R0271

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August 7, 2003

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**
Second 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 – Second Quarter 2003*. Presented in the report are the second quarter 2003 activities and the anticipated third quarter 2003 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 - Second 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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Emeryville, CA 94608
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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

SECOND QUARTER 2003

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

August 7, 2003

Prepared for:

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

Prepared by:

Cambria Environmental Technology, Inc.
6262 Hollis Street
Emeryville, California 94608

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

Gretchen M. Hellmann
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Ron Scheele, R.G.
Senior Geologist

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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

SECOND QUARTER 2003

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

August 7, 2003

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 second quarter 2003 groundwater monitoring and corrective action activities and the anticipated third quarter 2003 activities.

SECOND QUARTER 2003 ACTIVITIES

Monitoring Activities

Field Activities: On April 25, 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 April 25 and May 30, 2003 (Figures 1 and 2). On April 25, 2003, the groundwater table was affected by the operation of the two-phase extraction (TPE) remediation system with groundwater extraction from remediation wells MW-1, MW-2, MW-3, MW-4, RW-5, RW-6, RW-9, RW-10, RW-11, and RW-12. On May 30, 2003, the TPE remediation system was temporarily off and the groundwater table remained under static conditions. Based on the depth-to-water measurements, groundwater flows toward the west with a gradient of 0.015 feet/foot (Figure 2). The groundwater gradient is consistent with historical data. 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 second quarter, maximum TPHg and benzene concentrations were detected in well MW-3 at 12,000 and 1,800 micrograms per liter (µg/L), respectively. The maximum TPHd concentration was detected in well MW-4 at 2,200 µg/L. The maximum MTBE concentration was detected in well MW-2 at 310 µg/L. Overall, hydrocarbon concentrations have significantly decreased in all wells as compared with the previous sampling event. Since the start of remediation (June 2000), monitoring wells have exhibited decreasing hydrocarbon concentration trends (See Appendix D for individual well concentration trend graphs). TPHg, TPHd, and benzene concentrations in wells MW-1 and MW-2 are at their lowest levels since groundwater sampling commenced in 1994. Benzene concentrations in well MW-4 are also at their lowest level since 1994. 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.

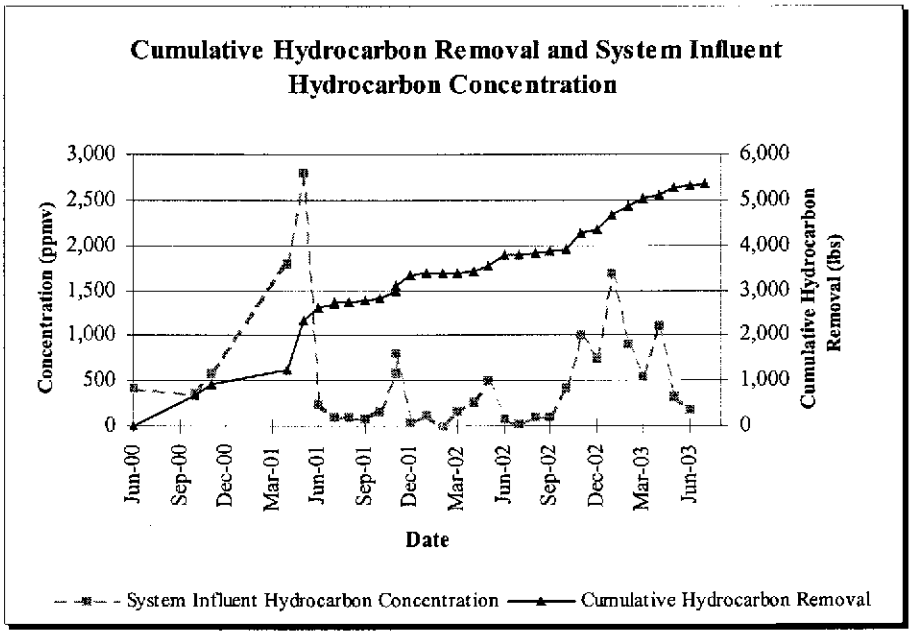
Remediation System Operations and Maintenance Activities: During the second quarter, Cambria performed TPE system operation and maintenance (O&M) activities approximately three times per month. During O&M activities, individual well flow, vacuum, and hydrocarbon concentration measurements were collected from the TPE wells and from the 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 April 2, May 7, and June 2, 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 April 2, May 7, and June 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 extraction portion of the TPE system was operating within wastewater discharge permit requirements. A system inspection was conducted by Mr. Rodney Temples of the East Bay Municipal Utility District (EBMUD) on June 23, 2003. Mr. Temples confirmed that the TPE system was in full compliance with its wastewater discharge permit. Table 3 summarizes groundwater extraction system parameters and analytical results. The system analytical laboratory reports are included as Attachment C.

Remediation System Performance: From April 2 through July 3, 2003, the TPE system operated for a total of 1,892 hours. The system shutdown automatically a couple of times during the quarter due to high water in the knockout tank. System influent vapor concentrations decreased during the quarter from 1,110 to 178 parts per million by volume (ppmv). Influent hydrocarbon vapor concentrations spiked in April following system optimization efforts involving individual well flow and vapor concentrations. To maximize site cleanup, select remediation wells were opened or closed and well stinger depths were adjusted to account for seasonal changes in the groundwater table (see Table 4). Hydrocarbon removal rates for soil vapor decreased significantly during the quarter from 5.4 to 1.4 pounds per day due to lowered influent hydrocarbon vapor concentrations. As of July 3, 2003,

approximately 5,339 pounds of petroleum hydrocarbons had been removed and destroyed by vapor extraction (see graph below and Table 2).



On May 30, 2003, the vacuum radius of influence (ROI) was measured during extraction from wells MW-1 and MW-4. A ROI of approximately 30 to 39 feet was observed indicating that the remediation wells are addressing cleanup across the site.

From April 2 to July 3, 2003, approximately 174,920 gallons of groundwater were extracted and treated onsite using granular activated carbon. The groundwater extraction rate ranged from 1.1 to 2.0 gallons per minute and decreased relative to the previous quarter due to less infiltration of rainwater and a lower groundwater table. Influent groundwater TPHg concentrations ranged from 370 to 1,300 µg/L during the quarter and exhibited a decreasing trend. Influent groundwater concentrations dropped significantly during the quarter indicating that the hydrocarbon mass in the subsurface is decreasing. As of July 3, 2003, approximately 10.2 pounds of hydrocarbons had been removed and treated by aqueous-phase carbon.

ANTICIPATED THIRD QUARTER 2003 ACTIVITIES

Monitoring Activities

During the third 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 – Third Quarter 2003*.

Corrective Action Activities

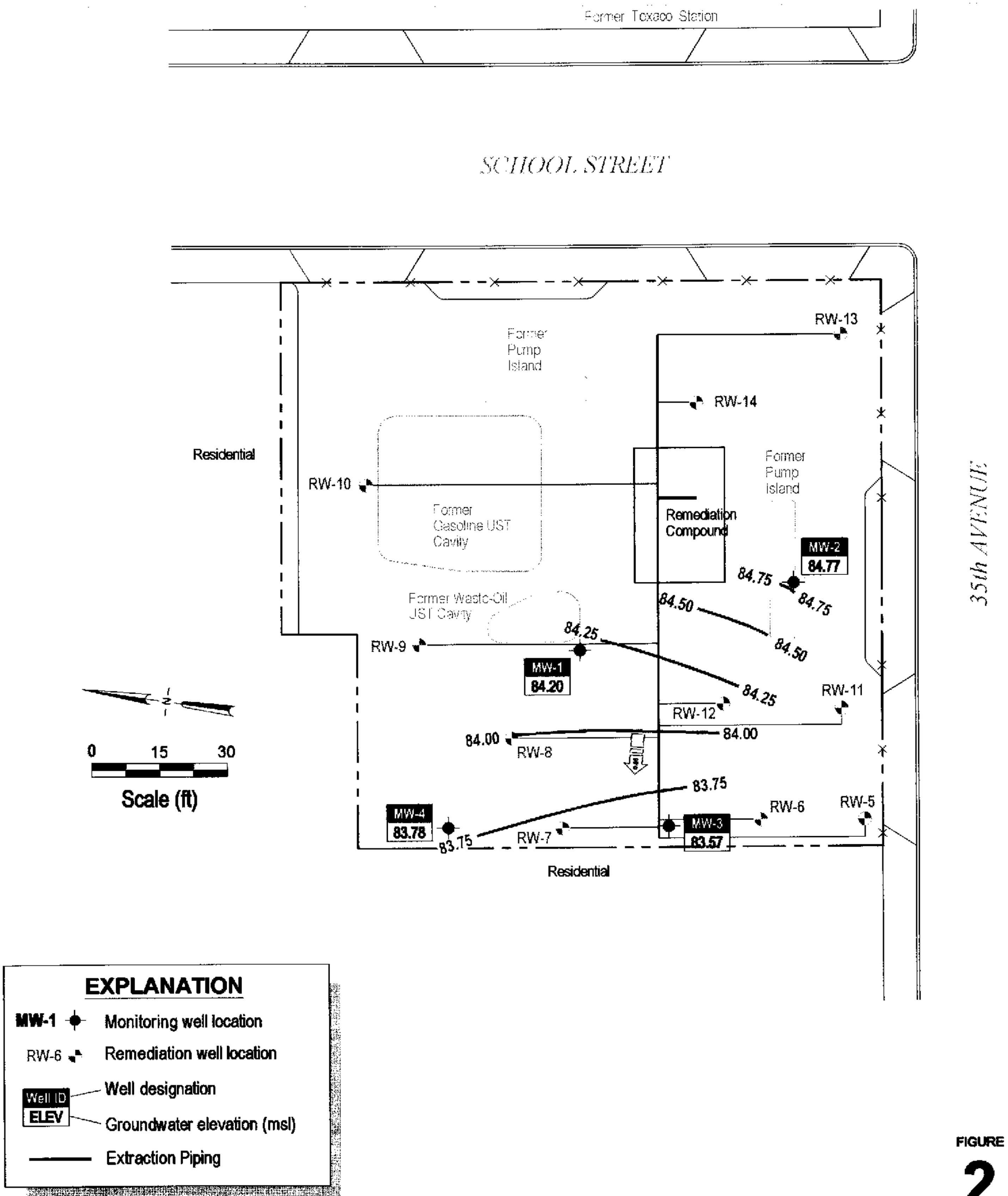
Cambria will continue to perform TPE operation and maintenance activities approximately three times per month during the third quarter of 2003. The depth of extraction stingers will be adjusted in an effort to maximize hydrocarbon removal and TPE operations may vary between select wells to optimize site 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 – April 25, 2003
Figure 2 – Groundwater Elevation Map – May 30, 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



Note: TPE remediation system not operating at the time of groundwater monitoring event.

