R0271

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February 24, 2004

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

Re: **Groundwater Monitoring and System Progress Report**
Fourth Quarter 2003
Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #130-0105

Dear Mr. Chan:

On behalf of Mr. Lynn Worthington of Golden Empire Properties, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring and System Progress Report – Fourth Quarter 2003*. Presented in the report are the fourth quarter 2003 activities and the anticipated first quarter 2004 activities.

If you have any questions or comments regarding this report, please call me at (510) 420-3327.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, R.G.
Senior Geologist

Attachments: Groundwater Monitoring and System Progress Report - Fourth Quarter 2003

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 AND SYSTEM PROGRESS REPORT

FOURTH QUARTER 2003

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

February 24, 2004

Prepared for:

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

Prepared by:

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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FOURTH QUARTER 2003

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

February 24, 2004

INTRODUCTION

On behalf of Mr. Lynn Worthington of Golden Empire Properties, Cambria Environmental Technology, Inc. (Cambria) has prepared this *Groundwater Monitoring and System Progress Report* for the above-referenced site (see Figure 1). Presented in the report are the fourth quarter 2003 groundwater monitoring and corrective action activities and the anticipated first quarter 2004 activities.

FOURTH QUARTER 2003 ACTIVITIES

Monitoring Activities

Field Activities: On December 2, 2003, Cambria conducted quarterly monitoring activities. Cambria 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. Groundwater monitoring field data sheets are presented in Appendix A. The monitoring data has been submitted to the Geotracker database. See Appendix E 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 8015, and benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. The laboratory analytical report is presented as Appendix B. The analytical data has been submitted to the Geotracker database. See Appendix E for the Geotracker electronic delivery confirmation.

Monitoring Results

Groundwater Flow Direction: Depth-to-water measurements were collected on December 2, 2003 (Figure 1). At the time, the groundwater table was being affected by the operation of the two-phase extraction (TPE) remediation system with groundwater extraction from remediation wells MW-1, MW-2, MW-4, and RW-5. Since 1994, the primary groundwater flow direction has been towards the northwest with a change towards the southwest usually occurring during the fourth and/or second quarters. Groundwater monitoring data is presented in Table 1.

Hydrocarbon Distribution in Groundwater: During the fourth quarter groundwater monitoring event, the maximum TPHg and benzene concentrations were detected in well MW-3 at 30,000 and 2,900 micrograms per liter (µg/L), respectively. The maximum TPHd concentration was detected in well MW-1 at 9,300 µg/L. The maximum MTBE concentration was detected in well MW-2 at 890 µg/L. Overall, hydrocarbon concentrations decreased in most wells as compared to the previous quarter and all wells continue to exhibit decreasing hydrocarbon concentration trends (see Appendix D for individual well concentration trend graphs). TPHg and benzene concentrations in well MW-2 were detected at historical low levels. Analytical results are summarized in Table 1 and shown on Figure 1.

Corrective Action Activities

System Design and Modifications: The TPE remediation system consists of a trailer mounted all-electric catalytic oxidizer, a 20-horsepower liquid-ring pump, a 150-gallon moisture knockout with automatic float controls, a 1-horsepower centrifugal transfer pump, a particulate filter, and two 1000-pound carbon vessels connected in series. Ten wells are connected to the remediation system (RW-5 through RW-14) via an underground, 4-inch diameter, PVC trunk line and 1- and 2-inch diameter branch lines. See Figure 1 for the location of the remediation enclosure and wells. Wells RW-5 through RW-14, and MW-1 through MW-4 have 1-inch diameter, flexible, suction hose stingers which are sealed at the wellhead to allow simultaneous extraction of soil vapor and groundwater from the well.

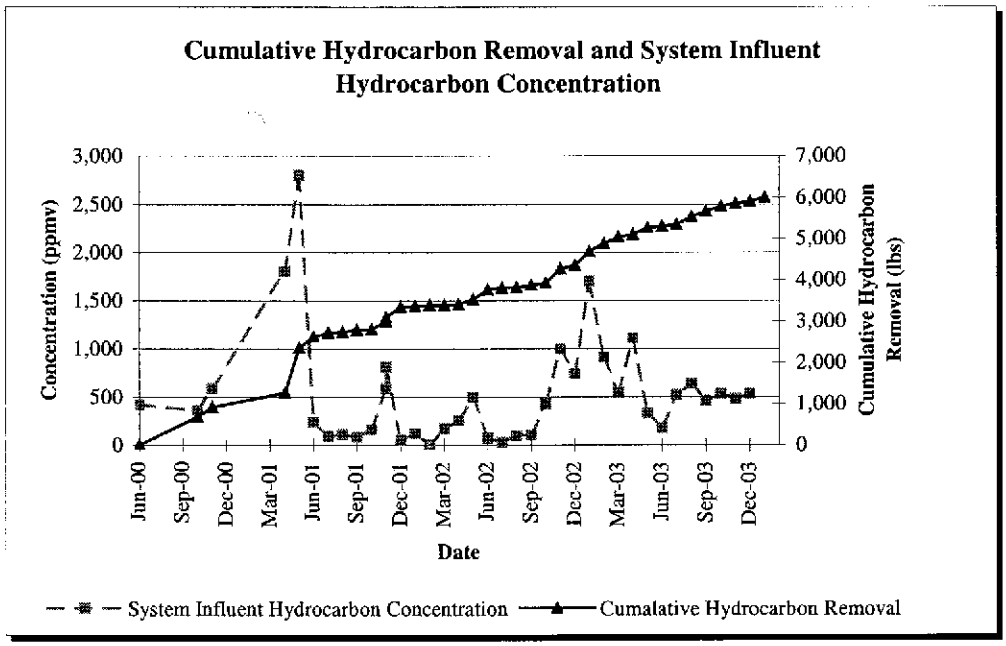
Remediation System Operation and Maintenance Activities: During the fourth quarter, Cambria performed TPE system operation and maintenance (O&M) activities approximately three times per month. During O&M activities, well flow, vacuum, and hydrocarbon concentration measurements were collected from the TPE system (see Tables 2, 3, and 4). During O&M site visits, system parameters were recorded in specialized field forms for future system optimization and agency inspection. System influent and effluent vapor samples were collected and submitted for laboratory

analysis on a monthly basis. As per the Bay Area Air Quality Management District (BAAQMD) permit, a catalytic oxidizer operating temperature greater than 600 degrees Fahrenheit was maintained and system operation parameters were continuously measured using a chart recorder.

System influent and effluent vapor samples were collected and submitted for laboratory analysis on October 7, November 17, and December 2, 2003. Due to sample damage during shipping, the effluent vapor was re-sampled on October 13, 2003. System effluent vapor concentrations were below laboratory detection limits indicating that the catalytic oxidizer was achieving proper destruction efficiency and was operating within air permit requirements. Table 2 summarizes TPE system operations and soil vapor analytical results.

Groundwater treatment system influent and effluent samples were collected on October 2, November 17, and December 2, 2003. System effluent groundwater concentrations for TPHg and BTEX were below laboratory detection limits indicating that no hydrocarbons were discharged to the sanitary sewer system and that the groundwater treatment system was effective at meeting the wastewater discharge permit requirements. On December 2, 2003, East Bay Municipal Utility District's (EBMUD) David McMullen, a wastewater control inspector, performed additional sampling to verify discharge permit compliance. Table 3 summarizes groundwater extraction system parameters and analytical results. The system analytical laboratory reports are included as Attachment C.

Remediation System Performance: From October 7, 2003 through January 6, 2004, the TPE system operated for a total of 1,679 hours. The TPE system automatically shutdown a few times during the quarter due to clogged sediment filters, which caused high water in the knockout tank. System influent vapor concentrations ranged during the quarter from 480 to 530 parts per million by volume (ppmv). Influent hydrocarbon vapor concentrations continued to remain stable due to ongoing optimization efforts to maximize hydrocarbon extraction. Seasonal rainfall contributed to a rise in groundwater levels, which caused a reduction in soil vapor extraction flow rates and an increase in system vacuum levels, compared to the previous quarter. Additional wells were opened and well stinger depths in all wells were adjusted to compensate for seasonal fluctuations in the groundwater table. These optimization efforts included monitoring flow versus vacuum relationships, and system hydrocarbon influent concentrations. Hydrocarbon removal rates for soil vapor extraction increased from 2.1 to 4.9 pounds per day during the quarter but were still less than the previous quarter due to lower system flow rates. As of January 6, 2004, approximately 6,000 pounds of petroleum hydrocarbons have been removed and destroyed by soil vapor extraction (see graph below and Table 2).



From October 2, 2003, to January 6, 2004, approximately 115,570 gallons of groundwater were extracted and treated onsite using granular activated carbon. The groundwater extraction rate ranged from 0.7 to 2.0 gallons per minute and increased throughout the quarter due to increased infiltration of rainwater and a higher groundwater table. Groundwater extraction flow rates were less than the previous quarter due to the closing of several TPE wells. Influent groundwater TPHg concentrations ranged from 220 to 460 µg/L and were similar to the previous quarter. As of January 6, 2004, approximately 1,039,795 gallons of hydrocarbon impacted groundwater have been extracted and treated by aqueous-phase carbon. Approximately 10.7 pounds of hydrocarbons have been removed by the groundwater treatment system.

ANTICIPATED FIRST QUARTER 2004 ACTIVITIES

Monitoring Activities

During the first quarter, Cambria will gauge the site wells, check the wells for SPH, and collect groundwater samples from all monitoring wells not containing SPH. Groundwater samples will be analyzed for TPHg and TPHd with silica gel clean-up by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8021B. Cambria will summarize groundwater monitoring activities and results in the *Groundwater Monitoring and System Progress Report – First Quarter 2004.*

Corrective Action Activities

Cambria will continue to perform TPE operation and maintenance activities approximately three times per month during the first quarter of 2004. The depth of extraction stingers will be adjusted in an effort to maximize hydrocarbon removal and TPE operations may vary between select wells to optimize site cleanup. System influent and effluent vapor and groundwater samples will be collected on a monthly basis, and system operation and performance will be evaluated and optimized.

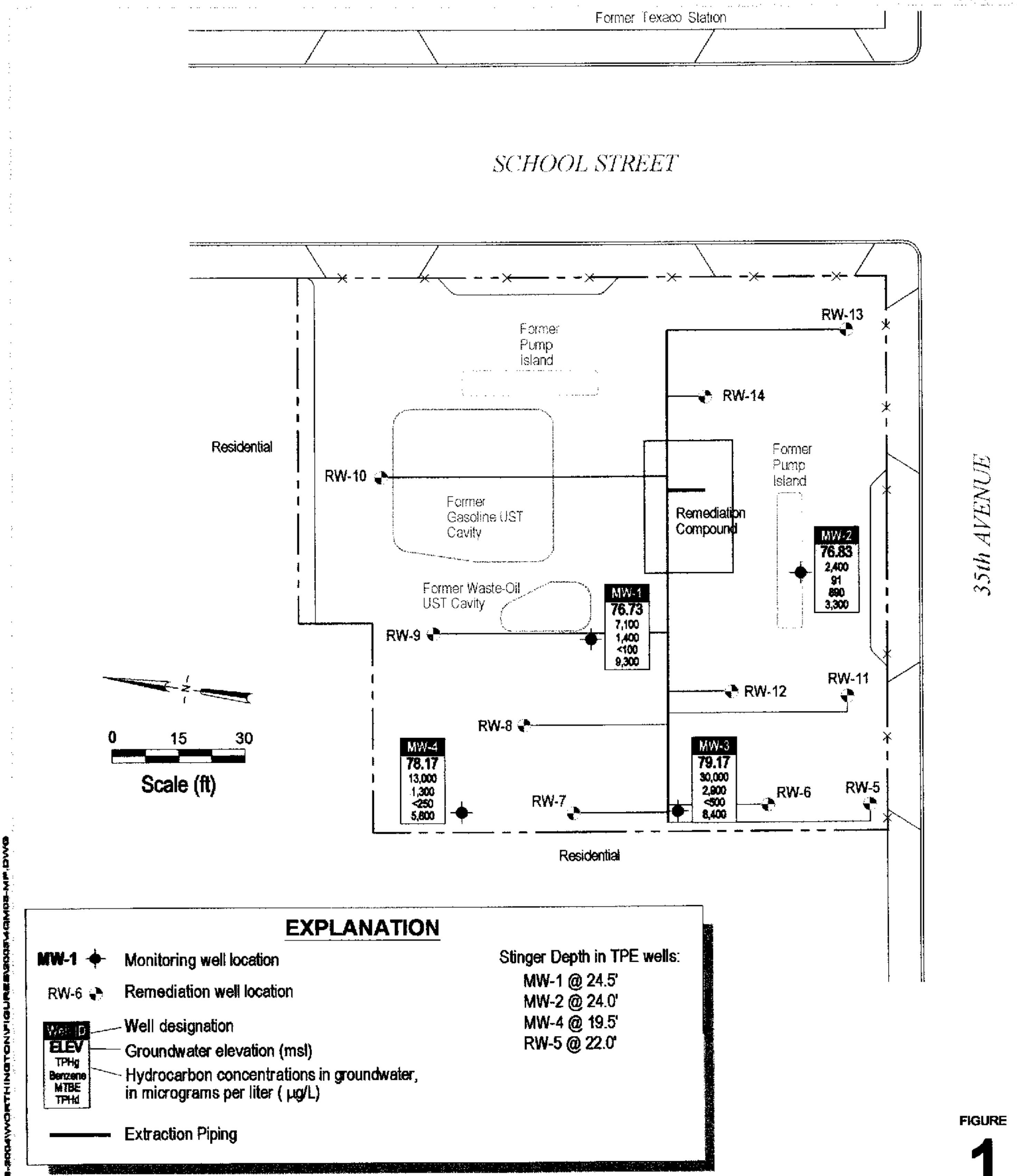
ATTACHMENTS

Figure 1 – Groundwater Elevation and Analytical Summary Map – December 2, 2003

Table 1 – Groundwater Elevations and Analytical Data
Table 2 – TPE System Performance and Analytical Results - Soil Vapor Extraction
Table 3 – TPE System Performance and Analytical Results - Groundwater Extraction
Table 4 – TPE Well Parameters

Appendix A – Groundwater Monitoring Field Data Sheets
Appendix B – Analytical Results for Groundwater Sampling
Appendix C – Analytical Results for TPE System Operation
Appendix D – TPHg and Benzene Concentration Trend Graphs
Appendix E – Geotracker Electronic Delivery Confirmations

02/23/04



Note: TPE remediation system was operating at the time of groundwater monitoring event.

