}	---	8,200	1,100	1,200	3,000	<200	1.8	
	9/30/1998	19.90	---	80.95	37,000	3,300	---	11,000	950	1,200	2,800	<20	2.0	
	12/8/1998	15.62	---	85.23	22,000	3,700	---	3,000	1,200	730	3,100	<900	---	
	3/29/1999	11.98	---	88.87	36,000 ^d	6,800 ^e	---	12,000	750	1,300	2,400	950	0.50	
	6/29/1999	20.77	---	80.08	28,000 ^d	3,500 ^e	---	7,300	420	810	1,700	<1,300	0.10	
	9/28/1999	19.68	---	81.17	13,000 ^d	3,600 ^{e,f}	---	3,200	130	320	1,100	<210	0.55	
	12/10/1999	17.02	---	83.83	25,000 ^d	2,900 ^{e,f}	---	5,400	130	620	1,400	<1,000	1.03	
	3/23/2000	12.76	---	88.09	21,000 ^d	3,300 ^f	---	4,700	140	470	1,100	<350	---	
	9/7/2000	19.45	---	81.40	40,000 ^{d,g}	12,000 ^{e,g}	---	3,700	1,400	910	4,900	<50	0.17	
	12/5/2000	18.60	---	82.25	26,000 ^a	3,400 ^e	---	7,900	150	580	810	<300	0.35	
	3/7/2001	16.19	---	84.66	13,000	2,400	---	2,700	43	69	300	<100	0.49	
	6/6/2001	18.47	---	82.38	19,000	4,000	---	4,500	130	270	430	<400	0.39	
	8/30/2001	21.70	---	79.15	8,800 ^d	1,400 ^d	---	2,100	45	91	240	<130	0.27	
	12/7/2001	26.55	---	74.30	8,700 ^d	1,900 ^{e,f}	---	1,300	160	38	730	<20	0.59	
	3/11/2002	17.13	---	83.72	9,400 ^d	1,400 ^e	---	2,100	200	74	470	<20	0.39	
	6/10/2002	24.10	---	76.75	4,200 ^d	900 ^{e,k}	---	830	170	110	460	<100	---	
	9/26/2002	20.30	---	80.55	7,000 ^d	1,300 ^{e,f,k}	---	1,300	190	200	760	<100	0.70	
	11/21/2002	21.55	---	79.30	83,000 ^{d,f}	200,000 ^{e,g}	---	7,100	1,700	3,000	13,000	<1,000	0.49	
	1/13/2003	14.80	---	86.05	20,000 ^d	5,300 ^{e,f}	---	2,300	480	300	2,100	<500	0.33	
	4/25/2003	20.90	---	79.95	4,200 ^d	320 ^e	---	580	81	59	470	<50	---	
	5/30/2003	16.65	---	84.20	---	---	---	---	---	---	---	---	Not operating	
	9/3/2003	24.16	---	76.69	14,000 ^d	36,000 ^{e,f}	---	300	50	33	480	<50	---	
	12/2/2003	24.12	---	76.73	7,100 ^{d,g}	9,300 ^{e,f,g}	---	1,400	230	160	820	<100	---	
													Operating	

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID TOC	Date	GW	SPH	GW	TPHg	TPHd	TPHno	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
		Depth (ft)	(ft)	Elev. (ft)	<----- Concentrations in micrograms per liter ($\mu\text{g/L}$)----->	(mg/L)	Status							
<i>MW-1</i>	3/18/2004	17.70	---	83.15	3,600 ^d	1,100 ^{e,f}	---	650	59	38	370	<90	---	Operating
<i>Continued</i>	6/16/2004	19.20	---	147.82	8,100 ^d	2,300 ^{e,f}	---	1,500	69	22	1,000	<100	---	Not operating
<i>167.02</i>	9/27/2004	23.07	---	143.95	7,800 ^d	1,700 ^e	---	1,800	110	120	670	<180	0.28	Not operating
<i>(Monument</i>	12/27/2004	17.04	---	149.98	10,000 ^d	1,400 ^e	---	2,400	170	170	1,500	<120	0.41	Not operating
<i>Well box)</i>	3/7/2005	10.73	---	156.29	8,700 ^d	1,300 ^{e,f,k}	---	1,200	99	140	770	<500	0.91	Not operating
	6/21/2005	14.60	---	152.42	6,500 ^d	930 ^{e,k}	---	820	26	57	110	<250	---	Not operating
	9/21/2005	19.64	---	147.38	2,900 ^d	860 ^{e,f}	---	430	19	46	150	<50	1.14	Not operating
	12/14/2005	17.63	---	149.39	6,200 ^d	4,000 ^{e,f,k}	---	570	32	72	420	<110	1.08	Not operating
<i>MW-2</i>	5/25/1994	15.65	---	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	---	---	
<i>100.00</i>	7/19/1994	19.81	---	80.19	---	---	---	---	---	---	---	---	---	
	8/18/1994	20.37	---	79.63	88,000	---	---	10,750	10,500	1,850	9,600	---	---	
	11/11/94	15.52	---	84.48	54,000	---	---	5,900	6,700	1,300	7,500	---	---	
	2/27/1995	14.46	Sheen	85.54	44,000	---	---	5,100	5,300	930	6,400	---	---	
	5/23/1995	14.17	---	85.83	33,000	---	---	8,200	5,600	900	6,600	---	---	
	8/22/1995	19.80	---	80.20	38,000	---	---	6,400	5,000	1,100	5,600	---	---	
	11/29/95	21.05	---	78.95	46,000	---	---	7,100	5,300	1,300	6,000	---	---	
	2/21/1996	10.53	---	89.47	59,000	---	---	8,000	6,000	1,800	8,900	4,500	---	
	5/21/1996	13.47	---	86.53	51,000	3,400	---	8,200	5,200	1,300	6,600	2,400	---	
	8/22/1996	19.12	---	80.88	37,000	5,700	---	5,100	3,500	960	4,500	<200	3.0	
	11/27/1996	16.61	Sheen	83.39	54,000	10,000	---	9,800	7,000	1,800	7,900	<2,000	3.1	
	3/20/1997	15.39	---	84.61	27,000	6,100	---	3,700	2,300	580	2,800	<400	8.1	
	6/25/1997	18.62	---	81.38	42,000	7,800 ^b	---	7,400	3,800	1,200	5,700	<200	0.9	
	9/17/1997	19.05	Sheen	80.95	41,000 ^d	8,900 ^e	---	5,200	3,400	1,300	5,900	<700	1.2	
	12/22/1997	14.09	---	85.91	47,000 ^d	6,100 ^e	---	8,500	4,600	1,800	8,400	<1,200	1.2	
	3/18/1998	10.83	Sheen	89.17	58,000 ^d	7,000 ^{e,f}	---	9,300	6,100	1,800	8,200	<1,100	1.1	
	7/14/1998	16.07	---	83.93	42,000 ^d	5,300 ^{e,f}	---	6,000	3,000	1,000	4,800	<200	1.5	
	9/30/1998	18.71	---	81.29	22,000	2,400	---	3,600	1,300	720	3,200	<30	1.8	
	12/8/1998	14.80	---	85.20	32,000	3,100	---	9,200	680	1,100	2,300	<2,000	---	
	3/29/1999	11.81	---	88.19	28,000 ^d	7,500 ^{e,f}	---	4,400	1,600	950	4,100	410	1.86	
	6/29/1999	19.54	---	80.46	28,000 ^d	3,300 ^e	---	3,500	1,100	690	3,100	<1,000	0.41	
	9/28/1999	18.61	---	81.39	15,000 ^d	3,400 ^{e,f}	---	1,200	540	230	2,300	<36	1.18	
	12/10/1999	16.53	---	83.47	17,000 ^d	2,500 ^{e,f}	---	1,300	780	420	2,700	<40	0.17	
	3/23/2000	13.56	---	86.44	25,000 ^d	3,100 ⁱ	---	1,900	1,100	660	3,700	<500	---	
	9/7/2000	18.25	---	81.75	62,000 ^{d,g}	32,000 ^{e,g}	---	5,300	2,300	1,500	8,400	<100	0.39	
	12/5/2000	17.45	---	82.55	60,000 ^{d,g}	87,000 ^{e,f,g}	---	5,100	2,200	1,600	9,000	<200	0.31	Not operating
	3/7/2001	15.68	---	84.32	34,000	3,900	---	1,200	770	620	4,300	<200	0.44	Not operating
	6/6/2001	17.51	---	82.49	110,000	48,000	---	14,000	9,000	1,900	12,000	<950	0.24	Not operating
	8/30/2001	21.00	---	79.00	43,000 ^{a,h}	15,000 ^{a,h}	---	3,100	720	980	5,500	<200	---	Operating
	12/7/2001	24.45	---	75.55	4,100 ^d	750 ^{e,f}	---	510	88	8.2	580	<20	0.47	Operating

