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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FIRST QUARTER 2004

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

April 29, 2004

Prepared for:

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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 first quarter 2004 groundwater monitoring and corrective action activities and the anticipated second quarter 2004 activities.

FIRST QUARTER 2004 ACTIVITIES

Monitoring Activities

Field Activities: On March 18, 2004, 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 March 18, 2004 (Figure 1). At the time, the groundwater table was being affected by the operation of the two-phase extraction (TPE) remediation system with groundwater extraction from remediation wells MW-1, MW-2, MW-3, MW-4, RW-5, RW-6, RW-9, RW-10, RW-11, RW-12, and RW-14. Historically, the primary groundwater flow direction has been towards the northwest, changing towards the southwest usually during the fourth and/or second quarters. Groundwater monitoring data is presented in Table 1.

Hydrocarbon Distribution in Groundwater: During the first quarter groundwater monitoring event, the maximum TPHg, benzene, and TPHd concentrations were detected in well MW-3 at 15,000, 2,600, and 2,300 micrograms per liter (µg/L), respectively. MTBE was detected above laboratory detection limits only in well MW-2 at a concentration of 2,300 µg/L. TPHg, benzene, and TPHd concentrations decreased or remained similar to previous quarters. Since the start of TPE remediation in June 2000, monitoring wells have exhibited decreasing hydrocarbon concentration trends (see Appendix D for individual well concentration trend graphs). 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 vacuum 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 with 1-inch and 2-inch diameter branch lines. See Figure 1 for the location of the remediation enclosure and wells. Wells RW-5 through RW-14, and MW-1 through MW-4 have 1-inch diameter, flexible, suction hose stingers which are sealed at the wellhead to allow simultaneous extraction of soil vapor and groundwater from the well.

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

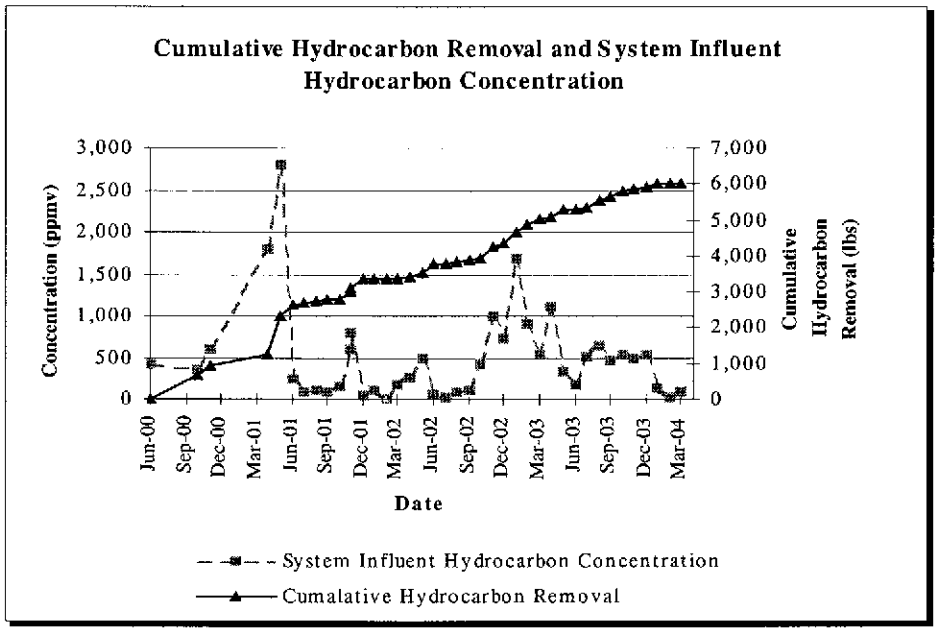
analysis on a monthly basis. As per the Bay Area Air Quality Management District (BAAQMD) permit, a catalytic oxidizer operating temperature greater than 600 degrees Fahrenheit was maintained and system operation parameters were continuously measured using a chart recorder.

System influent and effluent vapor samples were collected and submitted for laboratory analysis on January 6, February 19, and March 18, 2004. Analytical results reported that system effluent vapor concentrations were below laboratory detection limits for all three months. This indicates 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 January 6, February 19, and March 18, 2004. System effluent groundwater concentrations for TPHg and BTEX were below laboratory detection limits indicating that no hydrocarbons were discharged to the sanitary sewer system and that the groundwater treatment system was effective at meeting the wastewater discharge permit requirements. In order to maintain groundwater treatment efficiency, the first carbon vessel in series was cleaned and changed out with virgin coconut carbon on February 13, 2004 by US Filter/Westates. Table 3 summarizes groundwater extraction system parameters and analytical results. The system analytical laboratory reports are included in Attachment C.

Remediation System Performance: From January 6 through March 31, 2004, the TPE system operated for a total of 1,357 hours. The TPE system automatically shutdown a few times during the quarter due to high water in the knockout tank caused by clogged sediment filters. System influent vapor concentrations ranged during the quarter from 25 to 134 parts per million by volume (ppmv). Influent hydrocarbon vapor concentrations decreased during the quarter due to a high groundwater table. Seasonal rainfall contributed to a rise in groundwater levels, and caused a reduction in soil vapor extraction flow rates and an increase in system vacuum levels. Additional wells were opened and well stinger depths were adjusted to compensate for seasonal fluctuations in the groundwater table. On March 18, 2004, system flow, vacuum, and influent hydrocarbon concentrations were monitored and optimized to maximize hydrocarbon removal. Individual TPE well parameters are summarized in Table 4.

Hydrocarbon removal rates for soil vapor extraction ranged from 0.2 to 0.6 pounds per day during the quarter. Hydrocarbon removal rates decreased compared to the previous quarter due to lower system flow rates and influent hydrocarbon concentrations. As of March 31, 2004, approximately 6,018 pounds of petroleum hydrocarbons have been removed and destroyed by soil vapor extraction (see graph below and Table 2).



From January 6 to March 31, 2004, approximately 205,767 gallons of groundwater were extracted and treated onsite using granular activated carbon. The groundwater extraction rate ranged from 2.4 to 3.0 gallons per minute throughout the quarter. Groundwater extraction rates were higher than the previous quarter due to seasonal rainfall and a higher groundwater table. Influent groundwater TPHg concentrations ranged from 57 to 330 µg/L during the quarter. Influent groundwater concentrations decreased during the quarter and were less than previous quarters. As of March 31, 2004, approximately 1,245,562 gallons of hydrocarbon impacted groundwater have been extracted and treated by aqueous-phase carbon. Approximately 11.0 pounds of hydrocarbons have been removed by the groundwater treatment system.

ANTICIPATED SECOND QUARTER 2004 ACTIVITIES

Monitoring Activities

During the second 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 – Second Quarter 2004.*

Corrective Action Activities

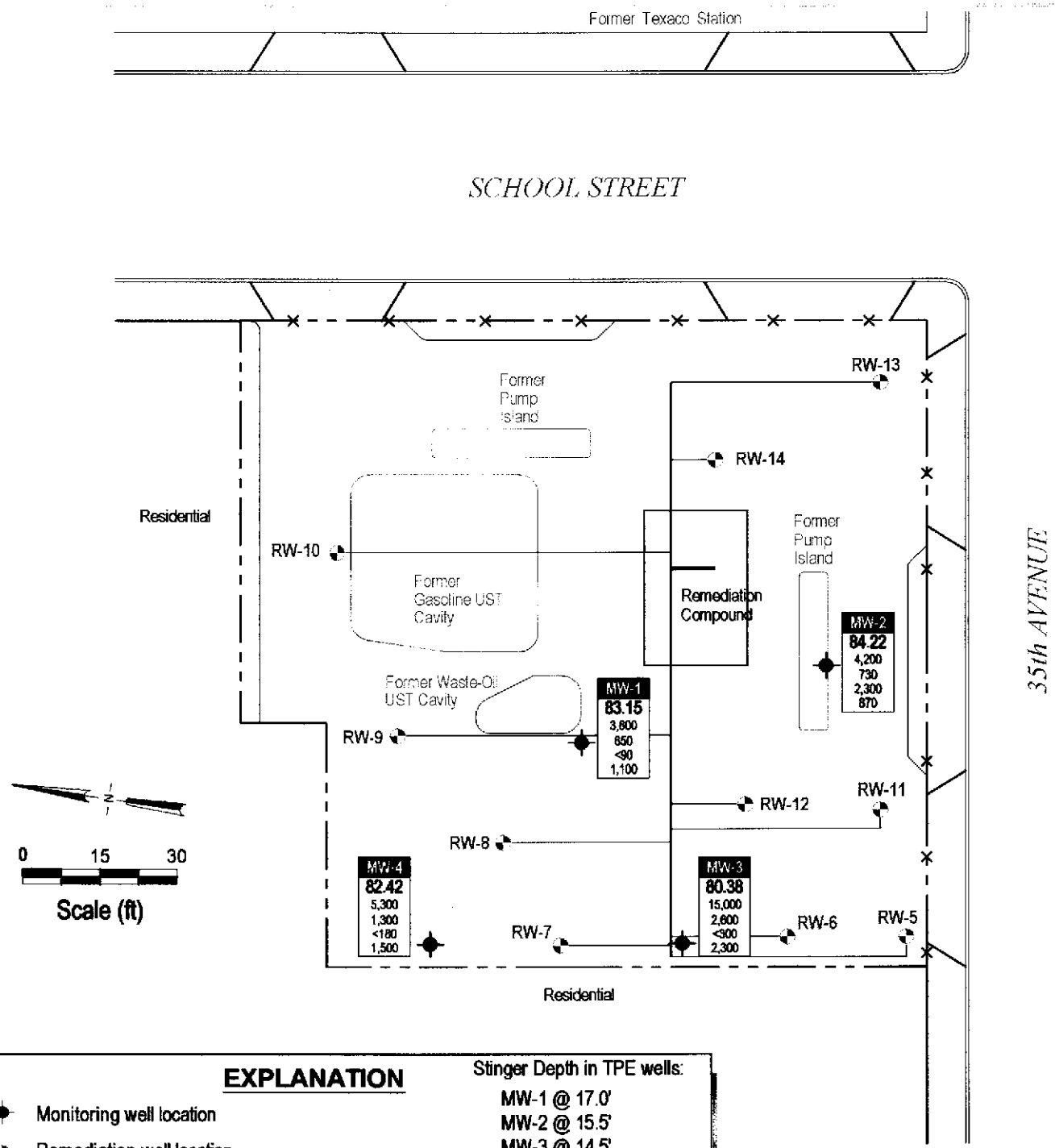
Cambria is currently evaluating potential modifications to the existing system and various other remedial alternatives in an effort to speed up site remediation. In the meantime, TPE operation and maintenance activities will continue to be performed approximately three times per month during the second quarter of 2004. The depth of extraction stingers will be adjusted in an effort to maximize hydrocarbon removal and TPE operations may vary between select wells to optimize site cleanup. System influent and effluent vapor and groundwater samples will be collected on a monthly basis, and system operation and performance will be evaluated and optimized.

ATTACHMENTS

Figure 1 – Groundwater Elevation and Analytical Summary Map – March 18, 2004

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



EXPLANATION

- MW-1 — Monitoring well location
- RW-6 — Remediation well location
- Well ID / ELEV / TPHg / Benzene / MTBE / TPHd — Well designation; Groundwater elevation (msl); Hydrocarbon concentrations in groundwater, in micrograms per liter (µg/L)
- Extraction Piping

Stinger Depth in TPE wells:

MW-1 @ 17.0'
MW-2 @ 15.5'
MW-3 @ 14.5'
MW-4 @ 14.5'
RW-5 @ 12.5'
RW-6 @ 13.0'
RW-9 @ 13.0'
RW-10 @ 11.0'
RW-11 @ 12.0'
RW-12 @ 13.0'
RW-14 @ 14.0'

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

FIGURE
1

Former Exxon Station
3055 35th Avenue
Oakland, California

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Groundwater Elevation and Analytical Summary Map
March 18, 2004