FIGURE
1

Former Exxon Station

3055 35th Avenue

Oakland, California

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Groundwater Elevation and Analytical Summary Map

December 2, 2003

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

Well ID	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
(TOC)		Depth (ft)	(ft)	Elev. (ft)	<---------- Concentrations in micrograms per liter (µg/L) ---------->								(mg/L)	Status
MW-1	05/25/94	16.79	Sheen	84.06	120,000	25,000	<50,000	22,000	17,000	2,800	16,000	---	---	
100.85	07/19/94	20.77	---	80.08	---	---	---	---	---	---	---	---	---	
	08/18/94	21.04	Sheen	79.81	925,000	---	---	16,500	6,200	1,000	9,400	---	---	
	11/11/94	15.80	---	85.05	57,000	---	---	14,000	4,400	1,400	6,400	---	---	
	02/27/95	15.53	---	85.32	45,000	---	---	2,900	2,500	760	4,100	---	---	
	05/23/95	15.29	---	85.56	22,000	---	---	9,900	990	790	2,000	---	---	
	08/22/95	20.90	---	79.95	23,000	---	---	6,900	340	1,200	1,900	---	---	
	11/29/95	22.19	---	78.66	37,000	---	---	9,900	530	1,600	2,900	---	---	
	02/21/96	11.69	---	89.16	33,000	4,300	---	10,000	480	1,000	1,800	3,300	---	
	05/21/96	14.62	---	86.23	36,000	8,500	---	8,500	1,400	1,300	2,800	1,900	---	
	08/22/96	22.30	---	78.55	41,000	6,200	---	8,600	1,300	1,500	2,900	<200	8.0	
	11/27/96	17.24	Sheen	83.61	38,000	6,100	---	9,600	950	1,600	3,100	<400	5.6	
	03/20/97	16.65	---	84.20	33,000	10,000	---	6,100	560	970	2,200	<400	8.5	
	06/25/97	19.77	---	81.08	31,000	7,400[a]	---	7,400	440	890	1,800	<400	3.7	
	09/17/97	20.12	---	80.73	32,000[d]	3,500[e]	---	9,100	550	1,000	2,000	<1,000	2.1	
	12/22/97	12.95	---	87.90	26,000[d]	5,800[e]	---	7,900	370	920	1,500	<790	0.7	
	03/18/98	12.34	Sheen	88.51	30,000[d]	4,200[e,f]	---	7,800	820	840	2,000	<1,100	1.3	
	07/14/98	17.34	---	83.51	41,000[d]	8,900[e,f]	---	8,200	1,100	1,200	3,000	<200	1.8	
	09/30/98	19.90	---	80.95	37,000	3,300	---	11,000	950	1,200	2,800	<20	2.0	
	12/08/98	15.62	---	85.23	22,000	3,700	---	3,000	1,200	730	3,100	<900	---	
	03/29/99	11.98	---	88.87	36,000[d]	6,800[e]	---	12,000	750	1,300	2,400	950	0.50	
	06/29/99	20.77	---	80.08	28,000[d]	3,500[e]	---	7,300	420	810	1,700	<1,300	0.10	
	09/28/99	19.68	---	81.17	13,000[d]	3,600[e,f]	---	3,200	130	320	1,100	<210	0.55	
	12/10/99	17.02	---	83.83	25,000[d]	2,900[e,f]	---	5,400	130	620	1,400	<1,000	1.03	
	03/23/00	12.76	---	88.09	21,000[d]	3,300[e]	---	4,700	140	470	1,100	<350	---	
	09/07/00	19.45	---	81.40	40,000[d,g]	12,000[e,g]	---	3,700	1,400	910	4,900	<50	0.17	
	12/05/00	18.60	---	82.25	26,000[a]	3,400[e]	---	7,900	150	580	810	<300	0.35	Not operating
	03/07/01	16.19	---	84.66	13,000	2,400	---	2,700	43	69	300	<100	0.49	Not operating
	06/06/01	18.47	---	82.38	19,000	4,000	---	4,500	130	270	430	<400	0.39	Not operating
	08/30/01	21.70	---	79.15	8,800[a]	1,400[d]	---	2,100	45	91	240	<130	0.27	Operating
	12/07/01	26.55	---	74.30	8,700[d]	1,900[e,f]	---	1,300	160	38	730	<20	0.59	Operating
	03/11/02	17.13	---	83.72	9,400[d]	1,400[e]	---	2,100	200	74	470	<20	0.39	Operating
	06/10/02	24.10	---	76.75	4,200[d]	900[e,k]	---	830	170	110	460	<100	---	Operating
	09/26/02	20.30	---	80.55	7,000[d]	1,300[e,f,k]	---	1,300	190	200	760	<100	0.70	Operating
	11/21/02	21.55	---	79.30	83,000[d,g]	200,000[e,g]	---	7,100	1,700	3,000	13,000	<1,000	0.49	Operating
	01/13/03	14.80	---	86.05	20,000[d]	5,300[e,f]	---	2,300	480	300	2,100	<500	0.33	Not operating
	04/25/03	20.90	---	79.95	4,200[d]	320[a]	---	580	81	59	470	<50	---	Operating
	05/30/03	16.65	---	84.20	---	---	---	---	---	---	---	---	---	Not operating
	09/03/03	24.16	---	76.69	14,000[d]	36,000[e,f]	---	300	50	33	480	<50	---	Operating
	12/02/03	**24.12**	**---**	**76.73**	**7,100[d,g]**	**9,300[e,f,g]**	**---**	**1,400**	**230**	**160**	**820**	**<100**	**---**	**Operating**

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

Well ID	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
(TOC)		Depth (ft)	(ft)	Elev. (ft)	<---------- Concentrations in micrograms per liter (µg/L) ---------->								(mg/L)	Status
MW-2	05/25/94	15.65	---	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	---	---	
100.00	07/19/94	19.81	---	80.19	---	---	---	---	---	---	---	---	---	
	08/18/94	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	---	---	
	02/27/95	14.46	Sheen	85.54	44,000	---	---	5,100	5,300	930	6,400	---	---	
	05/23/95	14.17	---	85.83	33,000	---	---	8,200	5,600	900	6,600	---	---	
	08/22/95	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	---	---	
	02/21/96	10.53	---	89.47	59,000	---	---	8,000	6,000	1,800	8,900	4,500	---	
	05/21/96	13.47	---	86.53	51,000	3,400	---	8,200	5,200	1,300	6,600	2,400	---	
	08/22/96	19.12	---	80.88	37,000	5,700	---	5,100	3,500	960	4,500	<200	3.0	
	11/27/96	16.61	Sheen	83.39	54,000	10,000	---	9,800	7,000	1,800	7,900	<2,000	3.1	
	03/20/97	15.39	---	84.61	27,000	6,100	---	3,700	2,300	580	2,800	<400	8.1	
	06/25/97	18.62	---	81.38	42,000	7,800[b]	---	7,400	3,800	1,200	5,700	<200	0.9	
	09/17/97	19.05	Sheen	80.95	41,000[d]	8,900[e]	---	5,200	3,400	1,300	5,900	<700	1.2	
	12/22/97	14.09	---	85.91	47,000[d]	6,100[e]	---	8,500	4,600	1,800	8,400	<1,200	1.2	
	03/18/98	10.83	Sheen	89.17	58,000[d]	7,000[e,f]	---	9,300	6,100	1,800	8,200	<1,100	1.1	
	07/14/98	16.07	---	83.93	42,000[d]	5,300[e,f]	---	6,000	3,000	1,000	4,800	<200	1.5	
	09/30/98	18.71	---	81.29	22,000	2,400	---	3,600	1,300	720	3,200	<30	1.8	
	12/08/98	14.80	---	85.20	32,000	3,100	---	9,200	680	1,100	2,300	<2,000	---	
	03/29/99	11.81	---	88.19	28,000[d]	7,500[e,f]	---	4,400	1,600	950	4,100	410	1.86	
	06/29/99	19.54	---	80.46	28,000[d]	3,300[e]	---	3,500	1,100	690	3,100	<1,000	0.41	
	09/28/99	18.61	---	81.39	15,000[d]	3,400[e,f]	---	1,200	540	230	2,300	<36	1.18	
	12/10/99	16.53	---	83.47	17,000[d]	2,500[e,f]	---	1,300	780	420	2,700	<40	0.17	
	03/23/00	13.56	---	86.44	25,000[d]	3,100[i]	---	1,900	1,100	660	3,700	<500	---	
	09/07/00	18.25	---	81.75	62,000[d,g]	32,000[e,g]	---	5,300	2,300	1,500	8,400	<100	0.39	
	12/05/00	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
	03/07/01	15.68	---	84.32	34,000	3,900	---	1,200	770	620	4,300	<200	0.44	Not operating
	06/06/01	17.51	---	82.49	110,000	48,000	---	14,000	9,000	1,900	12,000	<950	0.24	Not operating
	08/30/01	21.00	---	79.00	43,000[e,h]	15,000[d,h]	---	3,100	720	980	5,500	<200	---	Operating
	12/07/01	24.45	---	75.55	4,100[d]	750[e,f]	---	510	88	8.2	580	<20	0.47	Operating
	03/11/02	16.95	---	83.05	4,700[d]	590[e]	---	1,200	150	30	310	<50	0.24	Operating
	06/10/02	18.59	---	81.41	14,000[d]	2,000[e]	---	2,600	710	150	2,000	<800	---	Operating
	09/26/02	20.39	---	79.61	4,800[d]	660[e]	---	770	200	140	740	<50	0.29	Operating
	11/21/02	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
	01/13/03	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
	04/25/03	19.05	---	80.95	3,800[d]	310[e]	---	460	78	72	410	310	---	Operating
	05/30/03	15.23	---	84.77	---	---	---	---	---	---	---	---	---	Not operating
	09/03/03	23.57	---	76.43	2,900[d]	2,300[e]	---	240	57	68	380	770	---	Operating
	12/02/03	**23.17**	**—**	**76.83**	**2,400[d,g]**	**3,300[e,f,g]**	**—**	**91**	**20**	**14**	**250**	**890**	**---**	**Operating**

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 (µg/L) ---------->									
MW-3	05/25/94	13.93	Sheen	82.94	56,000	14,000	<50,000	14,000	14,000	1,300	11,000	---	---	
96.87	07/19/94	17.04	---	79.83	---	---	---	---	---	---	---	---	---	
	08/18/94	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	---	---	
	02/27/95	11.86	Sheen	85.01	250,000	---	---	22,000	26,000	7,800	21,000	---	---	
	05/23/95	11.60	Sheen	85.27	310,000	---	---	18,000	17,000	4,500	2,800	---	---	
	08/22/95	17.10	---	79.77	74,000	---	---	14,000	13,000	1,900	11,000	---	---	
	11/29/95	16.34	---	80.53	220,000	---	---	25,000	25,000	3,500	19,000	---	---	
	02/21/96	7.92	---	88.95	60,000	---	---	10,000	7,800	1,500	8,800	3,400	---	
	05/21/96	10.86	Sheen	86.01	69,000	13,000	---	17,000	9,400	1,700	9,400	2,600	---	
	08/22/96	16.50	---	80.37	94,000	16,000	---	17,000	15,000	2,100	12,000	330	2.0	
	11/27/96	13.47	Sheen	83.40	82,000	24,000	---	14,000	13,000	2,400	13,000	<1,000	2.4	
	03/20/97	12.86	---	84.01	56,000	11,000	---	9,900	6,900	1,300	8,000	3,500	9.0	
	06/25/97	15.98	---	80.89	49,000	7,700[b]	---	9,700	7,100	1,300	7,000	220	5.8	
	09/17/97	16.34	Sheen	80.53	78,000[d]	15,000[e]	---	11,000	9,900	1,800	10,000	<1,200	0.7	
	12/22/97	10.71	Sheen	86.16	49,000[d]	14,000[e]	---	7,300	5,300	1,400	7,500	<1,100	3.1	
	03/18/98	8.41	Sheen	88.46	120,000[d]	20,000[e,f]	---	21,000	19,000	2,600	15,000	<1,600	1.6	
	07/14/98	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	
	09/30/98	16.14	---	80.73	91,000	9,800	---	17,000	13,000	2,100	12,000	<1300	2.0	
	12/08/98	11.20	---	85.67	51,000	4,200	---	8,000	6,800	1,400	7,500	<1,100	---	
	03/29/99	7.95	---	88.92	39,000[d]	4,600[e]	---	8,900	4,400	940	4,500	810	0.56	
	06/29/99	16.98	---	79.89	71,000[d]	6,900[e]	---	12,000	7,300	1,400	8,400	<1,700	0.19	
	09/28/99	15.99	---	80.88	60,000[d]	7,800[e]	---	9,400	9,200	1,000	9,900	200	0.53	
	12/10/99	13.31	---	83.56	53,000[d]	5,300[e,f]	---	8,000	6,400	1,100	8,100	<200	0.48	
	03/23/00	8.98	---	87.89	77,000[d,g]	11,000[e,g]	---	10,000	9,400	1,600	11,000	<430	---	
	09/07/00	15.61	---	81.26	100,000[d,g]	19,000[e,f,g]	---	17,000	12,000	1 600	11,000	<500	---	
	12/05/00	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
	03/07/01	14.27	---	82.60	60,000	13,000	---	7,000	4,600	900	7,100	<350	0.49	Not operating
	06/06/01	14.88	---	81.99	43,000	12,000	---	3,000	1,000	770	5,200	<400	1.71	Not operating
	08/30/01	12.43	---	84.44	95,000[a,h]	190,000[d,h]	---	6,900	10,000	2,700	15,000	<250	0.24	Operating
	12/07/01	24.65	---	72.22	25,000[d]	3,900[e,f]	---	2,500	1,700	64	2,200	<200	0.19	Operating
	03/11/02	14.69	---	82.18	30,000[d]	2,800[f,e,k]	---	5,000	2,400	190	1,800	<1,300	0.30	Operating
	06/10/02	22.94	---	73.93	9,000[d]	990[e,k]	---	1,800	1,300	96	1,000	<300	---	Operating
	09/26/02	18.85	---	78.02	50,000[d,g]	130,000[e,g]	---	3,900	5,400	820	6,600	<500	0.19	Operating
	11/21/02	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
	01/13/03	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
	04/25/03	18.30	---	78.57	12,000[d]	1,200[e]	---	1,800	850	150	1,200	<500	---	Operating
	05/30/03	13.30	---	83.57	---	---	---	---	---	---	---	---	---	Not operating
	09/03/03	21.65	---	75.22	8,100[d]	3,300[e]	---	220	170	66	560	<50	---	Operating
	12/02/03	**17.70**	**---**	**79.17**	**30,000[d,g]**	**8,400[e,f,g]**	**---**	**2,900**	**2,100**	**530**	**3,600**	**<500**	**---**	**Operating**