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID <i>TOC</i>	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
		Depth (ft)	(ft)	Elev. (ft)	<----- Concentrations in micrograms per liter ($\mu\text{g/L}$) ----->	(mg/L)	Status							
<i>MW-2</i>	3/11/2002	16.95	---	83.05	4,700 ^d	590 ^e	---	1,200	150	30	310	<50	0.24	Operating
<i>Continued</i>	6/10/2002	18.59	---	81.41	14,000 ^d	2,000 ^e	---	2,600	710	150	2,000	<800	---	Operating
	9/26/2002	20.39	---	79.61	4,800 ^d	660 ^e	---	770	200	140	740	<50	0.29	Operating
	11/21/2002	18.75	---	81.25	210,000 ^{d,g}	350,000 ^{e,g}	---	14,000	23,000	4,400	28,000	<1,700	0.43	Operating
	1/13/2003	13.60	---	86.40	32,000 ^{d,g}	14,000 ^{e,f,g,k}	---	4,500	1,600	920	3,600	<1000	0.39	Not operating
	4/25/2003	19.05	---	80.95	3,800 ^d	310 ^e	---	460	78	72	410	310	---	Operating
	5/30/2003	15.23	---	84.77	---	---	---	---	---	---	---	---	---	Not operating
	9/3/2003	23.57	---	76.43	2,900 ^d	2,300 ^e	---	240	57	68	380	770	---	Operating
	12/2/2003	23.17	---	76.83	2,400 ^{d,g}	3,300 ^{e,f,g}	---	91	20	14	250	890	---	Operating
	3/18/2004	15.78	---	84.22	4,200 ^d	870 ^{e,f}	---	730	89	<5.0	480	2,300	---	Operating
<i>166.14</i>	6/16/2004	18.15	---	147.99	15,000 ^d	9,800 ^{e,f}	---	800	210	290	1,800	2,000	---	Not operating
<i>(Monument</i>	9/27/2004	27.55**	---	138.59	770 ^d	1,000 ^{e,f,k}	---	20	7.9	10	140	1,600	0.79	Operating
<i>Well box)</i>	12/27/2004	16.81	---	149.33	17,000 ^d	3,800 ^{e,f}	---	1,300	370	540	3,800	620	0.94	Not operating
	3/7/2005	9.31	Sheen	156.83	20,000 ^{d,g}	8,300 ^{e,f,k,g}	---	1,400	330	430	2,600	1,100	0.88	Not operating
	6/21/2005	13.42	---	152.72	36,000 ^{d,g}	15,000 ^{e,f,g}	---	1,700	310	460	3,100	1,200	---	Not operating
	9/21/2005	18.50	---	147.64	4,600 ^d	1,100 ^{e,f}	---	370	62	110	740	1,100	0.86	Not operating
	12/14/2005	16.40	---	149.74	29,000 ^{d,e}	49,000 ^{e,f,k,g}	---	1,700	260	600	3,700	1,000	0.99	Not operating
<i>MW-3</i>	5/25/1994	13.93	Sheen	82.94	56,000	14,000	<50,000	14,000	14,000	1,300	11,000	---	---	
<i>96.87</i>	7/19/1994	17.04	---	79.83	---	---	---	---	---	---	---	---	---	
	8/18/1994	17.75	---	79.12	116,000	---	---	28,300	26,000	2,400	15,000	---	---	
	11/11/94	17.80	---	79.07	89,000	---	---	1,600	1,900	1,900	14,000	---	---	
	2/27/1995	11.86	Sheen	85.01	250,000	---	---	22,000	26,000	7,800	21,000	---	---	
	5/23/1995	11.60	Sheen	85.27	310,000	---	---	18,000	17,000	4,500	2,800	---	---	
	8/22/1995	17.10	---	79.77	74,000	---	---	14,000	13,000	1,900	11,000	---	---	
	11/29/1995	16.34	---	80.53	220,000	---	---	25,000	25,000	3,500	19,000	---	---	
	2/21/1996	7.92	---	88.95	60,000	---	---	10,000	7,800	1,500	8,800	3,400	---	
	5/21/1996	10.86	Sheen	86.01	69,000	13,000	---	17,000	9,400	1,700	9,400	2,600	---	
	8/22/1996	16.50	---	80.37	94,000	16,000	---	17,000	15,000	2,100	12,000	330	2.0	
	11/27/1996	13.47	Sheen	83.40	82,000	24,000	---	14,000	13,000	2,400	13,000	<1,000	2.4	
	3/20/1997	12.86	---	84.01	56,000	11,000	---	9,900	6,900	1,300	8,000	3,500	9.0	
	6/25/1997	15.98	---	80.89	49,000	7,700 ^b	---	9,700	7,100	1,300	7,000	220	5.8	
	9/17/1997	16.34	Sheen	80.53	78,000 ^d	15,000 ^e	---	11,000	9,900	1,800	10,000	<1,200	0.7	
	12/22/1997	10.71	Sheen	86.16	49,000 ^d	14,000 ^e	---	7,300	5,300	1,400	7,500	<1,100	3.1	
	3/18/1998	8.41	Sheen	88.46	120,000 ^d	20,000 ^{e,f}	---	21,000	19,000	2,600	15,000	<1,600	1.6	
	7/14/1998	13.51	---	83.36	94,000 ^{d,g}	65,000 ^{e,f,g}	---	18,000	14,000	1,900	11,000	<1,400	1.8	
	9/30/1998	16.14	---	80.73	91,000	9,800	---	17,000	13,000	2,100	12,000	<1300	2.0	
	12/8/1998	11.20	---	85.67	51,000	4,200	---	8,000	6,800	1,400	7,500	<1,100	—	
	3/29/1999	7.95	---	88.92	39,000 ^d	4,600 ^e	---	8,900	4,400	940	4,500	810	0.56	
	6/29/1999	16.98	---	79.89	71,000 ^d	6,900 ^e	---	12,000	7,300	1,400	8,400	<1,700	0.19	