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

Well ID (TOC)	Date	GW Depth (ft)	SPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	TPE System Status
					<---------- Concentrations in micrograms per liter (µg/L) ---------->									
MW-1	5/25/94	16.79	Sheen	84.06	120,000	25,000	<50,000	22,000	17,000	2,800	16,000	---	---	
100.85	7/19/94	20.77	---	80.08	---	---	---	---	---	---	---	---	---	
	8/18/94	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	---	---	
	2/27/95	15.53	---	85.32	45,000	---	---	2,900	2,500	760	4,100	---	---	
	5/23/95	15.29	---	85.56	22,000	---	---	9,900	990	790	2,000	---	---	
	8/22/95	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	---	---	
	2/21/96	11.69	---	89.16	33,000	4,300	---	10,000	480	1,000	1,800	3,300	---	
	5/21/96	14.62	---	86.23	36,000	8,500	---	8,500	1,400	1,300	2,800	1,900	---	
	8/22/96	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	
	3/20/97	16.65	---	84.20	33,000	10,000	---	6,100	560	970	2,200	<400	8.5	
	6/25/97	19.77	---	81.08	31,000	7,400[a]	---	7,400	440	890	1,800	<400	3.7	
	9/17/97	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	
	3/18/98	12.34	Sheen	88.51	30,000[d]	4,200[e,f]	---	7,800	820	840	2,000	<1,100	1.3	
	7/14/98	17.34	---	83.51	41,000[d]	8,900[e,f]	---	8,200	1,100	1,200	3,000	<200	1.8	
	9/30/98	19.90	---	80.95	37,000	3,300	---	11,000	950	1,200	2,800	<20	2.0	
	12/8/98	15.62	---	85.23	22,000	3,700	---	3,000	1,200	730	3,100	<900	---	
	3/29/99	11.98	---	88.87	36,000[d]	6,800[e]	---	12,000	750	1,300	2,400	950	0.50	
	6/29/99	20.77	---	80.08	28,000[d]	3,500[e]	---	7,300	420	810	1,700	<1,300	0.10	
	9/28/99	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	
	3/23/00	12.76	---	88.09	21,000[d]	3,300[f]	---	4,700	140	470	1,100	<350	---	
	9/7/00	19.45	---	81.40	40,000[d,g]	12,000[e,g]	---	3,700	1,400	910	4,900	<50	0.17	
	12/5/00	18.60	---	82.25	26,000[d]	3,400[e]	---	7,900	150	580	810	<300	0.35	Not operating
	3/7/01	16.19	---	84.66	13,000	2,400	---	2,700	43	69	300	<100	0.49	Not operating
	6/6/01	18.47	---	82.38	19,000	4,000	---	4,500	130	270	430	<400	0.39	Not operating
	8/30/01	21.70	---	79.15	8,800[a]	1,400[d]	---	2,100	45	91	240	<130	0.27	Operating
	12/7/01	26.55	---	74.30	8,700[d]	1,900[e,f]	---	1,300	160	38	730	<20	0.59	Operating
	3/11/02	17.13	---	83.72	9,400[d]	1,400[e]	---	2,100	200	74	470	<20	0.39	Operating
	6/10/02	24.10	---	76.75	4,200[d]	900[e,k]	---	830	170	110	460	<100	---	Operating
	9/26/02	20.30	---	80.55	7,000[d]	1,300[e,f,k]	---	1,300	190	200	760	<100	0.70	Operating
	11/21/02	21.55	---	79.30	83,000[d,g]	200,000[e,g]	---	7,100	1,700	3,000	13,000	<1,000	0.49	Operating
	1/13/03	14.80	---	86.05	20,000[d]	5,300[e,f]	---	2,300	480	300	2,100	<500	0.33	Not operating
	4/25/03	20.90	---	79.95	4,200[d]	320[e]	---	580	81	59	470	<50	---	Operating
	5/30/03	16.65	---	84.20	---	---	---	---	---	---	---	---	---	Not operating
	9/3/03	24.16	---	76.69	14,000[d]	36,000[e,f]	---	300	50	33	480	<50	---	Operating
	12/2/03	24.12	---	76.73	7,100[d,g]	9,300[e,f,g]	---	1,400	230	160	820	<100	---	Operating
	3/18/04	**17.70**	**---**	**83.15**	**3,600[d]**	**1,100[e,f]**	**---**	**650**	**59**	**38**	**370**	**<90**	**---**	**Operating**

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

Well ID (TOC)	Date	GW Depth (ft)	SPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	TPE System Status
					<---------- Concentrations in micrograms per liter (µg/L) ---------->									
MW-2	5/25/94	15.65	---	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	---	---	
100.00	7/19/94	19.81	---	80.19	---	---	---	---	---	---	---	---	---	
	8/18/94	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	---	---	
	2/27/95	14.46	Sheen	85.54	44,000	---	---	5,100	5,300	930	6,400	---	---	
	5/23/95	14.17	---	85.83	33,000	---	---	8,200	5,600	900	6,600	---	---	
	8/22/95	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	---	---	
	2/21/96	10.53	---	89.47	59,000	---	---	8,000	6,000	1,800	8,900	4,500	---	
	5/21/96	13.47	---	86.53	51,000	3,400	---	8,200	5,200	1,300	6,600	2,400	---	
	8/22/96	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	
	3/20/97	15.39	---	84.61	27,000	6,100	---	3,700	2,300	580	2,800	<400	8.1	
	6/25/97	18.62	---	81.38	42,000	7,800[b]	---	7,400	3,800	1,200	5,700	<200	0.9	
	9/17/97	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	
	3/18/98	10.83	Sheen	89.17	58,000[d]	7,000[e,f]	---	9,300	6,100	1,800	8,200	<1,100	1.1	
	7/14/98	16.07	---	83.93	42,000[d]	5,300[e,f]	---	6,000	3,000	1,000	4,800	<200	1.5	
	9/30/98	18.71	---	81.29	22,000	2,400	---	3,600	1,300	720	3,200	<30	1.8	
	12/8/98	14.80	---	85.20	32,000	3,100	---	9,200	680	1,100	2,300	<2,000	---	
	3/29/99	11.81	---	88.19	28,000[d]	7,500[e,f]	---	4,400	1,600	950	4,100	410	1.86	
	6/29/99	19.54	---	80.46	28,000[d]	3,300[e]	---	3,500	1,100	690	3,100	<1,000	0.41	
	9/28/99	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	
	3/23/00	13.56	---	86.44	25,000[d]	3,100[i]	---	1,900	1,100	660	3,700	<500	---	
	9/7/00	18.25	---	81.75	62,000[d,g]	32,000[e,g]	---	5,300	2,300	1,500	8,400	<100	0.39	
	12/5/00	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
	3/7/01	15.68	---	84.32	34,000	3,900	---	1,200	770	620	4,300	<200	0.44	Not operating
	6/6/01	17.51	---	82.49	110,000	48,000	---	14,000	9,000	1,900	12,000	<950	0.24	Not operating
	8/30/01	21.00	---	79.00	43,000[a,h]	15,000[d,h]	---	3,100	720	980	5,500	<200	---	Operating
	12/7/01	24.45	---	75.55	4,100[d]	750[e,f]	---	510	88	8.2	580	<20	0.47	Operating
	3/11/02	16.95	---	83.05	4,700[d]	590[e]	---	1,200	150	30	310	<50	0.24	Operating
	6/10/02	18.59	---	81.41	14,000[d]	2,000[e]	---	2,600	710	150	2,000	<800	---	Operating
	9/26/02	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
	1/13/03	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
	4/25/03	19.05	---	80.95	3,800[d]	310[e]	---	460	78	72	410	310	---	Operating
	5/30/03	15.23	---	84.77	---	---	---	---	---	---	---	---	---	Not operating
	9/3/03	23.57	---	76.43	2,900[d]	2,300[e]	---	240	57	68	380	770	---	Operating
	12/2/03	23.17	---	76.83	2,400[d,g]	3,300[e,f,g]	---	91	20	14	250	890	---	Operating
	3/18/04	**15.78**	**---**	**84.22**	**4,200[d]**	**870[e,f]**	**---**	**730**	**89**	**<5.0**	**480**	**2,300**	**---**	**Operating**

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

Well ID (TOC)	Date	GW Depth (ft)	SPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	TPE System Status
					<---------- Concentrations in micrograms per liter (µg/L) ---------->									
MW-3	5/25/94	13.93	Sheen	82.94	56,000	14,000	<50,000	14,000	14,000	1,300	11,000	---	---	
96.87	7/19/94	17.04	---	79.83	---	---	---	---	---	---	---	---	---	
	8/18/94	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	---	---	
	2/27/95	11.86	Sheen	85.01	250,000	---	---	22,000	26,000	7,800	21,000	---	---	
	5/23/95	11.60	Sheen	85.27	310,000	---	---	18,000	17,000	4,500	2,800	---	---	
	8/22/95	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	---	---	
	2/21/96	7.92	---	88.95	60,000	---	---	10,000	7,800	1,500	8,800	3,400	---	
	5/21/96	10.86	Sheen	86.01	69,000	13,000	---	17,000	9,400	1,700	9,400	2,600	---	
	8/22/96	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	
	3/20/97	12.86	---	84.01	56,000	11,000	---	9,900	6,900	1,300	8,000	3,500	9.0	
	6/25/97	15.98	---	80.89	49,000	7,700[b]	---	9,700	7,100	1,300	7,000	220	5.8	
	9/17/97	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	
	3/18/98	8.41	Sheen	88.46	120,000[d]	20,000[e,f]	---	21,000	19,000	2,600	15,000	<1,600	1.6	
	7/14/98	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	
	9/30/98	16.14	---	80.73	91,000	9,800	---	17,000	13,000	2,100	12,000	<1300	2.0	
	12/8/98	11.20	---	85.67	51,000	4,200	---	8,000	6,800	1,400	7,500	<1,100	---	
	3/29/99	7.95	---	88.92	39,000[d]	4,600[e]	---	8,900	4,400	940	4,500	810	0.56	
	6/29/99	16.98	---	79.89	71,000[d]	6,900[e]	---	12,000	7,300	1,400	8,400	<1,700	0.19	
	9/28/99	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	
	3/23/00	8.98	---	87.89	77,000[d,g]	11,000[e,j]	---	10,000	9,400	1,600	11,000	<430	---	
	9/7/00	15.61	---	81.26	100,000[d,g]	19,000[e,f,g]	---	17,000	12,000	1,600	11,000	<500	---	
	12/5/00	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
	3/7/01	14.27	---	82.60	60,000	13,000	---	7,000	4,600	900	7,100	<350	0.49	Not operating
	6/6/01	14.88	---	81.99	43,000	12,000	---	3,000	1,000	770	5,200	<400	1.71	Not operating
	8/30/01	12.43	---	84.44	95,000[e,h]	190,000[d,h]	---	6,900	10,000	2,700	15,000	<250	0.24	Operating
	12/7/01	24.65	---	72.22	25,000[d]	3,900[e,f]	---	2,500	1,700	64	2,200	<200	0.19	Operating
	3/11/02	14.69	---	82.18	30,000[d]	2,800[e,g,k]	---	5,000	2,400	190	1,800	<1,300	0.30	Operating
	6/10/02	22.94	---	73.93	9,000[d]	990[e,k]	---	1,800	1,300	96	1,000	<300	---	Operating
	9/26/02	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
	1/13/03	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
	4/25/03	18.30	---	78.57	12,000[b]	1,200[e]	---	1,800	850	150	1,200	<500	---	Operating
	5/30/03	13.30	---	83.57	---	---	---	---	---	---	---	---	---	Not operating
	9/3/03	21.65	---	75.22	8,100[d]	3,300[e]	---	220	170	66	560	<50	---	Operating
	12/2/03	17.70	---	79.17	30,000[d,g]	8,400[e,f,g]	---	2,900	2,100	530	3,600	<500	---	Operating
	3/18/04	**16.49**	**---**	**80.38**	**15,000[d]**	**2,300[e,f]**	**---**	**2,600**	**990**	**260**	**1,700**	**<300**	**---**	**Operating**

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

Well ID (TOC)	Date	GW Depth (ft)	SPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	TPE System Status
					<---------- Concentrations in micrograms per liter (µg/L) ---------->									
MW-4	3/20/97	13.75	---	83.59	47,000	3,100	---	11,000	4,500	1,100	5,200	3,400	8.4	
97.34	6/25/97	16.15	---	81.19	61,000	5,800[b]	---	16,000	6,100	1,500	5,900	780[c]	1.4	
	9/17/97	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	
	3/18/98	9.54	---	87.80	58,000[d]	5,500[e,f]	---	14,000	4,700	1,400	5,700	<1,200	0.8	
	7/14/98	14.15	---	83.19	73,000[d]	2,900[e,f]	---	22,000	7,000	1,800	7,300	<200	1.0	
	9/30/98	16.84	---	80.50	39,000	2,100	---	12,000	2,700	1,000	3,400	510	1.1	
	12/8/98	13.45	---	83.89	27,000	1,600	---	8,900	1,600	730	2,300	<1,500	---	
	3/29/99	9.10	---	88.24	48,000[d]	2,400[e,f,i]	---	15,000	3,000	1,300	5,000	1,300	1.32	
	06/29/99*	---	---	---	---	---	---	---	---	---	---	---	---	
	9/28/99	16.58	---	80.76	24,000[d]	3,200[e,f]	---	7,500	1,200	190	2,200	210	14.29[#]	
	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	
	3/23/00	10.22	---	87.12	40,000[d]	3,100[e,f]	---	11,000	1,600	910	3,100	690	---	
	9/7/00	16.40	---	80.94	43,000[d]	5,900[e]	---	10,000	1,100	1,100	3,400	<450	1.04	
	12/5/00	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
	3/20/01	14.03	---	83.31	46,000	---	---	13,000	1,000	900	2,800	<350	0.39	Not operating
	6/6/01	15.49	---	81.85	75,000	5,400	---	22,000	1,800	1,900	6,400	<1,200	2.22	Not operating
	8/30/01	18.00	---	79.34	43,000[e]	3,200[f]	---	6,400	630	510	2,600	<200	0.32	Operating
	12/7/01	23.45	---	73.89	32,000[d,g]	11,000[e,f,g]	---	4,500	740	310	2,300	<200	0.21	Operating
	3/11/02	14.95	---	82.39	15,000[d]	1,600[e,f,k]	---	3,700	500	92	790	<500	0.30	Operating
	6/10/02	22.30	---	75.04	9,400[d]	3,400[e]	---	1,400	50	<5.0	690	<200	---	Operating
	9/26/02	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
	1/13/03	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
	4/25/03	19.37	---	77.97	6,600[d]	2,200[e,f]	---	960	130	100	560	<170	---	Operating
	5/30/03	13.56	---	83.78	---	---	---	---	---	---	---	---	---	Not operating
	9/3/03	21.65	---	75.69	29,000[d]	27,000[e,f]	---	2,200	380	280	2,300	65	---	Operating
	12/2/03	19.17	---	78.17	13,000[d]	5,800[e,f]	---	1,300	180	120	1,900	<250	---	Operating
	3/18/04	**14.92**	**---**	**82.42**	**5,300[d]**	**1,500[e]**	**---**	**1,300**	**55**	**37**	**440**	**<180**	**---**	**Operating**
Trip Blank	7/14/98	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	9/30/98	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	12/8/98	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	3/29/99	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	6/29/99	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	3/23/00	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---	
	9/7/00	---	---	---	<50	---	---	<0.5	1.1	<0.5	1.1	<5.0	---	