FIGURE 2

Former Exxon Station

3055 35th Avenue

Oakland, California

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Groundwater Elevation Contour Map

May 30, 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[f]	---	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[a]	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,h]	---	830	170	110	460	<100	---	Operating
	09/26/02	20.30	---	80.55	7,000[d]	1,300[e,f,h]	---	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[e]**	**---**	**580**	**81**	**59**	**470**	**<50**	**---**	**Operating**
	05/30/03	**16.65**	**---**	**84.20**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**Not 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[g,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**

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-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[g,j]	---	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[g,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**

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[e]	---	17,000	4,900	1,500	5,700	<1,500	1.5	
	12/22/97	9.21	---	88.13	43,000[d]	3,100[e]	---	13,000	3,900	1,100	4,200	<960	3.7	
	03/18/98	9.54	---	87.80	58,000[d]	5,500[e,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[e,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[e,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[e,f]	---	7,500	1,200	190	2,200	210	14.29[h]	
	12/10/99	13.99	---	83.35	47,000[d]	3,100[e,f]	---	12,000	1,800	1,000	4,400	<100	0.62	
	03/23/00	10.22	---	87.12	40,000[d]	3,100[e,f]	---	11,000	1,600	910	3,100	690	---	
	09/07/00	16.40	---	80.94	43,000[d]	5,900[e]	---	10,000	1,100	1,100	3,400	<450	1.04	
	12/05/00	15.55	---	81.79	69,000[d,g]	2,600[e,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[g]	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[e,f,g]	---	4,500	740	310	2,300	<200	0.21	Operating
	03/11/02	14.95	---	82.39	15,000[d]	1,600[e,f,k]	---	3,700	500	92	790	<500	0.30	Operating
	06/10/02	22.30	---	75.04	9,400[d]	3,400[e]	---	1,400	50	<5.0	690	<200	---	Operating
	09/26/02	17.93	---	79.41	21,000[d]	800[e]	---	3,300	1,300	450	2,900	<500	0.24	Operating
	11/21/02	17.55	---	79.79	5,700[d]	2,400[e,k]	---	1,400	290	63	640	550	---	Operating
	01/13/03	11.75	---	85.59	35,000[d,g]	15,000[e,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[e,f]**	**---**	**960**	**130**	**100**	**560**	**<170**	**---**	**Operating**
	05/30/03	**13.56**	**---**	**83.78**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**Not 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
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	---	

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

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

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

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		
12/5/02	1720	65%	675	115	14.0	61	740	<10	<0.15	14.5	<0.20	<0.003	*	4350
1/8/03	2279	69%	675	30	16.0	14	1700	<10	<0.15	7.6	<0.04	<0.001	*	4688
2/4/03	2896	95%	671	48	18.0	19	910	<10	<0.15	5.6	<0.06	<0.001	*	4884
3/4/03	3571	100%	657	47	17.0	20	540	<10	<0.15	3.5	<0.07	<0.001	*	5041
4/2/03	3990	60%	705	38	18.0	15	1110	<10	<0.15	5.4	<0.05	<0.001	*	5102
5/7/03	4719	87%	700	58	21.5	16	330	<10	<0.15	1.7	<0.05	<0.001	*	5265
6/2/03	5200	77%	698	60	18.0	24	178	<10	<0.15	1.4	<0.08	<0.001	*	5300
7/3/03	5882	92%	700	77	16.0	36	--	--	--	--	--	--	--	5339

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

** 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.

*** The hour meter was not operating properly. System uptime is calculated based on the operational status upon arrival.

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)
10/20/00	878	0	0	NC	Inf Eff	-- --	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	--	--
10/30/00	1004	--	50	NC	Inf Eff	-- --	170 <0.5	140 <0.5	16 <0.5	200 <0.5	--	--
11/9/00	1,251	--	50	NC	Inf Eff	760 <50	120 <0.5	86 <0.5	4.2 <0.5	84 <0.5	NC	NC
12/15/00	1,267	760a	50	NC	--	--	--	--	--	--	--	--
1/23/01	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
3/28/01	0	3,970	3,210	NC	Replacement Catox System Startup			--	--	--	0.00	0.02
4/13/01	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
6/4/01	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
7/2/01	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

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)
9/7/01	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
11/16/01	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
12/6/01	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
1/7/02	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
2/4/02	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
3/5/02	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
4/2/02	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
5/6/02	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

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)
6/5/02	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
7/2/02	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
9/10/02	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
10/2/02	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
11/6/02	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
12/5/02	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
1/8/03	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

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)
2/4/03	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
3/4/03	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
4/2/03	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
5/7/03	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
6/2/03	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
7/3/03	5,882	841,095	840,335	1.1	INF	--	--	--	--	--	0.14	10.24
					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

CAMBRIA

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	11/6/01	open	80	--	--	--	28
	11/12/01	open	125	--	--	--	28
	11/14/01	open	85	--	--	--	28
	11/21/01	open	95	--	--	--	28
	12/6/01	open	115	--	--	--	28
	12/19/01	open	110	--	--	--	25
	1/17/02	open	130	--	--	--	25
	2/4/02	open	105	--	--	--	28
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	--
	3/25/02	open	130	--	--	--	21
	4/2/02	open	130	--	--	--	21
	4/5/02	open	135	50	--	--	21
	4/19/02	open	130	49	--	--	22
	5/6/02	open	100	42	--	--	22
	5/21/02	open	105	49	--	--	23.5
	6/19/02	open	90	42	--	--	24
	6/28/02	open	95	47	--	--	25
	7/10/02	open	97	41	--	--	25
	7/26/02	closed	--	--	--	--	--
	8/6/02	open	--	--	--	--	21.5
	8/26/02	open	95	47	--	--	21.5
	9/16/02	open	105	--	--	--	21.5
	9/20/02	open	85	40	--	--	21.5
	10/2/02	open	75	22	--	--	21.5
	10/11/02	open	110	32	--	--	21.5
	10/16/02	open	125	103	5.0	1475	21.5
	10/31/02	open	150	70	--	--	21.5
	11/6/02	open	155	101	--	--	21.5
	11/22/02	open	145-160	115	--	--	21.5
	12/5/02	open	140	91	--	--	21.5
	12/20/02	open	>150	--	--	--	19.5
	1/8/03	open	>150	135	--	--	19.5
	1/13/03	closed	>150	140	6.0	80	20
	1/22/03	closed	--	--	--	--	--
	1/24/03	closed	--	--	--	--	--
	1/30/03	open	>150	150	--	--	21
	2/4/03	open	>150	140	--	--	21
	2/12/03	open	140	--	--	--	21
	3/4/03	open	150	110	--	--	21
	3/13/03	open	>150	150	--	--	21
	3/17/03	open	>150	--	--	--	21
	3/25/03	open	>150	130	--	--	21
	4/2/03	open	>150	>150	--	--	21
	4/11/03	open	>150	104	--	--	21
	4/25/03	open	>150	--	--	--	21.5
	5/7/03	open	>150	109	--	--	20
	5/14/03	open	>150	--	--	--	20
	5/22/03	open	135	--	--	--	20
	5/30/03	open	>150	130	5.3	30	21.5
	6/3/03	open	>150	--	--	--	21.5
	6/13/03	open	130	--	--	--	21.5
	6/23/03	open	120	64	--	--	21.5
	7/3/03	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-2	11/6/01	open	80	--	--	--	27
	11/12/01	open	125	--	--	--	27
	11/14/01	open	85	--	--	--	27
	11/21/01	open	95	--	--	--	27
	12/6/01	open	115	--	--	--	28
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	open	105	--	--	--	28
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	--
	3/25/02	open	130	--	--	--	21
	4/2/02	open	130	--	--	--	21
	4/5/02	open	135	70	--	--	21
	4/19/02	open	130	55	--	--	22
	5/6/02	closed	--	--	--	--	--
	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	open	95	52	--	--	22
	7/10/02	open	97	51	--	--	22
	7/26/02	open	92	19	--	--	25.5
	8/6/02	open	--	--	--	--	21.5
	8/26/02	open	95	35	--	--	21.5
	9/16/02	open	105	--	--	--	21.5
	9/20/02	open	85	30	--	--	21.5
	10/2/02	open	75	72	--	--	21.5
	10/11/02	open	110	60	--	--	21.5
	10/16/02	open	125	108	8.5	2030	21.5
	10/31/02	open	150	65	--	--	21.5
	11/6/02	open	155	95	--	--	21.5
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	closed	--	--	--	--	--
	1/13/03	open	>150	130	5.0	385	19
	1/22/03	open	>150	--	--	--	19
	1/24/03	open	>150	140	--	--	20
	1/30/03	open	>150	120	--	--	20
	2/4/03	open	>150	75	--	--	21
	2/12/03	open	140	--	--	--	21
	3/4/03	open	150	93	--	--	21
	3/13/03	open	>150	140	--	--	20
	3/17/03	open	>150	--	--	--	20
	3/25/03	open	>150	97	--	--	19
	4/2/03	open	>150	130	--	--	19
	4/11/03	open	>150	75	--	--	19
	4/25/03	open	>150	50	--	--	20
	5/7/03	open	>150	90	--	--	19
	5/14/03	open	>150	--	--	--	20
	5/22/03	open	135	--	--	--	20
	5/30/03	open	>150	87	5.4	29	20.5
	6/3/03	open	>150	--	--	--	20.5
	6/13/03	open	130	--	--	--	20.5
	6/23/03	open	120	62	--	--	20.5
	7/3/03	open	135	--	--	--	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-3	11/6/01	open	80	--	--	--	25
	11/12/01	open	125	--	--	--	25
	11/14/01	open	85	--	--	--	25
	11/21/01	open	95	--	--	--	25
	12/6/01	open	115	--	--	--	25
	12/19/01	open	110	--	--	--	25
	1/17/02	open	130	--	--	--	25
	2/4/02	open	105	--	--	--	25
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	--
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	open	100	28	--	--	20
	5/21/02	open	105	7	--	--	22
	6/19/02	open	90	10	--	--	24
	6/28/02	open	95	11	--	--	24
	7/10/02	open	97	6	--	--	23
	7/26/02	open	92	7	--	--	23
	8/6/02	open	--	--	--	--	19
	8/26/02	open	95	44	--	--	19
	9/16/02	open	105	--	--	--	19
	9/20/02	open	85	50	--	--	19
	10/2/02	open	75	29	--	--	19
	10/11/02	open	110	25	--	--	19
	10/16/02	open	125	115	17	1286	19
	10/31/02	open	150	70	--	--	19
	11/6/02	open	155	89	--	--	19
	11/22/02	open	145-160	92	--	--	19
	12/5/02	open	140	86	--	--	19.5
	12/20/02	open	>150	--	--	--	18
	1/8/03	open	>150	145	--	--	18
	1/13/03	open	>150	150	5.6	700	17
	1/22/03	open	>150	--	--	--	17
	1/24/03	open	>150	>150	--	--	17
	1/30/03	open	>150	>150	--	--	17
	2/4/03	open	>150	140	--	--	18
	2/12/03	open	140	--	--	--	18
	3/4/03	open	150	120	--	--	18
	3/13/03	open	>150	>150	--	--	18
	3/17/03	open	>150	--	--	--	18
	3/25/03	open	>150	145	--	--	18
	4/2/03	open	>150	>150	--	--	18
	4/11/03	open	>150	120	--	--	18
	4/25/03	open	>150	95	--	--	19.5
	5/7/03	open	>150	110	--	--	19.5
	5/14/03	open	>150	--	--	--	19.5
	5/22/03	open	135	--	--	--	19.5
	5/30/03	open	>150	105	10	88	18.3
	6/3/03	open	>150	--	--	--	18.3
	6/13/03	open	130	--	--	--	18.3
	6/23/03	open	120	65	--	--	18.3
	7/3/03	open	135	--	--	--	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	11/6/01	open	80	--	--	--	25
	11/12/01	open	125	--	--	--	25
	11/14/01	open	85	--	--	--	25
	11/21/01	open	95	--	--	--	25
	12/6/01	open	115	--	--	--	25
	12/19/01	open	110	--	--	--	25
	1/17/02	open	130	--	--	--	25
	2/4/02	open	105	--	--	--	25
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	--
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	open	100	26	--	--	20
	5/21/02	open	105	31	--	--	21
	6/19/02	open	90	26	--	--	21
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	open	92	14	--	--	24.5
	8/6/02	open	--	--	--	--	19
	8/26/02	open	95	39	--	--	19
	9/16/02	open	105	--	--	--	19
	9/20/02	open	85	35	--	--	19
	10/2/02	open	75	34	--	--	19
	10/11/02	open	110	31	--	--	19
	10/16/02	open	125	100	4.7	1780	19
	10/31/02	open	150	60	--	--	19
	11/6/02	open	155	82	--	--	19
	11/22/02	open	145-160	82	--	--	19
	12/5/02	open	140	77	--	--	19.5
	12/20/02	open	>150	--	--	--	18
	1/8/03	open	>150	130	--	--	18
	1/13/03	closed	>150	130	6.5	150	17
	1/22/03	closed	>150	--	--	--	--
	1/24/03	open	>150	130	--	--	19
	1/30/03	open	>150	135	--	--	19
	2/4/03	open	>150	120	--	--	19
	2/12/03	open	140	--	--	--	19
	3/4/03	open	150	104	--	--	19
	3/13/03	open	>150	150	--	--	19
	3/17/03	open	>150	--	--	--	19
	3/25/03	open	>150	110	--	--	19
	4/2/03	open	>150	150	--	--	19
	4/11/03	open	>150	80	--	--	19
	4/25/03	open	>150	55	--	--	19
	5/7/03	open	>150	95	--	--	19
	5/14/03	open	>150	--	--	--	19
	5/22/03	open	135	--	--	--	18
	5/30/03	open	>150	110	4.6	410	18.5
	6/3/03	open	>150	--	--	--	18.5
	6/13/03	open	130	--	--	--	18.5
	6/23/03	open	120	45	--	--	18.5
	7/3/03	open	135	--	--	--	18.5