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID TOC	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
		Depth (ft)	(ft)	Elev. (ft)	<	Concentrations in micrograms per liter ($\mu\text{g/L}$)								>
MW-3	9/28/1999	15.99	---	80.88	60,000 ^d	7,800 ^e	---	9,400	9,200	1,000	9,900	200	0.53	
Continued	12/10/1999	13.31	---	83.56	53,000 ^d	5,300 ^{e,f}	---	8,000	6,400	1,100	8,100	<200	0.48	
	3/23/2000	8.98	---	87.89	77,000 ^{d,g}	11,000 ^{e,j}	---	10,000	9,400	1,600	11,000	<430	---	
	9/7/2000	15.61	---	81.26	100,000 ^{d,g}	19,000 ^{e,f,g}	---	17,000	12,000	1,600	11,000	<500	---	
	12/5/2000	14.80	---	82.07	110,000 ^{d,g}	17,000 ^{e,g}	---	17,000	11,000	1,900	12,000	<750	0.37	Not operating
	3/7/2001	14.27	---	82.60	60,000	13,000	---	7,000	4,600	900	7,100	<350	0.49	Not operating
	6/6/2001	14.88	---	81.99	43,000	12,000	---	3,000	1,000	770	5,200	<400	1.71	Not operating
	8/30/2001	12.43	---	84.44	95,000 ^{a,h}	190,000 ^{a,k}	---	6,900	10,000	2,700	15,000	<250	0.24	Operating
	12/7/2001	24.65	---	72.22	25,000 ^d	3,900 ^{e,f}	---	2,500	1,700	64	2,200	<200	0.19	Operating
	3/11/2002	14.69	---	82.18	30,000 ^d	2,800 ^{e,a,k}	---	5,000	2,400	190	1,800	<1,300	0.30	Operating
	6/10/2002	22.94	---	73.93	9,000 ^d	990 ^{e,k}	---	1,800	1,300	96	1,000	<300	---	Operating
	9/26/2002	18.85	---	78.02	50,000 ^{d,g}	130,000 ^{e,g}	---	3,900	5,400	820	6,600	<500	0.19	Operating
	11/21/2002	17.85	0.05	79.06	37,000 ^{d,g}	120,000 ^{e,g}	---	4,000	660	1,200	5,100	<1,700	0.28	Operating
	1/13/2003	11.43	---	85.44	21,000 ^{d,g}	6,300 ^{e,f,g,k}	---	2,400	2,300	390	3,000	<500	0.31	Not operating
	4/25/2003	18.30	---	78.57	12,000 ^d	1,200 ^e	---	1,800	850	150	1,200	<500	---	Operating
	5/30/2003	13.30	---	83.57	---	---	---	---	---	---	---	---	---	Not operating
	9/3/2003	21.65	---	75.22	8,100 ^d	3,300 ^e	---	220	170	66	560	<50	---	Operating
	12/2/2003	17.70	---	79.17	30,000 ^{d,g}	8,400 ^{e,f,g}	---	2,900	2,100	530	3,600	<500	---	Operating
	3/18/2004	16.49	---	80.38	15,000 ^d	2,300 ^{e,f}	---	2,600	990	260	1,700	<300	---	Operating
J62.94	6/16/2004	15.40	---	147.54	23,000 ^d	8,800 ^{e,f}	---	2,100	1,300	360	2,800	<1,000	---	Operating
	9/27/2004	23.65	---	139.29	5,200 ^d	1,700 ^{e,f}	---	430	220	100	680	250	0.55	Operating
	12/27/2004	14.58	---	148.36	32,000 ^{d,g}	24,000 ^{e,f,g,k}	---	4,400	2,800	650	4,800	<250	0.71	Not operating
	3/7/2005	6.91	Sheen	156.03	50,000 ^{d,g}	14,000 ^{e,f,g}	---	6,100	2,100	1,300	7,400	<500	0.62	Not operating
	6/21/2005	10.79	---	152.15	44,000 ^{d,g}	12,000 ^{e,g}	---	4,900	870	1,100	6,500	<1,200	---	Not operating
	9/21/2005	15.73	---	147.21	41,000 ^{d,g}	16,000 ^{e,f,g,k}	---	3,700	480	930	5,700	<500	0.90	Not operating
	12/14/2005	13.65	---	149.29	53,000 ^{d,g}	19,000 ^{e,f,k}	---	4,700	350	1,100	7,400	<1,000	0.95	Not operating
MW-4	3/20/1997	13.75	---	83.59	47,000	3,100	---	11,000	4,500	1,100	5,200	3,400	8.4	
97.34	6/25/1997	16.15	---	81.19	61,000	5,800 ^b	---	16,000	6,100	1,500	5,900	780 ^c	1.4	
	9/17/1997	17.10	---	80.24	60,000 ^d	4,400 ^e	---	17,000	4,900	1,500	5,700	<1,500	1.5	
	12/22/1997	9.21	---	88.13	43,000 ^d	3,100 ^e	---	13,000	3,900	1,100	4,200	<960	3.7	
	3/18/1998	9.54	---	87.80	58,000 ^d	5,500 ^{e,f}	---	14,000	4,700	1,400	5,700	<1,200	0.8	
	7/14/1998	14.15	---	83.19	73,000 ^d	2,900 ^{e,f}	---	22,000	7,000	1,800	7,300	<200	1.0	
	9/30/1998	16.84	---	80.50	39,000	2,100	---	12,000	2,700	1,000	3,400	510	1.1	
	12/8/1998	13.45	---	83.89	27,000	1,600	---	8,900	1,600	730	2,300	<1,500	---	
	3/29/1999	9.10	---	88.24	48,000 ^d	2,400 ^{e,f,h}	---	15,000	3,000	1,300	5,000	1,300	1.32	
	06/29/99*	---	---	---	---	---	---	---	---	---	---	---	---	
	9/28/1999	16.58	---	80.76	24,000 ^d	3,200 ^{e,f}	---	7,500	1,200	190	2,200	210	14.29 ^b	
	12/10/1999	13.99	---	83.35	47,000 ^d	3,100 ^{e,f}	---	12,000	1,800	1,000	4,400	<100	0.62	
	3/23/2000	10.22	---	87.12	40,000 ^d	3,100 ^{e,f}	---	11,000	1,600	910	3,100	690	---	