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

Well ID	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
(TOC)		Depth (ft)	(ft)	Elev. (ft)	<---------- Concentrations in micrograms per liter (µg/L) ---------->								(mg/L)	Status
MW-4	03/20/97	13.75	---	83.59	47,000	3,100	---	11,000	4,500	1,100	5,200	3,400	8.4	
97.34	06/25/97	16.15	---	81.19	61,000	5,800[b]	---	16,000	6,100	1,500	5,900	780[c]	1.4	
	09/17/97	17.10	---	80.24	60,000[d]	4,400[c]	---	17,000	4,900	1,500	5,700	<1,500	1.5	
	12/22/97	9.21	---	88.13	43,000[d]	3,100[c]	---	13,000	3,900	1,100	4,200	<960	3.7	
	03/18/98	9.54	---	87.80	58,000[d]	5,500[c,f]	---	14,000	4,700	1,400	5,700	<1,200	0.8	
	07/14/98	14.15	---	83.19	73,000[d]	2,900[c,f]	---	22,000	7,000	1,800	7,300	<200	1.0	
	09/30/98	16.84	---	80.50	39,000	2,100	---	12,000	2,700	1,000	3,400	510	1.1	
	12/08/98	13.45	---	83.89	27,000	1,600	---	8,900	1,600	730	2,300	<1,500	---	
	03/29/99	9.10	---	88.24	48,000[d]	2,400[c,f,h]	---	15,000	3,000	1,300	5,000	1,300	1.32	
	06/29/99*	---	---	---	---	---	---	---	---	---	---	---	---	
	09/28/99	16.58	---	80.76	24,000[d]	3,200[c,f]	---	7,500	1,200	190	2,200	210	14.29[g]	
	12/10/99	13.99	---	83.35	47,000[d]	3,100[c,f]	---	12,000	1,800	1,000	4,400	<100	0.62	
	03/23/00	10.22	---	87.12	40,000[d]	3,100[c,f]	---	11,000	1,600	910	3,100	690	---	
	09/07/00	16.40	---	80.94	43,000[d]	5,900[c]	---	10,000	1,100	1,100	3,400	<450	1.04	
	12/05/00	15.55	---	81.79	69,000[d,g]	2,600[c,g]	---	16,000	1,300	1,300	3,400	<200	0.35	Not operating
	03/20/01	14.03	---	83.31	46,000	---	---	13,000	1,000	900	2,800	<350	0.39	Not operating
	06/06/01	15.49	---	81.85	75,000	5,400	---	22,000	1,800	1,900	6,400	<1,200	2.22	Not operating
	08/30/01	18.00	---	79.34	43,000[e]	3,200[d]	---	6,400	630	510	2,600	<200	0.32	Operating
	12/07/01	23.45	---	73.89	32,000[d,g]	11,000[c,f,g]	---	4,500	740	310	2,300	<200	0.21	Operating
	03/11/02	14.95	---	82.39	15,000[d]	1,600[c,f,k]	---	3,700	500	92	790	<500	0.30	Operating
	06/10/02	22.30	---	75.04	9,400[d]	3,400[c]	---	1,400	50	<5.0	690	<200	---	Operating
	09/26/02	17.93	---	79.41	21,000[d]	800[c]	---	3,300	1,300	450	2,900	<500	0.24	Operating
	11/21/02	17.55	---	79.79	5,700[d]	2,400[c,f]	---	1,400	290	63	640	550	---	Operating
	01/13/03	11.75	---	85.59	35,000[d,g]	15,000[c,f,g,k]	---	5,100	1,500	510	4,500	<800	0.28	Not operating
	04/25/03	19.37	---	77.97	6,600[d]	2,200[c,f]	---	960	130	100	560	<170	---	Operating
	05/30/03	13.56	---	83.78	--	---	---	---	---	---	---	---	---	Not operating
	09/03/03	21.65	---	75.69	29,000[d]	27,000[c,f]	---	2,200	380	280	2,300	65	---	Operating
	12/02/03	**19.17**	**---**	**78.17**	**13,000[d]**	**5,800[c,f]**	**---**	**1,300**	**180**	**120**	**1,900**	**<250**	**---**	**Operating**
Trip Blank	07/14/98	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	09/30/98	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	12/08/98	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	03/29/99	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	06/29/99	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	03/23/00	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	09/07/00	---	---	---	<50	---	---	<0.5	1.1	<0.5	1.1	<5.0	---	

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

Well ID	Date	GW	SPH	GW	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO	TPE System
(TOC)		Depth (ft)	(ft)	Elev. (ft)	<---------- Concentrations in micrograms per liter (µg/L) ----------								(mg/L)	Status

Abbreviations:

TOC = Top of casing elevation relative to an arbitrary datum

GW = Groundwater

SPH = Separate-phase hydrocarbons

--- = not observed/not analyzed

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

TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015

Benzene, Ethylbenzene, Toluene, and Xylenes by EPA Method 8020

MTBE = Methyl Tertiary Butyl Ether by EPA Method 8020

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

* = Well inaccessible during site visit

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

TOC Elevation of Well MW-4 surveyed relative to an arbitrary site datum by David Hop, Licensed Surveyor on April 19, 1997

= abnormally high reading due to added hydrogen peroxide

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Table 2. TPE System Performance and Analytical Results - Soil Vapor Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
6/24/00	0	--	--	--	--	--	--	--	--	--	--	--	--	0
9/28/00	454	20%	789	--	--	175	420	22	0.24	23.6	1.24	0.012	95	446
10/12/00	696	72%	950	--	--	88	360	<10	<0.15	10.1	<0.28	<0.004	*	684
11/9/00	1251	83%	820	--	--	55	590	<10	<0.15	10.5	<0.18	<0.002	*	918
1/23/01	1313	3%	--	--	--	--	--	--	--	--	--	--	--	945
3/28/01	0	--	--	--	--	--	--	--	--	--	--	--	--	945
4/5/01	194	101%	908	85	6.0	68	1,800	34	0.52	39.2	0.74	0.010	98	1261
5/3/01	863	100%	1000	54	14	29	2,800	<10	<0.15	25.8	<0.09	<0.001	*	2355
6/4/01	1114	33%	820	101	6.5	79	240	<10	<0.15	6.1	<0.25	<0.003	*	2625
7/2/01	1429	47%	804	109	10.0	73	92	26	0.34	2.1	<0.61	<0.007	72	2705
7/10/01	1621	100%	900	150	8.0	110	92	<10	<0.15	3.2	<0.35	<0.005	*	2722
8/2/01	1759	25%	940	79	5.0	65	110	<10	<0.15	2.3	<0.21	<0.003	*	2740
9/7/01	2301	63%	854	141	12.0	84	81	34	0.52	2.2	<0.92	<0.013	58	2793
10/3/01	2470	27%	854	230	9.0	161	160	<10	0.31	8.3	<0.52	<0.015	*	2808

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Table 2. TPE System Performance and Analytical Results - Soil Vapor Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
11/6/01	3015	67%	955	97	8.5	69	590	31	0.43	13.1	<0.69	<0.009	95	2995
11/14/01	3184	88%	860	69	10.0	46	810	<10	<0.15	11.9	<0.15	<0.002	*	3087
12/6/01	3710	100%	806	53	11.0	33	50	<10	<0.15	0.5	<0.11	<0.001	*	3349
1/7/02	4472	99%	841	42	10.5	27	120	<10	<0.15	1.0	<0.09	<0.001	*	3366
2/4/02	4938	69%	817	78	10.5	51	<5	<10	<0.15	0.1	<0.16	<0.002	*	3386
3/5/02	5396	66%	665	26	10.5	17	170	<10	<0.15	0.9	<0.05	<0.001	*	3388
4/2/02	6068	100%	670	67	12.5	39	260	<10	<0.15	3.3	<0.13	<0.002	*	3413
5/6/02	6886	100%	667	76	10.0	50	500	<10	<0.15	8.1	<0.16	<0.002	*	3524
6/5/02	7608	100%	751	72	8.5	51	73	<10	<0.15	1.2	<0.16	<0.002	*	3767
7/2/02	8253	100%	736	80	9.0	56	26	<15	<0.15	0.5	<0.27	<0.002	*	3799
8/6/02	7	100%	739	140	13.0	79	97	<10	<0.15	2.5	<0.25	<0.003	*	3815
9/10/02	528	76%	723	150	11.5	92	103	<10	<0.15	3.0	<0.30	<0.004	*	3869
10/2/02	938	100%	723	125	8.5	89	430	<10	<0.15	12.3	<0.29	<0.004	*	3921
11/6/02	1614	100%	658	105	13.5	58	1,000	<10	<0.15	18.5	<0.18	<0.003	*	4269

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Table 2. TPE System Performance and Analytical Results - Soil Vapor Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
12/5/2002	1720	65%	675	115	14.0	61	740	<10	<0.15	14.5	<0.20	<0.003	*	4,350
1/8/2003	2279	69%	675	30	16.0	14	1700	<10	<0.15	7.6	<0.04	<0.001	*	4,688
2/4/2003	2896	95%	671	48	18.0	19	910	<10	<0.15	5.6	<0.06	<0.001	*	4,884
3/4/2003	3571	100%	657	47	17.0	20	540	<10	<0.15	3.5	<0.07	<0.001	*	5,041
4/2/2003	3990	60%	705	38	18.0	15	1110	<10	<0.15	5.4	<0.05	<0.001	*	5,102
5/7/2003	4719	87%	700	58	21.5	16	330	<10	<0.15	1.7	<0.05	<0.001	*	5,265
6/2/2003	5200	77%	698	60	18.0	24	178	<10	<0.15	1.4	<0.08	<0.001	*	5,300
7/3/2003	5882	92%	700	77	16.0	36	520	<10	<0.15	6.0	<0.11	<0.002	*	5,339
8/7/2003	6655	92%	667	65	15.0	32	640	<10	<0.15	6.6	<0.10	<0.001	*	5,531
9/3/2003	7130	73%	681	79	14.5	41	460	<10	<0.15	6.0	<0.13	<0.002	*	5,662
10/7/2003	7613	59%	680	37	20.0	12	530	<10**	<0.15**	2.1	<0.04	<0.001	*	5,783
11/17/2003	8442	84%	701	51	18.5	19	480	<10	<0.15	3.0	<0.06	<0.001	*	5,855
12/2/2003	8803	100%	815	62	16.0	29	530	<10	<0.15	4.9	<0.09	<0.001	*	5,900
1/6/2004	9292	58%	--	--	--	--	--	--	--	--	--	--	--	6,000

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Table 2. TPE System Performance and Analytical Results - Soil Vapor Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		

Notes and Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline

Benz = Benzene

HC Conc. = Hydrocarbon Concentrations

ppmv = Parts per million by volume. Analytical lab results converted from micrograms per liter (μg/l) to ppmv assumes the molecular weight of gasoline to be equal to that of hexane at 1 atmosphere of pressure and 20 degrees Celsius.

[1] TPHg and benzene concentrations based on lab results by Modified EPA Methods 8015 and 8020.

[2] The hydrocarbon removal/emission rate is based on the Bay Area Air Quality Management's District's (BAAQMD) Procedures for Soil Vapor Extraction where Rate = concentration (ppmv) x flow rate (scfm) x 1 lb-mole/386x$10^6$$ft^3$ x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene) x 1440 min/day.

[3] Gasoline Cumulative Removal = The previous removal rates multiplied by the interval days of operation plus the previous total removal amount. The total TPHg removal is based on lab analytical results.

[*] As per BAAQMD permit conditions, system destruction efficiency need not be calculated for effluent TPHg concentrations less than 10 ppmv

[**] Effluent sample collected on 10/13/03.

The TPE system was modified on August 6, 2002, and the PD blower was replaced with a liquid-ring blower. The previous system hour meter was also replaced at a total reading of 9089 hours. In addition, all previous flow rate measurements were converted from acfm to scfm adjusting the Hydrocarbon Removal Rates and Gasoline Cumulative Removal.

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Table 3. TPE System Performance and Analytical Results - Groundwater Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
10/20/2000	878	0	0	NC	Inf Eff	-- --	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	--	--
10/30/2000	1004	--	50	NC	Inf Eff	-- --	170 <0.5	140 <0.5	16 <0.5	200 <0.5	--	--
11/9/2000	1,251	--	50	NC	Inf Eff	760 <50	120 <0.5	86 <0.5	4.2 <0.5	84 <0.5	NC	NC
12/15/2000	1,267	760a	50	NC	--	--	--	--	--	--	--	--
1/23/2001	1,313	3,790	3,080	1.1	In Mid Eff	3,000 <50 <50	440 <0.5 <0.5	360 <0.5 <0.5	57 <0.5 <0.5	350 <0.5 <0.5	0.02	0.02
3/28/2001	0	3,970	3,210	NC	Replacement Catox System Startup			--	--	--	0.00	0.02
4/13/2001	378	17,366	16,606	0.6	IN EF-1	360 <50	45 <0.5	39 <0.5	5.1 <0.5	43 <0.5	0.34	0.36
6/4/2001	1,114	36,058	35,298	0.4	IN Mid EF	54 <50 <50	<0.5 <0.5 <0.5	0.69 <0.5 <0.5	<0.5 <0.5 <0.5	3.1 <0.5 <0.5	0.06	0.42

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Table 3. TPE System Performance and Analytical Results - Groundwater Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
7/2/2001	1,429	39,433	38,673	0.2	IN Mid EF	<50 <50 <50	2.5 <0.5 <0.5	1 <0.5 <0.5	<0.5 <0.5 <0.5	5 <0.5 <0.5	0.00	0.42
9/7/2001	2,301	48,566	47,806	0.2	INF EFF-1 EFF-2	4,600 <50 --	24 <0.5 --	57 <0.5 --	15 <0.5 --	140 <0.5 --	0.00	0.42
11/16/2001	3,184	61,892	61,132	0.3	INF EFF-1 EFF-2	1100 <50 --	57 <0.5 --	42 <0.5 --	6.5 <0.5 --	110 <0.5 --	0.51	0.93
12/6/2001	3,710	80,094	79,334	0.6	INF EFF-1 EFF-2	410 <50 --	31 <0.5 --	14 <0.5 --	3.2 <0.5 --	48 <0.5 --	0.17	1.10
1/7/2002	4,472	132,337	131,577	1.1	INF EFF-1 EFF-2	120 <50 --	17 <0.5 --	7.7 <0.5 --	1.5 <0.5 --	13 <0.5 --	0.18	1.28
2/4/2002	4,938	164,774	164,014	1.2	INF EFF-1 EFF-2	140 <50 --	18 <0.5 --	5.1 <0.5 --	0.86 <0.5 --	12 <0.5 --	0.03	1.31

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Table 3. TPE System Performance and Analytical Results - Groundwater Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
3/5/2002	5,396	208,997	208,237	1.6	INF EFF-1 EFF-2	170 <50 --	22 <0.5 --	12 <0.5 --	1.8 <0.5 --	24 <0.5 --	0.05	1.36
4/2/2002	6,068	263,563	262,803	1.4	INF EFF-1 EFF-2	160 <50 --	15 <0.5 --	17 <0.5 --	3.3 <0.5 --	20 <0.5 --	0.08	1.44
5/6/2002	6,886	306,765	306,005	0.9	INF EFF-1 EFF-2	100 <50 --	3.5 <0.5 --	1.7 <0.5 --	1.0 <0.5 --	4.0 <0.5 --	0.06	1.50
6/5/2002	7,608	340,020	339,260	0.8	INF EFF-1 EFF-2	<50 <50 --	2.8 <0.5 --	1.4 <0.5 --	<0.5 <0.5 --	2.5 <0.5 --	0.03	1.52
7/2/2002	8,253	361,717	360,957	0.6	INF EFF-1 EFF-2	<50 <50 --	1.5 <0.5 --	<0.5 <0.5 --	<0.5 <0.5 --	0.94 <0.5 --	0.01	1.53
8/6/2002*	7	383,750	382,990	0.4	INF EFF-1 EFF-2	<50 <50 --	1.8 <0.5 --	0.92 <0.5 --	<0.5 <0.5 --	2.0 <0.5 --	0.01	1.54

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Table 3. TPE System Performance and Analytical Results - Groundwater Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
9/10/2002	528	392,405	391,645	0.3	INF EFF-1 EFF-2	570 <50 --	15 <0.5 --	17 <0.5 --	2.9 <0.5 --	30 <0.5 --	0.00	1.55
10/2/2002	938	400,145	399,385	0.3	INF EFF-1 EFF-2	2,300 <50 --	230 <0.5 --	190 <0.5 --	38 <0.5 --	280 <0.5 --	0.03	1.55
11/6/2002	1,614	419,850	419,090	0.5	INF EFF-1 EFF-2	4,400 <50 --	120 <0.5 --	150 <0.5 --	27 <0.5 --	380 <0.5 --	0.38	1.93
12/5/2002	1,720	424,899	424,139	0.8	INF EFF-1 EFF-2	8,900 <50 --	140 <0.5 --	200 <0.5 --	33 <0.5 --	470 <0.5 --	0.19	2.11
1/8/2003	2,279	473,395	472,635	1.4	INF EFF-1 EFF-2	3,500 <50 --	120 <0.5 --	300 <0.5 --	48 <0.5 --	700 <0.5 --	3.60	5.72
2/4/2003	2,896	554,336	553,576	2.2	INF EFF-1 EFF-2	1,100 <50 <50	51 <0.5 <0.5	74 <0.5 <0.5	14 <0.5 <0.5	190 <0.5 <0.5	2.36	8.08