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)
RW-5	5/24/00	--	80	--	--	--	11.64
	10/6/00	--	100	--	--	--	--
	11/29/00	open	>100	--	--	4320	--
	3/29/01	open	54	--	--	650	--
	4/14/01	open	100	--	--	--	--
	4/26/01	open	85	--	--	--	15
	5/3/01	open	80	--	--	--	15
	5/23/01	open	10	--	--	--	15
	6/4/01	open	50	--	--	--	15
	6/21/01	open	65	--	--	--	15
	7/2/01	open	55	--	--	--	15
	7/16/01	open	45	--	--	--	16
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	open	110	--	--	--	20
	1/17/02	open	130	--	--	--	20
	2/4/02	closed	--	--	--	--	--
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	--
	3/25/02	open	130	--	--	--	16
	4/2/02	open	130	--	--	--	16
	4/5/02	open	135	90	--	--	16
	4/19/02	open	130	72	--	--	18
	5/6/02	open	100	43	--	--	18
	5/21/02	open	105	55	--	--	19
	6/19/02	open	90	33	--	--	19.5
	6/28/02	open	95	48	--	--	20
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	open	--	--	--	--	19
	8/26/02	open	95	27	--	--	19
	9/16/02	open	105	--	--	--	19
	9/20/02	open	85	22	--	--	19
	10/2/02	open	75	32	--	--	19
	10/11/02	open	110	28	--	--	19
	10/16/02	open	125	38	62	240	19
	10/31/02	open	150	44	--	--	19
	11/6/02	open	155	50	--	--	19
	11/22/02	open	145-160	26	--	--	20
	12/5/02	open	140	26	--	--	20
	12/20/02	open	>150	--	--	--	18
	1/8/03	open	>150	130	--	--	18
	1/13/03	open	>150	115	5.5	1750	17
	1/22/03	open	>150	--	--	--	17
	1/24/03	open	>150	140	--	--	17
	1/30/03	open	>150	140	--	--	17
	2/4/03	open	>150	128	--	--	18
	2/12/03	open	140	--	--	--	18
	3/4/03	open	150	105	--	--	18
	3/13/03	open	>150	145	--	--	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	3/17/03	open	>150	--	--	--	18
	3/25/03	open	>150	90	--	--	18
	4/2/03	open	>150	125	--	--	18
	4/11/03	open	>150	102	--	--	18
	4/25/03	open	>150	85	--	--	19
	5/7/03	open	>150	90	--	--	19
	5/14/03	open	>150	--	--	--	16
	5/22/03	open	135	--	--	--	16
	5/30/03	open	>150	93	5.7	102	16.8
	6/3/03	open	>150	--	--	--	16.8
	6/13/03	open	130	--	--	--	16.8
	6/23/03	open	120	62	--	--	16.8
	7/3/03	open	135	--	--	--	17
RW-6	5/24/00	--	80	--	--	--	11.78
	10/6/00	--	--	--	--	--	--
	11/29/00	open	>100	--	--	260	--
	3/29/01	open	54	--	--	2050	--
	4/14/01	open	100	--	--	--	20
	4/26/01	closed	--	--	--	--	--
	5/3/01	closed	--	--	--	--	--
	5/23/01	closed	--	--	--	--	--
	6/4/01	open	50	--	--	--	15
	6/21/01	open	65	--	--	--	15
	7/2/01	open	55	--	--	--	15
	7/16/01	open	45	--	--	--	16
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	open	130	--	--	--	16
	3/25/02	open	130	--	--	--	16
	4/2/02	open	12	--	--	--	16
	4/5/02	open	135	85	--	--	16
	4/19/02	open	130	75	--	--	18
	5/6/02	closed	--	--	--	--	--
	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	closed	--	--	--	--	--
	7/10/02	open	97	54	--	--	20
	7/26/02	open	92	39	--	--	20
	8/6/02	open	--	--	--	--	19
	8/26/02	open	95	34	--	--	19
	9/16/02	open	105	--	--	--	19
	9/20/02	open	85	45	--	--	19
	10/2/02	open	75	30	--	--	19
	10/11/02	open	110	--	--	--	19
	10/16/02	open	125	54	34	644	19
	10/31/02	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-6	11/6/02	closed	--	--	--	--	--
	11/22/02	open	145-160	70	--	--	19.5
	12/5/02	open	140	69	--	--	19.5
	12/20/02	open	>150	--	--	--	18
	1/8/03	open	>150	135	--	--	18
	1/13/03	open	>150	110	4.5	1550	17
	1/22/03	open	>150	--	--	--	17
	1/24/03	open	>150	150	--	--	17
	1/30/03	open	>150	140	--	--	17
	2/4/03	open	>150	125	--	--	18
	2/12/03	open	140	--	--	--	18
	3/4/03	open	150	108	--	--	18
	3/13/03	open	>150	150	--	--	18
	3/17/03	open	>150	--	--	--	18
	3/25/03	open	>150	110	--	--	18
	4/2/03	open	>150	145	--	--	18
	4/11/03	open	>150	99	--	--	18
	4/25/03	open	>150	85	--	--	19
	5/7/03	open	>150	100	--	--	19
	5/14/03	open	>150	--	--	--	19
	5/22/03	open	135	--	--	--	19
	5/30/03	open	>150	75	5.2	289	17
	6/3/03	open	>150	--	--	--	17
	6/13/03	open	130	--	--	--	17
	6/23/03	open	120	59	--	--	17
	7/3/03	open	135	--	--	--	17
RW-7	5/24/00	--	80	--	--	--	12.5
	10/6/00	--	--	--	--	--	--
	11/29/00	open	>100	--	--	0	--
	3/29/01	open	54	--	--	52	--
	4/14/01	open	100	--	--	--	20
	4/26/01	open	85	--	--	--	15
	5/3/01	open	80	--	--	--	15
	5/23/01	open	10	--	--	--	15
	6/4/01	open	50	--	--	--	15
	6/21/01	open	65	--	--	--	15
	7/2/01	open	55	--	--	--	15
	7/16/01	open	45	--	--	--	16
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	--
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	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	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	closed	--	--	--	--	--
	8/26/02	closed	--	--	--	--	--
	9/16/02	closed	--	--	--	--	--
	9/20/02	closed	--	--	--	--	--
	10/2/02	closed	--	--	--	--	--
	10/11/02	closed	--	--	--	--	--
	10/16/02	closed	125	19	35	36	19
	10/31/02	closed	--	--	--	--	--
	11/6/02	closed	--	--	--	--	--
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	closed	--	--	--	--	--
	1/13/03	closed	>150	135	4.5	25	17
	1/22/03	closed	--	--	--	--	--
	1/24/03	closed	--	--	--	--	--
	1/30/03	closed	--	--	--	--	--
	2/4/03	closed	--	--	--	--	--
	2/12/03	closed	--	--	--	--	--
	3/4/03	closed	--	--	--	--	--
	3/13/03	closed	--	--	--	--	--
	3/17/03	closed	--	--	--	--	--
	3/25/03	closed	--	--	--	--	--
	4/2/03	closed	--	--	--	--	--
	4/11/03	closed	--	--	--	--	--
	4/25/03	closed	--	--	--	--	--
	5/7/03	closed	--	--	--	--	--
	5/14/03	closed	--	--	--	--	--
	5/22/03	closed	--	--	--	--	--
	5/30/03	closed	--	--	--	--	--
	6/3/03	closed	--	--	--	--	--
	6/13/03	closed	--	--	--	--	--
	6/23/03	closed	--	--	--	--	--
	7/3/03	closed	--	--	--	--	--
RW-8	5/24/00	--	--	--	--	--	--
	10/6/00	--	--	--	--	--	--
	11/29/00	open	>100	--	--	44	--
	3/29/01	open	54	--	--	60	--
	4/14/01	open	100	--	--	--	20
	4/26/01	open	85	--	--	--	15
	5/3/01	open	80	--	--	--	15
	5/23/01	open	10	--	--	--	15
	6/4/01	open	50	--	--	--	15
	6/21/01	open	65	--	--	--	--
	7/2/01	open	55	--	--	--	--
	7/16/01	open	45	--	--	--	--
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	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	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	18
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	closed	--	--	--	--	--
	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	closed	--	--	--	--	--
	8/26/02	closed	--	--	--	--	--
	9/16/02	closed	--	--	--	--	--
	9/20/02	closed	--	--	--	--	--
	10/2/02	closed	--	--	--	--	--
	10/11/02	closed	--	--	--	--	--
	10/16/02	open	125	33	29	15	19
	10/31/02	closed	--	--	--	--	--
	11/6/02	closed	--	--	--	--	--
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	closed	--	--	--	--	--
	1/13/03	closed	>150	140	4.0	5	18
	1/22/03	closed	--	--	--	--	--
	1/24/03	closed	--	--	--	--	--
	1/30/03	closed	--	--	--	--	--
	2/4/03	closed	--	--	--	--	--
	2/12/03	closed	--	--	--	--	--
	3/4/03	closed	--	--	--	--	--
	3/13/03	closed	--	--	--	--	--
	3/17/03	closed	--	--	--	--	--
	3/25/03	closed	--	--	--	--	--
	4/2/03	closed	--	--	--	--	--
	4/11/03	closed	--	--	--	--	--
	4/25/03	closed	--	--	--	--	--
	5/7/03	closed	--	--	--	--	--
	5/14/03	closed	--	--	--	--	--
	5/22/03	closed	--	--	--	--	--
	5/30/03	closed	>150	>150	6.7	5	18.8
	6/3/03	closed	--	--	--	--	--
	6/13/03	closed	--	--	--	--	--
	6/23/03	closed	--	--	--	--	--
	7/3/03	closed	--	--	--	--	--
RW-9	5/24/00	--	--	--	--	--	12.5
	10/6/00	--	--	--	--	--	--
	11/29/00	--	>100	--	--	43	--
	3/29/01	open	54	--	--	90	--
	4/14/01	open	100	--	--	--	--
	4/26/01	open	85	--	--	--	--
	5/3/01	open	80	--	--	--	--
	5/23/01	open	10	--	--	--	--
	6/4/01	open	50	--	--	--	--
	6/21/01	open	65	--	--	--	--
	7/2/01	open	55	--	--	--	--
	7/16/01	open	45	--	--	--	--