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID TOC	Date	GW Depth (ft)	SPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	TPE System Status
	<----- Concentrations in micrograms per liter ($\mu\text{g/L}$) ----->													
<i>MW-4</i>	9/7/2000	16.40	---	80.94	43,000 ^d	5,900 ^e	---	10,000	1,100	1,100	3,400	<450	1.04	
<i>Continued</i>	12/5/2000	15.55	---	81.79	69,000 ^{a,g}	2,600 ^{e,f,g}	---	16,000	1,300	1,300	3,400	<200	0.35	Not operating
	3/20/2001	14.03	---	83.31	46,000	---	---	13,000	1,000	900	2,800	<350	0.39	Not operating
	6/6/2001	15.49	---	81.85	75,000	5,400	---	22,000	1,800	1,900	6,400	<1,200	2.22	Not operating
	8/30/2001	18.00	---	79.34	43,000 ^a	3,200 ^d	---	6,400	630	510	2,600	<200	0.32	Operating
	12/7/2001	23.45	---	73.89	32,000 ^{a,g}	11,000 ^{c,f,g}	---	4,500	740	310	2,300	<200	0.21	Operating
	3/11/2002	14.95	---	82.39	15,000 ^d	1,600 ^{e,f,k}	---	3,700	500	92	790	<500	0.30	Operating
	6/10/2002	22.30	---	75.04	9,400 ^d	3,400 ^e	---	1,400	50	<5.0	690	<200	---	Operating
	9/26/2002	17.93	---	79.41	21,000 ^d	800 ^e	---	3,300	1,300	450	2,900	<500	0.24	Operating
	11/21/2002	17.55	---	79.79	5,700 ^d	2,400 ^{c,l}	---	1,400	290	63	640	550	---	Operating
	1/13/2003	11.75	---	85.59	35,000 ^{a,g}	15,000 ^{c,f,g,k}	---	5,100	1,500	510	4,500	<800	0.28	Not operating
	4/25/2003	19.37	---	77.97	6,600 ^d	2,200 ^{e,f}	---	960	130	100	560	<170	---	Operating
	5/30/2003	13.56	---	83.78	---	---	---	---	---	---	---	---	---	Not operating
	9/3/2003	21.65	---	75.69	29,000 ^d	27,000 ^{e,f}	---	2,200	380	280	2,300	65	---	Operating
	12/2/2003	19.17	---	78.17	13,000 ^d	5,800 ^{e,f}	---	1,300	180	120	1,900	<250	---	Operating
	3/18/2004	14.92	---	82.42	5,300 ^d	1,500 ^e	---	1,300	55	37	440	<180	---	Operating
<i>I63.49</i>	6/16/2004	16.02	---	147.47	9,100 ^d	3,400 ^{e,f}	---	940	96	120	800	<50	---	Not operating
	9/27/2004	19.93	---	143.56	1,300 ^d	980 ^{c,f,k}	---	140	10	11	81	<50	0.68	Not operating
	12/27/2004	14.79	---	148.70	10,000 ^{a,g}	5,300 ^{c,f,g,k}	---	1,000	99	34	1,600	<50	0.74	Not operating
	3/7/2005	7.81	Sheen	155.68	15,000 ^{a,g}	9,300 ^{c,f,g}	---	1,100	140	88	1,900	<100	0.65	Not operating
	6/21/2005	11.82	---	151.67	30,000 ^{a,g}	12,000 ^{c,g}	---	3,300	270	250	2,800	<500	---	Not operating
	9/21/2005	16.55	---	146.94	12,000 ^{a,g}	15,000 ^{c,f,k,p}	---	540	100	54	1,800	<50	0.89	Not operating
	12/14/2005	14.43	---	149.06	5,200 ^{a,g}	9,800 ^{c,f,k,p}	---	710	41	91	540	<50	0.91	Not operating
<i>RW-5</i>	6/16/2004	14.73	---	147.61	---	---	---	---	---	---	---	---	---	Not operating
<i>I62.34</i>	9/27/2004	25.55**	---	136.79	---	---	---	---	---	---	---	---	---	Operating
	12/27/2004	10.45	---	151.89	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	4.42	Sheen	157.92	7,000 ^d	6,100 ^{c,l,k}	---	720	63	97	670	<400	0.93	Not operating
	6/21/2005	10.02	---	152.32	11,000 ^d	490 ^e	---	1,200	67	68	690	<500	---	Not operating
	9/21/2005	15.07	---	147.27	2,000 ^{a,g}	2,500 ^{c,f,g}	---	390	16	24	170	1,300	0.99	Not operating
	12/14/2005	12.95	---	149.39	8,900 ^{a,g}	6,200 ^{c,f,k,p}	---	1,500	92	180	750	2,300	1.03	Not operating
<i>RW-6</i>	6/16/2004	14.80	---	147.56	---	---	---	---	---	---	---	---	---	Not operating
<i>I62.36</i>	9/27/2004	18.46	---	143.90	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	9.82	---	152.54	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	6.05	---	156.31	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	10.13	---	152.23	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	15.13	---	147.23	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	13.02	---	149.34	---	---	---	---	---	---	---	---	---	Not operating

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID TOC	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
		Depth (ft)	(ft)	Elev. (ft)	<	Concentrations in micrograms per liter ($\mu\text{g/L}$)								(mg/L)
RW-7 <i>I62.72</i>	6/16/2004	15.22	---	147.50	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	18.98	---	143.74	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	9.85	---	152.87	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	5.82	---	156.90	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	10.85	---	151.87	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	15.70	---	147.02	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	13.58	---	149.14	---	---	---	---	---	---	---	---	---	Not operating
RW-8 <i>I64.13</i>	6/16/2004	16.41	---	147.72	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	19.74	---	144.39	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	12.32	---	151.81	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	8.10	---	156.03	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	12.15	---	151.98	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	16.90	---	147.23	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	14.80	---	149.33	---	---	---	---	---	---	---	---	---	Not operating
RW-9 <i>I63.86</i>	6/16/2004	16.03	---	147.83	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	19.83	---	144.03	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	24.88	---	138.98	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	7.87	---	155.99	9,000 ^d	510 ^e	---	2,600	69	200	550	<500	0.91	Not operating
	6/21/2005	11.90	---	151.96	9,400 ^d	630 ^e	---	2,400	69	210	470	<350	---	Not operating
	9/21/2005	16.62	---	147.24	8,300 ^{d,f}	820 ^{e,f,g}	---	2,500	36	190	310	<170	1.04	Not operating
	12/14/2005	14.52	---	149.34	6,300 ^d	1,100 ^{e,f}	---	1,900	29	150	260	<50	0.98	Not operating
RW-10 <i>I63.02</i>	6/16/2004	15.03	---	147.99	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	18.35	---	144.67	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	19.39	---	143.63	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	6.40	---	156.62	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	10.95	---	152.07	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	15.51	---	147.51	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	13.37	---	149.65	---	---	---	---	---	---	---	---	---	Not operating
RW-11 <i>I62.57</i>	6/16/2004	14.75	---	147.82	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	18.44	---	144.13	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	10.07	---	152.50	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	5.95	---	156.62	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	9.96	---	152.61	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	15.09	---	147.48	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	12.96	---	149.61	---	---	---	---	---	---	---	---	---	Not operating

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID <i>TOC</i>	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
		Depth (ft)	(ft)	Elev. (ft)	<-----	Concentrations in micrograms per liter ($\mu\text{g/L}$)						>----->	(mg/L)	Status
RW-12 <i>I63.06</i>	6/16/2004	15.30	---	147.76	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	19.09	---	143.97	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	10.85	---	152.21	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	6.59	---	156.47	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	10.58	---	152.48	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	15.63	---	147.43	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	13.43	---	149.63	---	---	---	---	---	---	---	---	---	Not operating
RW-13 <i>I64.34</i>	6/16/2004	15.83	---	148.51	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	19.55	---	144.79	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	18.12	---	146.22	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	6.90	---	157.44	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	11.05	---	153.29	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	16.20	---	148.14	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	14.11	---	150.23	---	---	---	---	---	---	---	---	---	Not operating
RW-14 <i>I63.76</i>	6/16/2004	15.41	---	148.35	---	---	---	---	---	---	---	---	---	Not operating
	9/27/2004	19.20	---	144.56	---	---	---	---	---	---	---	---	---	Not operating
	12/27/2004	12.62	---	151.14	---	---	---	---	---	---	---	---	---	Not operating
	3/7/2005	6.61	---	157.15	---	---	---	---	---	---	---	---	---	Not operating
	6/21/2005	10.80	---	152.96	---	---	---	---	---	---	---	---	---	Not operating
	9/21/2005	15.82	---	147.94	---	---	---	---	---	---	---	---	---	Not operating
	12/14/2005	13.73	---	150.03	---	---	---	---	---	---	---	---	---	Not operating
Trip Blank	7/14/1998	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	9/30/1998	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	12/8/1998	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	3/29/1999	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	6/29/1999	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	3/23/2000	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	9/7/2000	---	---	---	<50	---	---	<0.5	1.1	<0.5	1.1	<5.0	---	

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Table 1. Groundwater Elevations and Analytical Data - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID TOC	Date	GW Depth (ft)	SPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	TPE System Status
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Methods and Abbreviations:

TOC = Top of casing elevation measured in feet relative to surveyor's datum.

All site wells were re-surveyed by Virgil Chavez Land Surveying on June 2, 2004 to the CA State Coordinate System, Zone III (NAD83). Benchmark elevation = 177.397 feet (NGVD 29)

GW Depth = Groundwater depth measured in feet below TOC.

GW Elev. = Groundwater elevation measured in feet above mean sea level.

ft = Measured in feet

SPH = Separate-phase hydrocarbons depth measured from TOC.