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

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

Abbreviations:

TOC = Top of casing elevation relative to an arbitrary datum
GW = Groundwater
SPH = Separate-phase hydrocarbons
--- = not observed/not analyzed
TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015
Benzene, Ethylbenzene, Toluene, and Xylenes by EPA Method 8020
MTBE = Methyl Tertiary Butyl Ether by EPA Method 8020
DO = Dissolved oxygen
µg/L = Micrograms per liter, equivalent to parts per billion in water
mg/L = Milligrams per liter, equivalent to parts per million in water
* = Well inaccessible during site visit

Notes:

a = Result has an atypical pattern for diesel analysis
b = Result appears to be a lighter hydrocarbon than diesel
c = There is a >40% difference between primary and confirmation analysis
d = Unmodified or weakly modified gasoline is significant
e = Gasoline range compounds are significant
f = Diesel range compounds are significant; no recognizable pattern
g = lighter than water immiscible sheen is present
h = one to a few isolated peaks present
i = medium boiling point pattern does not match diesel (stoddard solvent)
j = aged diesel is significant
k = oil range compounds are significant
TOC Elevation of Well MW-4 surveyed relative to an arbitrary site datum by David Hop, Licensed Surveyor on April 19, 1997
= abnormally high reading due to added hydrogen peroxide

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

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
6/24/2000	0	--	--	--	--	--	--	--	--	--	--	--	--	0
9/28/2000	454	20%	789	--	--	175.0	420	22	0.24	23.6	1.24	0.012	95	446
10/12/2000	696	72%	950	--	--	87.5	360	<10	<0.15	10.1	<0.28	<0.004	*	684
11/9/2000	1,251	83%	820	--	--	55.4	590	<10	<0.15	10.5	<0.18	<0.002	*	918
1/23/2001	1,313	3%	--	--	--	--	--	--	--	--	--	--	--	945
3/28/2001	0	--	--	--	--	--	--	--	--	--	--	--	--	945
4/5/2001	194	101%	908	85	6.0	67.9	1,800	34	0.52	39.2	0.74	0.010	98	1,261
5/3/2001	863	100%	1000	54	14	28.7	2,800	<10	<0.15	25.8	<0.09	<0.001	*	2,355
6/4/2001	1,114	33%	820	101	6.5	79.0	240	<10	<0.15	6.1	<0.25	<0.003	*	2,625
7/2/2001	1,429	47%	804	109	10.0	72.5	92	26	0.34	2.1	<0.61	<0.007	72	2,705
7/10/2001	1,621	100%	900	150	8.0	109.9	92	<10	<0.15	3.2	<0.35	<0.005	*	2,722
8/2/2001	1,759	25%	940	79	5.0	65.4	110	<10	<0.15	2.3	<0.21	<0.003	*	2,740
9/7/2001	2,301	63%	854	141	12.0	84.4	81	34	0.52	2.2	<0.92	<0.013	58	2,793

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

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
10/3/2001	2,470	27%	854	230	9.0	160.7	160	<10	0.31	8.3	<0.52	<0.015	*	2,808
11/6/2001	3,015	67%	955	97	8.5	69.1	590	31	0.43	13.1	<0.69	<0.009	95	2,995
11/14/2001	3,184	88%	860	69	10.0	45.9	810	<10	<0.15	11.9	<0.15	<0.002	*	3,087
12/6/2001	3,710	100%	806	53	11.0	33.5	50	<10	<0.15	0.5	<0.11	<0.001	*	3,349
1/7/2002	4,472	99%	841	42	10.5	27.2	120	<10	<0.15	1.0	<0.09	<0.001	*	3,366
2/4/2002	4,938	69%	817	78	10.5	50.6	<5	<10	<0.15	0.1	<0.16	<0.002	*	3,386
3/5/2002	5,396	66%	665	26	10.5	16.9	170	<10	<0.15	0.9	<0.05	<0.001	*	3,388
4/2/2002	6,068	100%	670	67	12.5	39.0	260	<10	<0.15	3.3	<0.13	<0.002	*	3,413
5/6/2002	6,886	100%	667	76	10.0	50.2	500	<10	<0.15	8.1	<0.16	<0.002	*	3,524
6/5/2002	7,608	100%	751	72	8.5	51.2	73	<10	<0.15	1.2	<0.16	<0.002	*	3,767
7/2/2002	8,253	100%	736	80	9.0	55.9	26	<15	<0.15	0.5	<0.27	<0.002	*	3,799
8/6/2002	7	100%	739	140	13.0	79.1	97	<10	<0.15	2.5	<0.25	<0.003	*	3,815
9/10/2002	528	76%	723	150	11.5	92.3	103	<10	<0.15	3.0	<0.30	<0.004	*	3,869

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

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
10/2/2002	938	100%	723	125	8.5	89.5	430	<10	<0.15	12.3	<0.29	<0.004	*	3,921
11/6/2002	1,614	100%	658	105	13.5	57.6	1,000	<10	<0.15	18.5	<0.18	<0.003	*	4,269
12/5/2002	1,720	65%	675	115	14.0	61.1	740	<10	<0.15	14.5	<0.20	<0.003	*	4,350
1/8/2003	2,279	69%	675	30	16.0	13.9	1700	<10	<0.15	7.6	<0.04	<0.001	*	4,688
2/4/2003	2,896	95%	671	48	18.0	19.1	910	<10	<0.15	5.6	<0.06	<0.001	*	4,884
3/4/2003	3,571	100%	657	47	17.0	20.3	540	<10	<0.15	3.5	<0.07	<0.001	*	5,041
4/2/2003	3,990	60%	705	38	18.0	15.1	1110	<10	<0.15	5.4	<0.05	<0.001	*	5,102
5/7/2003	4,719	87%	700	58	21.5	16.3	330	<10	<0.15	1.7	<0.05	<0.001	*	5,265
6/2/2003	5,200	77%	698	60	18.0	23.9	178	<10	<0.15	1.4	<0.08	<0.001	*	5,300
7/3/2003	5,882	92%	700	77	16.0	35.8	520	<10	<0.15	6.0	<0.11	<0.002	*	5,339
8/7/2003	6,655	92%	667	65	15.0	32.4	640	<10	<0.15	6.6	<0.10	<0.001	*	5,531
9/3/2003	7,130	73%	681	79	14.5	40.7	460	<10	<0.15	6.0	<0.13	<0.002	*	5,662
10/7/2003	7,613	59%	680	37	20.0	12.2	530	<10**	<0.15**	2.1	<0.04	<0.001	*	5,783

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

Date	Hour Meter Readings (hrs)	System Uptime (per interval) (%)	System Inlet Temp. (degrees F)	System Flow Rate (acfm)	System Vacuum ("Hg)	System Flow Rate (scfm)	System Influent HC Conc. [1] (ppmv)	System Effluent HC Conc. [1] (ppmv)		HC Removal Rate [2] (lbs/day)	Emission Rate [2] (lbs/day)		TPHg Destruction Efficiency (%)	Gasoline Cumulative Removal [3] (lbs)
							TPHg	TPHg	Benz	TPHg	TPHg	Benz		
11/17/2003	8,442	84%	701	51	18.5	19.4	480	<10	<0.15	3.0	<0.06	<0.001	*	5,855
12/2/2003	8,803	100%	815	62	16.0	28.8	530	<10	<0.15	4.9	<0.09	<0.001	*	5,900
1/6/2004	9,292	58%	828	21	19.5	7.3	134	<10	<0.15	0.3	<0.02	<0.000	*	6,000
2/19/2004	9,780	46%	676	53	18.0	21.1	25	<10	<0.15	0.2	<0.07	<0.001	*	6,006
3/18/2004	10,338	83%	688	60	20.0	19.7	88	<10	<0.15	0.6	<0.06	<0.001	*	6,010
3/31/2004	10,650	100%	--	--	--	--	--	--	--	--	--	--	--	6,018

Notes and Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline

Benz = Benzene

HC Conc. = Hydrocarbon Concentrations

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

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

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

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

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

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

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

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

Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
10/20/00	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
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

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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
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

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Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
7/2/02	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
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

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Date	Hour Meter Readings (hrs)	Water Meter Readings (gallons)	Total Groundwater Extracted (gallons)	System Flow Rate Per Period (gpm)	Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	HCs Removed Per Period (lbs)	Total HCs Removed (lbs)
3/4/03	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 EFF-1 EFF-2	140 61 <50	6.3 0.56 <0.5	4.9 0.62 <0.5	1.1 <0.5 <0.5	16 1.6 <0.5	0.14	10.24
8/7/03	6,655	894,425	893,665	2.2	INF EFF-1 EFF-2	320 <50 --	4.4 <0.5 --	2.8 <0.5 --	1.0 <0.5 --	14 <0.5 --	0.06	10.30
9/3/03	7,130	914,715	913,955	0.7	INF EFF-1 EFF-2	310 69 <50	21 3.5 <0.5	17 2.4 <0.5	2.0 <0.5 <0.5	44 7.7 <0.5	0.05	10.35
10/2/03	7,496	924,985	924,225	0.5	INF EFF-1 EFF-2	460 140 <50	34 7.7 <0.5	25 5.2 <0.5	2.3 0.59 <0.5	64 16 <0.5	0.03	10.38

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11/17/2003	8,442	963,324	962,564	0.7	INF EFF-1 EFF-2	300 <50 <50	21 <0.5 <0.5	7.9 <0.5 <0.5	2.2 <0.5 <0.5	37 0.94 <0.5	0.15	10.53
12/2/2003	8,803	981,348	980,588	0.8	INF EFF-1 EFF-2	220 <50 --	3.5 <0.5 --	1.4 <0.5 --	1.6 <0.5 --	11 <0.5 --	0.05	10.57
1/6/2004	9,292	1,040,555	1,039,795	2.0	INF EFF-1 EFF-2	330 50 <50	18 <0.5 <0.5	4.9 <0.5 <0.5	1.5 <0.5 <0.5	35 1.8 <0.5	0.11	10.68
2/19/2004	9,780	1,112,086	1,111,326	2.4	INF EFF-1 EFF-2	57 <50 --	4.9 <0.5 --	0.79 <0.5 --	0.7 <0.5 --	4.9 <0.5 --	0.20	10.88
3/18/2004	10,338	1,190,955	1,190,195	2.4	INF EFF-1 EFF-2	95 <50 --	11 <0.5 --	2.2 <0.5 --	1.4 <0.5 --	12 <0.5 --	0.04	10.92
3/31/2004	10,650	1,246,322	1,245,562	3.0	INF	--	--	--	--	--	0.04	10.96
					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