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	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	open	125	--	--	--	20
	3/5/02	open	115	--	--	--	20
	3/11/02	closed	--	--	--	--	--
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	open	100	38	--	--	20
	5/21/02	open	105	56	--	--	20
	6/19/02	open	90	47	--	--	20
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	open	--	--	--	--	19
	8/26/02	open	95	15	--	--	19
	9/16/02	closed	--	--	--	--	--
	9/20/02	closed	--	--	--	--	--
	10/2/02	closed	--	--	--	--	--
	10/11/02	closed	--	--	--	--	--
	10/16/02	closed	125	12	56	12	19
	10/31/02	closed	--	--	--	--	--
	11/6/02	closed	--	--	--	--	--
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	open	>150	120	--	--	16
	1/13/03	open	>150	150	4.0	225	17
	1/22/03	open	>150	--	--	--	17
	1/24/03	open	>150	>150	--	--	17
	1/30/03	open	>150	140	--	--	17
	2/4/03	open	>150	135	--	--	17
	2/12/03	open	140	--	--	--	17
	3/4/03	open	150	105	--	--	17
	3/13/03	open	>150	>150	--	--	18
	3/17/03	open	>150	--	--	--	18
	3/25/03	open	>150	120	--	--	18
	4/2/03	open	>150	>150	--	--	18
	4/11/03	open	>150	105	--	--	18
	4/25/03	open	>150	85	--	--	18
	5/7/03	open	>150	110	--	--	18
	5/14/03	open	>150	--	--	--	18
	5/22/03	open	135	--	--	--	18
	5/30/03	open	>150	125	5.3	40	18.5
	6/3/03	open	>150	--	--	--	18.5
	6/13/03	open	130	--	--	--	18.5
	6/23/03	open	120	24	--	--	18.5
	7/3/03	open	135	--	--	--	18.5

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)
RW-10	5/24/00	--	--	--	--	--	--
	10/6/00	--	--	--	--	--	--
	11/29/00	--	>100	--	--	>10,000	--
	3/29/01	open	54	--	--	850	--
	4/14/01	open	100	--	--	--	--
	4/26/01	open	85	--	--	--	--
	5/3/01	open	80	--	--	--	--
	5/23/01	open	10	--	--	--	--
	6/4/01	open	50	--	--	--	--
	6/21/01	open	65	--	--	--	--
	7/2/01	open	55	--	--	--	--
	7/16/01	open	45	--	--	--	--
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	open	125	--	--	--	20
	3/5/02	open	115	--	--	--	20
	3/11/02	open	--	--	--	--	20
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	open	100	31	--	--	20
	5/21/02	open	105	70	--	--	20
	6/19/02	open	90	56	--	--	20
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	open	--	--	--	--	19
	8/26/02	closed	--	--	--	--	--
	9/16/02	closed	--	--	--	--	--
	9/20/02	closed	--	--	--	--	--
	10/2/02	closed	--	--	--	--	--
	10/11/02	closed	--	--	--	--	--
	10/16/02	closed	125	38	48	18	19
	10/31/02	closed	--	--	--	--	--
	11/6/02	closed	--	--	--	--	--
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	closed	--	--	--	--	--
	1/13/03	closed	>150	135	3.2	90	17
	1/22/03	closed	--	--	--	--	--
	1/24/03	open	>150	>150	--	--	16
	1/30/03	open	>150	>150	--	--	16
	2/4/03	open	>150	>150	--	--	16
	2/12/03	open	140	--	--	--	16
	3/4/03	open	150	139	--	--	16
	3/13/03	open	>150	>150	--	--	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-10	3/17/03	open	>150	--	--	--	16
	3/25/03	open	>150	>150	--	--	16
	4/2/03	open	>150	>150	--	--	16
	4/11/03	open	>150	124	--	--	16
	4/25/03	open	>150	85	--	--	16
	5/7/03	open	>150	125	--	--	16
	5/14/03	open	>150	--	--	--	16
	5/22/03	open	135	--	--	--	16
	5/30/03	open	>150	45	54.5	5	16
	6/3/03	closed	--	--	--	--	--
	6/13/03	closed	--	--	--	--	--
	6/23/03	closed	--	--	--	--	--
	7/3/03	closed	--	--	--	--	--
RW-11	5/24/00	--	80	--	--	--	11.65
	10/6/00	--	--	--	--	--	--
	11/29/00	--	>100	--	--	2280	--
	3/29/01	open	54	--	--	784	--
	4/14/01	open	100	--	--	--	--
	4/26/01	open	85	--	--	--	15
	5/3/01	open	80	--	--	--	15
	5/23/01	open	10	--	--	--	15
	6/4/01	open	50	--	--	--	20
	6/21/01	open	65	--	--	--	15
	7/2/01	open	55	--	--	--	15
	7/16/01	open	45	--	--	--	16
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	open	--	--	--	--	18
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	closed	--	--	--	--	--
	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	closed	--	--	--	--	--
	8/26/02	closed	--	--	--	--	--
	9/16/02	closed	--	--	--	--	--
	9/20/02	closed	--	--	--	--	--
	10/2/02	closed	--	--	--	--	--
	10/11/02	closed	--	--	--	--	--
	10/16/02	closed	125	86	24	255	19
	10/31/02	open	150	62	--	--	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-11	11/6/02	open	155	45	--	--	19
	11/22/02	open	145-160	77	--	--	19.5
	12/5/02	open	140	65	--	--	19.5
	12/20/02	open	>150	--	--	--	18
	1/8/03	open	>150	110	--	--	18
	1/13/03	open	>150	125	7.0	180	16
	1/22/03	open	>150	--	--	--	17
	1/24/03	open	>150	155	--	--	17
	1/30/03	open	>150	150	--	--	17
	2/4/03	open	>150	142	--	--	17
	2/12/03	open	140	--	--	--	17
	3/4/03	open	150	106	--	--	17
	3/13/03	open	>150	155	--	--	17
	3/17/03	open	>150	--	--	--	17
	3/25/03	open	>150	115	--	--	17
	4/2/03	open	>150	148	--	--	17
	4/11/03	open	>150	97	--	--	17
	4/25/03	open	>150	90	--	--	20
	5/7/03	open	>150	140	--	--	20
	5/14/03	open	>150	--	--	--	20
	5/22/03	open	135	--	--	--	20
	5/30/03	open	>150	82	6.5	26	17
	6/3/03	open	>150	--	--	--	17
	6/13/03	open	130	--	--	--	17
	6/23/03	open	120	55	--	--	17
	7/3/03	open	135	--	--	--	17
RW-12	5/24/00	--	--	--	--	--	--
	10/6/00	--	--	--	--	--	--
	11/29/00	open	>100	--	--	24	--
	3/29/00	open	54	--	--	72	--
	4/14/01	open	100	--	--	--	--
	4/26/01	open	85	--	--	--	15
	5/3/01	open	80	--	--	--	15
	5/23/01	open	10	--	--	--	15
	6/4/01	open	50	--	--	--	15
	6/21/01	open	65	--	--	--	15
	7/2/01	open	55	--	--	--	15
	7/16/01	open	45	--	--	--	16
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	closed	--	--	--	--	--
	3/5/02	closed	--	--	--	--	--
	3/11/02	closed	--	--	--	--	--
	3/25/02	open	130	--	--	--	16
	4/2/02	open	130	--	--	--	16
	4/5/02	open	135	97	--	--	16
	4/19/02	open	130	75	--	--	18
	5/6/02	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	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	open	95	16	--	--	20
	7/10/02	open	97	5	--	--	20
	7/26/02	open	92	5	--	--	20
	8/6/02	open	--	--	--	--	19
	8/26/02	open	95	6	--	--	19
	9/16/02	open	105	--	--	--	19
	9/20/02	open	85	6	--	--	19
	10/2/02	open	75	4	--	--	19
	10/11/02	open	110	4	--	--	19
	10/16/02	closed	125	1	20	75	19
	10/31/02	closed	--	--	--	--	--
	11/6/02	closed	--	--	--	--	--
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	closed	--	--	--	--	--
	1/13/03	closed	>150	115	4.5	20	17
	1/22/03	closed	--	--	--	--	--
	1/24/03	closed	--	--	--	--	--
	1/30/03	open	>150	145	--	--	17
	2/4/03	open	>150	135	--	--	17
	2/12/03	open	140	--	--	--	17
	3/4/03	open	150	115	--	--	17
	3/13/03	open	>150	>150	--	--	17
	3/17/03	open	>150	--	--	--	17
	3/25/03	open	>150	150	--	--	17
	4/2/03	open	>150	>150	--	--	17
	4/11/03	open	>150	74	--	--	17
	4/25/03	open	>150	20	--	--	17
	5/7/03	open	>150	115	--	--	17
	5/14/03	open	>150	--	--	--	17
	5/22/03	open	>150	--	--	--	17
	5/30/03	open	>150	10	43	4	17.5
	6/3/03	closed	--	--	--	--	--
	6/13/03	closed	--	--	--	--	--
	6/23/03	closed	--	--	--	--	--
	7/3/03	closed	--	--	--	--	--
RW-13	5/24/00	--	80	--	--	--	12.59
	10/6/00	--	--	--	--	--	--
	11/29/00	--	>100	--	--	77	--
	3/29/01	open	54	--	--	124	--
	4/14/01	open	100	--	--	--	--
	4/26/01	open	85	--	--	--	--
	5/3/01	open	80	--	--	--	--
	5/23/01	open	10	--	--	--	--
	6/4/01	open	50	--	--	--	--
	6/21/01	open	65	--	--	--	--
	7/2/01	open	55	--	--	--	--
	7/16/01	open	45	--	--	--	--
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	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-13	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	open	125	--	--	--	20
	3/5/02	open	115	--	--	--	20
	3/11/02	open	--	--	--	--	16
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	closed	--	--	--	--	--
	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	closed	--	--	--	--	--
	8/26/02	closed	--	--	--	--	--
	9/16/02	closed	--	--	--	--	--
	9/20/02	closed	--	--	--	--	--
	10/2/02	closed	--	--	--	--	--
	10/11/02	closed	--	--	--	--	--
	10/16/02	closed	125	29	41	7	21.5
	10/31/02	closed	--	--	--	--	--
	11/6/02	closed	--	--	--	--	--
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	closed	--	--	--	--	--
	1/13/03	closed	>150	110	8.0	2	16
	1/22/03	closed	--	--	--	--	--
	1/24/03	closed	--	--	--	--	--
	1/30/03	closed	--	--	--	--	--
	2/4/03	closed	--	--	--	--	--
	2/12/03	closed	--	--	--	--	--
	3/4/03	closed	--	--	--	--	--
	3/13/03	closed	--	--	--	--	--
	3/17/03	closed	--	--	--	--	--
	3/25/03	closed	--	--	--	--	--
	4/2/03	closed	--	--	--	--	--
	4/11/03	closed	--	--	--	--	--
	4/25/03	closed	--	--	--	--	--
	5/7/03	closed	--	--	--	--	--
	5/14/03	closed	--	--	--	--	--
	5/22/03	closed	--	--	--	--	--
	5/30/03	closed	--	--	--	--	--
	6/3/03	closed	--	--	--	--	--
	6/13/03	closed	--	--	--	--	--
	6/23/03	closed	--	--	--	--	--
	7/3/03	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	5/24/00	--	80	--	--	--	12.33
	10/6/00	--	100	--	--	--	--
	11/29/00	--	>100	--	--	5830	--
	3/29/01	open	54	--	--	120	--
	4/14/01	open	100	--	--	--	--
	4/26/01	open	85	--	--	--	--
	5/3/01	open	80	--	--	--	--
	5/23/01	open	10	--	--	--	--
	6/4/01	open	50	--	--	--	--
	6/21/01	open	65	--	--	--	--
	7/2/01	open	55	--	--	--	--
	7/16/01	open	45	--	--	--	--
	8/2/01	open	35	--	--	--	--
	8/10/01	open	20	--	--	--	--
	8/15/01	open	20	--	--	--	--
	8/27/01	open	65	--	--	--	--
	9/7/01	closed	--	--	--	--	--
	9/14/01	closed	--	--	--	--	--
	10/3/01	closed	--	--	--	--	--
	10/8/01	closed	--	--	--	--	--
	10/22/01	closed	--	--	--	--	--
	10/29/01	closed	--	--	--	--	--
	11/6/01	closed	--	--	--	--	--
	11/12/01	closed	--	--	--	--	--
	11/14/01	closed	--	--	--	--	--
	11/21/01	closed	--	--	--	--	--
	12/6/01	closed	--	--	--	--	--
	12/19/01	closed	--	--	--	--	--
	1/17/02	closed	--	--	--	--	--
	2/4/02	closed	--	--	--	--	--
	2/14/02	open	125	--	--	--	20
	3/5/02	open	115	--	--	--	20
	3/11/02	closed	--	--	--	--	--
	3/25/02	closed	--	--	--	--	--
	4/2/02	closed	--	--	--	--	--
	4/5/02	closed	--	--	--	--	--
	4/19/02	closed	--	--	--	--	--
	5/6/02	closed	--	--	--	--	--
	5/21/02	closed	--	--	--	--	--
	6/19/02	closed	--	--	--	--	--
	6/28/02	closed	--	--	--	--	--
	7/10/02	closed	--	--	--	--	--
	7/26/02	closed	--	--	--	--	--
	8/6/02	closed	--	--	--	--	--
	8/26/02	closed	--	--	--	--	--
	9/16/02	closed	--	--	--	--	--
	9/20/02	closed	--	--	--	--	--
	10/2/02	closed	--	--	--	--	--
	10/11/02	closed	--	--	--	--	--
	10/16/02	open	125	80	14	535	19
	10/31/02	open	150	18	--	--	19
	11/6/02	closed	--	--	--	--	--
	11/22/02	closed	--	--	--	--	--
	12/5/02	closed	--	--	--	--	--
	12/20/02	closed	--	--	--	--	--
	1/8/03	open	>150	140	--	--	14
	1/13/03	closed	>150	90	7.0	35	16
	1/22/03	closed	--	--	--	--	--
	1/24/03	closed	--	--	--	--	--
	1/30/03	closed	--	--	--	--	--
	2/4/03	closed	--	--	--	--	--
	2/12/03	closed	--	--	--	--	--
	3/4/03	closed	--	--	--	--	--
	3/13/03	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	3/17/03	closed	--	--	--	--	--
	3/25/03	closed	--	--	--	--	--
	4/2/03	closed	--	--	--	--	--
	4/11/03	closed	--	--	--	--	--
	4/25/03	closed	--	--	--	--	--
	5/7/03	closed	--	--	--	--	--
	5/14/03	closed	--	--	--	--	--
	5/22/03	closed	--	--	--	--	--
	5/30/03	open	>150	78	5.5	55	17.5
	6/3/03	open	>150	--	--	--	17.5
	6/13/03	open	130	--	--	--	18
	6/23/03	open	120	58	--	--	18
	7/3/03	open	135	--	--	--	17.5