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C

TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method SW8015C

TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method SW8015C

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method SW8021B

MTBE = Methyl tertiary-butyl ether by EPA Method SW8021B

DO = Dissolved oxygen

µg/L = Micrograms per liter, equivalent to parts per billion in water

mg/L = Milligrams per liter, equivalent to parts per million in water

TPE = Two-phase extraction

--- = Not observed/not analyzed

* = Well inaccessible during site visit

** = No water in well due to system operating in well, value reflects total well depth.

= abnormally high reading due to added hydrogen peroxide

Notes:

a = Result has an atypical pattern for diesel analysis

b = Result appears to be a lighter hydrocarbon than diesel

c = There is a >40% difference between primary and confirmation analysis

d = Unmodified or weakly modified gasoline is significant

e = Gasoline range compounds are significant

f = Diesel range compounds are significant; no recognizable pattern

g = Lighter than water immiscible sheen is present

h = One to a few isolated peaks present

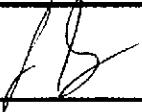
i = Medium boiling point pattern does not match diesel (stoddard solvent)

j = Aged diesel is significant

k = Oil range compounds are significant



WELL GAUGING SHEET

Client: Cambria Environmental Technology Inc.						
Site						
Address: 3055 35th Avenue Oakland, CA						
Date: 12/14/2005			Signature: 			
Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1	8:53		17.63		27.35	
MW-2	8:50		16.40		27.60	
MW-3	9:00		13.65		25.10	
MW-4	8:55		14.43		30.25	
RW-5	8:45		12.95		25.65	
RW-6	8:00		13.02		25.35	
RW-7	8:05		13.58		29.11	
RW-8	8:20		14.80		29.00	
RW-9	8:40		14.52		25.18	
RW-10	8:25		13.37		24.97	
RW-11	8:10		12.96		24.97	



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL GAUGING SHEET



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SAMPLING

WELL SAMPLING FORM



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WELL SAMPLING FORM



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM



**MUSKAN
ENVIRONMENTAL
SAMPLING**

WELL SAMPLING FORM

Date:	12/14/2005					
Client:	Cambria Environmental Technology Inc.					
Site Address:	3055 35th Avenue Oakland, CA					
Well ID:	MW-4					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	30.25		Fe=	mg/L		
Depth to Water:	14.43		ORP=	mV		
Water Column Height:	15.82		DO=	0.91 mg/L		
Gallons/ft:	0.16					
1 Casing Volume (gal):	2.53		COMMENTS: odor, sheen			
3 Casing Volumes (gal):	7.59					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (μ S/cm)		
1:20	2.5	22.1	7.04	748		
1:25	5.1	21.6	6.97	812		
1:30	7.6	21.9	6.99	805		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-4	12/14/2005	1:35	Voa, Amber	HCl, ICE	TPHg, BTEX, MTBE, TPHd	8015, silica gel clean up, 8020



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	12/14/2005					
Client:	Cambria Environmental Technology Inc.					
Site Address:	3055 35th Avenue Oakland, CA					
Well ID:	RW-9					
Well Diameter:	4"					
Purging Device:	3" PVC Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	25.18		Fe=	mg/L		
Depth to Water:	14.52		ORP=	mV		
Water Column Height:	10.66		DO=	0.98 mg/L		
Gallons/ft:	0.65					
1 Casing Volume (gal):	6.93		COMMENTS: odor			
3 Casing Volumes (gal):	20.79					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (μ S/cm)		
9:15	6.9	19.4	7.12	893		
9:25	13.9	19.2	7.05	810		
9:40	20.8	19.7	7.08	815		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
RW-9	12/14/2005	9:45	Voa, Amber	HCl, ICE	TPHg, BTEX, MTBE, TPHd	8015, silica gel clean up, 8020



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: #130-0105; Worthington	Date Sampled: 12/14/05
		Date Received: 12/15/05
	Client Contact: Subbarao Nagulapaty	Date Reported: 12/21/05
	Client P.O.:	Date Completed: 12/21/05

WorkOrder: 0512294

December 21, 2005

Dear Subbarao:

Enclosed are:

- 1). the results of **6** analyzed samples from your **#130-0105; Worthington 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.

Best regards,

Angela Rydelius, Lab Manager



McCampbell Analytical, Inc.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105; Worthington	Date Sampled: 12/14/05
		Date Received: 12/15/05
	Client Contact: Subbarao Nagulapaty	Date Extracted: 12/16/05-12/20/05

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Gm

Work Order: 0512294

* 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.



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Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105; Worthington	Date Sampled: 12/14/05
		Date Received: 12/15/05
	Client Contact: Subbarao Nagulapaty	Date Extracted: 12/15/05
	Client P.O.:	Date Analyzed: 12/16/05

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C

Analytical methods: SW8015C

Work Order: 0512294

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

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+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 diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



McCormick Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccormick.com E-mail: main@mccormick.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0512294

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 19457			Spiked Sample ID: 0512276-005A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	102	101	0.541	103	103	0	70 - 130	70 - 130
MTBE	ND	10	88.8	89.6	0.868	85.4	91.9	7.33	70 - 130	70 - 130
Benzene	ND	10	86.9	93.2	6.94	88.5	94.5	6.57	70 - 130	70 - 130
Toluene	ND	10	88.3	94.3	6.56	90	95.8	6.16	70 - 130	70 - 130
Ethylbenzene	ND	10	91.2	90.7	0.484	92.9	97.5	4.83	70 - 130	70 - 130
Xylenes	ND	30	91	90.7	0.367	95	99.3	4.46	70 - 130	70 - 130
%SS:	105	10	101	106	5.27	98	103	4.45	70 - 130	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

BATCH 19457 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0512294-001A	12/14/05 10:50 AM	12/19/05	12/19/05 5:31 PM	0512294-002A	12/14/05 1:00 PM	12/16/05	12/16/05 5:25 PM
0512294-003A	12/14/05 2:05 PM	12/16/05	12/16/05 5:55 PM	0512294-004A	12/14/05 1:35 PM	12/20/05	12/20/05 6:49 PM
0512294-005A	12/14/05 11:50 AM	12/20/05	12/20/05 1:17 AM	0512294-006A	12/14/05 9:45 AM	12/19/05	12/19/05 5:30 PM

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the 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.



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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0512294

EPA Method: SW8015C		Extraction: SW3510C		BatchID: 19492		Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	100	100	0	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	96	96	0	N/A	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

BATCH 19492 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0512294-001B	12/14/05 10:50 AM	12/15/05	12/16/05 2:37 PM	0512294-002B	12/14/05 1:00 PM	12/15/05	12/16/05 3:45 PM
0512294-003B	12/14/05 2:05 PM	12/15/05	12/16/05 6:04 PM	0512294-004B	12/14/05 1:35 PM	12/15/05	12/16/05 2:37 PM
0512294-005B	12/14/05 11:50 AM	12/15/05	12/16/05 4:56 PM	0512294-006B	12/14/05 9:45 AM	12/15/05	12/16/05 7:12 PM

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the 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.

DHS Certification No. 1644

 QA/QC Officer

cete 0512294

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

 RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Yes No

Report To: Subba Rao Nagulaapety Bill To: Cambria Environmental Tech.
 Company: Cambria Environmental Technology
 5900 Hollis Street Suite A
 Emeryville, CA 94608 E-Mail: nagulaapety@Cambriatech.com
 Tele: Fax: 510-420-9170
 Project #: 130-0105 Project Name: Worthington
 Project Location: 3055 35th St. Oakland, CA
 Sampler Signature: Muskan Environmental Sampling AB

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	MATRIX		METHOD PRESERVED	Analysis Request	Other	Comments
		Date	Time		Soil	Air	Sludge			
MN-1		12-14-05	10:50 AM	4	X					
MN-2			1:00							
MN-3			2:05							
MN-4			1:35							
RW-5			11:50							
RW-9			3:45	Y						
TB				1	Vom	X	X			Hold

Relinquished By:

Date: 12/15 Time: 5pm

Received By:

Mr. Vall

Relinquished By:

Date: Time:

Received By:

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

PRESERVATION	VOAS	O&G	METALS	OTHER
--------------	------	-----	--------	-------

McCAMPBELL ANALYTICAL, INC.