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

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
MW-1	11/6/2001	open	80	--	--	--	28
	11/12/2001	open	125	--	--	--	28
	11/14/2001	open	85	--	--	--	28
	11/21/2001	open	95	--	--	--	28
	12/6/2001	open	115	--	--	--	28
	12/19/2001	open	110	--	--	--	25
	1/17/2002	open	130	--	--	--	25
	2/4/2002	open	105	--	--	--	28
	2/14/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	21
	4/2/2002	open	130	--	--	--	21
	4/5/2002	open	135	50	--	--	21
	4/19/2002	open	130	49	--	--	22
	5/6/2002	open	100	42	--	--	22
	5/21/2002	open	105	49	--	--	23.5
	6/19/2002	open	90	42	--	--	24
	6/28/2002	open	95	47	--	--	25
	7/10/2002	open	97	41	--	--	25
	7/26/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	21.5
	8/26/2002	open	95	47	--	--	21.5
	9/16/2002	open	105	--	--	--	21.5
	9/20/2002	open	85	40	--	--	21.5
	10/2/2002	open	75	22	--	--	21.5
	10/11/2002	open	110	32	--	--	21.5
	10/16/2002	open	125	103	5.0	1475	21.5
	10/31/2002	open	150	70	--	--	21.5
	11/6/2002	open	155	101	--	--	21.5
	11/22/2002	open	145-160	115	--	--	21.5
	12/5/2002	open	140	91	--	--	21.5
	12/20/2002	open	>150	--	--	--	19.5
	1/8/2003	open	>150	135	--	--	19.5
	1/13/2003	closed	>150	140	6.0	80	20
	1/30/2003	open	>150	150	--	--	21
	2/4/2003	open	>150	140	--	--	21
	2/12/2003	open	140	--	--	--	21
	3/4/2003	open	150	110	--	--	21
	3/13/2003	open	>150	150	--	--	21
	3/17/2003	open	>150	--	--	--	21
	3/25/2003	open	>150	130	--	--	21
	4/2/2003	open	>150	>150	--	--	21
	4/11/2003	open	>150	104	--	--	21
	4/25/2003	open	>150	--	--	--	21.5
	5/7/2003	open	>150	109	--	--	20
	5/14/2003	open	>150	--	--	--	20
	5/22/2003	open	135	--	--	--	20
	5/30/2003	open	>150	130	5.3	30	21.5
	6/3/2003	open	>150	--	--	--	21.5
	6/13/2003	open	130	--	--	--	21.5
	6/23/2003	open	120	64	--	--	21.5
	7/3/2003	open	135	--	--	--	21.5
	7/11/2003	open	125	--	--	--	22.5
	8/7/2003	open	145	70	--	--	22.5
	8/15/2003	open	130	60	--	--	22.5
	8/26/2003	open	>150	120	--	--	24
	10/13/2003	open	>150	>150	--	--	24
	12/2/2003	open	140	--	--	--	24.5
	12/15/2003	open	>150	150	--	--	24.5
	1/6/2004	open	>150	--	--	--	23.5

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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	1/13/2004	open	>150	--	--	--	20
	1/23/2004	open	>150	112	--	--	17
	3/1/2004	open	>150	--	--	--	16.5
	3/18/2004	open	>150	145	10.1	10	21
	3/18/2004	open	>150	135	7.8	20	23
MW-2	11/6/2001	open	80	--	--	--	27
	11/12/2001	open	125	--	--	--	27
	11/14/2001	open	85	--	--	--	27
	11/21/2001	open	95	--	--	--	27
	12/6/2001	open	115	--	--	--	28
	12/19/2001	closed	--	--	--	--	--
	2/4/2002	open	105	--	--	--	28
	2/14/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	21
	4/2/2002	open	130	--	--	--	21
	4/5/2002	open	135	70	--	--	21
	4/19/2002	open	130	55	--	--	22
	5/6/2002	closed	--	--	--	--	--
	6/28/2002	open	95	52	--	--	22
	7/10/2002	open	97	51	--	--	22
	7/26/2002	open	92	19	--	--	25.5
	8/6/2002	open	--	--	--	--	21.5
	8/26/2002	open	95	35	--	--	21.5
	9/16/2002	open	105	--	--	--	21.5
	9/20/2002	open	85	30	--	--	21.5
	10/2/2002	open	75	72	--	--	21.5
	10/11/2002	open	110	60	--	--	21.5
	10/16/2002	open	125	108	8.5	2030	21.5
	10/31/2002	open	150	65	--	--	21.5
	11/6/2002	open	155	95	--	--	21.5
	11/22/2002	closed	--	--	--	--	--
	1/13/2003	open	>150	130	5.0	385	19
	1/22/2003	open	>150	--	--	--	19
	1/24/2003	open	>150	140	--	--	20
	1/30/2003	open	>150	120	--	--	20
	2/4/2003	open	>150	75	--	--	21
	2/12/2003	open	140	--	--	--	21
	3/4/2003	open	150	93	--	--	21
	3/13/2003	open	>150	140	--	--	20
	3/17/2003	open	>150	--	--	--	20
	3/25/2003	open	>150	97	--	--	19
	4/2/2003	open	>150	130	--	--	19
	4/11/2003	open	>150	75	--	--	19
	4/25/2003	open	>150	50	--	--	20
	5/7/2003	open	>150	90	--	--	19
	5/14/2003	open	>150	--	--	--	20
	5/22/2003	open	135	--	--	--	20
	5/30/2003	open	>150	87	5.4	29	20.5
	6/3/2003	open	>150	--	--	--	20.5
	6/13/2003	open	130	--	--	--	20.5
	6/23/2003	open	120	62	--	--	20.5
	7/3/2003	open	135	--	--	--	20
	7/11/2003	open	125	--	--	--	21.5
	8/7/2004	open	145	55	--	--	21.5
	8/15/2003	open	130	68	--	--	21.5
	8/26/2003	open	>150	115	--	--	23
	9/19/2003	open	130	--	--	--	23.5
	10/13/2003	open	>150	>150	--	--	23.5

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-->MW-2	12/2/2003	open	140	--	--	--	24
	12/15/2003	open	>150	120	--	--	24
	1/6/2004	open	>150	--	--	--	23
	1/13/2004	open	>150	--	--	--	20.5
	1/23/2004	open	>150	>150	--	--	16
	2/11/2004	open	>150	--	--	--	15.5
	3/1/2004	open	>150	--	--	--	15
	3/18/2004	open	>150	95	10.8	30	20
	3/18/2004	open	>150	80	9.7	35	22
MW-3	11/6/2001	open	80	--	--	--	25
	11/12/2001	open	125	--	--	--	25
	11/14/2001	open	85	--	--	--	25
	11/21/2001	open	95	--	--	--	25
	12/6/2001	open	115	--	--	--	25
	12/19/2001	open	110	--	--	--	25
	1/17/2002	open	130	--	--	--	25
	2/4/2002	open	105	--	--	--	25
	2/14/2002	closed	--	--	--	--	--
	5/6/2002	open	100	28	--	--	20
	5/21/2002	open	105	7	--	--	22
	6/19/2002	open	90	10	--	--	24
	6/28/2002	open	95	11	--	--	24
	7/10/2002	open	97	6	--	--	23
	7/26/2002	open	92	7	--	--	23
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	44	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	50	--	--	19
	10/2/2002	open	75	29	--	--	19
	10/11/2002	open	110	25	--	--	19
	10/16/2002	open	125	115	17	1286	19
	10/31/2002	open	150	70	--	--	19
	11/6/2002	open	155	89	--	--	19
	11/22/2002	open	145-160	92	--	--	19
	12/5/2002	open	140	86	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	145	--	--	18
	1/13/2003	open	>150	150	5.6	700	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	>150	--	--	17
	1/30/2003	open	>150	>150	--	--	17
	2/4/2003	open	>150	140	--	--	18
	2/12/2003	open	140	--	--	--	18
	3/4/2003	open	150	120	--	--	18
	3/13/2003	open	>150	>150	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	145	--	--	18
	4/2/2003	open	>150	>150	--	--	18
	4/11/2003	open	>150	120	--	--	18
	4/25/2003	open	>150	95	--	--	19.5
	5/7/2003	open	>150	110	--	--	19.5
	5/14/2003	open	>150	--	--	--	19.5
	5/22/2003	open	135	--	--	--	19.5
	5/30/2003	open	>150	105	10	88	18.3
	6/3/2003	open	>150	--	--	--	18.3
	6/13/2003	open	130	--	--	--	18.3
	6/23/2003	open	120	65	--	--	18.3
	7/3/2003	open	135	--	--	--	19

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	8/7/2003	open	145	64	--	--	19
	8/15/2003	open	130	65	--	--	19
	8/26/2003	open	>150	105	--	--	22
	10/13/2003	closed	>150	>150	--	--	22
	12/2/2003	open	140	--	--	--	22
	12/15/2003	open	>150	140	--	--	22
	1/6/2004	open	>150	--	--	--	21
	1/23/2004	open	>150	130			14.5
	3/18/2004	open	>150	75	11.9	40	20.5
MW-4	11/6/2001	open	80	--	--	--	25
	11/12/2001	open	125	--	--	--	25
	11/14/2001	open	85	--	--	--	25
	11/21/2001	open	95	--	--	--	25
	12/6/2001	open	115	--	--	--	25
	12/19/2001	open	110	--	--	--	25
	1/17/2002	open	130	--	--	--	25
	2/4/2002	open	105	--	--	--	25
	2/14/2002	closed	--	--	--	--	--
	5/6/2002	open	100	26	--	--	20
	5/21/2002	open	105	31	--	--	21
	6/19/2002	open	90	26	--	--	21
	6/28/2002	closed	--	--	--	--	--
	7/26/2002	open	92	14	--	--	24.5
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	39	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	35	--	--	19
	10/2/2002	open	75	34	--	--	19
	10/11/2002	open	110	31	--	--	19
	10/16/2002	open	125	100	4.7	1780	19
	10/31/2002	open	150	60	--	--	19
	11/6/2002	open	155	82	--	--	19
	11/22/2002	open	145-160	82	--	--	19
	12/5/2002	open	140	77	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	130	--	--	18
	1/13/2003	closed	>150	130	6.5	150	17
	1/24/2003	open	>150	130	--	--	19
	1/30/2003	open	>150	135	--	--	19
	2/4/2003	open	>150	120	--	--	19
	2/12/2003	open	140	--	--	--	19
	3/4/2003	open	150	104	--	--	19
	3/13/2003	open	>150	150	--	--	19
	3/17/2003	open	>150	--	--	--	19
	3/25/2003	open	>150	110	--	--	19
	4/2/2003	open	>150	150	--	--	19
	4/11/2003	open	>150	80	--	--	19
	4/25/2003	open	>150	55	--	--	19
	5/7/2003	open	>150	95	--	--	19
	5/14/2003	open	>150	--	--	--	19
	5/22/2003	open	135	--	--	--	18
	5/30/2003	open	>150	110	4.6	410	18.5
	6/3/2003	open	>150	--	--	--	18.5
	6/13/2003	open	130	--	--	--	18.5
	6/23/2003	open	120	45	--	--	18.5
	7/3/2003	open	135	--	--	--	18.5
	7/11/2003	open	125	--	--	--	19.5
	8/7/2003	open	145	65	--	--	19.5

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	8/15/2003	open	130	70	--	--	19.5
	8/26/2003	open	>150	100	--	--	22
	9/19/2003	open	130	--	--	--	22
	10/13/2003	open	>150	>150	--	--	22
	12/2/2003	open	140	--	--	--	19.5
	12/15/2003	open	>150	130	--	--	21
	1/6/2004	open	>150	--	--	--	20
	1/23/2004	open	>150	111	--	--	14.5
	3/18/2004	open	>150	78	6.8	40	20
RW-5	5/24/2000	--	80	--	--	--	11.64
	10/6/2000	--	100	--	--	--	--
	11/29/2000	open	>100	--	--	4320	--
	3/29/2001	open	54	--	--	650	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	12/6/2001	closed	--	--	--	--	--
	12/19/2001	open	110	--	--	--	20
	1/17/2002	open	130	--	--	--	20
	2/4/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	16
	4/2/2002	open	130	--	--	--	16
	4/5/2002	open	135	90	--	--	16
	4/19/2002	open	130	72	--	--	18
	5/6/2002	open	100	43	--	--	18
	5/21/2002	open	105	55	--	--	19
	6/19/2002	open	90	33	--	--	19.5
	6/28/2002	open	95	48	--	--	20
	7/10/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	27	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	22	--	--	19
	10/2/2002	open	75	32	--	--	19
	10/11/2002	open	110	28	--	--	19
	10/16/2002	open	125	38	62	240	19
	10/31/2002	open	150	44	--	--	19
	11/6/2002	open	155	50	--	--	19
	11/22/2002	open	145-160	26	--	--	20
	12/5/2002	open	140	26	--	--	20
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	130	--	--	18
	1/13/2003	open	>150	115	5.5	1750	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	140	--	--	17
	1/30/2003	open	>150	140	--	--	17
	2/4/2003	open	>150	128	--	--	18

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	2/12/2003	open	140	--	--	--	18
	3/4/2003	open	150	105	--	--	18
	3/13/2003	open	>150	145	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	90	--	--	18
	4/2/2003	open	>150	125	--	--	18
	4/11/2003	open	>150	102	--	--	18
	4/25/2003	open	>150	85	--	--	19
	5/7/2003	open	>150	90	--	--	19
	5/14/2003	open	>150	--	--	--	16
	5/22/2003	open	135	--	--	--	16
	5/30/2003	open	>150	93	5.7	102	16.8
	6/3/2003	open	>150	--	--	--	16.8
	6/13/2003	open	130	--	--	--	16.8
	6/23/2003	open	120	62	--	--	16.8
	7/3/2003	open	135	--	--	--	17
	7/11/2003	open	125	--	--	--	18
	8/7/2004	open	145	61	--	--	18
	8/15/2003	open	130	76	--	--	18
	8/26/2003	open	>150	105	--	--	22
	10/2/2003	closed	--	--	--	--	--
	10/13/2003	open	>150	--	--	--	22
	12/15/2003	open	>150	140	--	--	22
	1/6/2004	open	>150	--	--	--	21
	1/13/2004	open	>150	--	--	--	19.5
	1/23/2004	open	>150	>150	--	--	12.5
	3/18/2004	open	>150	110	7.6	25	19
RW-6	5/24/2000	--	80	--	--	--	11.78
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	260	--
	3/29/2001	open	54	--	--	2050	--
	4/14/2001	open	100	--	--	--	20
	4/26/2001	closed	--	--	--	--	--
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	9/14/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	3/11/2002	open	130	--	--	--	16
	3/25/2002	open	130	--	--	--	16
	4/2/2002	open	12	--	--	--	16
	4/5/2002	open	135	85	--	--	16
	4/19/2002	open	130	75	--	--	18
	5/6/2002	closed	--	--	--	--	--
	7/10/2002	open	97	54	--	--	20
	7/26/2002	open	92	39	--	--	20
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	34	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	45	--	--	19
	10/2/2002	open	75	30	--	--	19