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 Stinger depth
MW-1	10:30		20.90				21.00
MW-2	10:45		19.05				19.00
MW-3	11:15		18.30 ~~18.30~~				17.50
MW-4	11:45		19.37				19.00
							FP.00

Project Name: Worthington

Project Number/Task: 130-0105

Measured By: L. Hall

Date: 4-25-03

WELL SAMPLING FORM

Project Name: Washington	Cambria Mgr: RAS	Well ID: MW-1
Project Number: 130-0105	Date: 4-25-03	Well Yield:
Site Address: 3055 35th St. Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: 0 pvc
		Technician(s): SG
Initial Depth to Water: 20.90	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	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. (°C)	pH	Cond. (uS)	Comments
15 min purge with System					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	4-25-03	10:40	3 VOA 1 Amb	HCl	TPHg BTEX MTBE TPHd	8015/8020 8260

D:\TEMPLATE\FORMS\FIELD\WELLSAMP2.WPD
NSM 5/31/94

CAMBRL

WELL SAMPLING FORM

Project Name: Worthington	Cambria Mgr: RAS	Well ID: MW-2
Project Number: 130-0105	Date: 4-25-03	Well Yield:
Site Address: 3055 35th St. Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: 0 pvc Technician(s): SH
Initial Depth to Water: 19.05	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	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. (°C)	pH	Cond. (uS)	Comments
15 min purge with system					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	4-25-03	11:10	3 VOA 1 Amb	HCl	TPHg BTEX MTBE TPHd	8015/8020 8260

D:\TEMPLATE\FORMS\FIELD\WELLSAMP2.WPD
NSM 5/31/94

CAMBRL

WELL SAMPLING FORM

Project Name: Worthington	Cambria Mgr: RAS	Well ID: MW-3
Project Number: 130-0105	Date: 4-25-03	Well Yield:
Site Address: 3055 35th St. Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: 0 pvc
		Technician(s): SCh
Initial Depth to Water: 18:30	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	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. (°C)	pH	Cond. (uS)	Comments
15 min purge with system					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	4-25-03	11:30	3 VOA 1 Amb	HCl	TPHg BTEX MTBE TPHd	8015/8020 8260

D:\TEMPLATE\FORMS\FIELD\WELLSAMP2.WPD
NSM 5/31/94

CAMBRI

WELL SAMPLING FORM

Project Name: Worthington	Cambria Mgr: RAS	Well ID: MW-4
Project Number: 130-0105	Date: 4-25-03	Well Yield:
Site Address: 3055 35th St. Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: ☐ pvc Technician(s): SH
Initial Depth to Water: 19.37	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	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. (°C)	pH	Cond. (uS)	Comments
15 min purge with System					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	4-25-03	12:00	3 VOA 1 Amb	HCl	TPHg BTEX MTBE TPHd	8015/8020 8260

D:\TEMPLATE\FORMS\FIELD\WELLSAMP2.WPD
NSM 5/31/94

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	Client Project ID: #130-0105-347; Worthington	Date Sampled: 04/25/03
5900 Hollis St, Suite A		Date Received: 04/29/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 05/06/03
	Client P.O.:	Date Completed: 05/06/03

WorkOrder: 0304438

May 06, 2003

Dear Gretchen:

Enclosed are:

1). the results of **4** analyzed samples from your **#130-0105-347; 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: #130-0105-347; Worthington	Date Sampled: 04/25/03
5900 Hollis St, Suite A		Date Received: 04/29/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 04/30/03-05/02/03
	Client P.O.:	Date Analyzed: 04/30/03-05/02/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0304438

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	4200,a	ND<50	580	81	59	470	10	91.3
002A	MW-2	W	3800,a	310	460	78	72	410	10	91.5
003A	MW-3	W	12,000,a	ND<500	1800	850	150	1200	100	84.6
004A	MW-4	W	6600,a	ND<170	960	130	100	560	33	95.6
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 are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/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: #130-0105-347; Worthington	Date Sampled: 04/25/03
5900 Hollis St, Suite A		Date Received: 04/30/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 04/30/03
	Client P.O.:	Date Analyzed: 05/01/03

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

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0304469

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0304469-001B	MW-1	W	320,d	1	107
0304469-002B	MW-2	W	310,d	1	105
0304469-003B	MW-3	W	1200,d	1	108
0304469-004B	MW-4	W	2200,d,b	1	111

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

* water and vapor samples are reported in µg/L, wipe samples in ug/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all TCLP / STLC / SPLP extracts 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: 0304438

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6722 Spiked Sample ID: 0304446-003A

Compound	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	102	110	8.01	98.6	97.5	1.13	70	130
MTBE	ND	10	89.3	95.7	6.97	96.2	98	1.81	70	130
Benzene	ND	10	101	98.8	2.34	103	103	0	70	130
Toluene	0.6989	10	99.5	98.4	1.04	106	105	0.554	70	130
Ethylbenzene	ND	10	102	101	1.08	104	104	0	70	130
Xylenes	ND	30	110	107	3.08	110	110	0	80	120
%SS:	102	100	96.8	99.5	2.71	100	101	0.350	80	120

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: 0304469

EPA Method: SW8015C Extraction: SW3510C BatchID: 6733 Spiked Sample ID: N/A

Compound	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	107	109	1.52	70	130
%SS:	N/A	100	N/A	N/A	N/A	112	113	1.07	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: 0304438

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-347; Worthington
PO:

Date Received: 4/29/03
Date Printed: 5/1/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					<>	SW8015C	W8021B/8015C				
0304438-001	MW-1	Water	4/25/03 10:40:00 AM	☐	A	A	A				
0304438-002	MW-2	Water	4/25/03 11:10:00 AM	☐		A	A				
0304438-003	MW-3	Water	4/25/03 11:30:00 AM	☐		A	A				
0304438-004	MW-4	Water	4/25/03 12:00:00 PM	☐		A	A				

Prepared by: Maria Venegas

Comments: TPHd set up on 4/30/03 on WO#0304469

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.