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Table 3. TPE System Performance and Analytical Results - Groundwater Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
3/4/2003	3,571	614,530	613,770	1.5	INF EFF-1 EFF-2	860 <50 --	30 <0.5 --	59 <0.5 --	11 <0.5 --	180 <0.5 --	0.55	8.63
4/2/2003	3,990	666,175	665,415	2.1	INF EFF-1 EFF-2	1,300 <50 <50	39 <0.5 <0.5	82 <0.5 <0.5	23 <0.5 <0.5	270 1.1 <0.5	0.37	9.00
5/7/2003	4,719	752,060	751,300	2.0	INF EFF-1 EFF-2	450 120 <50	22 3.7 <0.5	16 2.1 <0.5	4.5 0.52 <0.5	79 13 <0.5	0.93	9.93
6/2/2003	5,200	795,697	794,937	1.5	INF EFF-1 EFF-2	370 70 <50	18 1.6 <0.5	12 0.86 <0.5	3.7 <0.5 <0.5	61 5.5 <0.5	0.16	10.10
7/3/2003	5,882	841,095	840,335	1.1	INF EFF-1 EFF-2	140 61 <50	6.3 0.56 <0.5	4.9 0.62 <0.5	1.1 <0.5 <0.5	16 1.6 <0.5	0.14	10.24
8/7/2003	6,655	894,425	893,665	2.2	INF EFF-1 EFF-2	320 <50 --	4.4 <0.5 --	2.8 <0.5 --	1.0 <0.5 --	14 <0.5 --	0.06	10.30

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Table 3. TPE System Performance and Analytical Results - Groundwater Extraction - Former Exxon Service Station, 3055 35th Street, Oakland, California

Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
9/3/2003	7,130	914,715	913,955	0.7	INF EFF-1 EFF-2	310 69 <50	21 3.5 <0.5	17 2.4 <0.5	2.0 <0.5 <0.5	44 7.7 <0.5	0.05	10.35
10/2/2003	7,496	924,985	924,225	0.5	INF EFF-1 EFF-2	460 140 <50	34 7.7 <0.5	25 5.2 <0.5	2.3 0.59 <0.5	64 16 <0.5	0.03	10.38
11/17/2003	8,442	963,324	962,564	0.7	INF EFF-1 EFF-2	300 <50 <50	21 <0.5 <0.5	7.9 <0.5 <0.5	2.2 <0.5 <0.5	37 0.94 <0.5	0.15	10.53
12/2/2003	8,804	981,348	980,588	0.8	INF EFF-1 EFF-2	220 <50 --	3.5 <0.5 --	1.4 <0.5 --	1.6 <0.5 --	11 <0.5 --	0.05	10.57
1/6/2004	9,292	1,040,555	1,039,795	2.0	INF	--	--	--	--	--	0.11	10.68
					Sewer Effluent Discharge Limits: (µg/L)		5.0	5.0	5.0	5.0		

Notes:

TPHg = Total Petroleum Hydrocarbons as Gasoline

µg/L = micrograms per liter

a = Malfunctioning totalizer replaced 12/15/00 (initial reading at 760 gallons)

* = TPE system upgrade. Previous system hour meter = 9089

ND = non detect

<n = below noted practical laboratory quantitation limits

Inf = Influent Sample

Eff = Effluent Sample

NC = Not calculated, insufficient data

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Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
MW-1	11/6/2001	open	80	--	--	--	28
	11/12/2001	open	125	--	--	--	28
	11/14/2001	open	85	--	--	--	28
	11/21/2001	open	95	--	--	--	28
	12/6/2001	open	115	--	--	--	28
	12/19/2001	open	110	--	--	--	25
	1/17/2002	open	130	--	--	--	25
	2/4/2002	open	105	--	--	--	28
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	21
	4/2/2002	open	130	--	--	--	21
	4/5/2002	open	135	50	--	--	21
	4/19/2002	open	130	49	--	--	22
	5/6/2002	open	100	42	--	--	22
	5/21/2002	open	105	49	--	--	23.5
	6/19/2002	open	90	42	--	--	24
	6/28/2002	open	95	47	--	--	25
	7/10/2002	open	97	41	--	--	25
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	21.5
	8/26/2002	open	95	47	--	--	21.5
	9/16/2002	open	105	--	--	--	21.5
	9/20/2002	open	85	40	--	--	21.5
	10/2/2002	open	75	22	--	--	21.5
	10/11/2002	open	110	32	--	--	21.5
	10/16/2002	open	125	103	5.0	1475	21.5
	10/31/2002	open	150	70	--	--	21.5
	11/6/2002	open	155	101	--	--	21.5
	11/22/2002	open	145-160	115	--	--	21.5
	12/5/2002	open	140	91	--	--	21.5
	12/20/2002	open	>150	--	--	--	19.5
	1/8/2003	open	>150	135	--	--	19.5
	1/13/2003	closed	>150	140	6.0	80	20
	1/22/2003	closed	--	--	--	--	--
	1/24/2003	closed	--	--	--	--	--
	1/30/2003	open	>150	150	--	--	21
	2/4/2003	open	>150	140	--	--	21
	2/12/2003	open	140	--	--	--	21
	3/4/2003	open	150	110	--	--	21
	3/13/2003	open	>150	150	--	--	21
	3/17/2003	open	>150	--	--	--	21
	3/25/2003	open	>150	130	--	--	21
	4/2/2003	open	>150	>150	--	--	21
	4/11/2003	open	>150	104	--	--	21
	4/25/2003	open	>150	--	--	--	21.5
	5/7/2003	open	>150	109	--	--	20
	5/14/2003	open	>150	--	--	--	20
	5/22/2003	open	135	--	--	--	20
	5/30/2003	open	>150	130	5.3	30	21.5
	6/3/2003	open	>150	--	--	--	21.5
	6/13/2003	open	130	--	--	--	21.5
	6/23/2003	open	120	64	--	--	21.5
	7/3/2003	open	135	--	--	--	21.5

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->MW-1	7/11/2003	open	125	--	--	--	22.5
	8/7/2003	open	145	70	--	--	22.5
	8/15/2003	open	130	60	--	--	22.5
	8/26/2003	open	>150	120	--	--	24
	10/13/2003	open	>150	>150	--	--	24
	12/2/2003	open	140	--	--	--	24.5
	12/15/2003	open	>150	150	--	--	24.5
	1/6/2004	open	>150	--	--	--	23.5
MW-2	11/6/2001	open	80	--	--	--	27
	11/12/2001	open	125	--	--	--	27
	11/14/2001	open	85	--	--	--	27
	11/21/2001	open	95	--	--	--	27
	12/6/2001	open	115	--	--	--	28
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	open	105	--	--	--	28
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	21
	4/2/2002	open	130	--	--	--	21
	4/5/2002	open	135	70	--	--	21
	4/19/2002	open	130	55	--	--	22
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	open	95	52	--	--	22
	7/10/2002	open	97	51	--	--	22
	7/26/2002	open	92	19	--	--	25.5
	8/6/2002	open	--	--	--	--	21.5
	8/26/2002	open	95	35	--	--	21.5
	9/16/2002	open	105	--	--	--	21.5
	9/20/2002	open	85	30	--	--	21.5
	10/2/2002	open	75	72	--	--	21.5
	10/11/2002	open	110	60	--	--	21.5
	10/16/2002	open	125	108	8.5	2030	21.5
	10/31/2002	open	150	65	--	--	21.5
	11/6/2002	open	155	95	--	--	21.5
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	open	>150	130	5.0	385	19
	1/22/2003	open	>150	--	--	--	19
	1/24/2003	open	>150	140	--	--	20
	1/30/2003	open	>150	120	--	--	20
	2/4/2003	open	>150	75	--	--	21
	2/12/2003	open	140	--	--	--	21
	3/4/2003	open	150	93	--	--	21
	3/13/2003	open	>150	140	--	--	20
	3/17/2003	open	>150	--	--	--	20
	3/25/2003	open	>150	97	--	--	19
	4/2/2003	open	>150	130	--	--	19
	4/11/2003	open	>150	75	--	--	19
	4/25/2003	open	>150	50	--	--	20

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->MW-2	5/7/2003	open	>150	90	--	--	19
	5/14/2003	open	>150	--	--	--	20
	5/22/2003	open	135	--	--	--	20
	5/30/2003	open	>150	87	5.4	29	20.5
	6/3/2003	open	>150	--	--	--	20.5
	6/13/2003	open	130	--	--	--	20.5
	6/23/2003	open	120	62	--	--	20.5
	7/3/2003	open	135	--	--	--	20
	7/11/2003	open	125	--	--	--	21.5
	8/7/2004	open	145	55	--	--	21.5
	8/15/2003	open	130	68	--	--	21.5
	8/26/2003	open	>150	115	--	--	23
	9/19/2003	open	130	--	--	--	23.5
	10/13/2003	open	>150	>150	--	--	23.5
	12/2/2003	open	140	--	--	--	24
	12/15/2003	open	>150	120	--	--	24
	1/6/2004	open	>150	--	--	--	23
MW-3	11/6/2001	open	80	--	--	--	25
	11/12/2001	open	125	--	--	--	25
	11/14/2001	open	85	--	--	--	25
	11/21/2001	open	95	--	--	--	25
	12/6/2001	open	115	--	--	--	25
	12/19/2001	open	110	--	--	--	25
	1/17/2002	open	130	--	--	--	25
	2/4/2002	open	105	--	--	--	25
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	open	100	28	--	--	20
	5/21/2002	open	105	7	--	--	22
	6/19/2002	open	90	10	--	--	24
	6/28/2002	open	95	11	--	--	24
	7/10/2002	open	97	6	--	--	23
	7/26/2002	open	92	7	--	--	23
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	44	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	50	--	--	19
	10/2/2002	open	75	29	--	--	19
	10/11/2002	open	110	25	--	--	19
	10/16/2002	open	125	115	17	1286	19
	10/31/2002	open	150	70	--	--	19
	11/6/2002	open	155	89	--	--	19
	11/22/2002	open	145-160	92	--	--	19
	12/5/2002	open	140	86	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	145	--	--	18
	1/13/2003	open	>150	150	5.6	700	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	>150	--	--	17
	1/30/2003	open	>150	>150	--	--	17

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->MW-3	2/4/2003	open	>150	140	--	--	18
	2/12/2003	open	140	--	--	--	18
	3/4/2003	open	150	120	--	--	18
	3/13/2003	open	>150	>150	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	145	--	--	18
	4/2/2003	open	>150	>150	--	--	18
	4/11/2003	open	>150	120	--	--	18
	4/25/2003	open	>150	95	--	--	19.5
	5/7/2003	open	>150	110	--	--	19.5
	5/14/2003	open	>150	--	--	--	19.5
	5/22/2003	open	135	--	--	--	19.5
	5/30/2003	open	>150	105	10	88	18.3
	6/3/2003	open	>150	--	--	--	18.3
	6/13/2003	open	130	--	--	--	18.3
	6/23/2003	open	120	65	--	--	18.3
	7/3/2003	open	135	--	--	--	19
	8/7/2003	open	145	64	--	--	19
	8/15/2003	open	130	65	--	--	19
	8/26/2003	open	>150	105	--	--	22
	10/13/2003	closed	>150	>150	--	--	22
	12/2/2003	open	140	--	--	--	22
	12/15/2003	open	>150	140	--	--	22
	1/6/2004	open		--	--	--	21
MW-4	11/6/2001	open	80	--	--	--	25
	11/12/2001	open	125	--	--	--	25
	11/14/2001	open	85	--	--	--	25
	11/21/2001	open	95	--	--	--	25
	12/6/2001	open	115	--	--	--	25
	12/19/2001	open	110	--	--	--	25
	1/17/2002	open	130	--	--	--	25
	2/4/2002	open	105	--	--	--	25
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	open	100	26	--	--	20
	5/21/2002	open	105	31	--	--	21
	6/19/2002	open	90	26	--	--	21
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	open	92	14	--	--	24.5
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	39	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	35	--	--	19
	10/2/2002	open	75	34	--	--	19
	10/11/2002	open	110	31	--	--	19
	10/16/2002	open	125	100	4.7	1780	19
	10/31/2002	open	150	60	--	--	19
	11/6/2002	open	155	82	--	--	19
	11/22/2002	open	145-160	82	--	--	19

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->MW-4	12/5/2002	open	140	77	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	130	--	--	18
	1/13/2003	closed	>150	130	6.5	150	17
	1/22/2003	closed	>150	--	--	--	--
	1/24/2003	open	>150	130	--	--	19
	1/30/2003	open	>150	135	--	--	19
	2/4/2003	open	>150	120	--	--	19
	2/12/2003	open	140	--	--	--	19
	3/4/2003	open	150	104	--	--	19
	3/13/2003	open	>150	150	--	--	19
	3/17/2003	open	>150	--	--	--	19
	3/25/2003	open	>150	110	--	--	19
	4/2/2003	open	>150	150	--	--	19
	4/11/2003	open	>150	80	--	--	19
	4/25/2003	open	>150	55	--	--	19
	5/7/2003	open	>150	95	--	--	19
	5/14/2003	open	>150	--	--	--	19
	5/22/2003	open	135	--	--	--	18
	5/30/2003	open	>150	110	4.6	410	18.5
	6/3/2003	open	>150	--	--	--	18.5
	6/13/2003	open	130	--	--	--	18.5
	6/23/2003	open	120	45	--	--	18.5
	7/3/2003	open	135	--	--	--	18.5
	7/11/2003	open	125	--	--	--	19.5
	8/7/2003	open	145	65	--	--	19.5
	8/15/2003	open	130	70	--	--	19.5
	8/26/2003	open	>150	100	--	--	22
	9/19/2003	open	130	--	--	--	22
	10/13/2003	open	>150	>150	--	--	22
	12/2/2003	open	140	--	--	--	19.5
	12/15/2003	open	>150	130	--	--	21
	1/6/2004	open	>150	--	--	--	20
RW-5	5/24/2000	--	80	--	--	--	11.64
	10/6/2000	--	100	--	--	--	--
	11/29/2000	open	>100	--	--	4320	--
	3/29/2001	open	54	--	--	650	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-5	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	open	110	--	--	--	20
	1/17/2002	open	130	--	--	--	20
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	16
	4/2/2002	open	130	--	--	--	16
	4/5/2002	open	135	90	--	--	16
	4/19/2002	open	130	72	--	--	18
	5/6/2002	open	100	43	--	--	18
	5/21/2002	open	105	55	--	--	19
	6/19/2002	open	90	33	--	--	19.5
	6/28/2002	open	95	48	--	--	20
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	27	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	22	--	--	19
	10/2/2002	open	75	32	--	--	19
	10/11/2002	open	110	28	--	--	19
	10/16/2002	open	125	38	62	240	19
	10/31/2002	open	150	44	--	--	19
	11/6/2002	open	155	50	--	--	19
	11/22/2002	open	145-160	26	--	--	20
	12/5/2002	open	140	26	--	--	20
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	130	--	--	18
	1/13/2003	open	>150	115	5.5	1750	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	140	--	--	17
	1/30/2003	open	>150	140	--	--	17
	2/4/2003	open	>150	128	--	--	18
	2/12/2003	open	140	--	--	--	18
	3/4/2003	open	150	105	--	--	18
	3/13/2003	open	>150	145	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	90	--	--	18
	4/2/2003	open	>150	125	--	--	18
	4/11/2003	open	>150	102	--	--	18
	4/25/2003	open	>150	85	--	--	19
	5/7/2003	open	>150	90	--	--	19
	5/14/2003	open	>150	--	--	--	16
	5/22/2003	open	135	--	--	--	16
	5/30/2003	open	>150	93	5.7	102	16.8
	6/3/2003	open	>150	--	--	--	16.8
	6/13/2003	open	130	--	--	--	16.8
	6/23/2003	open	120	62	--	--	16.8
	7/3/2003	open	135	--	--	--	17
	7/11/2003	open	125	--	--	--	18