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

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-6	10/11/2002	open	110	--	--	--	19
	10/16/2002	open	125	54	34	644	19
	10/31/2002	closed	--	--	--	--	--
	11/22/2002	open	145-160	70	--	--	19.5
	12/5/2002	open	140	69	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	135	--	--	18
	1/13/2003	open	>150	110	4.5	1550	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	150	--	--	17
	1/30/2003	open	>150	140	--	--	17
	2/4/2003	open	>150	125	--	--	18
	2/12/2003	open	140	--	--	--	18
	3/4/2003	open	150	108	--	--	18
	3/13/2003	open	>150	150	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	110	--	--	18
	4/2/2003	open	>150	145	--	--	18
	4/11/2003	open	>150	99	--	--	18
	4/25/2003	open	>150	85	--	--	19
	5/7/2003	open	>150	100	--	--	19
	5/14/2003	open	>150	--	--	--	19
	5/22/2003	open	135	--	--	--	19
	5/30/2003	open	>150	75	5.2	289	17
	6/3/2003	open	>150	--	--	--	17
	6/13/2003	open	130	--	--	--	17
	6/23/2003	open	120	59	--	--	17
	7/3/2003	open	135	--	--	--	17
	7/11/2003	open	125	--	--	--	18
	8/7/2003	open	145	61	--	--	18
	8/15/2003	open	130	66	--	--	18
	8/26/2003	open	>150	120	--	--	22
	9/19/2003	open	130	--	--	--	21
	10/7/2003	closed	--	--	--	--	--
	12/15/2003	open	>150	150	--	--	21
	1/6/2004	open	>150	--	--	--	20
	1/13/2004	open	>150	--	--	--	19
	1/23/2004	open	>150	>150	--	--	13
	3/1/2004	open	>150	--	--	--	12.5
	3/18/2004	open	>150	120	6.5	35	15.5
RW-7	5/24/2000	--	80	--	--	--	12.5
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	0	--
	3/29/2001	open	54	--	--	52	--
	4/14/2001	open	100	--	--	--	20
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--

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

Well ID	Date	Well Status (open/closed)	System/Stinger Vacuum (inches of H2O)	Well Annulus Vacuum (inches of H2O)	Flow Rate (cfm)	Hydrocarbon Vapor Concentration (ppmv)	Stinger Depth (ft below TOC)
-->RW-7	1/17/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	19	35	36	19
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	135	4.5	25	17
	4/2/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	10/2/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
	3/31/2004	closed	--	--	--	--	--
RW-8	5/24/2000	--	--	--	--	--	--
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	44	--
	3/29/2001	open	54	--	--	60	--
	4/14/2001	open	100	--	--	--	20
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	3/11/2002	closed	--	--	--	--	18
	4/2/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/16/2002	open	125	33	29	15	19
	10/31/2002	closed	--	--	--	--	--
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	140	4.0	5	18
	4/2/2003	closed	--	--	--	--	--
	5/30/2003	closed	>150	>150	6.7	5	18.8
	7/3/2003	closed	--	--	--	--	--
	10/2/2004	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
	3/31/2004	closed	--	--	--	--	--
RW-9	5/24/2000	--	--	--	--	--	12.5
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	43	--
	3/29/2001	open	54	--	--	90	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--
	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--

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	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	5/6/2002	open	100	38	--	--	20
	5/21/2002	open	105	56	--	--	20
	6/19/2002	open	90	47	--	--	20
	6/28/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	15	--	--	19
	9/20/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	12	56	12	19
	1/8/2003	open	>150	120	--	--	16
	1/13/2003	open	>150	150	4.0	225	17
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	>150	--	--	17
	1/30/2003	open	>150	140	--	--	17
	2/4/2003	open	>150	135	--	--	17
	2/12/2003	open	140	--	--	--	17
	3/4/2003	open	150	105	--	--	17
	3/13/2003	open	>150	>150	--	--	18
	3/17/2003	open	>150	--	--	--	18
	3/25/2003	open	>150	120	--	--	18
	4/2/2003	open	>150	>150	--	--	18
	4/11/2003	open	>150	105	--	--	18
	4/25/2003	open	>150	85	--	--	18
	5/7/2003	open	>150	110	--	--	18
	5/14/2003	open	>150	--	--	--	18
	5/22/2003	open	135	--	--	--	18
	5/30/2003	open	>150	125	5.3	40	18.5
	6/3/2003	open	>150	--	--	--	18.5
	6/13/2003	open	130	--	--	--	18.5
	6/23/2003	open	120	24	--	--	18.5
	7/3/2003	open	135	--	--	--	18.5
	7/11/2003	open	125	--	--	--	19.5
	7/29/2003	closed	--	--	--	--	--
	12/23/2003	open	>150	--	--	--	20
	1/6/2004	open	>150	--	--	--	19
	1/23/2004	open	>150	120	--	--	14
	2/19/2004	open	>150	--	--	--	13
	3/18/2004	open	>150	120	8.8	60	18
RW-10	5/24/2000	--	--	--	--	--	--
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	>10,000	--
	3/29/2001	open	54	--	--	850	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--

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	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	open	--	--	--	--	20
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	5/6/2002	open	100	31	--	--	20
	5/21/2002	open	105	70	--	--	20
	6/19/2002	open	90	56	--	--	20
	6/28/2002	closed	--	--	--	--	--
	8/6/2002	open	--	--	--	--	19
	8/26/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	38	48	18	19
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	135	3.2	90	17
	1/24/2003	open	>150	>150	--	--	16
	1/30/2003	open	>150	>150	--	--	16
	2/4/2003	open	>150	>150	--	--	16
	2/12/2003	open	140	--	--	--	16
	3/4/2003	open	150	139	--	--	16
	3/13/2003	open	>150	>150	--	--	16
	3/17/2003	open	>150	--	--	--	16
	3/25/2003	open	>150	>150	--	--	16
	4/2/2003	open	>150	>150	--	--	16
	4/11/2003	open	>150	124	--	--	16
	4/25/2003	open	>150	85	--	--	16
	5/7/2003	open	>150	125	--	--	16
	5/14/2003	open	>150	--	--	--	16
	5/22/2003	open	135	--	--	--	16
	5/30/2003	open	>150	45	54.5	5	16
	6/3/2003	closed	--	--	--	--	--
	10/2/2004	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
	1/23/2004	open	>150	131	--	--	14
	2/19/2004	open	>150	--	--	--	13
	3/18/2004	open	>150	120	9.0	102	16
RW-11	5/24/2000	--	80	--	--	--	11.65
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	2280	--
	3/29/2001	open	54	--	--	784	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	20
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15

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	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	86	24	255	19
	10/31/2002	open	150	62	--	--	19
	11/6/2002	open	155	45	--	--	19
	11/22/2002	open	145-160	77	--	--	19.5
	12/5/2002	open	140	65	--	--	19.5
	12/20/2002	open	>150	--	--	--	18
	1/8/2003	open	>150	110	--	--	18
	1/13/2003	open	>150	125	7.0	180	16
	1/22/2003	open	>150	--	--	--	17
	1/24/2003	open	>150	155	--	--	17
	1/30/2003	open	>150	150	--	--	17
	2/4/2003	open	>150	142	--	--	17
	2/12/2003	open	140	--	--	--	17
	3/4/2003	open	150	106	--	--	17
	3/13/2003	open	>150	155	--	--	17
	3/17/2003	open	>150	--	--	--	17
	3/25/2003	open	>150	115	--	--	17
	4/2/2003	open	>150	148	--	--	17
	4/11/2003	open	>150	97	--	--	17
	4/25/2003	open	>150	90	--	--	20
	5/7/2003	open	>150	140	--	--	20
	5/14/2003	open	>150	--	--	--	20
	5/22/2003	open	135	--	--	--	20
	5/30/2003	open	>150	82	6.5	26	17
	6/3/2003	open	>150	--	--	--	17
	6/13/2003	open	130	--	--	--	17
	6/23/2003	open	120	55	--	--	17
	7/3/2003	open	135	--	--	--	17
	7/11/2003	open	--	--	--	--	18
	8/7/2003	open	145	44	--	--	18
	8/15/2004	closed	--	--	--	--	--
	1/6/2004	open	>150	--	--	--	12
	1/23/2004	open	>150	>150	--	--	12
	3/18/2004	open	>150	120	7.5	33	16
RW-12	5/24/2000	--	--	--	--	--	--
	10/6/2000	--	--	--	--	--	--
	11/29/2000	open	>100	--	--	24	--
	3/29/2000	open	54	--	--	72	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	15
	5/3/2001	open	80	--	--	--	15
	5/23/2001	open	10	--	--	--	15
	6/4/2001	open	50	--	--	--	15
	6/21/2001	open	65	--	--	--	15
	7/2/2001	open	55	--	--	--	15
	7/16/2001	open	45	--	--	--	16
	8/2/2001	open	35	--	--	--	--

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	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	3/25/2002	open	130	--	--	--	16
	4/2/2002	open	130	--	--	--	16
	4/5/2002	open	135	97	--	--	16
	4/19/2002	open	130	75	--	--	18
	5/6/2002	closed	--	--	--	--	--
	6/28/2002	open	95	16	--	--	20
	7/10/2002	open	97	5	--	--	20
	7/26/2002	open	92	5	--	--	20
	8/6/2002	open	--	--	--	--	19
	8/26/2002	open	95	6	--	--	19
	9/16/2002	open	105	--	--	--	19
	9/20/2002	open	85	6	--	--	19
	10/2/2002	open	75	4	--	--	19
	10/11/2002	open	110	4	--	--	19
	10/16/2002	closed	125	1	20	75	19
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	115	4.5	20	17
	1/30/2003	open	>150	145	--	--	17
	2/4/2003	open	>150	135	--	--	17
	2/12/2003	open	140	--	--	--	17
	3/4/2003	open	150	115	--	--	17
	3/13/2003	open	>150	>150	--	--	17
	3/17/2003	open	>150	--	--	--	17
	3/25/2003	open	>150	150	--	--	17
	4/2/2003	open	>150	>150	--	--	17
	4/11/2003	open	>150	74	--	--	17
	4/25/2003	open	>150	20	--	--	17
	5/7/2003	open	>150	115	--	--	17
	5/14/2003	open	>150	--	--	--	17
	5/22/2003	open	>150	--	--	--	17
	5/30/2003	open	>150	10	43	4	17.5
	6/3/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	10/2/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
	1/23/2004	open	>150	>150	--	--	13
	3/18/2004	open	>150	130	7.2	31	17
RW-13	5/24/2000	--	80	--	--	--	12.59
	10/6/2000	--	--	--	--	--	--
	11/29/2000	--	>100	--	--	77	--
	3/29/2001	open	54	--	--	124	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--
	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--

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	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	open	--	--	--	--	16
	3/25/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/16/2002	closed	125	29	41	7	21.5
	1/8/2003	closed	--	--	--	--	--
	1/13/2003	closed	>150	110	8.0	2	16
	4/2/2003	closed	--	--	--	--	--
	7/3/2003	closed	--	--	--	--	--
	10/2/2003	closed	--	--	--	--	--
	1/6/2004	closed	--	--	--	--	--
	3/31/2004	closed	--	--	--	--	--
RW-14	5/24/2000	--	80	--	--	--	12.33
	10/6/2000	--	100	--	--	--	--
	11/29/2000	--	>100	--	--	5830	--
	3/29/2001	open	54	--	--	120	--
	4/14/2001	open	100	--	--	--	--
	4/26/2001	open	85	--	--	--	--
	5/3/2001	open	80	--	--	--	--
	5/23/2001	open	10	--	--	--	--
	6/4/2001	open	50	--	--	--	--
	6/21/2001	open	65	--	--	--	--
	7/2/2001	open	55	--	--	--	--
	7/16/2001	open	45	--	--	--	--
	8/2/2001	open	35	--	--	--	--
	8/10/2001	open	20	--	--	--	--
	8/15/2001	open	20	--	--	--	--
	8/27/2001	open	65	--	--	--	--
	9/7/2001	closed	--	--	--	--	--
	10/3/2001	closed	--	--	--	--	--
	1/17/2002	closed	--	--	--	--	--
	2/14/2002	open	125	--	--	--	20
	3/5/2002	open	115	--	--	--	20
	3/11/2002	closed	--	--	--	--	--
	4/2/2002	closed	--	--	--	--	--
	7/10/2002	closed	--	--	--	--	--
	10/2/2002	closed	--	--	--	--	--
	10/16/2002	open	125	80	14	535	19
	10/31/2002	open	150	18	--	--	19
	11/6/2002	closed	--	--	--	--	--
	1/8/2003	open	>150	140	--	--	14
	1/13/2003	closed	>150	90	7.0	35	16
	4/2/2003	closed	--	--	--	--	--
	5/30/2003	open	>150	78	5.5	55	17.5
	6/3/2003	open	>150	--	--	--	17.5
	6/13/2003	open	130	--	--	--	18
	6/23/2003	open	120	58	--	--	18
	7/3/2003	open	135	--	--	--	17.5
	7/11/2003	open	125	--	--	--	19
	8/7/2003	open	145	55	--	--	19
	8/15/2003	open	130	30	--	--	19