0304409

CHAIN OF CUSTODY RECORD

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

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

EDF Required? ☒ Yes ☐ No

Report To: Gretchen Hellmann Bill To: Cambria Env. 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 #: 130-0105-347 Project Name: Worthington

Project Location: 3055 35th AVE. Oakland, CA

Sampler Signature: S. Hill

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 cleanup	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
MW-1		4-25-03	10:40	4	VOA Amb	X					X	X			X	X													
MW-2		4-25-03	11:10	4	VOA Amb	X					X	X			X	X													
MW-3		4-25-03	11:30	4	VOA Amb	X					X	X			X	X													
MW-4		4-25-03	12:00	4	VOA Amb	X					X	X			X	X													

TPHg Set up on 4/29 on WO#=0304438

Relinquished By:	Date:	Time:	Received By:
S. Hill	4-26-03	4:30	secure location
Relinquished By:	Date: 4/29/03	Time: 1110	Received By: Jim Perry 298
Relinquished By:	Date: 4/30/03	Time: 905	Received By: [signature] 2855

Remarks: This COC are for Missing Liters.

PRESERVED IN LAB

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0304469

Client:

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-347; Worthington
PO:

Date Received: 4/30/03
Date Printed: 5/1/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					SW8015C						
0304469-001	MW-1	Water	4/25/03 10:40:00 AM	☐	B						
0304469-002	MW-2	Water	4/25/03 11:10:00 AM	☐	B						
0304469-003	MW-3	Water	4/25/03 11:30:00 AM	☐	B						
0304469-004	MW-4	Water	4/25/03 12:00:00 PM	☐	B						

Prepared by: Melissa Valles

Comments: Report Diesel with WO#0304438

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.

0304438

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: 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 #: 130-0105-347 Project Name: Northington
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	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015) 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		4-25-03	10:40	4	VOA Amb	X					X	X			X	X															
MW-2		4-25-03	11:10	4	VOA Amb	X					X	X			X	X															
MW-3		4-25-03	11:30	4	VOA Amb	X					X	X			X	X															
MW-4		4-25-03	12:00	4	VOA Amb	X					X	X			X	X															

ICE/t° ✓ | PRESERVATION ✓ | VOAS | O&G | METALS | OTHER
APPROPRIATE CONTAINERS ✓
DECHLORINATED IN LAB | PRESERVED IN LAB

Relinquished By:	Date:	Time:	Received By:
[signature]	4-26-03	4:30	secure location
	4/29/03	1110	[signature] 298
[signature] 298	4/29/03	1415	[signature]

Remarks:
TPHd on HOLD (will Receive Liters on 4/30)
TPHd set up on 4/30 on WO#0304469

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: 04/02/03
		Date Received: 04/03/03
	Client Contact: Gretchen Hellmann	Date Reported: 04/10/03
	Client P.O.:	Date Completed: 04/10/03

WorkOrder: 0304060

April 10, 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: 04/02/03
5900 Hollis St, Suite A		Date Received: 04/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 04/04/03
	Client P.O.:	Date Analyzed: 04/04/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0304060

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	1110,a	ND<25	11.6	15.8	2.84	24.1	10	113
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	0.25	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/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: 0304060

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6434 Spiked Sample ID: 0304062-003A

Compound	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(gas)	420	60	NR	NR	NR	102	104	2.19	80	120
MTBE	ND	10	120	120	0.0230	93.7	94	0.348	80	120
Benzene	11.5	10	128 ,F1	131 ,F1	1.02	98.6	100	1.79	80	120
Toluene	3.73	10	102	104	1.52	95	96.2	1.22	80	120
Ethylbenzene	18.12	10	118	123 ,F1	1.56	94.1	95.5	1.46	80	120
Xylenes	1.09	30	106	106	0	88.3	88.7	0.377	80	120
%SS:	96.6	100	120	106	12.2	88.5	91.7	3.56	80	120

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

NONE

F1 = MS / MSD exceed acceptance criteria. LCS - LCSD validate prep batch.

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

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.

% 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.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0304060

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-350; Worthington
PO:

Date Received: **4/3/03**
Date Printed: **4/3/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests 8021B/8015
0304060-001	INF	Air	4/2/03 4:50:00 PM		A
0304060-002	EFF	Air	4/2/03 4:45:00 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.

OSC400

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)/ 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	4/2/03	4:50p	1	Tb			X							X																
EFF	System	4/2/03	4:55p	1	Tb			X							X																

	Date:	Time:	Received By:
Relinquished By:	4/2/03	6pm	Secured Locked-on
Relinquished By:	04/03	1215	
Relinquished By: 9658	04/03	1450	

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

Use 20 mL injection volume.

email

Please ~~FAX~~ 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: 04/02/03
5900 Hollis St, Suite A		Date Received: 04/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 04/10/03
	Client P.O.:	Date Completed: 04/10/03

WorkOrder: 0304061

April 10, 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: 04/02/03
5900 Hollis St, Suite A		Date Received: 04/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 04/05/03-04/09/03
	Client P.O.:	Date Analyzed: 04/05/03-04/09/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0304061

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	1300,a	---	39	82	23	270	5	101
002A	EFF-1	W	ND	---	ND	ND	ND	1.1	1	103
003A	EFF-2	W	ND	---	ND	ND	ND	ND	1	98.3
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 are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/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: 0304061

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6434 Spiked Sample ID: 0304062-003A

Compound	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(gas)	420	60	NR	NR	NR	102	104	2.19	80	120
MTBE	ND	10	120	120	0.0230	93.7	94	0.348	80	120
Benzene	11.5	10	128 ,F1	131 ,F1	1.02	98.6	100	1.79	80	120
Toluene	3.73	10	102	104	1.52	95	96.2	1.22	80	120
Ethylbenzene	18.12	10	118	123 ,F1	1.56	94.1	95.5	1.46	80	120
Xylenes	1.09	30	106	106	0	88.3	88.7	0.377	80	120
%SS:	96.6	100	120	106	12.2	88.5	91.7	3.56	80	120

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

NONE

F1 = MS / MSD exceed acceptance criteria. LCS - LCSD validate prep batch.

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

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.

% 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.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0304061

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-350; Worthington
PO:

Date Received: **4/3/03**
Date Printed: **4/8/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests 8021B/8015
0304061-001	INF	Water	4/2/03 4:00:00 PM		A
0304061-002	EFF-1	Water	4/2/03 4:00:00 PM		A
0304061-003	EFF-2	Water	4/2/03 4:00:00 PM		A

Prepared by: Melissa Valles

Comments: 003 set up for g/mbtex 04/08

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.

CCR

030401

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	4/2/03	4pm	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:
	4/2/03	4pm	
Relinquished By:	Date:	Time:	Received By:
	04/03	1215	888
Relinquished By: 888	Date:	Time:	Received By:
	04/03	1450	

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

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

Please ~~FAX~~ 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: 05/07/03
		Date Received: 05/08/03
	Client Contact: Gretchen Hellmann	Date Reported: 05/15/03
	Client P.O.:	Date Completed: 05/15/03

WorkOrder: 0305126

May 15, 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: 05/07/03
5900 Hollis St, Suite A		Date Received: 05/08/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 05/09/03
	Client P.O.:	Date Analyzed: 05/09/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0305126

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	330,a	ND<3.0	5.3	3.7	0.95	8.6	1	112
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	96.6

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	0.25	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/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: 0305126

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6829 Spiked Sample ID: N/A

Compound	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	95.9	95.9	0	70	130
MTBE	N/A	10	N/A	N/A	N/A	94.5	98.4	4.04	70	130
Benzene	N/A	10	N/A	N/A	N/A	96	97.7	1.76	70	130
Toluene	N/A	10	N/A	N/A	N/A	101	104	2.44	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	102	104	1.70	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	104	1.55	80	120

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: 0305126

Client:

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-350; Worthington
PO:

Date Received: **5/8/03**
Date Printed: **5/8/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests					
					M8021B/8015C					
0305126-001	INF	Air	5/7/03 2:45:00 PM	☐	A					
0305126-002	EFF	Air	5/7/03 2:45:00 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.

0305126

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	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	5/7/03	2:45	1	Tb			X							X																
EFF	System	5/7/03	2:45	1	Tb			X							X																

VOAS | O&G | METALS | OTHER

LAB | PRESERVED IN LAB

	Date	Time	
Relinquished By:	5/7/03	6pm	Received By: Secured Location
Relinquished By:	Date: 5/8	Time: 10:00	Received By:
Relinquished By:	Date: 5/8/03	Time: 10:00	Received By:

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

Use 20 mL injection volume.

Please email results.

McCampbell Analytical Inc.
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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: 05/07/03
5900 Hollis St, Suite A		Date Received: 05/08/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 05/15/03
	Client P.O.:	Date Completed: 05/15/03

WorkOrder: 0305129

May 15, 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

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http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-350; Worthington	Date Sampled: 05/07/03
5900 Hollis St, Suite A		Date Received: 05/08/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 05/09/03-05/14/03
	Client P.O.:	Date Analyzed: 05/09/03-05/14/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0305129

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	450,a	---	22	16	4.5	79	1	106
002A	EFF-1	W	120,a	---	3.7	2.1	0.52	13	1	104
003A	EFF-2	W	ND	---	ND	ND	ND	ND	1	104
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/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: 0305129

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6829 Spiked Sample ID: 0305123-009A

Compound	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	97.2	97.6	0.362	95.9	95.9	0	70	130
MTBE	ND	10	92.8	94.5	1.89	94.5	98.4	4.04	70	130
Benzene	ND	10	96	98.1	2.22	96	97.7	1.76	70	130
Toluene	ND	10	101	103	1.77	101	104	2.44	70	130
Ethylbenzene	ND	10	102	104	2.02	102	104	1.70	70	130
Xylenes	ND	30	107	107	0	107	110	3.08	70	130
%SS:	106	100	102	104	1.21	102	104	1.55	80	120

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: 0305129

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6890 Spiked Sample ID: 0305181-015A

Compound	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	99	98.8	0.222	97.9	105	7.25	70	130
MTBE	ND	10	93.3	95.7	2.51	86.3	94.1	8.55	70	130
Benzene	ND	10	94.2	93.8	0.346	83.1	90.9	9.00	70	130
Toluene	ND	10	99.5	98.9	0.646	80.4	87.8	8.74	70	130
Ethylbenzene	ND	10	100	99.2	0.950	89.2	97.2	8.60	70	130
Xylenes	ND	30	103	103	0	88.7	93.3	5.13	70	130
%SS:	106	100	103	101	1.37	89.6	95.5	6.42	80	120

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.