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-5	8/7/2004	open	145	61	--	--	18
	8/15/2003	open	130	76	--	--	18
	8/26/2003	open	>150	105	--	--	22
	10/2/2003	closed		--	--	--	
	10/13/2003	open	>150	--	--	--	22
	12/15/2003	open	>150	140	--	--	22
	1/6/2004	open	>150	--	--	--	21
RW-6	5/24/2000	--	80	--	--	--	11.78
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	260	--
	3/29/2001	open	54	--	--	2050	--
	4/14/2001	open	100	--	--	--	20
	4/26/2001	closed	--	--	--	--	--
	5/3/2001	closed	--	--	--	--	--
	5/23/2001	closed	--	--	--	--	--
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	open	130	--	--	--	16
	3/25/2002	open	130	--	--	--	16
	4/2/2002	open	12	--	--	--	16
	4/5/2002	open	135	85	--	--	16
	4/19/2002	open	130	75	--	--	18
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	open	97	54	--	--	20
	7/26/2002	open	92	39	--	--	20
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	34	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	45	--	--	19
	10/2/2002	open	75	30	--	--	19

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-6	10/11/2002	open	110	--	--	--	19
	10/16/2002	open	125	54	34	644	19
	10/31/2002	closed	--	--	--	--	--
	11/6/2002	closed	--	--	--	--	--
	11/22/2002	open	145-160	70	--	--	19.5
	12/5/2002	open	140	69	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	135	--	--	18
	1/13/2003	open	>150	110	4.5	1550	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	150	--	--	17
	1/30/2003	open	>150	140	--	--	17
	2/4/2003	open	>150	125	--	--	18
	2/12/2003	open	140	--	--	--	18
	3/4/2003	open	150	108	--	--	18
	3/13/2003	open	>150	150	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	110	--	--	18
	4/2/2003	open	>150	145	--	--	18
	4/11/2003	open	>150	99	--	--	18
	4/25/2003	open	>150	85	--	--	19
	5/7/2003	open	>150	100	--	--	19
	5/14/2003	open	>150	--	--	--	19
	5/22/2003	open	135	--	--	--	19
	5/30/2003	open	>150	75	5.2	289	17
	6/3/2003	open	>150	--	--	--	17
	6/13/2003	open	130	--	--	--	17
	6/23/2003	open	120	59	--	--	17
	7/3/2003	open	135	--	--	--	17
	7/11/2003	open	125	--	--	--	18
	8/7/2003	open	145	61	--	--	18
	8/15/2003	open	130	66	--	--	18
	8/26/2003	open	>150	120	--	--	22
	9/19/2003	open	130	--	--	--	21
	10/7/2003	closed		--	--	--	
	12/15/2003	open	>150	150	--	--	21
	1/6/2004	open	>150	--	--	--	20
RW-7	5/24/2000	--	80	--	--	--	12.5
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	0	--
	3/29/2001	open	54	--	--	52	--
	4/14/2001	open	100	--	--	--	20
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-7	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	closed	--	--	--	--	--
	8/26/2002	closed	--	--	--	--	--
	9/16/2002	closed	--	--	--	--	--
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/11/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	19	35	36	19
	10/31/2002	closed	--	--	--	--	--
	11/6/2002	closed	--	--	--	--	--
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	135	4.5	25	17
	1/22/2003	closed	--	--	--	--	--
	1/24/2003	closed	--	--	--	--	--
	1/30/2003	closed	--	--	--	--	--
	2/4/2003	closed	--	--	--	--	--
	2/12/2003	closed	--	--	--	--	--
	3/4/2003	closed	--	--	--	--	--
	3/13/2003	closed	--	--	--	--	--
	3/17/2003	closed	--	--	--	--	--
	3/25/2003	closed	--	--	--	--	--
	4/2/2003	closed	--	--	--	--	--
	4/11/2003	closed	--	--	--	--	--
	4/25/2003	closed	--	--	--	--	--
	5/7/2003	closed	--	--	--	--	--
	5/14/2003	closed	--	--	--	--	--
	5/22/2003	closed	--	--	--	--	--
	5/30/2003	closed	--	--	--	--	--
	6/3/2003	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-7	6/13/2003	closed	--	--	--	--	--
	6/23/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
RW-8	5/24/2000	--	--	--	--	--	--
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	44	--
	3/29/2001	open	54	--	--	60	--
	4/14/2001	open	100	--	--	--	20
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	18
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	closed	--	--	--	--	--
	8/26/2002	closed	--	--	--	--	--
	9/16/2002	closed	--	--	--	--	--
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/11/2002	closed	--	--	--	--	--
	10/16/2002	open	125	33	29	15	19
	10/31/2002	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-8	11/6/2002	closed	--	--	--	--	--
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	140	4.0	5	18
	1/22/2003	closed	--	--	--	--	--
	1/24/2003	closed	--	--	--	--	--
	1/30/2003	closed	--	--	--	--	--
	2/4/2003	closed	--	--	--	--	--
	2/12/2003	closed	--	--	--	--	--
	3/4/2003	closed	--	--	--	--	--
	3/13/2003	closed	--	--	--	--	--
	3/17/2003	closed	--	--	--	--	--
	3/25/2003	closed	--	--	--	--	--
	4/2/2003	closed	--	--	--	--	--
	4/11/2003	closed	--	--	--	--	--
	4/25/2003	closed	--	--	--	--	--
	5/7/2003	closed	--	--	--	--	--
	5/14/2003	closed	--	--	--	--	--
	5/22/2003	closed	--	--	--	--	--
	5/30/2003	closed	>150	>150	6.7	5	18.8
	6/3/2003	closed	--	--	--	--	--
	6/13/2003	closed	--	--	--	--	--
	6/23/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
RW-9	5/24/2000	--	--	--	--	--	12.5
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	43	--
	3/29/2001	open	54	--	--	90	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--
	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-9	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	open	100	38	--	--	20
	5/21/2002	open	105	56	--	--	20
	6/19/2002	open	90	47	--	--	20
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	15	--	--	19
	9/16/2002	closed	--	--	--	--	--
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/11/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	12	56	12	19
	10/31/2002	closed	--	--	--	--	--
	11/6/2002	closed	--	--	--	--	--
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	open	>150	120	--	--	16
	1/13/2003	open	>150	150	4.0	225	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	>150	--	--	17
	1/30/2003	open	>150	140	--	--	17
	2/4/2003	open	>150	135	--	--	17
	2/12/2003	open	140	--	--	--	17
	3/4/2003	open	150	105	--	--	17
	3/13/2003	open	>150	>150	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	120	--	--	18
	4/2/2003	open	>150	>150	--	--	18
	4/11/2003	open	>150	105	--	--	18
	4/25/2003	open	>150	85	--	--	18
	5/7/2003	open	>150	110	--	--	18
	5/14/2003	open	>150	--	--	--	18
	5/22/2003	open	135	--	--	--	18
	5/30/2003	open	>150	125	5.3	40	18.5
	6/3/2003	open	>150	--	--	--	18.5
	6/13/2003	open	130	--	--	--	18.5
	6/23/2003	open	120	24	--	--	18.5
	7/3/2003	open	135	--	--	--	18.5
	7/11/2003	open	125	--	--	--	19.5
	7/29/2003	closed	--	--	--	--	--
	12/23/2003	open	>150	--	--	--	20
	1/6/2004	open	>150	--	--	--	19

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
RW-10	5/24/2000	--	--	--	--	--	--
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	>10,000	--
	3/29/2001	open	54	--	--	850	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--
	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	open	--	--	--	--	20
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	open	100	31	--	--	20
	5/21/2002	open	105	70	--	--	20
	6/19/2002	open	90	56	--	--	20
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	19
	8/26/2002	closed	--	--	--	--	--
	9/16/2002	closed	--	--	--	--	--
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/11/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	38	48	18	19
	10/31/2002	closed	--	--	--	--	--
	11/6/2002	closed	--	--	--	--	--
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-10	1/13/2003	closed	>150	135	3.2	90	17
	1/22/2003	closed	--	--	--	--	--
	1/24/2003	open	>150	>150	--	--	16
	1/30/2003	open	>150	>150	--	--	16
	2/4/2003	open	>150	>150	--	--	16
	2/12/2003	open	140	--	--	--	16
	3/4/2003	open	150	139	--	--	16
	3/13/2003	open	>150	>150	--	--	16
	3/17/2003	open	>150	--	--	--	16
	3/25/2003	open	>150	>150	--	--	16
	4/2/2003	open	>150	>150	--	--	16
	4/11/2003	open	>150	124	--	--	16
	4/25/2003	open	>150	85	--	--	16
	5/7/2003	open	>150	125	--	--	16
	5/14/2003	open	>150	--	--	--	16
	5/22/2003	open	135	--	--	--	16
	5/30/2003	open	>150	45	54.5	5	16
	6/3/2003	closed	--	--	--	--	--
	6/13/2003	closed	--	--	--	--	--
	6/23/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
RW-11	5/24/2000	--	80	--	--	--	11.65
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	2280	--
	3/29/2001	open	54	--	--	784	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	20
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	open	--	--	--	--	18

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-11	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	closed	--	--	--	--	--
	8/26/2002	closed	--	--	--	--	--
	9/16/2002	closed	--	--	--	--	--
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/11/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	86	24	255	19
	10/31/2002	open	150	62	--	--	19
	11/6/2002	open	155	45	--	--	19
	11/22/2002	open	145-160	77	--	--	19.5
	12/5/2002	open	140	65	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	110	--	--	18
	1/13/2003	open	>150	125	7.0	180	16
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	155	--	--	17
	1/30/2003	open	>150	150	--	--	17
	2/4/2003	open	>150	142	--	--	17
	2/12/2003	open	140	--	--	--	17
	3/4/2003	open	150	106	--	--	17
	3/13/2003	open	>150	155	--	--	17
	3/17/2003	open	>150	--	--	--	17
	3/25/2003	open	>150	115	--	--	17
	4/2/2003	open	>150	148	--	--	17
	4/11/2003	open	>150	97	--	--	17
	4/25/2003	open	>150	90	--	--	20
	5/7/2003	open	>150	140	--	--	20
	5/14/2003	open	>150	--	--	--	20
	5/22/2003	open	135	--	--	--	20
	5/30/2003	open	>150	82	6.5	26	17
	6/3/2003	open	>150	--	--	--	17
	6/13/2003	open	130	--	--	--	17
	6/23/2003	open	120	55	--	--	17
	7/3/2003	open	135	--	--	--	17
	7/11/2003	open	--	--	--	--	18
	8/7/2003	open	145	44	--	--	18
	8/15/2004	closed	--	--	--	--	
	1/6/2004	open	>150	--	--	--	12

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
RW-12	5/24/2000	--	--	--	--	--	--
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	24	--
	3/29/2000	open	54	--	--	72	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	closed	--	--	--	--	--
	3/5/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	16
	4/2/2002	open	130	--	--	--	16
	4/5/2002	open	135	97	--	--	16
	4/19/2002	open	130	75	--	--	18
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	open	95	16	--	--	20
	7/10/2002	open	97	5	--	--	20
	7/26/2002	open	92	5	--	--	20
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	6	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	6	--	--	19
	10/2/2002	open	75	4	--	--	19
	10/11/2002	open	110	4	--	--	19
	10/16/2002	closed	125	1	20	75	19
	10/31/2002	closed	--	--	--	--	--
	11/6/2002	closed	--	--	--	--	--
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-12	1/13/2003	closed	>150	115	4.5	20	17
	1/22/2003	closed	--	--	--	--	--
	1/24/2003	closed	--	--	--	--	--
	1/30/2003	open	>150	145	--	--	17
	2/4/2003	open	>150	135	--	--	17
	2/12/2003	open	140	--	--	--	17
	3/4/2003	open	150	115	--	--	17
	3/13/2003	open	>150	>150	--	--	17
	3/17/2003	open	>150	--	--	--	17
	3/25/2003	open	>150	150	--	--	17
	4/2/2003	open	>150	>150	--	--	17
	4/11/2003	open	>150	74	--	--	17
	4/25/2003	open	>150	20	--	--	17
	5/7/2003	open	>150	115	--	--	17
	5/14/2003	open	>150	--	--	--	17
	5/22/2003	open	>150	--	--	--	17
	5/30/2003	open	>150	10	43	4	17.5
	6/3/2003	closed	--	--	--	--	--
	6/13/2003	closed	--	--	--	--	--
	6/23/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
RW-13	5/24/2000	--	80	--	--	--	12.59
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	77	--
	3/29/2001	open	54	--	--	124	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--
	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	open	--	--	--	--	16

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-13	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	closed	--	--	--	--	--
	8/26/2002	closed	--	--	--	--	--
	9/16/2002	closed	--	--	--	--	--
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/11/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	29	41	7	21.5
	10/31/2002	closed	--	--	--	--	--
	11/6/2002	closed	--	--	--	--	--
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	110	8.0	2	16
	1/22/2003	closed	--	--	--	--	--
	1/24/2003	closed	--	--	--	--	--
	1/30/2003	closed	--	--	--	--	--
	2/4/2003	closed	--	--	--	--	--
	2/12/2003	closed	--	--	--	--	--
	3/4/2003	closed	--	--	--	--	--
	3/13/2003	closed	--	--	--	--	--
	3/17/2003	closed	--	--	--	--	--
	3/25/2003	closed	--	--	--	--	--
	4/2/2003	closed	--	--	--	--	--
	4/11/2003	closed	--	--	--	--	--
	4/25/2003	closed	--	--	--	--	--
	5/7/2003	closed	--	--	--	--	--
	5/14/2003	closed	--	--	--	--	--
	5/22/2003	closed	--	--	--	--	--
	5/30/2003	closed	--	--	--	--	--
	6/3/2003	closed	--	--	--	--	--
	6/13/2003	closed	--	--	--	--	--
	6/23/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
RW-14	5/24/2000	--	80	--	--	--	12.33
	10/6/2000	--	100	--	--	--	--
	11/29/2000	--	>100	--	--	5830	--
	3/29/2001	open	54	--	--	120	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--
	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	10/8/2001	closed	--	--	--	--	--
	10/22/2001	closed	--	--	--	--	--
	10/29/2001	closed	--	--	--	--	--
	11/6/2001	closed	--	--	--	--	--
	11/12/2001	closed	--	--	--	--	--
	11/14/2001	closed	--	--	--	--	--
	11/21/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/4/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	closed	--	--	--	--	--
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	4/5/2002	closed	--	--	--	--	--
	4/19/2002	closed	--	--	--	--	--
	5/6/2002	closed	--	--	--	--	--
	5/21/2002	closed	--	--	--	--	--
	6/19/2002	closed	--	--	--	--	--
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	closed	--	--	--	--	--
	8/26/2002	closed	--	--	--	--	--
	9/16/2002	closed	--	--	--	--	--
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/11/2002	closed	--	--	--	--	--
	10/16/2002	open	125	80	14	535	19
	10/31/2002	open	150	18	--	--	19
	11/6/2002	closed	--	--	--	--	--
	11/22/2002	closed	--	--	--	--	--
	12/5/2002	closed	--	--	--	--	--
	12/20/2002	closed	--	--	--	--	--
	1/8/2003	open	>150	140	--	--	14