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	8/26/2003	closed	--	--	--	--	--
	12/23/2003	open	>150	--	--	--	20
	1/16/2004	open	>150	--	--	--	15
	1/23/2004	open	>150	110	--	--	14
	3/18/2004	open	>150	105	9.5	30	16.5

Notes:

-- = Data not available or not collected

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APPENDIX A

Groundwater Monitoring Field Data Sheets

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Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	Comments
MW-1	9:10		17.70					
MW-2	9:15		15.78					
MW-3	9:20		16.49					
MW-4	9:25		14.92					

Project Name: Worthington

Project Number/Task: 130-0105/352

Technician: T. Fulmer

Date: 3/18/04

CAMBRIA

WELL SAMPLING FORM

Project Name: Worthington	Cambria Mgr: GH	Well ID: MW-1
Project Number: 130.0105	Date: 3/18/04	Well Yield:
Site Address: 3055 35th St Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: ☐ pvc
		Technician(s): TF
Initial Depth to Water: 17.70	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	Did Well Dewater?: No	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 Minute Purge with Remediation System					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	3/18/04	10:25	3 VOA	HCl	TPHg, BTEX, MTBE	8015/8020
			1 Amber	None	TPHd	8015

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CAMBRIA

WELL SAMPLING FORM

Project Name: Worthington	Cambria Mgr: GH	Well ID: MW-2
Project Number: 130.0105	Date: 3/18/04	Well Yield:
Site Address: 3055 35th St Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: ☐ pvc Technician(s): TF
Initial Depth to Water: 15.78	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	Did Well Dewater?: No	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 Minute Purge with Remediation System					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	3/18/04	10:05	3 VoA	HCl	TPHg, BTEX, MTBE	8015/8020
			1 Amber	None	TPHd	8015

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WELL SAMPLING FORM

Project Name: Worthington	Cambria Mgr: GH	Well ID: MW-3
Project Number: 130.0105	Date: 3/18/04	Well Yield:
Site Address: 3055 35th St Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: ☐ pvc
		Technician(s): TF
Initial Depth to Water: 16.79	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	Did Well Dewater?: No	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 Minute Purge with Remediation System					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	3/18/04	10:15	3 VoA	HCl	TPHg, BTEX, MTBE	8015/8020
			1 Amber	None	TPHd	8015

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CAMBRIA

WELL SAMPLING FORM

Project Name: Worthington	Cambria Mgr: GH	Well ID: MW-4
Project Number: 130.0105	Date: 3/18/04	Well Yield:
Site Address: 3055 35th St Oakland, Ca	Sampling Method: Disposable Bailer	Well Diameter: ☐ pvc
		Technician(s): TF
Initial Depth to Water: 14.92	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device: Remediation System	Did Well Dewater?: No	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 Minute Purge with Remediation System					

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	3/18/04	10:30	3 VoA	HCl	TPHg, BTEX, MTBE	8015/8020
			1 Amber	None	TPHd	8015

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APPENDIX B

Analytical Results for Groundwater Sampling

McCampbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105; WORTHINGTON	Date Sampled: 03/18/04
		Date Received: 03/19/04
	Client Contact: Gretchen Hellmann	Date Reported: 03/24/04
	Client P.O.:	Date Completed: 03/24/04

WorkOrder: 0403326

March 24, 2004

Dear Gretchen:

Enclosed are:

1). the results of 4 analyzed samples from your **#130-0105; WORTHINGTON project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

Cambria Env. Technology	Client Project ID: #130-0105; WORTHINGTON	Date Sampled: 03/18/04
5900 Hollis St, Suite A		Date Received: 03/19/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 03/24/04
	Client P.O.:	Date Analyzed: 03/24/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0403326

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	3600,a	ND<90	650	59	38	370	10	---#
002A	MW-2	W	4200,a	2300	730	89	ND<5.0	480	10	94.1
003A	MW-3	W	15,000,a	ND<300	2600	990	260	1700	10	111
004A	MW-4	W	5300,a	ND<180	1300	55	37	440	10	104

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

Cambria Env. Technology	Client Project ID: #130-0105; WORTHINGTON	Date Sampled: 03/18/04
5900 Hollis St, Suite A		Date Received: 03/19/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 03/19/04
	Client P.O.:	Date Analyzed: 03/22/04-03/23/04

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0403326

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0403326-001B	MW-1	W	1100,d,b	5	86.5
0403326-002B	MW-2	W	870,d,b	1	93.4
0403326-003B	MW-3	W	2300,d,b	1	103
0403326-004B	MW-4	W	1500,d	5	92.4

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

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

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range/jet fuel 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
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0403326

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10833 Spiked Sample ID: 0403325-010A

	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)£	47.13	60	135, F1	138, F1	1.61	94.1	99.7	5.70	70	130
MTBE	ND	10	129	126	2.62	109	114	4.89	70	130
Benzene	41.56	10	NR	NR	NR	102	110	8.00	70	130
Toluene	1.44	10	104	104	0	96.2	103	6.61	70	130
Ethylbenzene	0.99	10	108	108	0	105	110	4.27	70	130
Xylenes	5.20	30	99.3	99.3	0	91.7	100	8.70	70	130
%SS:	105	10	113	110	2.93	102	101	1.04	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

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.

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8015C

Matrix: W WorkOrder: 0403326

EPA Method: SW8015C Extraction: SW3510C BatchID: 10823 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	N/A	7500	N/A	N/A	N/A	97.4	98.2	0.879	70	130
%SS:	N/A	2500	N/A	N/A	N/A	106	106	0	70	130

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

NONE

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

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

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

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

DHS Certification No. 1644

TL QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0403326

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #130-0105; WORTHINGTON
PO:

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

Requested TAT: 5 days
Date Received: 3/19/04
Date Printed: 3/19/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0403326-001	MW-1	Water	3/18/04 10:25:00	☐	A	A	B												
0403326-002	MW-2	Water	3/18/04 10:05:00	☐	A		B												
0403326-003	MW-3	Water	3/18/04 10:15:00	☐	A		B												
0403326-004	MW-4	Water	3/18/04 10:30:00	☐	A		B												

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

0403326

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-	Project Name:	WORTHINGTON
Project Location:	3055 35th Avenue, Oakland, California		
Sampler Signature:			

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	Analysis Request: TPH as Diesel (8015)	Analysis Request: Total Petroleum Oil & Grease (5520 E&F/B&F)	Analysis Request: Total Petroleum Hydrocarbons (418.1)	Analysis Request: EPA 601 / 8010	Analysis Request: BTEX ONLY (EPA 602 / 8020)	Analysis Request: EPA 608 / 8080	Analysis Request: EPA 608 / 8080 PCB's ONLY	Analysis Request: EPA 624 / 8240 / 8260	Analysis Request: EPA 625 / 8270	Analysis Request: PAH's / PNA's by EPA 625 / 8270 / 8310	Analysis Request: CAM-17 Metals	Analysis Request: LUFT 5 Metals	Analysis Request: Lead (7240/7421/239.2/6010)	Analysis Request: RCI	Other	Comments
MW-1		3/18/04	10:25	4		X					X	X			X	X														3 Voa's w/HCl, 1 non-preserved Amber
MW-2		3/18/04	10:05	4		X					X	X			X	X														3 Voa's w/HCl, 1 non-preserved Amber
MW-3		3/18/04	10:15	4		X					X	X			X	X														3 Voa's w/HCl, 1 non-preserved Amber
MW-4		3/18/04	10:30	4		X					X	X			X	X														3 Voa's w/HCl, 1 non-preserved Amber

Relinquished By:	Date: 3/18/04	Time: 5:52	Received By: Secure Location
Relinquished By:	Date:	Time:	Received By: 3/19 1:05
Relinquished By:	Date: 3/19	Time: 4:40	Received By:

Remarks:

Please email results.

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

PRESERVATION	VOA	O&G	METALS	OTHER

CAMBRIA

APPENDIX C

Analytical Results for TPE System Operation

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

Cambria Env. Technology	Client Project ID: #130-0105-356; Worthington	Date Sampled: 01/06/04
5900 Hollis St, Suite A		Date Received: 01/07/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Reported: 01/12/04
	Client P.O.:	Date Completed: 01/12/04

WorkOrder: 0401046

January 12, 2004

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-356; 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 Mangager

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: #130-0105-356; Worthington	Date Sampled: 01/06/04
5900 Hollis St, Suite A		Date Received: 01/07/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 01/07/04-01/08/04
	Client P.O.:	Date Analyzed: 01/07/04-01/08/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0401046

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	134,a	ND<3.0	3.8	1.5	0.31	4.4	1	118
002A	EFF	A	ND	ND	ND	ND	ND	0.53	1	112

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0401046

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9929 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	90.8	97.7	7.25	70	130
MTBE	N/A	10	N/A	N/A	N/A	105	110	4.53	70	130
Benzene	N/A	10	N/A	N/A	N/A	104	104	0	70	130
Toluene	N/A	10	N/A	N/A	N/A	108	109	1.03	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	108	108	0	70	130
Xylenes	N/A	30	N/A	N/A	N/A	110	110	0	70	130
%SS:	N/A	100	N/A	N/A	N/A	109	110	0.782	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: 0401046

Report to:
Ron Scheele
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-356; Worthington
PO:

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

Requested TAT: 5 days
Date Received: 1/7/04
Date Printed: 1/7/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0401046-001	INF	Air	1/6/04	☐	A														
0401046-002	EFF	Air	1/6/04	☐	A														

Test Legend:

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

Prepared by: Maria Venegas

Comments:

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

0401046

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-~~[illegible]~~ -3.56 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	Other	Other	Other	Comments
INF	System	1/6/04		1	Tb			X							X																		
EFF	System	1/6/04		1	Tb			X							X																		

Relinquished By: Date: 1/6/04 Time: 6pm Received By:

Relinquished By: Date: 1/7 Time: 11:45 Received By: #280

Relinquished By: #280 Date: 1/7 Time: 13:45 Received By:

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

Use 20 mL injection volume.

Please email results.

ICE/t° 20

GOOD CONDITION ✓

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS ✓

PRESERVED IN LAB

PRESERVATION VOAS | O&G | METALS | OTHER

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: #130-0105-356; Worthington	Date Sampled: 01/06/04
		Date Received: 01/07/04
	Client Contact: Gretchen Hellmann	Date Reported: 01/12/04
	Client P.O.:	Date Completed: 01/12/04

WorkOrder: 0401050

January 12, 2004

Dear Gretchen:

Enclosed are:

1). the results of 3 analyzed samples from your **#130-0105-356; 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 Mangager

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: #130-0105-356; Worthington	Date Sampled: 01/06/04
5900 Hollis St, Suite A		Date Received: 01/07/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 01/08/04-01/10/04
	Client P.O.:	Date Analyzed: 01/08/04-01/10/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0401050

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	330,a	---	18	4.9	1.5	35	1	111
002A	EFF-1	W	50,a	---	ND	ND	ND	1.8	1	109
003A	EFF-2	W	ND	---	ND	ND	ND	ND	1	110
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0401050

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9929 Spiked Sample ID: 0401055-001A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) £	ND	60	107	104	2.85	90.8	97.7	7.25	70	130
MTBE	ND	10	100	100	0	105	110	4.53	70	130
Benzene	ND	10	101	86	16.5	104	104	0	70	130
Toluene	ND	10	111	96.3	13.7	108	109	1.03	70	130
Ethylbenzene	ND	10	104	93.8	10.7	108	108	0	70	130
Xylenes	1.85	30	110	107	2.90	110	110	0	70	130
%SS:	100	100	104	97.1	6.40	109	110	0.782	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0401050

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9942 Spiked Sample ID: 0401076-003A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) £	ND	60	107	97.7	8.65	100	98.1	2.11	70	130
MTBE	ND	10	101	102	0.899	106	98.9	7.33	70	130
Benzene	ND	10	111	107	4.21	107	102	5.14	70	130
Toluene	ND	10	107	104	2.79	104	99.5	4.55	70	130
Ethylbenzene	ND	10	115	111	3.63	112	107	4.88	70	130
Xylenes	ND	30	107	100	6.45	107	100	6.45	70	130
%SS:	101	100	104	102	1.72	99.6	116	15.6	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: 0401050

Report to:
Ron Scheele
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-356; Worthington
PO:

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

Requested TAT: 5 days
Date Received: 1/7/04
Date Printed: 1/9/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0401050-001	INF	Water	1/6/04	☐	A														
0401050-002	EFF-1	Water	1/6/04	☐	A														
0401050-003	EFF-2	Water	1/6/04	☐	A														

Test Legend:

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

Prepared by: Maria Venegas

Comments: EFF-2 off hold 01/09/04

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.