0305129

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	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	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	5/7/03	3pm	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:
	5/7/03	6pm	Secured location
	5/8/03	10:00	

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

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

email

Please ~~FAX~~ results.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0305129

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-350; Worthington
PO:

Date Received: **5/8/03**
Date Printed: **5/13/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					V8021B/8015C						
0305129-001	INF	Water	5/7/03 3:00:00 PM	☐	A						
0305129-002	EFF-1	Water	5/7/03 3:00:00 PM	☐	A						
0305129-003	EFF-2	Water	5/7/03 3:00:00 PM	☐	A						

Prepared by: Melissa Valles

Comments: 003 set up 5/13

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

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

Cambria Env. Technology	Client Project ID: #130-0105-350; WORTHINGTON	Date Sampled: 06/02/03
5900 Hollis St, Suite A		Date Received: 06/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 06/09/03
	Client P.O.:	Date Completed: 06/06/03

WorkOrder: 0306071

June 06, 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: 06/02/03
5900 Hollis St, Suite A		Date Received: 06/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 06/04/03
	Client P.O.:	Date Analyzed: 06/04/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0306071

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	178,a	ND	2.6	2.9	0.22	3.6	1	---#
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	0.25	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/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: 0306071

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 7174 Spiked Sample ID: N/A

Compound	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	112	4.29	70	130
MTBE	N/A	10	N/A	N/A	N/A	108	105	2.09	70	130
Benzene	N/A	10	N/A	N/A	N/A	110	105	4.67	70	130
Toluene	N/A	10	N/A	N/A	N/A	100	98.3	2.09	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	106	106	0	70	130
Xylenes	N/A	30	N/A	N/A	N/A	96.7	100	3.39	70	130
%SS:	N/A	100	N/A	N/A	N/A	104	99.5	4.31	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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0306071

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-350; WORTHINGTON
PO:

Date Received: 6/3/03
Date Printed: 6/3/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					V8021B/8015C						
0306071-001	INF	Air	6/2/03 3:00:00 PM	☐	A						
0306071-002	EFF	Air	6/2/03 3:00:00 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.

cetc

030607 1

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) 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	6/2/03	3pm	1	Tb			X							X																
EFF	System	6/2/03	3pm	1	Tb			X							X																

Relinquished By:	Date:	Time:	Received By:
	6/2/03	6:30	
	6/3/03	10:40	258
	6/3/03	18:00	

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

Use 20 mL injection volume.

Please ~~FAX~~ results.

Email

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: 06/02/03
5900 Hollis St, Suite A		Date Received: 06/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 06/09/03
	Client P.O.:	Date Completed: 06/16/03

WorkOrder: 0306077

June 16, 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: 06/02/03
5900 Hollis St, Suite A		Date Received: 06/03/03
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 06/04/03-06/09/03
	Client P.O.:	Date Analyzed: 06/04/03-06/09/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0306077

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	370,a	---	18	12	3.7	61	1	110
002A	EFF-1	W	70,a	---	1.6	0.86	ND	5.5	1	103
003A	EFF-2	W	ND	---	ND	ND	ND	ND	1	95.2
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 are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/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: 0306077

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 7174 Spiked Sample ID: 0306078-007A

Compound	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	115	110	4.57	107	112	4.29	70	130
MTBE	ND	10	103	101	1.15	108	105	2.09	70	130
Benzene	ND	10	108	109	1.51	110	105	4.67	70	130
Toluene	1.749	10	99.7	95.9	3.22	100	98.3	2.09	70	130
Ethylbenzene	ND	10	106	106	0	106	106	0	70	130
Xylenes	1.33	30	92.2	92.2	0	96.7	100	3.39	70	130
%SS:	101	100	103	102	0.263	104	99.5	4.31	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: 0306077

Client:

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

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #130-0105-350; WORTHINGTON
PO:

Date Received: **6/3/03**
Date Printed: **6/9/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests					
					V8021B/8015C					
0306077-001	INF	Water	6/2/03	☐	A					
0306077-002	EFF-1	Water	6/2/03	☐	A					
0306077-003	EFF-2	Water	6/2/03	☐	A					

Prepared by: Melissa Valles

Comments: EFF-2 added for g/btex on 6/9/03 per note

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.

CETQ

0306077

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	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	6/2/03	3:30p	3	V	X					X	X			X																
EFF-1	System	↓	↓	3	V	X					X	X			X																
EFF-2	System	↓	↓	3	V	X					X	X			X															OFF HOLD	on 6/9/03

Relinquished By:	Date:	Time:	Received By:
	6/3/03	6:32p	Secured Location
Relinquished By:	Date:	Time:	Received By:
	6/6/03	1000	288
Relinquished By: 288	Date: 6/6/03	Time: 1805	Received By:

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

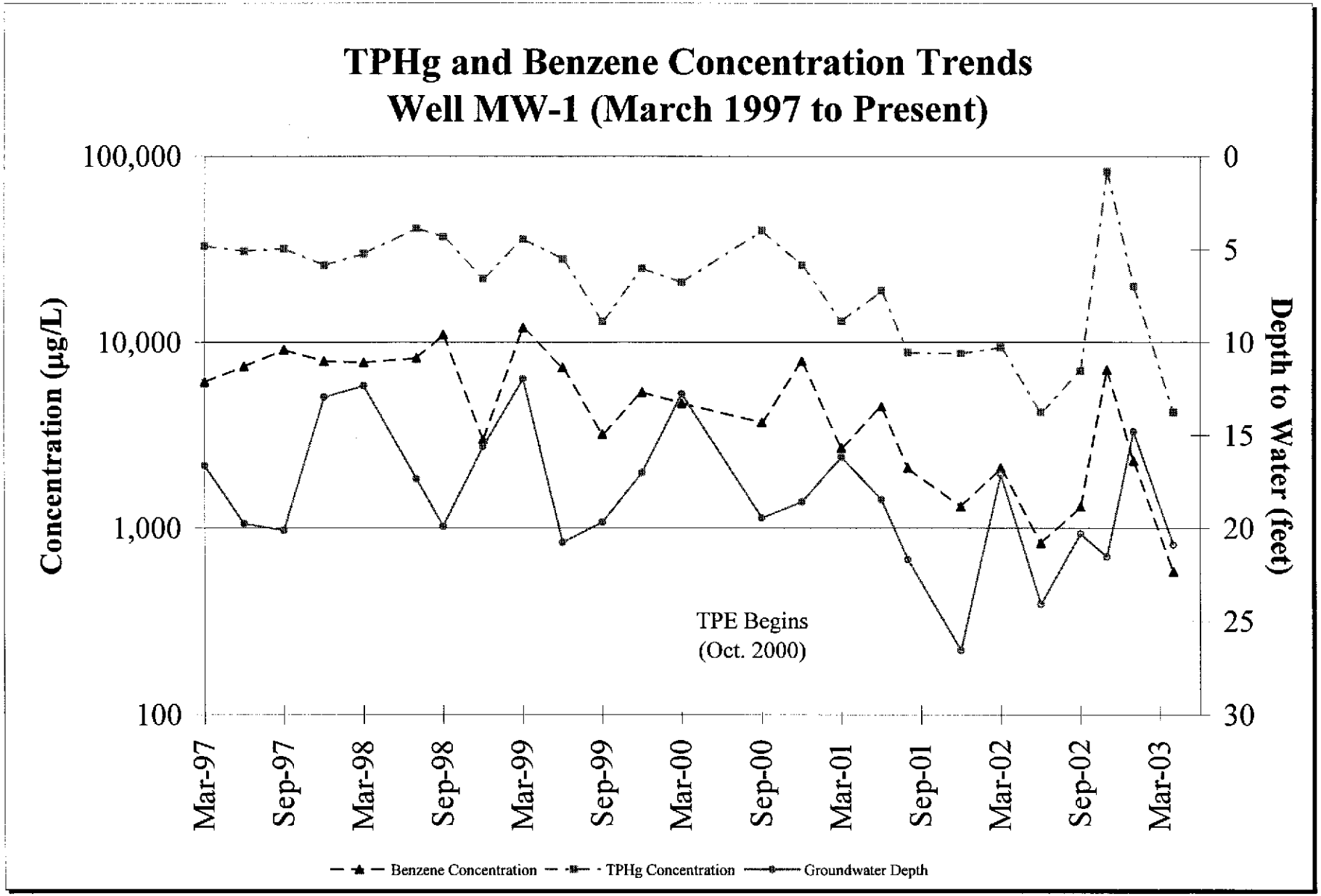
Only analyze EFF-2 if TPHg or BTEX is detected in EFF-1

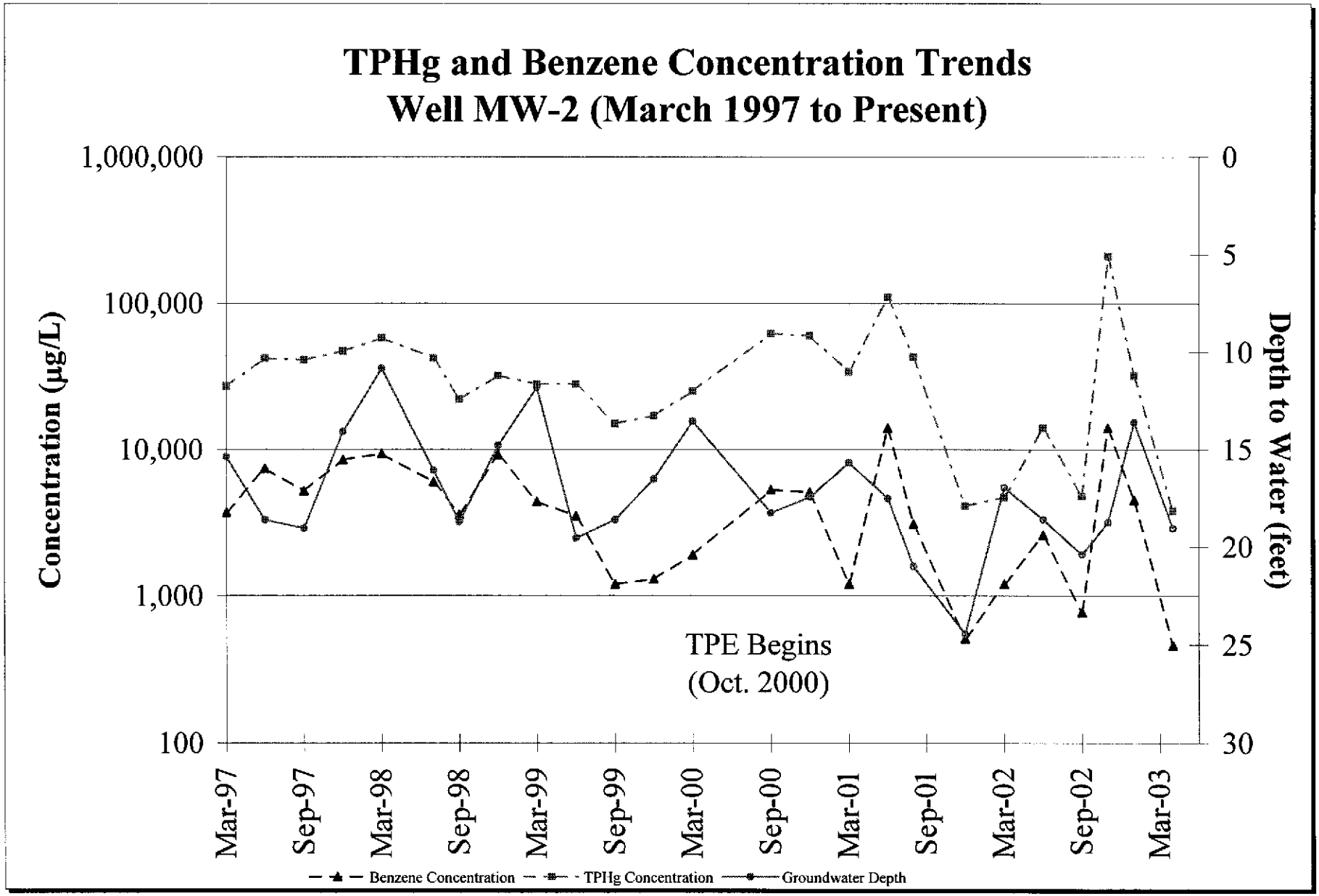
Please ~~FAX~~ email results.