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

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0512294

ClientID: CETE

EDF: NO

Report to:

Subbarao Nagulapati
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #130-0105; Worthington
PO:

Bill to:

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

Requested TAT: 5 days

Date Received: 12/15/2005

Date Printed: 12/15/2005

Requested Tests (See legend below)																
Sample ID	ClientSamplID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12

0512294-001	MW-1	Water	12/14/2005	<input type="checkbox"/>	A	B										
0512294-002	MW-2	Water	12/14/2005	<input type="checkbox"/>	A	B										
0512294-003	MW-3	Water	12/14/2005	<input type="checkbox"/>	A	B										
0512294-004	MW-4	Water	12/14/2005	<input type="checkbox"/>	A	B										
0512294-005	RW-5	Water	12/14/2005	<input type="checkbox"/>	A	B										
0512294-006	RW-9	Water	12/14/2005	<input type="checkbox"/>	A	B										
0512294-007	TB	Water	12/14/2005	<input type="checkbox"/>	A	B										

Test Legend:

1	G-MBTEX_W
6	
11	

2	TPH(D)WSG_W
7	
12	

3	
8	

4	
9	

5	
10	

Prepared by: Rosa 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.

Electronic Submittal Information

[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: Geo_Well

Submittal Date/Time: 12/29/2005 11:28:37 AM

Confirmation Number: 6910709977

[Back to Main Menu](#)

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

Electronic Submittal Information

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Your EDF file has been successfully uploaded!

Confirmation Number: 6227012217

Date/Time of Submittal: 12/29/2005 12:03:45 PM

Facility Global ID: T0600100538

Facility Name: EXXON

Submittal Title: Groundwater Monitoring Report 4Q2005

Submittal Type: Additional Information Report

[Click here to view the detections report for this upload.](#)

EXXON 3055 35TH AVE OAKLAND, CA 94619	Regional Board - Case #: <u>01-0585</u> SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)
	Local Agency (lead agency) - Case #: <u>515</u> ALAMEDA COUNTY LOP - (AG)

CONF # 6227012217	TITLE Groundwater Monitoring Report 4Q2005	QUARTER Q4 2005
SUBMITTED BY Matt Meyers	SUBMIT DATE 12/29/2005	STATUS PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	6
# FIELD POINTS WITH DETECTIONS	6
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	6
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	SW8015B,SW8021F
TESTED FOR REQUIRED ANALYTES?	N

MISSING PARAMETERS NOT TESTED:

- SW8015B REQUIRES ETBE TO BE TESTED
- SW8015B REQUIRES TAME TO BE TESTED
- SW8015B REQUIRES DIPE TO BE TESTED
- SW8015B REQUIRES TBA TO BE TESTED
- SW8015B REQUIRES DCA12 TO BE TESTED
- SW8015B REQUIRES EDB TO BE 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	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	N
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	N

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%	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