0401050

CHAIN OF CUSTODY RECORD

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

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

EDF Required? ☐ Yes ☒ No

Report To: Gretchen Hellmann Bill To: SAME

Company: Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A

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

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

Project #: 130-0105-356 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	1/6/04		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 1/09

	Date	Time	
Relinquished By:	1/6/04	6pm	Received By: Servgt Location
Relinquished By:	1/7	11:45	Received By: UPS EX # 280
Relinquished By: UPS EX #280	1/7	13:45	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 email results.

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

McCampbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-356; Worthington	Date Sampled: 02/19/04
		Date Received: 02/20/04
	Client Contact: Gretchen Hellmann	Date Reported: 02/25/04
	Client P.O.:	Date Completed: 02/25/04

WorkOrder: 0402283

February 25, 2004

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-356; 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
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-356; Worthington	Date Sampled: 02/19/04
5900 Hollis St, Suite A		Date Received: 02/20/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 02/20/04-02/21/04
	Client P.O.:	Date Analyzed: 02/20/04-02/21/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0402283

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	25,a	ND	2.0	0.40	0.18	0.95	1	---#
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	118

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0402283

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10438 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	103	106	3.23	70	130
MTBE	N/A	10	N/A	N/A	N/A	89.3	81.8	8.81	70	130
Benzene	N/A	10	N/A	N/A	N/A	107	97.9	8.93	70	130
Toluene	N/A	10	N/A	N/A	N/A	106	97.6	8.27	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	104	98.8	5.11	70	130
Xylenes	N/A	30	N/A	N/A	N/A	100	99.3	0.669	70	130
%SS:	N/A	10	N/A	N/A	N/A	94	87.2	7.48	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0402283

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-356; Worthington
PO:

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

Requested TAT: 5 days
Date Received: 2/20/04
Date Printed: 2/20/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0402283-001	INF	Air	2/19/04	☐	A														
0402283-002	EFF	Air	2/19/04	☐	A														

Test Legend:

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

Prepared by: Sonia 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.

0402283

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 #: 130-0105-356	Project Name: WORTHINGTON
Project Location: 3055 35th Avenue, Oakland, California	
Sampler Signature:	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
INF	System	2/19/07		1	Tb			X							X																
EFF	System	2/19/07		1	Tb			X							X																

Relinquished By:	Date: 2/19/07	Time: 5PM	Received By: Sealed Location
Relinquished By:	Date:	Time:	Received By: 2/20 11:30
Relinquished By:	Date: 2/20	Time: 3:50	Received By:

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

Use 20 mL injection volume

Please email results.

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

PRESERVATION	VOAS	O&G	METALS	OTHER

McCampbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-356; Worthington	Date Sampled: 02/19/04
		Date Received: 02/20/04
	Client Contact: Gretchen Hellmann	Date Reported: 02/26/04
	Client P.O.:	Date Completed: 02/26/04

WorkOrder: 0402286

February 26, 2004

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-356; 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
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-356; Worthington	Date Sampled: 02/19/04
5900 Hollis St, Suite A		Date Received: 02/20/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 02/24/04
	Client P.O.:	Date Analyzed: 02/24/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0402286

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	57,a	---	4.9	0.79	0.71	4.9	1	106
002A	EFF-1	W	ND	---	ND	ND	ND	ND	1	109

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0402286

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10438 Spiked Sample ID: 0402272-005A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) £	ND	60	104	104	0	103	106	3.23	70	130
MTBE	ND	10	100	108	7.35	89.3	81.8	8.81	70	130
Benzene	ND	10	105	109	4.14	107	97.9	8.93	70	130
Toluene	ND	10	101	103	2.14	106	97.6	8.27	70	130
Ethylbenzene	ND	10	105	109	3.57	104	98.8	5.11	70	130
Xylenes	ND	30	95.7	100	4.43	100	99.3	0.669	70	130
%SS:	89.2	10	100	101	0.225	94	87.2	7.48	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

TL QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0402286

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-3394
ProjectNo: #130-0105-356; Worthington
PO:

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

Requested TAT: 5 days
Date Received: 2/20/04
Date Printed: 2/20/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0402286-001	INF	Water	2/19/04	☐	A														
0402286-002	EFF-1	Water	2/19/04	☐	A														
0402286-003	EFF-2	Water	2/19/04	☑	A														

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

GRR

040228O

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 #: 130-0105-356	Project Name: WORTHINGTON		
Project Location: 3055 35th Avenue, Oakland, California			
Sampler Signature:			

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)	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	2/19/04		3	V	X					X	X			X																
EFF-1	System	↓		3	V	X					X	X			X																
EFF-2	System			3	V	X					X	X			X																

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

Relinquished By:	Date: 2/19/04	Time: 5pm	Received By: Seaver d Loadtwn
Relinquished By:	Date:	Time:	Received By: 2/20 11:30
Relinquished By:	Date: 2/20	Time: 3:50	Received By: Mel Valle

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

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

Please email results.

McCampbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-356; WORTHINGTON	Date Sampled: 03/18/04
		Date Received: 03/19/04
	Client Contact: Gretchen Hellmann	Date Reported: 03/24/04
	Client P.O.:	Date Completed: 03/24/04

WorkOrder: 0403322

March 24, 2004

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-356; 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
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-356; WORTHINGTON	Date Sampled: 03/18/04
5900 Hollis St, Suite A		Date Received: 03/19/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 03/20/04
	Client P.O.:	Date Analyzed: 03/20/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0403322

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	A	88,a	ND<10	4.6	0.92	0.24	1.2	1	119
002A	EFF	A	ND	ND	ND	ND	ND	ND	1	98.5

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0403322

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10832 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	uL/L	uL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	96.4	97.4	1.04	70	130
MTBE	N/A	10	N/A	N/A	N/A	108	108	0	70	130
Benzene	N/A	10	N/A	N/A	N/A	111	109	1.56	70	130
Toluene	N/A	10	N/A	N/A	N/A	103	100	2.07	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	108	107	0.715	70	130
Xylenes	N/A	30	N/A	N/A	N/A	95.3	95.7	0.349	70	130
%SS:	N/A	10	N/A	N/A	N/A	103	103	0	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0403322

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #130-0105-356; WORTHINGTON
PO:

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

Requested TAT: 5 days
Date Received: 3/19/04
Date Printed: 3/19/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0403322-001	INF	Air	3/18/04 4:30:00 PM	☐	A														
0403322-002	EFF	Air	3/18/04 4:30:00 PM	☐	A														

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

CEPE

0403322

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 #: 130-0105-356 Project Name: WORTHINGTON

Project Location: 3055 35th Avenue, Oakland, California

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Other	Other	Other	Comments
INF	System	3/18/04	4:30	1	Tb			X							X																		
EFF	System	3/18/04	↓	1	Tb			X							X																		

Relinquished By:	Date:	Time:	Received By:
	3/18/04	9AM	Signed by Courier
Relinquished By:	Date:	Time:	Received By:
			3/19 1:05
Relinquished By:	Date:	Time:	Received By:
	3/19	4:40	

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

Use 20 mL injection volume.

Please email results.

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

PRESERVATION	VOAS	O&G	METALS	OTHER

McCampbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #130-0105-356; WORTHINGTON	Date Sampled: 03/18/04
		Date Received: 03/19/04
	Client Contact: Gretchen Hellmann	Date Reported: 03/26/04
	Client P.O.:	Date Completed: 03/26/04

WorkOrder: 0403324

March 26, 2004

Dear Gretchen:

Enclosed are:

1). the results of **2** analyzed samples from your **#130-0105-356; 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
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #130-0105-356; WORTHINGTON	Date Sampled: 03/18/04
5900 Hollis St, Suite A		Date Received: 03/19/04
Emeryville, CA 94608	Client Contact: Gretchen Hellmann	Date Extracted: 03/23/04-03/25/04
	Client P.O.:	Date Analyzed: 03/23/04-03/25/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0403324

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	INF	W	95,a	---	11	2.2	1.4	12	1	98.7
002A	EFF-1	W	ND	---	ND	ND	ND	ND	1	96.2

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0403324

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10832 Spiked Sample ID: 0403323-004A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	ND	60	98.3	98.2	0.104	96.4	97.4	1.04	70	130
MTBE	ND	10	108	91.1	17.1	108	108	0	70	130
Benzene	ND	10	116	107	8.64	111	109	1.56	70	130
Toluene	ND	10	108	100	7.74	103	100	2.07	70	130
Ethylbenzene	ND	10	113	106	5.63	108	107	0.715	70	130
Xylenes	ND	30	100	95.7	4.43	95.3	95.7	0.349	70	130
%SS:	98.0	10	107	103	2.95	103	103	0	70	130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS Certification No. 1644

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0403324

Report to:
Gretchen Hellmann
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608
TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #130-0105-356; WORTHINGTON
PO:

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

Requested TAT: 5 days
Date Received: 3/19/04
Date Printed: 3/19/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0403324-001	INF	Water	3/18/04 4:00:00 PM	☐	A														
0403324-002	EFF-1	Water	3/18/04 4:00:00 PM	☐	A														
0403324-003	EFF-2	Water	3/18/04 4:00:00 PM	☑	A														

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

CCR

0403324

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 #: 130-0105-356	Project Name: WORTHINGTON
Project Location: 3055 35th Avenue, Oakland, California	
Sampler Signature:	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)	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
INF	System	3/8/04	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														

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

Relinquished By:	Date:	Time:	Received By:
	3/9/04	9am	
Relinquished By:	Date:	Time:	Received By:
			3/9 1:05
Relinquished By:	Date:	Time:	Received By:
	3/9	4:40	

Remarks: DO NOT ANALYZE OR REPORT RESULTS FOR MTBE

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

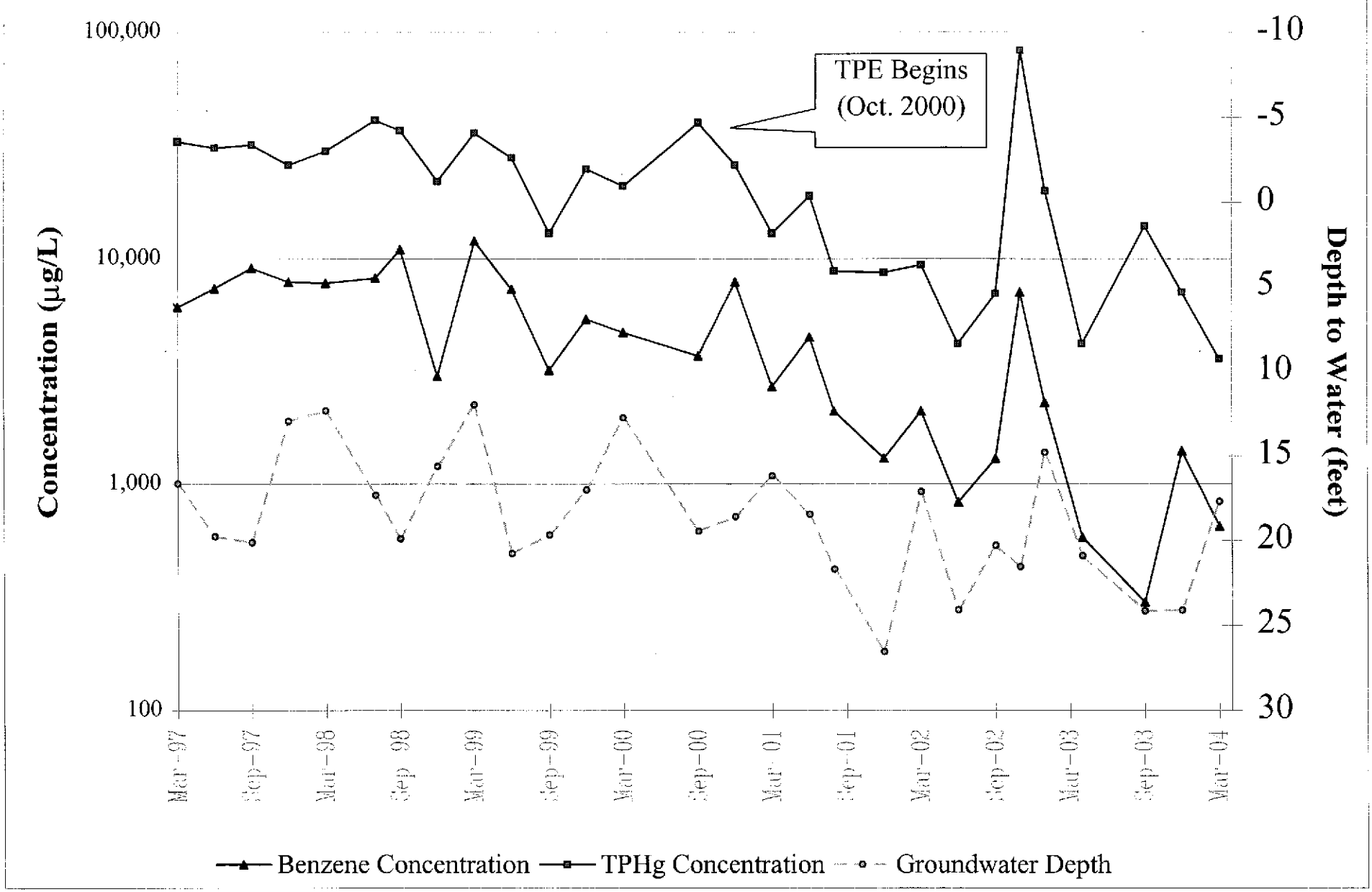
Please email results.