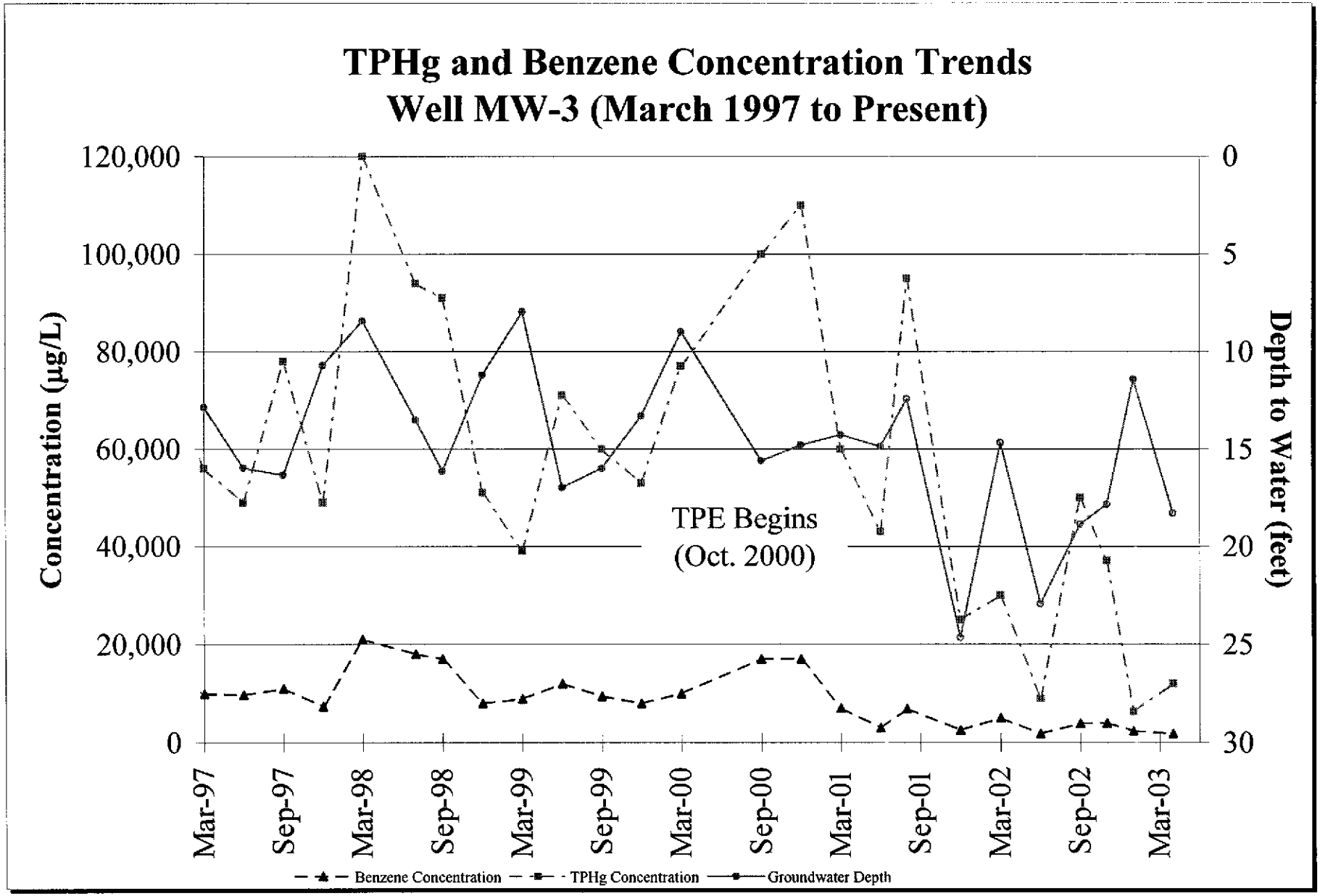
CAMBRIA

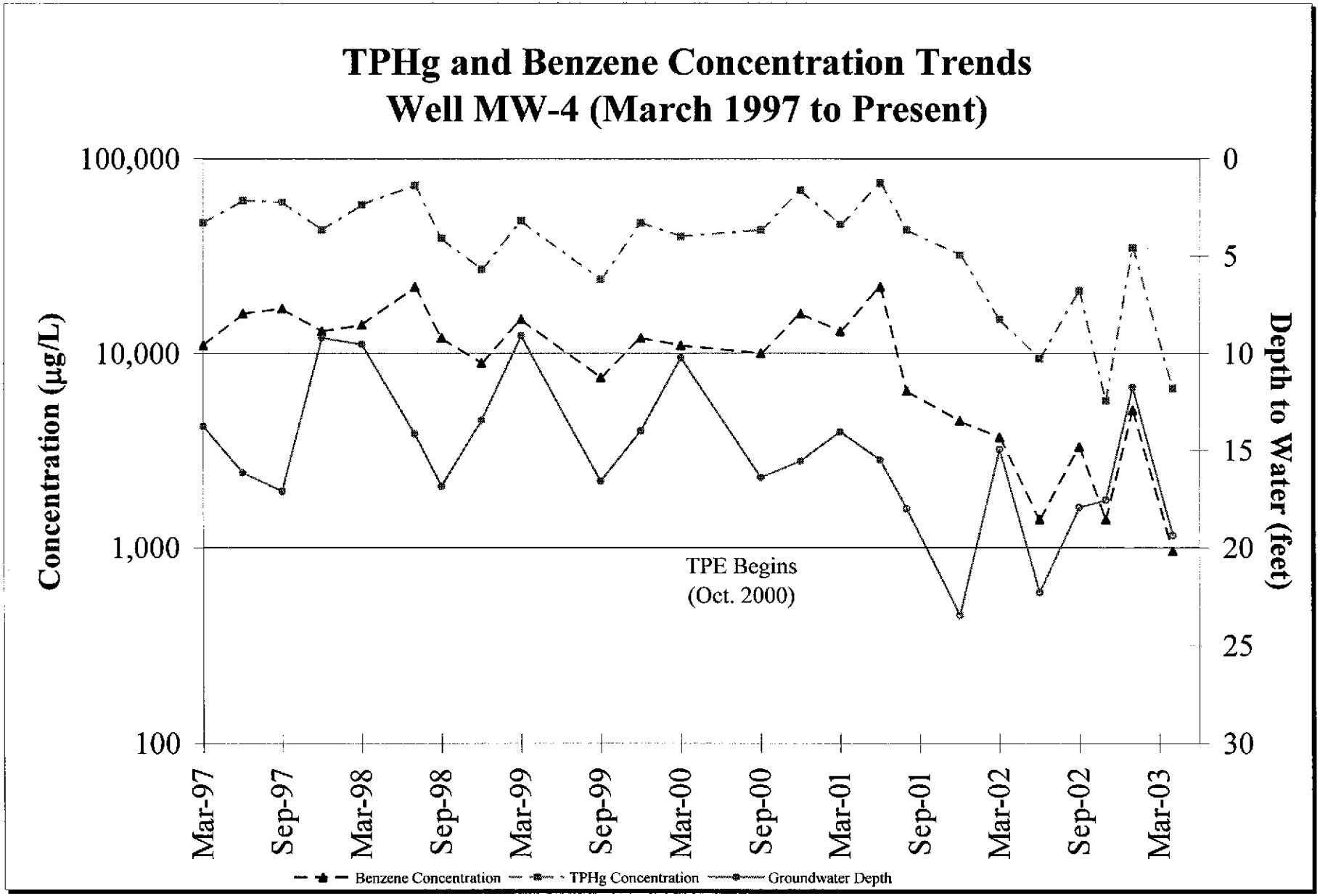
APPENDIX D

TPHg and Benzene Concentration Trend Graphs


TPHg and Benzene Concentration Trends
Well MW-1 (March 1997 to Present)
Concentration (µg/L)
100,000
10,000
1,000
100
Depth to Water (feet)
0
5
10
15
20
25
30
TPE Begins
(Oct. 2000)
Mar-97
Sep-97
Mar-98
Sep-98
Mar-99
Sep-99
Mar-00
Sep-00
Mar-01
Sep-01
Mar-02
Sep-02
Mar-03
Benzene Concentration
TPHg Concentration
Groundwater Depth


TPHg and Benzene Concentration Trends
Well MW-2 (March 1997 to Present)
Concentration (µg/L)
1,000,000
100,000
10,000
1,000
100
Depth to Water (feet)
0
5
10
15
20
25
30
TPE Begins
(Oct. 2000)
Mar-97
Sep-97
Mar-98
Sep-98
Mar-99
Sep-99
Mar-00
Sep-00
Mar-01
Sep-01
Mar-02
Sep-02
Mar-03
Benzene Concentration
TPHg Concentration
Groundwater Depth


TPHg and Benzene Concentration Trends
Well MW-3 (March 1997 to Present)
Concentration (µg/L)
120,000
100,000
80,000
60,000
40,000
20,000
0
Depth to Water (feet)
0
5
10
15
20
25
30
TPE Begins
(Oct. 2000)
Mar-97
Sep-97
Mar-98
Sep-98
Mar-99
Sep-99
Mar-00
Sep-00
Mar-01
Sep-01
Mar-02
Sep-02
Mar-03
Benzene Concentration
TPHg Concentration
Groundwater Depth


TPHg and Benzene Concentration Trends
Well MW-4 (March 1997 to Present)
Concentration (µg/L)
100,000
10,000
1,000
100
Depth to Water (feet)
0
5
10
15
20
25
30
TPE Begins
(Oct. 2000)
Mar-97
Sep-97
Mar-98
Sep-98
Mar-99
Sep-99
Mar-00
Sep-00
Mar-01
Sep-01
Mar-02
Sep-02
Mar-03
Benzene Concentration
TPHg Concentration
Groundwater Depth

CAMBRIA

APPENDIX E

Geotracker Electronic Delivery Confirmations

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:	**2QM03 Worthington**
Submittal Date/Time:	**8/8/2003 10:06:39 AM**
Confirmation Number:	**4121183633**

Back to Main Menu

Logged in as CAMBRIA-EM (AUTH_RP)

CONTACT SITE ADMINISTRATOR.

AB2886 Electronic Delivery

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

Your EDF file has been succcessfully uploaded!

Confirmation Number: 9929906904
Date/Time of Submittal: 8/8/2003 10:03:58 AM
Facility Global ID: T0600100538
Facility Name: EXXON
Submittal Title: 2QM03 Worthington
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

Your EDF file has been succcessfully uploaded!

Confirmation Number: 8756480693
Date/Time of Submittal: 8/8/2003 10:04:59 AM
Facility Global ID: T0600100538
Facility Name: EXXON
Submittal Title: 2QM03
Submittal Type: GW Monitoring Report

Logged in as CAMBRIA-EM
(AUTH_RP)

CONTACT SITE ADMINISTRATOR.