Table 4. TPE Well Parameters - Former Exxon Service Station, 3055 35th Avenue, Oakland, California

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-14	1/13/2003	closed	>150	90	7.0	35	16
	1/22/2003	closed	--	--	--	--	--
	1/24/2003	closed	--	--	--	--	--
	1/30/2003	closed	--	--	--	--	--
	2/4/2003	closed	--	--	--	--	--
	2/12/2003	closed	--	--	--	--	--
	3/4/2003	closed	--	--	--	--	--
	3/13/2003	closed	--	--	--	--	--
	3/17/2003	closed	--	--	--	--	--
	3/25/2003	closed	--	--	--	--	--
	4/2/2003	closed	--	--	--	--	--
	4/11/2003	closed	--	--	--	--	--
	4/25/2003	closed	--	--	--	--	--
	5/7/2003	closed	--	--	--	--	--
	5/14/2003	closed	--	--	--	--	--
	5/22/2003	closed	--	--	--	--	--
	5/30/2003	open	>150	78	5.5	55	17.5
	6/3/2003	open	>150	--	--	--	17.5
	6/13/2003	open	130	--	--	--	18
	6/23/2003	open	120	58	--	--	18
	7/3/2003	open	135	--	--	--	17.5
	7/11/2003	open	125	--	--	--	19
	8/7/2003	open	145	55	--	--	19
	8/15/2003	open	130	30	--	--	19
	8/26/2003	closed	--	--	--	--	--
	12/23/2003	open	>150	--	--	--	20
	1/16/2004	open	>150	--	--	--	15

Notes:
-- = Data not available or not collected

CAMBRIA

APPENDIX A

Groundwater Monitoring Field Data Sheets

CAMBRIA

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Product Thickness	Amount of Product Removed	Casing Diam.	Comment
MW-1	2:00		24.12				stinger at 24.5ft
MW-2	2:15		23.17				" " 24.0ft
MW-3	3:00		17.70				stinger was not pulling upon arrival started purge stinger at 22.0ft water level at 21.70
MW-4	2:30		19.17				stinger at 19.5ft
							system on upon arrival

Project Name: Worthington

Project Number/Task: 130-0105/349

Measured By: L. Wolf

Date: 12-2-03

CAMBRIA

WELL SAMPLING FORM

Project Name: **Worthington**	Cambria Mgr: GH	Well ID: MW-1
Project Number: **130-0105**	Date: 12-2-03	Well Yield:
Site Address: 3035 35th Ave. Oakland, CA	Sampling Method: **Disposable bailer**	Well Diameter: " **pvc**
		Technician(s): SG
Initial Depth to Water: 24.12	Total Well Depth:	Water Column Height:
Volume/ft: 0.16	1 Casing Volume:	3 Casing Volumes:
Purging Device:	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

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

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

Time	Casing Volume	Temp.	pH	Cond.	Comments
15 min	purge	with	system		

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 1	12-2-03	2:08	**4 VOAs**	**HCL**	**VOCs**	**8015**
			1 AMBER	**NONE**		**8020**

CAMBRIA

WELL SAMPLING FORM

Project Name: **Worthington**	Cambria Mgr: GH	Well ID: MW-2
Project Number: **130-0105**	Date: 12-2-03	Well Yield:
Site Address: 3035 35th Ave. Oakland, CA	Sampling Method: **Disposable bailer**	Well Diameter: **" pvc** Technician(s): SG
Initial Depth to Water: 23.17	Total Well Depth:	Water Column Height:
Volume/ft: 0.16	1 Casing Volume:	3 Casing Volumes:
Purging Device:	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

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

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

Time	Casing Volume	Temp.	pH	Cond.	Comments
15 min	purge	with system			

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	12-2-03	2:18	**4 VOAs**	**HCL**	**VOCs**	**8015**
			1 AMBER	**NONE**		**8020**

D:\TEMPLATE\FORMS\FIELD\WELLSAMP.WPD
NSM 5/31/94

CAMBRIA

WELL SAMPLING FORM

Project Name: **Worthington**	Cambria Mgr: GH	Well ID: MW-3
Project Number: **130-0105**	Date: 12-2-03	Well Yield:
Site Address: 3035 35th Ave. Oakland, CA	Sampling Method: **Disposable bailer**	Well Diameter: " **pvc** Technician(s): SG
Initial Depth to Water: 17.70	Total Well Depth:	Water Column Height:
Volume/ft: 0.16	1 Casing Volume:	3 Casing Volumes:
Purging Device:	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

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

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

Time	Casing Volume	Temp.	pH	Cond.	Comments
15 min purge with system					

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	12-2-03	3:08	4 VOAs	HCL	VOCs	8015
			1 AMBER	NONE		8020

CAMBRIA

WELL SAMPLING FORM

Project Name: **Worthington**	Cambria Mgr: GH	Well ID: MW- 4
Project Number: **130-0105**	Date: 12-2-03	Well Yield:
Site Address: 3035 35th Ave. Oakland, CA	Sampling Method: **Disposable bailer**	Well Diameter: " **pvc**
		Technician(s): SG
Initial Depth to Water: 19.17	Total Well Depth:	Water Column Height:
Volume/ft: 0.16	1 Casing Volume:	3 Casing Volumes:
Purging Device:	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

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

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

Time	Casing Volume	Temp.	pH	Cond.	Comments
15 min	purge	with system			

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	12-2-03	2:38	**4 VOAs**	**HCL**	**VOCs**	**8015**
			1 AMBER	**NONE**		**8020**

CAMBRIA

APPENDIX B

Analytical Results for Groundwater Sampling

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105/349; Worthington	Date Sampled: 12/02/03
		Date Received: 12/03/03
	Client Contact: Gretchen Hellmann	Date Reported: 12/09/03
	Client P.O.:	Date Completed: 12/09/03

WorkOrder: 0312070

December 09, 2003

Dear Gretchen:

Enclosed are:

1). the results of 4 analyzed samples from your **#130-0105/349; 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #130-0105/349; Worthington	Date Sampled: 12/02/03
5900 Hollis St, Suite A		Date Received: 12/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 12/05/03-12/08/03
	Client P.O.:	Date Analyzed: 12/05/03-12/08/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0312070

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	7100,a,h	ND<100	1400	230	160	820	10	115
002A	MW-2	W	2400,a,h	890	91	20	14	250	10	94.6
003A	MW-3	W	30,000,a,h	ND<500	2900	2100	530	3600	100	95.6
004A	MW-4	W	13,000,a	ND<250	1300	180	120	1900	50	100
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
http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105/349; Worthington	Date Sampled: 12/02/03
5900 Hollis St, Suite A		Date Received: 12/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 12/03/03
	Client P.O.:	Date Analyzed: 12/05/03-12/06/03

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

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0312070

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0312070-001B	MW-1	W	9300,d,b,h	10	114
0312070-002B	MW-2	W	3300,d,b,h	10	112
0312070-003B	MW-3	W	8400,d,b,h	10	116
0312070-004B	MW-4	W	5800,d,b	10	117

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.

+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 ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0312070

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9547 Spiked Sample ID: 0312071-003A

	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	94.4	99	4.79	98.5	96.8	1.76	70	130
MTBE	13.78	10	111	99.8	4.48	99.7	106	5.86	70	130
Benzene	ND	10	102	101	0.610	100	103	2.90	70	130
Toluene	ND	10	104	103	0.627	102	105	2.49	70	130
Ethylbenzene	ND	10	105	104	1.01	104	105	1.61	70	130
Xylenes	ND	30	110	107	3.08	107	107	0	70	130
%SS:	106	100	106	105	1.05	104	106	1.40	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

QC SUMMARY REPORT FOR SW8015C

Matrix: W WorkOrder: 0312070

EPA Method: SW8015C	Extraction: SW3510C	BatchID: 9531	Spiked Sample ID: N/A

	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(d)	N/A	7500	N/A	N/A	N/A	106	106	0	70	130
%SS:	N/A	100	N/A	N/A	N/A	109	109	0	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.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0312070

Report to:
Matt Meyers"
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105/349; Worthington
PO:

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

Requested TAT: 5 days
Date Received: 12/3/03
Date Printed: 12/3/03

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
0312070-001	MW-1	Water	12/2/03 2:08:00 PM	☐		A	B												
0312070-002	MW-2	Water	12/2/03 2:18:00 PM	☐	A		B												
0312070-003	MW-3	Water	12/2/03 3:08:00 PM	☐	A		B												
0312070-004	MW-4	Water	12/2/03 2:38:00 PM	☐	A		B												

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

0312070

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: Grettchen Hellman Bill To: Cambria Env. Tech
Company: Cambria Environmental Technology Inc.
5900 Hollis Street STE-A
Emeryville, CA 94608 E-mail:
Tele: 510-420-3305 Fax: 510-420-9170
Project #: 130-0105/349 Project Name: Worthington
Project Location: 3055 35th Ave. Oakland, CA
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	Sampling Date	Sampling Time	# Containers	Type Containers	Matrix: Water	Soil	Air	Sludge	Other	Method Preserved: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015) with silica gel clean up	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		12-2-03	2:08	4	Voa Amb	X					X	X			X	X															
MW-2		12-2-03	2:18	4	Voa Amb	X					X	X			X	X															
MW-3		12-2-03	3:08	4	Voa Amb	X					X	X			X	X															
MW-4		12-2-03	2:38	4	Voa Amb	X					X	X			X	X															

Relinquished By:	Date:	Time:	Received By:
[signature]	12-2-03	5:15	secure location
[signature]	12/3	855	[signature] Erica Ultra Ex
[signature]	12/3	1700	[signature]

Remarks:

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

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

CAMBRIA

APPENDIX C

Analytical Results for TPE System Operation

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 10/02/03
		Date Received: 10/06/03
	Client Contact: Gretchen Hellmann	Date Reported: 10/14/03
	Client P.O.:	Date Completed: 10/14/03

WorkOrder: 0310075

October 14, 2003

Dear Gretchen:

Enclosed are:

1). the results of **3** analyzed samples from your **#130-0105-350; 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 10/02/03
5900 Hollis St, Suite A		Date Received: 10/06/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 10/11/03-10/14/03
	Client P.O.:	Date Analyzed: 10/11/03-10/14/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0310075

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	460,a	---	34	25	2.3	64	1	109
002A	EFF-1	W	140,a	---	7.7	5.2	0.59	16	1	103
003A	EFF-2	W	ND	---	ND	ND	ND	ND	1	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 ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0310075

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 8819 Spiked Sample ID: 0310074-007A

	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	104	104	0	104	103	1.56	70	130
MTBE	ND	10	106	100	5.74	98.9	103	3.67	70	130
Benzene	ND	10	113	109	3.60	103	104	1.17	70	130
Toluene	ND	10	113	111	2.27	104	105	0.734	70	130
Ethylbenzene	ND	10	115	112	2.17	106	106	0	70	130
Xylenes	ND	30	117	113	2.90	110	107	3.08	70	130
%SS:	107	100	105	104	1.52	102	104	1.58	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0310075

Client:
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-350; WORTHINGTON
PO:

Date Received: **10/6/03**
Date Printed: **10/10/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests			
					SW8021B/8015Cm			
0310075-001	INF	Water	10/2/03 1:00:00	☐	A			
0310075-002	EFF-1	Water	10/2/03 1:00:00	☐	A			
0310075-003	EFF-2	Water	10/2/03 1:00:00	☐	A			

Prepared by: Melissa Valles

Comments: 003 set up 10/10 per note on c.o.c

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.

0310075

CHAIN OF CUSTODY RECORD

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

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

EDF Required? ☐ Yes XX No

Report To: Gretchen Hellmann Bill To: SAME
Company: Cambria Environmental Technology, Inc.
5900 Hollis Street Suite A
Emeryville, CA 94608 E-mail: ghellmann@cambria-env.com
Tele: 510 420-3305 Fax: 510 420-9170
Project #: 130-0105-350 Project Name: WORTHINGTON
Project Location: 3055 35[th] Street, Oakland, CA
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	Sampling Date	Sampling Time	# Containers	Type Containers	Matrix: Water	Soil	Air	Sludge	Other	Method Preserved: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/[redacted]	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
INF	System	10/2/03	1pm	3	V	X					X	X			X																
EFF-1	System	↓	↓	3	V	X					X	X			X																
EFF-2	System	↓	↓	3	V	X					X	X			X																set up 10/10 [illegible]

ICE/t° ✓ GOOD CONDITION ✓ PRESERVATION APPROPRIATE CONTAINERS ✓ VOAS O&G METALS OTHER

Relinquished By:	Date:	Time:	Received By:
[signature]	10/2/03	5:30p	Secured location
[signature]	10/3	1-	B. Butts
B. Butts	10/10	12:30	Milan Villa

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

Only analyze EFF-2 if TPHg or BTEX is detected in EFF-1

Please email results.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 10/07/03
		Date Received: 10/08/03
	Client Contact: Gretchen Hellmann	Date Reported: 10/15/03
	Client P.O.:	Date Completed: 10/15/03

WorkOrder: 0310126

October 15, 2003

Dear Gretchen:

Enclosed are:

1). the results of 1 analyzed sample from your **#130-0105-350; WORTHINGTON 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
http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 10/07/03
5900 Hollis St, Suite A		Date Received: 10/08/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 10/09/03
	Client P.O.:	Date Analyzed: 10/09/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0310126

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	530,a	ND<15	11	6.7	0.53	9.1	1	100

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0310126

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 8865 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	113	110	2.66	70	130
MTBE	N/A	10	N/A	N/A	N/A	103	98.7	4.68	70	130
Benzene	N/A	10	N/A	N/A	N/A	115	115	0	70	130
Toluene	N/A	10	N/A	N/A	N/A	109	106	2.74	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	114	114	0	70	130
Xylenes	N/A	30	N/A	N/A	N/A	103	107	3.17	70	130
%SS:	N/A	100	N/A	N/A	N/A	108	105	3.31	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0310126

Client:
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-350; WORTHINGTON
PO:

Date Received: **10/8/03**
Date Printed: **10/8/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests: V8021B/8015C					
0310126-001	INF	Air	10/7/03 7:00:00 PM	☐	A					
0310126-002	EFF	Air	10/7/03 7:00:00 PM	☑	A					

Prepared by: Melissa Valles

Comments:

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

ccae

0316124

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 XX☐ 5 DAY

EDF Required? ☐ Yes XX No

Report To: Gretchen Hellmann Bill To: SAME

Company: Cambria Environmental Technology, Inc.
5900 Hollis Street Suite A
Emeryville, CA 94608 E-mail: ghellmann@cambria-env.com

Tele: 510 420-3305 Fax: 510 420-9170

Project #: 130-0105-350 Project Name: WORTHINGTON

Project Location: 3055 35th Street, Oakland, CA

Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	Sampling Date	Sampling Time	# Containers	Type Containers	Matrix: Water	Soil	Air	Sludge	Other	Method Preserved: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other				Comments
INF	System	10/7/03	7pm	1	Tb			X							X																			
EFF	System	10/7/03	7pm	1	Tb			X							X																			

ICE/t°____
GOOD CONDITION NO*
HEAD SPACE ABSENT____
DECHLORINATED IN LAB____
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB____
PRESERVATION VOAS | O&G | METALS | OTHER

Relinquished By:	Date:	Time:	Received By:
[signature]	10/8/03	9am	Secured Location
Fed Ex #280	10/8	13:15	Mel Valle

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

Use 20 mL injection volume.