CAMBRIA

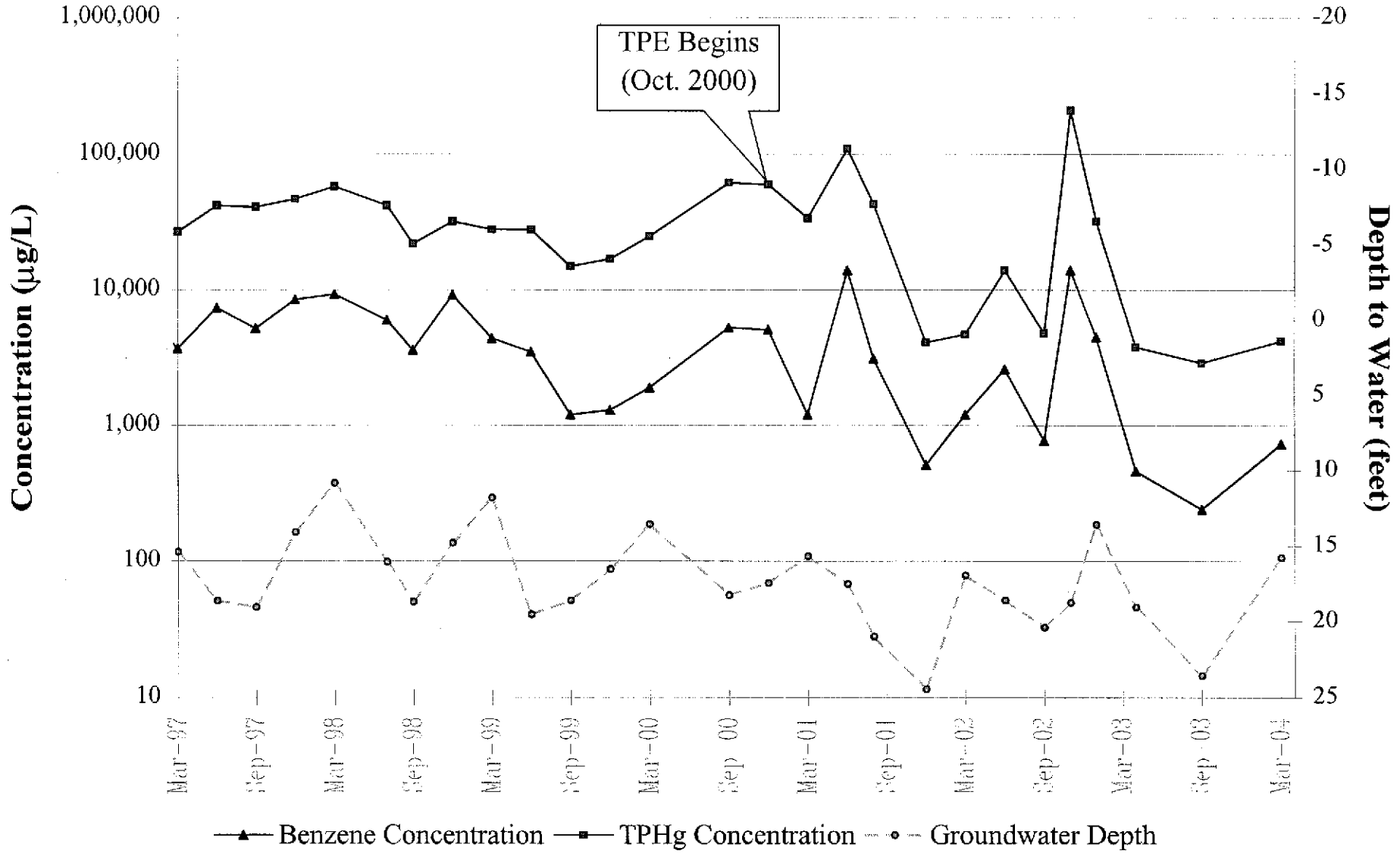
APPENDIX D

TPHg and Benzene Concentration Trend Graphs

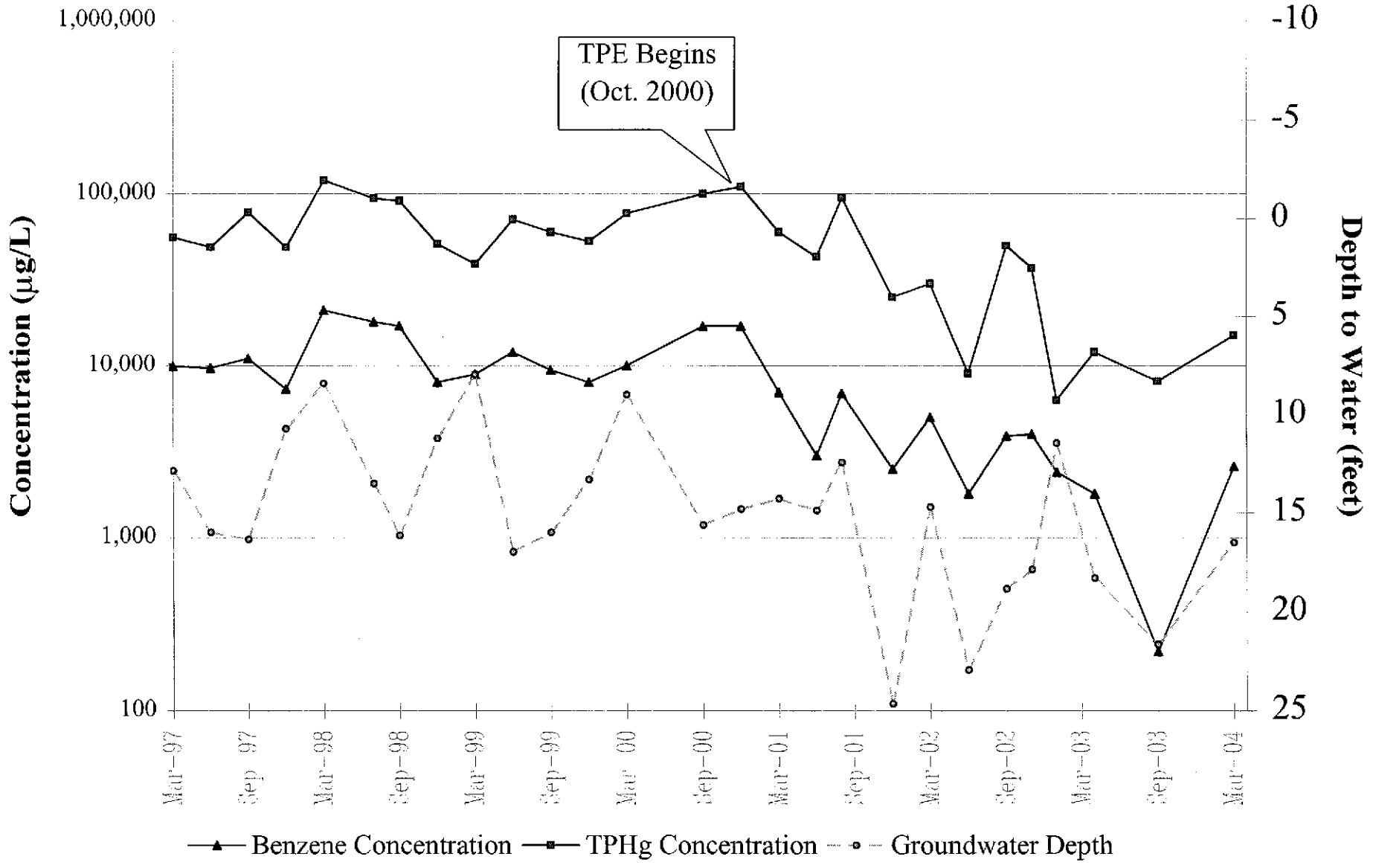
TPHg and Benzene Concentration Trends
Well MW-1 (March 1997 to Present)



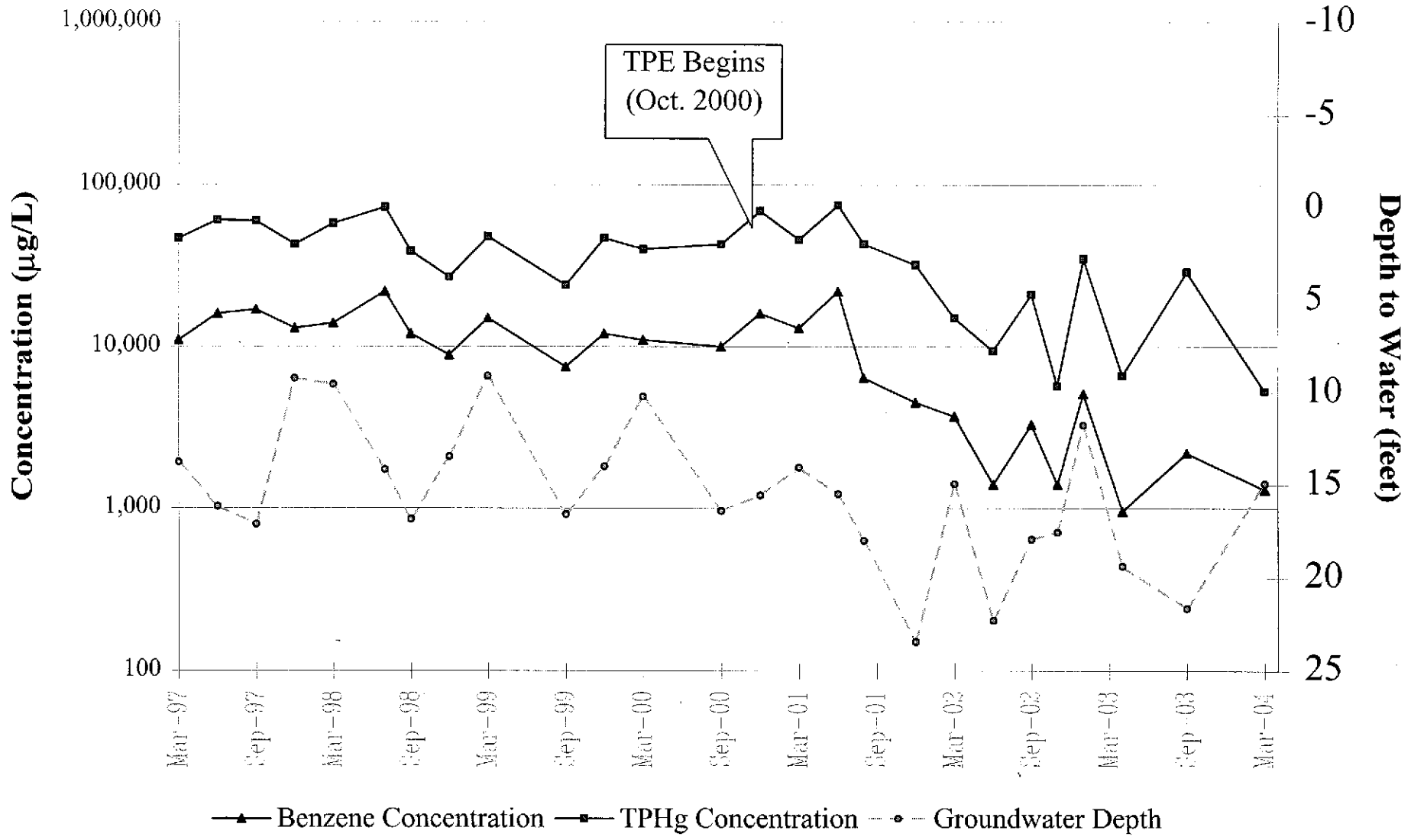
TPHg and Benzene Concentration Trends
Well MW-2 (March 1997 to Present)



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



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



CAMBRIA

APPENDIX E

GeoTracker Electronic Delivery Confirmations

CAMBRIA

April 29, 2004

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

Re: **Groundwater Monitoring and System Progress Report**
First Quarter 2004
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 – First Quarter 2004*. Presented in the report are the first quarter 2004 activities and the anticipated second quarter 2004 activities.

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

Sincerely,
Cambria Environmental Technology, Inc.

Gretchen Hellmann
Project Engineer

Attachments: Groundwater Monitoring and System Progress Report - First Quarter 2004

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

Cambria Environmental Technology, Inc.

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

AB2886 Electronic Delivery

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

Your EDF file has been succcessfully uploaded!

Confirmation Number: 2758033514
Date/Time of Submittal: 4/29/2004 6:16:05 PM
Facility Global ID: T0600100538
Facility Name: EXXON
Submittal Title: 1st Qtr 2004, GW Analytical DAta
Submittal Type: GW Monitoring Report

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

AB2886 Electronic Delivery

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

UPLOADING A GEO_WELL FILE

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

Submittal Title:	**1st Qtr 2004, GW Depth Data for 3055 35th Avenue, Oakland**
Submittal Date/Time:	**4/29/2004 6:17:24 PM**
Confirmation Number:	**3152953922**

Back to Main Menu

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