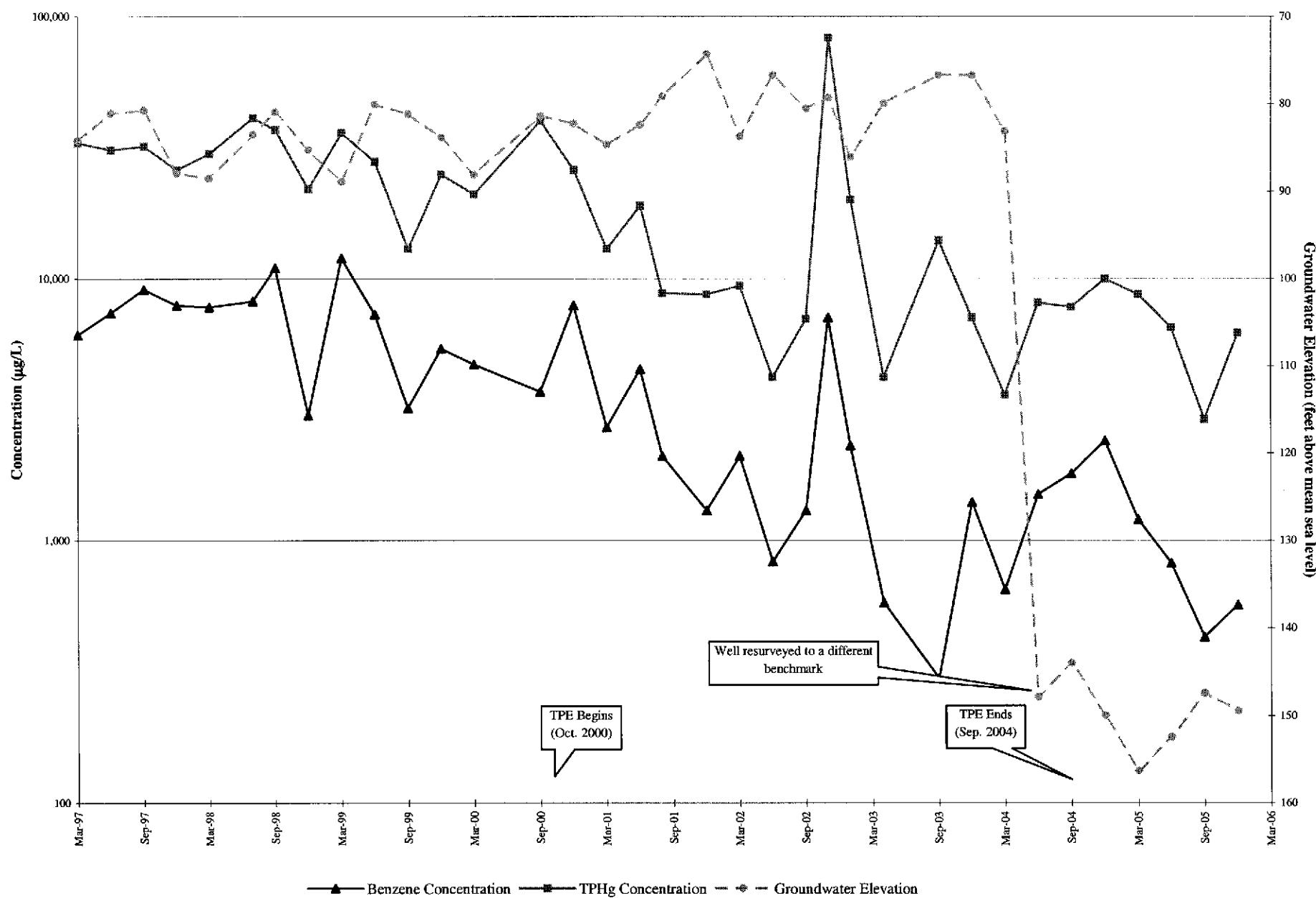
FIELD QC SAMPLES

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

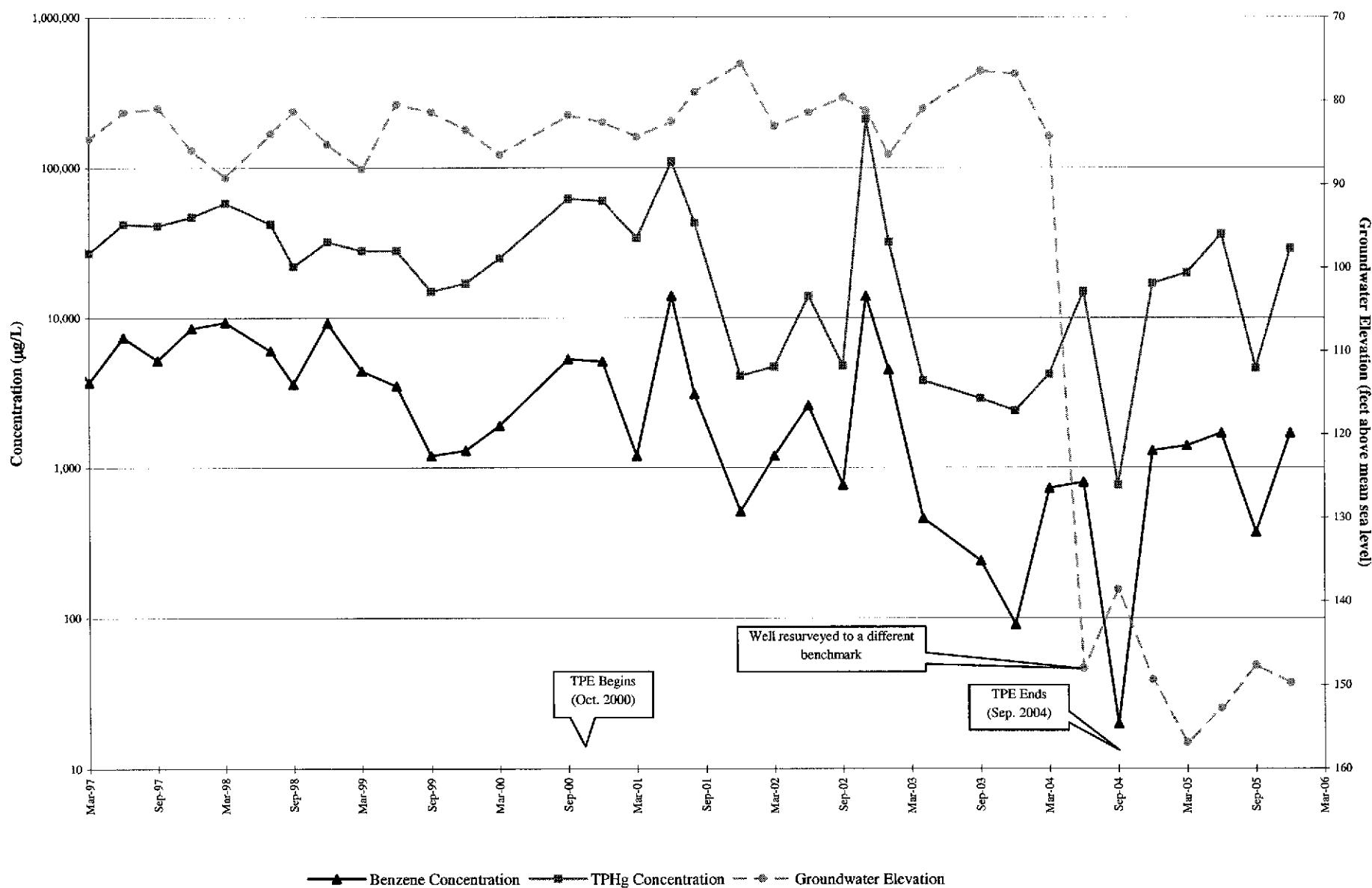
Logged in as CAMBRIA-EM (AUTH_RP)

CONTACT SITE ADMINISTRATOR.

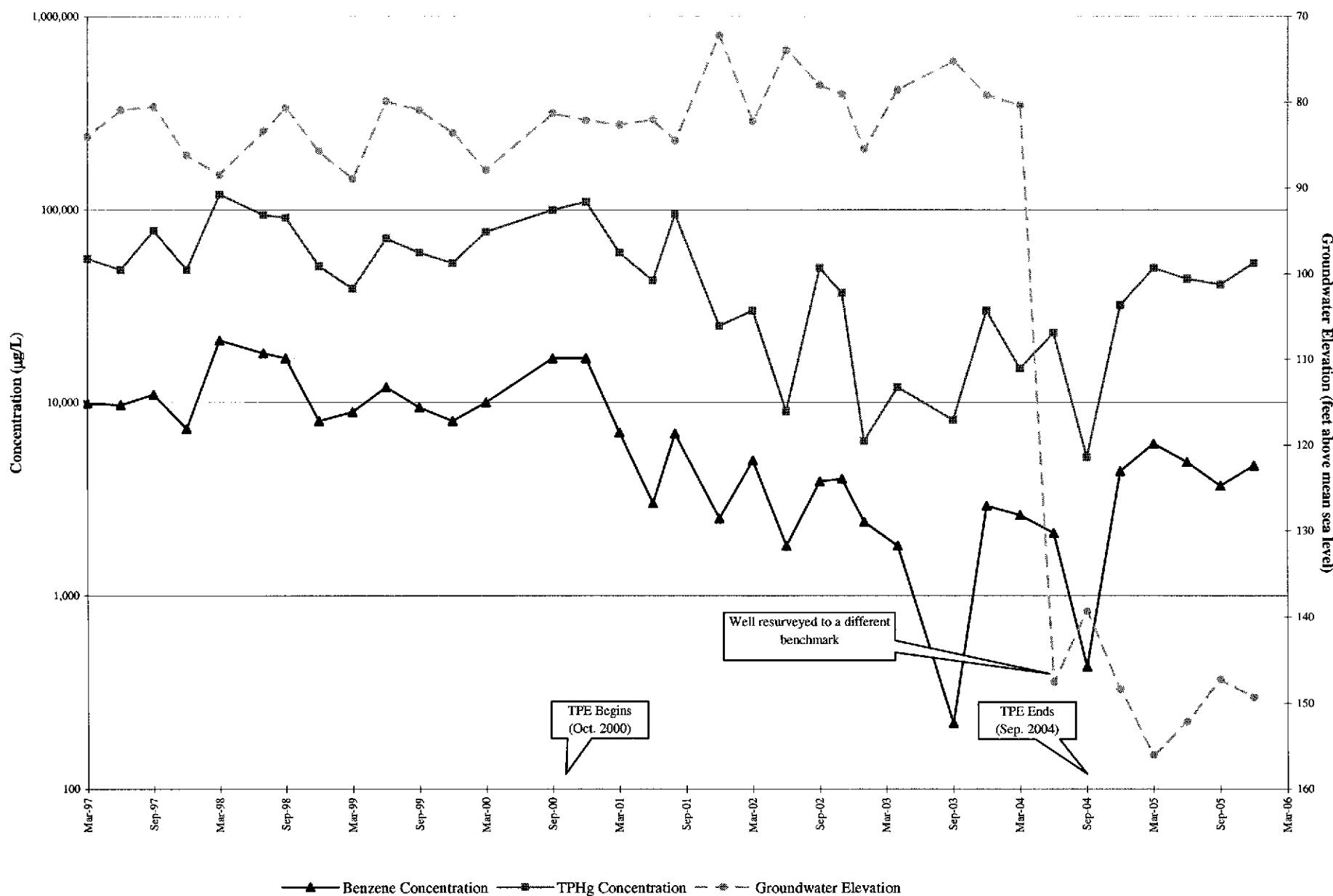
TPHg and Benzene Concentration Trends
Well MW-1 (March 1997 to Present)