Please email results.

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

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 10/13/03
5900 Hollis St, Suite A		Date Received: 10/14/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 10/17/03
	Client P.O.:	Date Completed: 10/17/03

WorkOrder: 0310215

October 17, 2003

Dear Gretchen:

Enclosed are:

1). the results of 1 analyzed sample from your **#130-0105-350; WORTHINGTON 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
http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 10/13/03
5900 Hollis St, Suite A		Date Received: 10/14/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 10/14/03
	Client P.O.:	Date Analyzed: 10/14/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0310215

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	101

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0310215

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 8932 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	108	111	2.79	70	130
MTBE	N/A	10	N/A	N/A	N/A	109	110	0.362	70	130
Benzene	N/A	10	N/A	N/A	N/A	106	107	1.38	70	130
Toluene	N/A	10	N/A	N/A	N/A	97.4	102	4.51	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	108	109	0.533	70	130
Xylenes	N/A	30	N/A	N/A	N/A	100	99.7	0.334	70	130
%SS:	N/A	100	N/A	N/A	N/A	102	103	0.934	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0310215

Client:
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-350; WORTHINGTON
PO:

Date Received: 10/14/03
Date Printed: 10/14/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests			
					SW8021B/8015Cm			
0310215-001	INF	Air	10/13/03 9:00:00	☐	A			
0310215-002	EFF	Air	10/13/03 9:00:00	☐	A			

Prepared by: Melissa Valles

Comments:

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

cete

0310215

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: Gretchen Hellmann Bill To: SAME
Company: Cambria Environmental Technology, Inc.
5900 Hollis Street Suite A
Emeryville, CA 94608 E-mail: ghellmann@cambria-env.com
Tele: 510 420-3305 Fax: 510 420-9170
Project #: 130-0105-350 Project Name: WORTHINGTON
Project Location: 3055 35th Street, Oakland, CA
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other				Comments
INF	System	10/13/03	9am	1	Tb			X							X																			On Hold per GH 10-15-03 ("INF" only)
EFF	System	10/13/03	9am	1	Tb			X							X																			

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

Relinquished By:	Date:	Time:	Received By:
[signature]	10/13/03	8pm	Secured Location
J Jones	10-14	1040	Ismael Velazquez UltraEx INC
[signature]	10/14	1120	CR #285
[signature]	10/14	1220	Mike Vallin

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

Use 20 mL injection volume.

Please email results.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-350; Worthington	Date Sampled: 11/17/03
		Date Received: 11/18/03
	Client Contact: Gretchen Hellmann	Date Reported: 12/01/03
	Client P.O.:	Date Completed: 12/01/03

WorkOrder: 0311236

December 01, 2003

Dear Gretchen:

Enclosed are:

1). the results of 3 analyzed samples from your **#130-0105-350; 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #130-0105-350; Worthington	Date Sampled: 11/17/03
5900 Hollis St, Suite A		Date Received: 11/18/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 11/19/03-11/27/03
	Client P.O.:	Date Analyzed: 11/19/03-11/27/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0311236

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	300,a	42	21	7.9	2.2	37	1	104
002A	EFF-1	W	ND	28	ND	ND	ND	0.94	1	101
003A	EEF-2	W	ND	ND	ND	ND	ND	ND	1	108
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
http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-350; Worthington	Date Sampled: 11/17/03
5900 Hollis St, Suite A		Date Received: 11/18/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 11/19/03-11/27/03
	Client P.O.:	Date Analyzed: 11/19/03-11/27/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0311236

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	300,a	---	21	7.9	2.2	37	1	104
002A	EFF-1	W	ND	---	ND	ND	ND	0.94	1	101
003A	EEF-2	W	ND	---	ND	ND	ND	ND	1	108
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
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0311236

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9374 Spiked Sample ID: 0311234-009A

	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	105	101	3.82	114	104	9.17	70	130
MTBE	ND	10	114	106	7.63	112	96.1	15.7	70	130
Benzene	ND	10	111	105	5.51	116	108	7.04	70	130
Toluene	ND	10	99.3	93.5	5.98	110	102	7.33	70	130
Ethylbenzene	ND	10	108	103	4.96	112	109	3.09	70	130
Xylenes	ND	30	96.7	93.3	3.51	100	100	0	70	130
%SS:	98.2	100	107	103	3.56	114	105	8.33	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

McCampbell Analytical Inc.
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Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0311236

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9423 Spiked Sample ID: 0311236-003A

	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	94.7	94.6	0.106	99.5	97.3	2.22	70	130
MTBE	ND	10	96.6	90.8	6.19	87.9	86.6	1.56	70	130
Benzene	ND	10	97.8	92	6.15	92.7	92.7	0	70	130
Toluene	ND	10	102	96.3	5.99	96.5	96.7	0.222	70	130
Ethylbenzene	ND	10	102	97.1	5.19	99.9	101	1.18	70	130
Xylenes	ND	30	103	100	3.28	100	103	3.28	70	130
%SS:	108	100	105	103	1.91	103	103	0	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0311236

Client:

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

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-350; Worthington
PO:

Date Received: **11/18/03**
Date Printed: **11/21/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests: G-MBTEX_W
0311236-001	INF	Water	11/17/03	☐	A
0311236-002	EFF-1	Water	11/17/03	☐	A
0311236-003	EEF-2	Water	11/17/03	☐	A

Prepared by: Elisa Venegas

Comments: ONLY ANALYZE EFF-2 IF TPH G OR BTEX IS DETECTED IN EFF-1 EFF-2 SET UP 11/21

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.

CETE 031236

CHAIN OF CUSTODY RECORD

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

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

EDF Required? ☐ Yes XX No

Report To: Gretchen Hellmann Bill To: SAME

Company: Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A

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

Tele: 510 420-3305 Fax: 510 420-9170

Project #: 130-0105-350 Project Name: WORTHINGTON

Project Location: 3055 35th Street, Oakland, CA

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
INF	System	11/17/03	11:30a	3	V	X					X	X			X																
EFF-1	System	↓	↓	3	V	X					X	X			X																
EFF-2	System	↓	↓	3	V	X					X	X			X																

Relinquished By:	Date:	Time:	Received By:
	11/17/03	5pm	Samper Location
	11/18	11:15	UPTREX #280
UPTREX #280	11/18	14:20	

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

Only analyze EFF-2 if TPHg or BTEX is detected in EFF-1

Please email results.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 11/17/03
		Date Received: 11/18/03
	Client Contact: Gretchen Hellmann	Date Reported: 11/21/03
	Client P.O.:	Date Completed: 11/21/03

WorkOrder: 0311230

November 21, 2003

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-350; 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 11/17/03
5900 Hollis St, Suite A		Date Received: 11/18/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 11/18/03-11/19/03
	Client P.O.:	Date Analyzed: 11/18/03-11/19/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0311230

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	480,a,m	5.3	9.6	4.2	0.44	5.0	4	115
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	107

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0311230

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9374 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	114	104	9.17	70	130
MTBE	N/A	10	N/A	N/A	N/A	112	96.1	15.7	70	130
Benzene	N/A	10	N/A	N/A	N/A	116	108	7.04	70	130
Toluene	N/A	10	N/A	N/A	N/A	110	102	7.33	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	112	109	3.09	70	130
Xylenes	N/A	30	N/A	N/A	N/A	100	100	0	70	130
%SS:	N/A	100	N/A	N/A	N/A	114	105	8.33	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.

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Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0311230

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9358 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	99	97.6	1.41	70	130
MTBE	N/A	10	N/A	N/A	N/A	98.1	105	6.50	70	130
Benzene	N/A	10	N/A	N/A	N/A	102	105	3.47	70	130
Toluene	N/A	10	N/A	N/A	N/A	102	105	3.25	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	105	109	3.02	70	130
Xylenes	N/A	30	N/A	N/A	N/A	107	110	3.08	70	130
%SS:	N/A	100	N/A	N/A	N/A	102	106	4.22	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0311230

Client:

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

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-350; WORTHINGTON
PO:

Date Received: **11/18/03**
Date Printed: **11/18/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests			
					G-MBTEX_PPMV			
0311230-001	INF	Air	11/17/03	☐	A			
0311230-002	EFF	Air	11/17/03	☐	A			

Prepared by: Melissa Valles

Comments:

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

0311230

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 ☒ XX 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Gretchen Hellmann Bill To: SAME

Company: Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A

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

Tele: 510 420-3305 Fax: 510 420-9170

Project #: 130-0105-350 Project Name: WORTHINGTON

Project Location: 3055 35th Street, Oakland, CA

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other
MW-1	System	11/17/03	12:30	1	Tb			X						
MW-2	System	↓	↓	1	Tb			X						

Analysis Request	Other	Comments
BTEX & TPH as Gas (602/8020 + 8015) MTBE: X, X		
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		

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

PRESERVATION	VOAs	O&G	METALS	OTHER

Relinquished By:	Date:	Time:	Received By:
	11/17/03	5pm	Stored location
Relinquished By:	Date:	Time:	Received By:
	11/18	11:15	UPTRACK #280
Relinquished By:	Date:	Time:	Received By:
UPTRACK #280	11/18	14:20	

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

Use 20 mL injection volume.

Please email results.

McCampbell Analytical Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 12/02/03
		Date Received: 12/03/03
	Client Contact: Gretchen Hellmann	Date Reported: 12/09/03
	Client P.O.:	Date Completed: 12/09/03

WorkOrder: 0312069

December 09, 2003

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-350; 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 12/02/03
5900 Hollis St, Suite A		Date Received: 12/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 12/05/03-12/06/03
	Client P.O.:	Date Analyzed: 12/05/03-12/06/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0312069

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	220,a	---	3.5	1.4	1.6	11	1	112
002A	EFF-1	W	ND	---	ND	ND	ND	ND	1	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 ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0312069

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9526 Spiked Sample ID: 0312043-003A

	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	105	109	3.74	107	109	1.62	70	130
MTBE	ND	10	96.5	98.1	1.65	88.8	91.1	2.52	70	130
Benzene	ND	10	114	106	7.57	106	109	2.98	70	130
Toluene	ND	10	111	103	7.05	102	105	2.28	70	130
Ethylbenzene	ND	10	114	108	6.04	107	111	3.68	70	130
Xylenes	ND	30	107	100	6.45	100	103	3.28	70	130
%SS:	105	100	111	102	8.29	103	105	2.08	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0312069

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9547 Spiked Sample ID: 0312071-003A

	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	94.4	99	4.79	98.5	96.8	1.76	70	130
MTBE	13.78	10	111	99.8	4.48	99.7	106	5.86	70	130
Benzene	ND	10	102	101	0.610	100	103	2.90	70	130
Toluene	ND	10	104	103	0.627	102	105	2.49	70	130
Ethylbenzene	ND	10	105	104	1.01	104	105	1.61	70	130
Xylenes	ND	30	110	107	3.08	107	107	0	70	130
%SS:	106	100	106	105	1.05	104	106	1.40	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0312069

Report to:
Matt Meyers"
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-350; WORTHINGTON
PO:

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

Requested TAT: 5 days
Date Received: 12/3/03
Date Printed: 12/3/03

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
0312069-001	INF	Water	12/2/03	☐	A														
0312069-002	EFF-1	Water	12/2/03	☐	A														
0312069-003	EFF-2	Water	12/2/03	☑	A														

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

0312069

CHAIN OF CUSTODY RECORD

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

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

EDF Required? ☐ Yes ☒ No

Report To: Gretchen Hellmann Bill To: SAME

Company: Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A

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

Tele: 510 420-3305 Fax: 510 420-9170

Project #: 130-0105-350 Project Name: WORTHINGTON

Project Location: 3055 35th Street, Oakland, CA

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
INF	System	12/1/03		3	V	X					X	X		
EFF-1	System			3	V	X					X	X		
EFF-2	System			3	V	X					X	X		

Analysis Request

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

Other

Comments

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION ✓

APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

VOAS	O&G	METALS	OTHER
✓			

Relinquished By:	Date:	Time:	Received By:
	12/2/03	4pm	
	12/3	8.55	ERICARDO PEREZ
	12/3	1700	

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

Only analyze EFF-2 if TPHg or BTEX is detected in EFF-1

Please email results.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 12/02/03
		Date Received: 12/03/03
	Client Contact: Gretchen Hellmann	Date Reported: 12/09/03
	Client P.O.:	Date Completed: 12/09/03

WorkOrder: 0312068

December 09, 2003

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-350; 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 12/02/03
5900 Hollis St, Suite A		Date Received: 12/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 12/03/03
	Client P.O.:	Date Analyzed: 12/03/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0312068

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	530,a	ND<10	5.9	2.7	0.61	6.0	1	---#
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	97.6

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0312068

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9526 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	107	109	1.62	70	130
MTBE	N/A	10	N/A	N/A	N/A	88.8	91.1	2.52	70	130
Benzene	N/A	10	N/A	N/A	N/A	106	109	2.98	70	130
Toluene	N/A	10	N/A	N/A	N/A	102	105	2.28	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	107	111	3.68	70	130
Xylenes	N/A	30	N/A	N/A	N/A	100	103	3.28	70	130
%SS:	N/A	100	N/A	N/A	N/A	103	105	2.08	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0312068

Report to:
Matt Meyers"
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-350; WORTHINGTON
PO:

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

Requested TAT: 5 days
Date Received: 12/3/03
Date Printed: 12/3/03

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
0312068-001	INF	Air	12/2/03 2:30:00 PM	☐	A														
0312068-002	EFF	Air	12/2/03 2:30:00 PM	☐	A														

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

CRE

0312068

CHAIN OF CUSTODY RECORD

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

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

EDF Required? ☐ Yes ☒ No

Report To: Gretchen Hellmann Bill To: SAME

Company: Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A

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

Tele: 510 420-3305 Fax: 510 420-9170

Project #: 130-0105-350 Project Name: WORTHINGTON

Project Location: 3055 35th Street, Oakland, CA

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Other	Other	Other	Comments
INF	System	12/2/03	1:34	1	Tb			X							X																		
EFF	System	12/2/03	1:30	1	Tb			X							X																		

Relinquished By: Date: 12/3/03 Time: 4pm Received By:

Relinquished By: Date: 12/3 Time: 855 Received By: ERICA/HC ULTRA EXP

Relinquished By: Date: 12/3 Time: 1700 Received By:

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

Use 20 mL injection volume.

Please email results.

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

APPROPRIATE CONTAINERS ✓

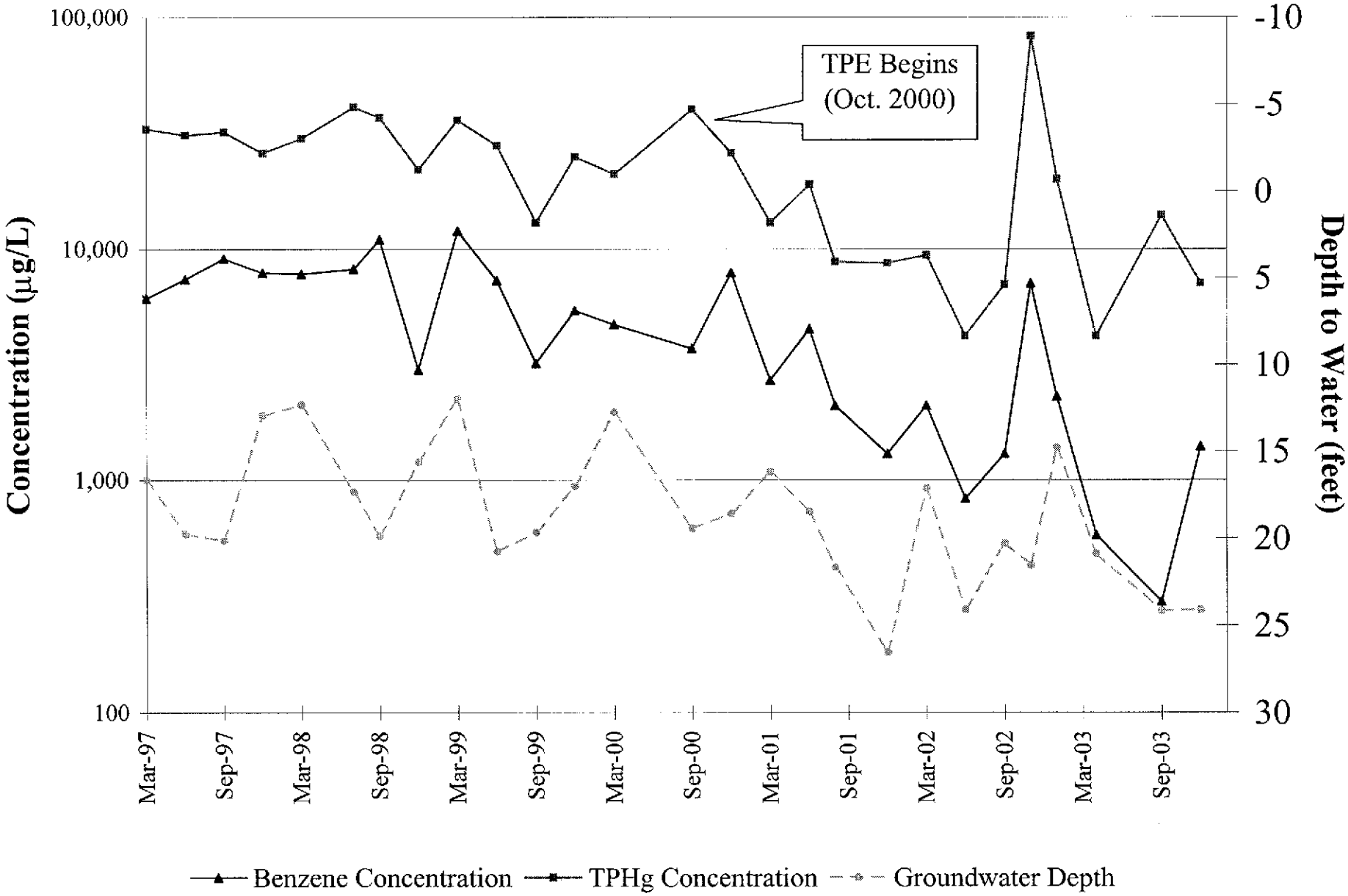
PRESERVATION | VOAS | O&G | METALS | OTHER

CAMBRIA

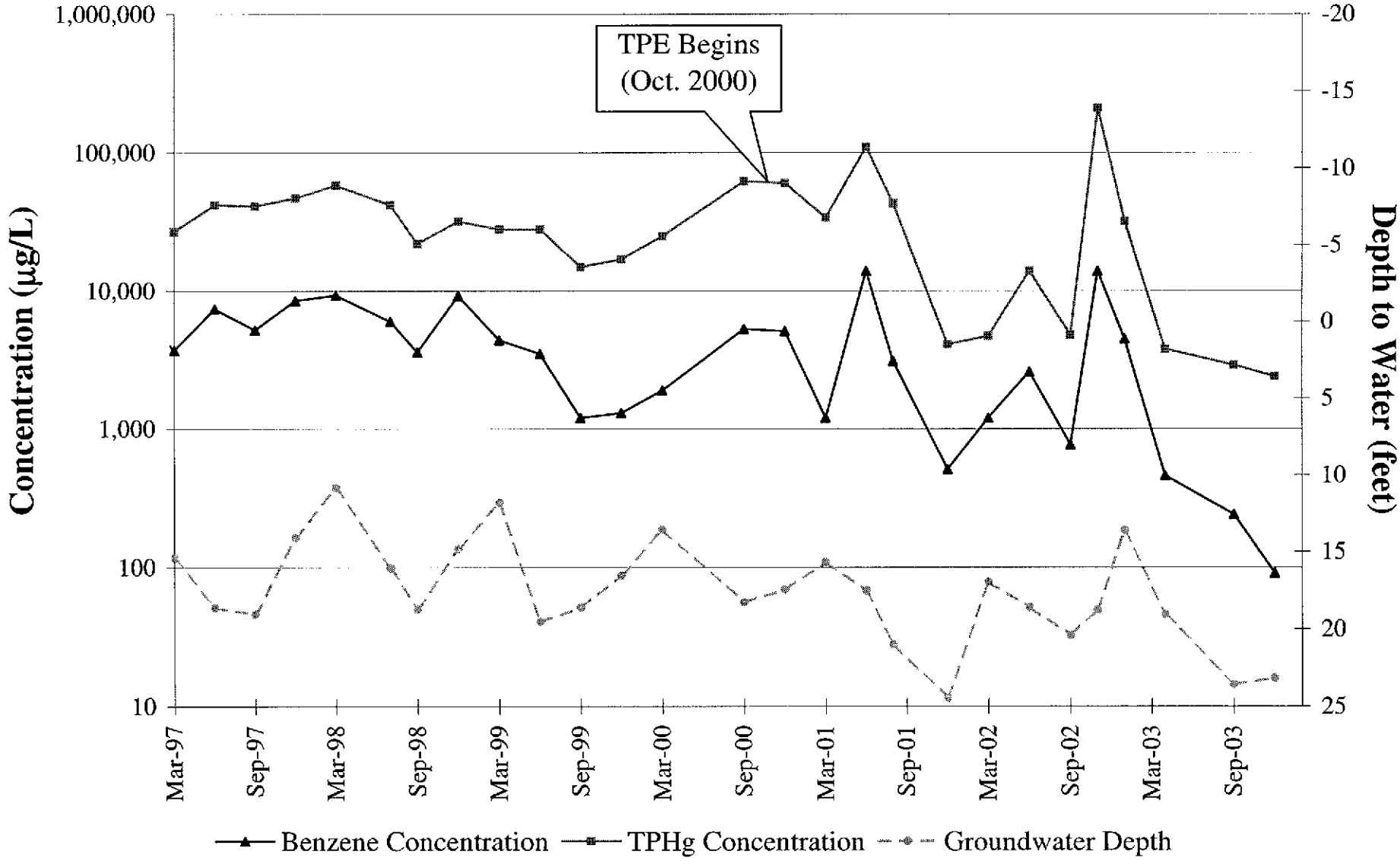
APPENDIX D

TPHg and Benzene Concentration Trend Graphs

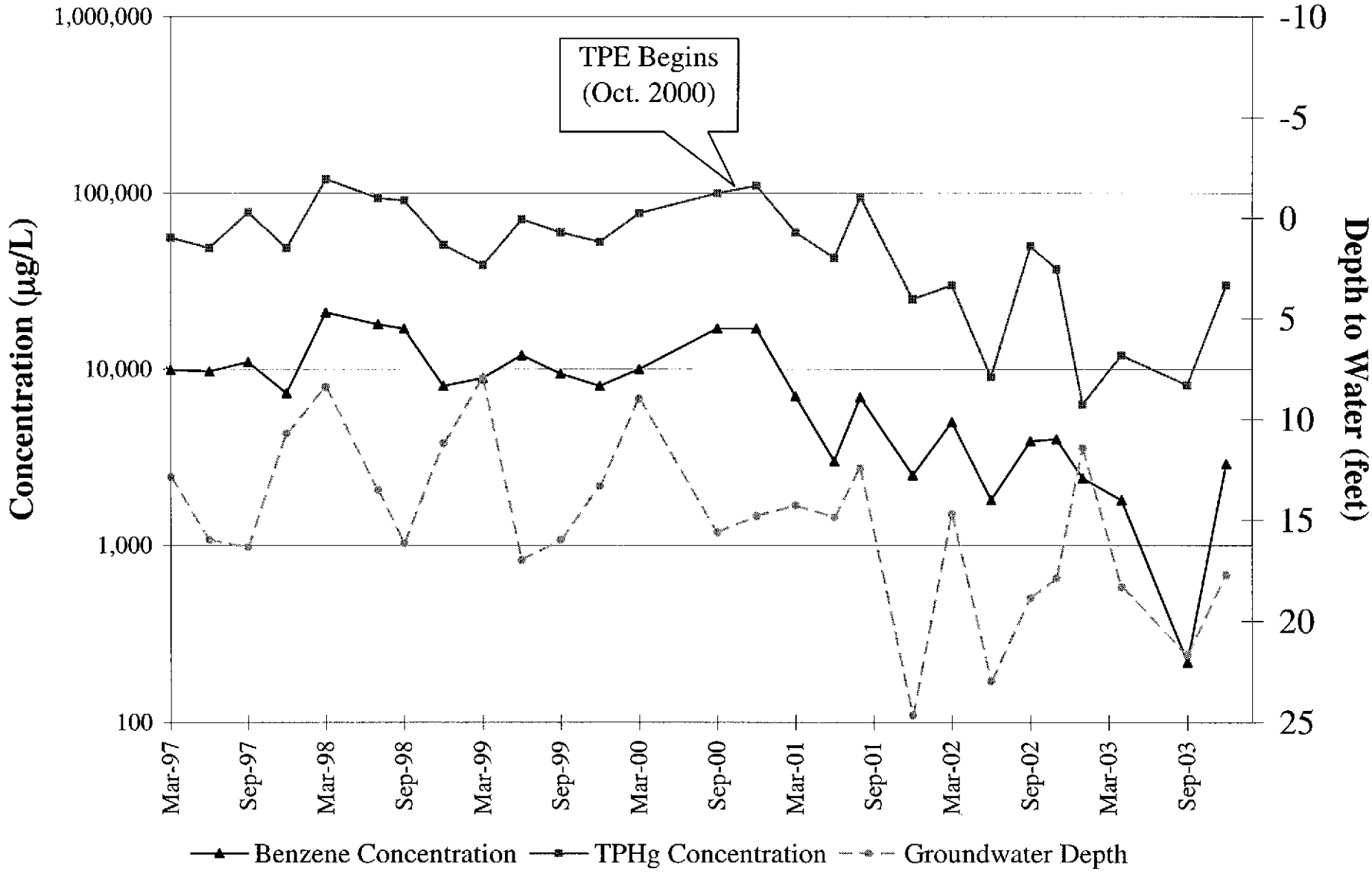
TPHg and Benzene Concentration Trends
Well MW-1 (March 1997 to Present)



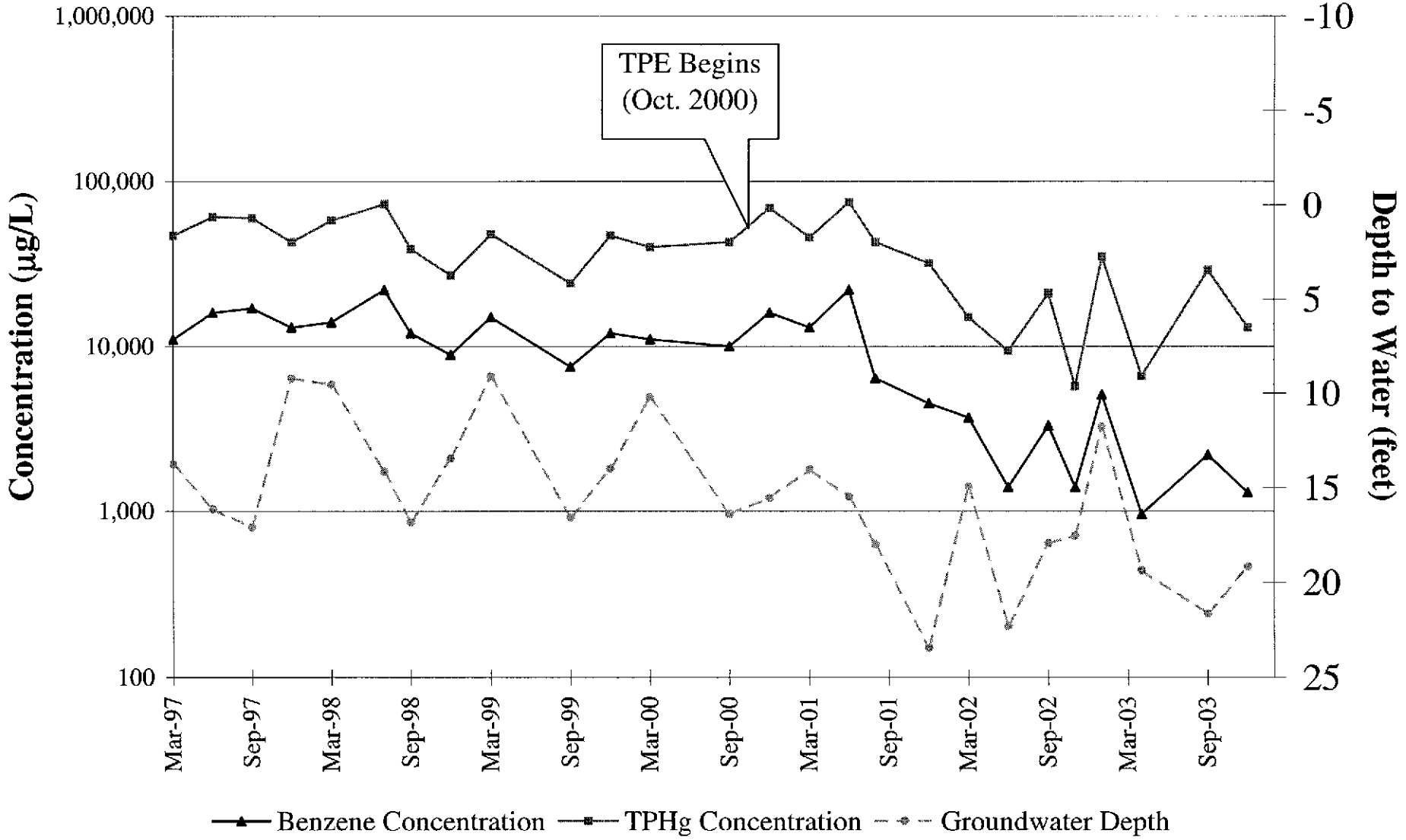
TPHg and Benzene Concentration Trends
Well MW-2 (March 1997 to Present)



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



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



CAMBRIA

APPENDIX E

Geotracker Electronic Delivery Confirmations

AB2886 Electronic Delivery

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

Your EDF file has been succcessfully uploaded!

Confirmation Number: 6879990100
Date/Time of Submittal: 2/5/2004 3:06:36 PM
Facility Global ID: T0600100538
Facility Name: EXXON
Submittal Title: 4th Qtr 2003, GW Analytical Data
Submittal Type: GW Monitoring Report

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

AB2886 Electronic Delivery

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

UPLOADING A GEO_WELL FILE

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

Submittal Title:	**4th Qtr 2003, GW Depth Data for 3035 35th Avenue, Oakland**
Submittal Date/Time:	**2/5/2004 3:08:26 PM**
Confirmation Number:	**3053547501**

Back to Main Menu

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