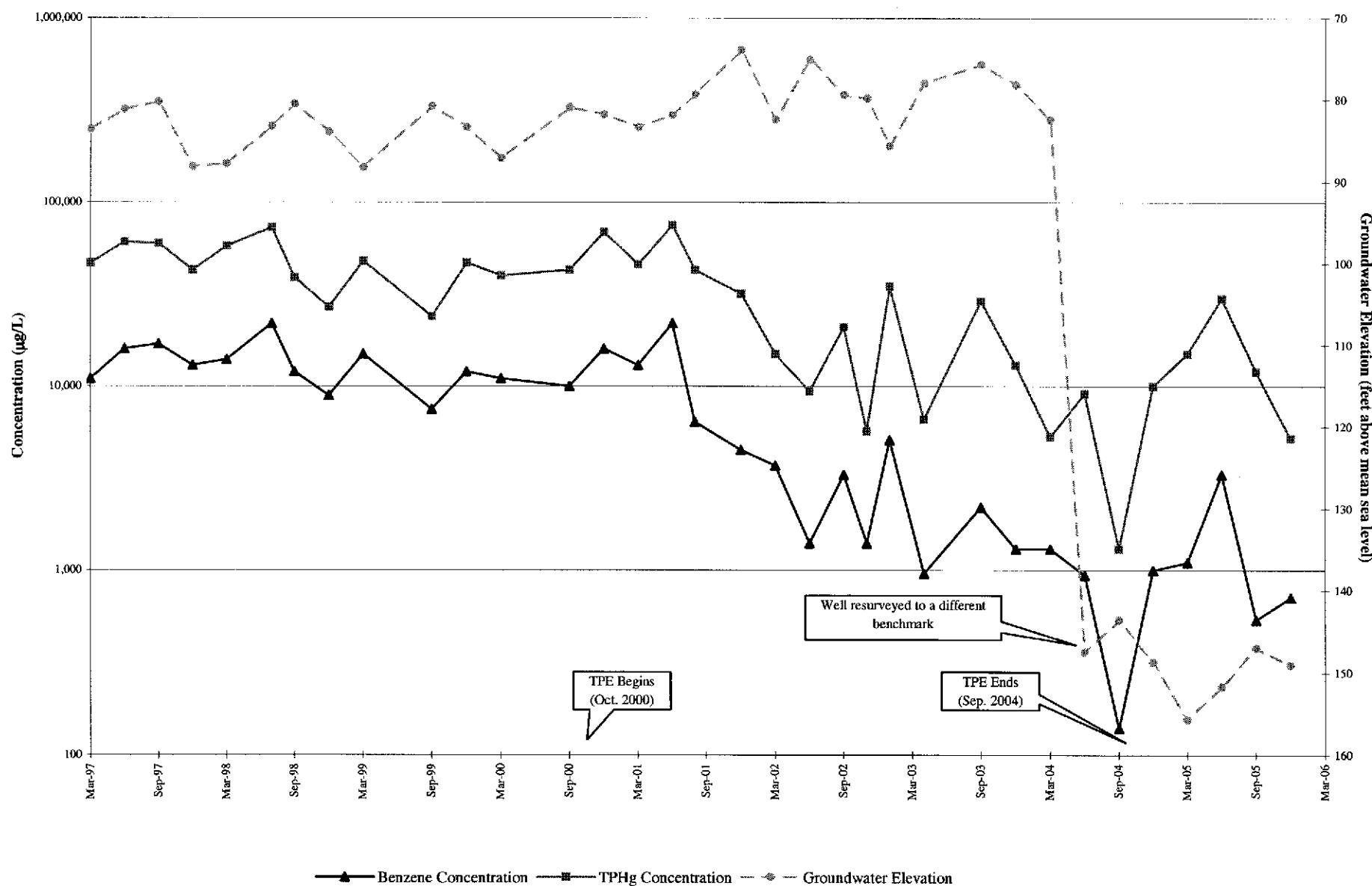
**TPHg and Benzene Concentration Trends
Well MW-2 (March 1997 to Present)**



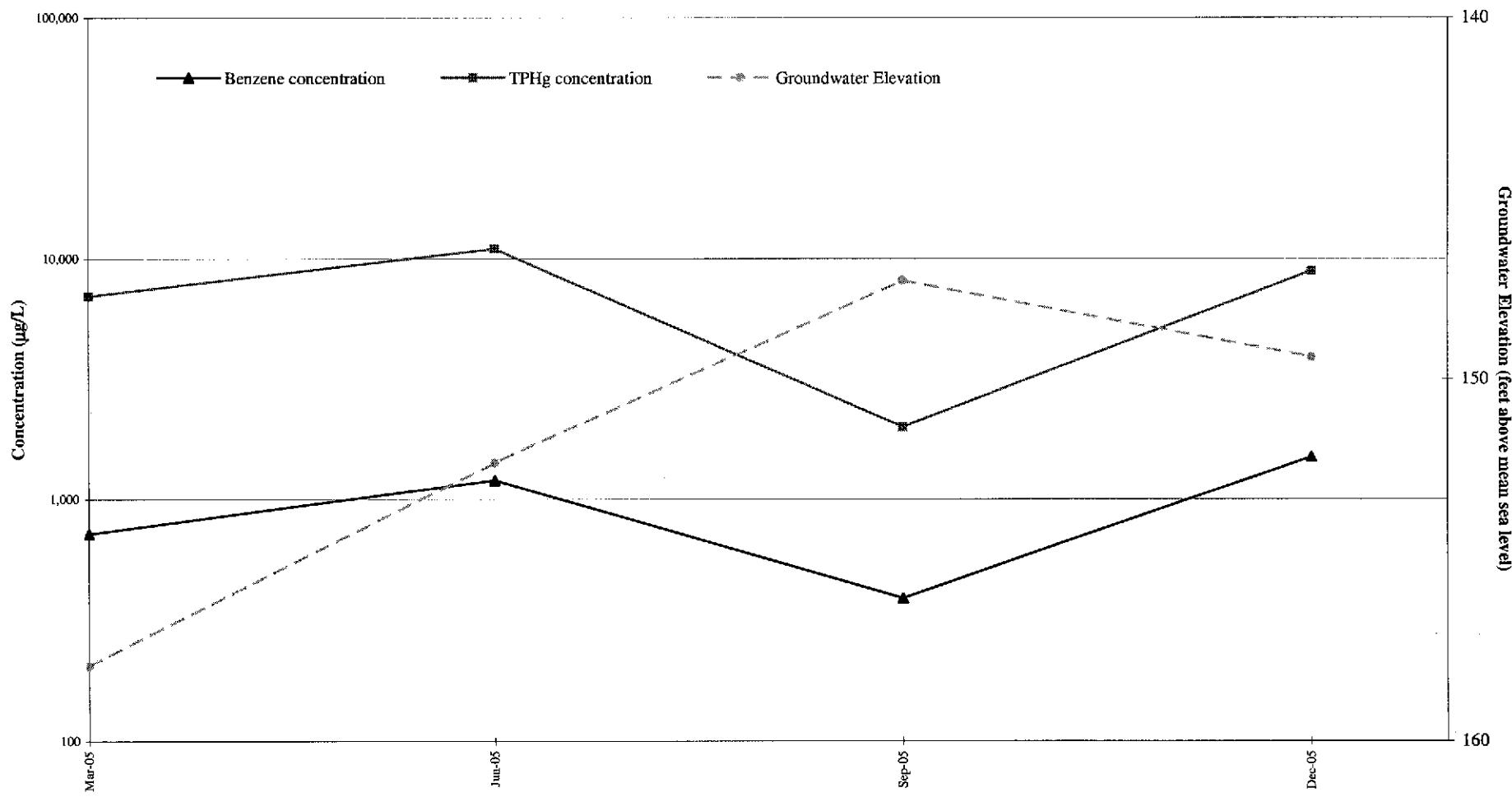
TPHg and Benzene Concentration Trends
Well MW-3 (March 1997 to Present)



TPHg and Benzene Concentration Trends
Well MW-4 (March 1997 to Present)



**TPHg and Benzene Concentration Trends
Well RW-5 (March 2005 to Present)**



**TPHg and Benzene Concentration Trends
Well RW-9 (March 2005 to Present)**

