CAMBRIA

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November 10, 2000

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

Re: **Third Quarter 2000 Monitoring Report**
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 third quarter 2000 groundwater monitoring report for the above-referenced site. Presented in the report are the third quarter 2000 activities and results and the anticipated fourth quarter 2000 activities. This monitoring program complies with Alameda County Health Care Services Agency requirements regarding underground storage tank investigations.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Geologist

Attachments: Quarterly Groundwater Monitoring Report, Third Quarter 2000

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

Oakland, CA
San Ramon, CA
Sonoma, CA
Portland, OR

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

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THIRD QUARTER 2000 MONITORING REPORT

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

November 10, 2000

Prepared for:

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

Prepared by:

Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, California 94608

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

Jason Olson
Staff Environmental Scientist

Ron Scheele, RG
Senior Geologist

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THIRD QUARTER 2000 MONITORING REPORT

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

November 10, 2000

INTRODUCTION

On behalf of Mr. Lynn Worthington of Golden Empire Properties, Cambria Environmental Technology, Inc. (Cambria) has prepared this third quarter 2000 groundwater monitoring report for the above-referenced site (see Figure 1). Presented in the report are the third quarter 2000 activities and results and the anticipated fourth quarter 2000 activities.

THIRD QUARTER 2000 ACTIVITIES

Monitoring Activities

prior to DPE operation

Field Activities: On September 7, 2000, Cambria conducted quarterly monitoring activities. Cambria gauged and inspected for separate-phase hydrocarbons (SPH) monitoring wells MW-1, MW-2, MW-3 and MW-4 (Figure 1). Groundwater samples were collected from all wells. Field data sheets are presented in Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), and total petroleum hydrocarbons as diesel (TPHd) by modified EPA Method 8015, and benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tert-butyl ether (MTBE) by modified EPA Method 8020. The groundwater analytical results are summarized in Table 1. The Laboratory Analytical Report is included in Appendix B.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water measurements collected during Cambria's September 7, 2000 site visit, groundwater beneath the site flows to the northwest at a gradient of 0.009 ft/ft (Figure 1). Since 1994, the primary groundwater flow direction has been toward the northwest with a change toward the southwest usually occurring during the fourth quarter. Groundwater elevation data is presented in Table 1.

Hydrocarbon Distribution in Groundwater: No SPH were detected in any of the wells. TPHg concentrations in the sampled monitoring wells ranged from 40,000 micrograms per liter (µg/L) in MW-1 to 100,000 µg/L in MW-3. TPHd concentrations ranged from 5900 µg/L ppb in MW-4 to 32,000 µg/L in MW-2. Benzene concentrations ranged from 3,700 µg/L in MW-1 to 17,000 µg/L in MW-3. MTBE concentrations were below detection limits in all sampled wells. These analytical results are consistent with historical results.

Corrective Action Activities

On September 28, 2000, Cambria began operation of a dual phase extraction (DPE) remediation system. System influent and effluent vapor samples were collected on October 12, 2000, and analyzed by McCambell Analytical of Pacheco, California. System monitoring data and analytical results indicated that the system was operating as designed and that hydrocarbon destruction efficiency was within permit requirements. Additional system startup and operation details are described in Cambria's *System Startup Report* dated October 17, 2000.

ANTICIPATED FOURTH QUARTER ACTIVITIES

Monitoring Activities

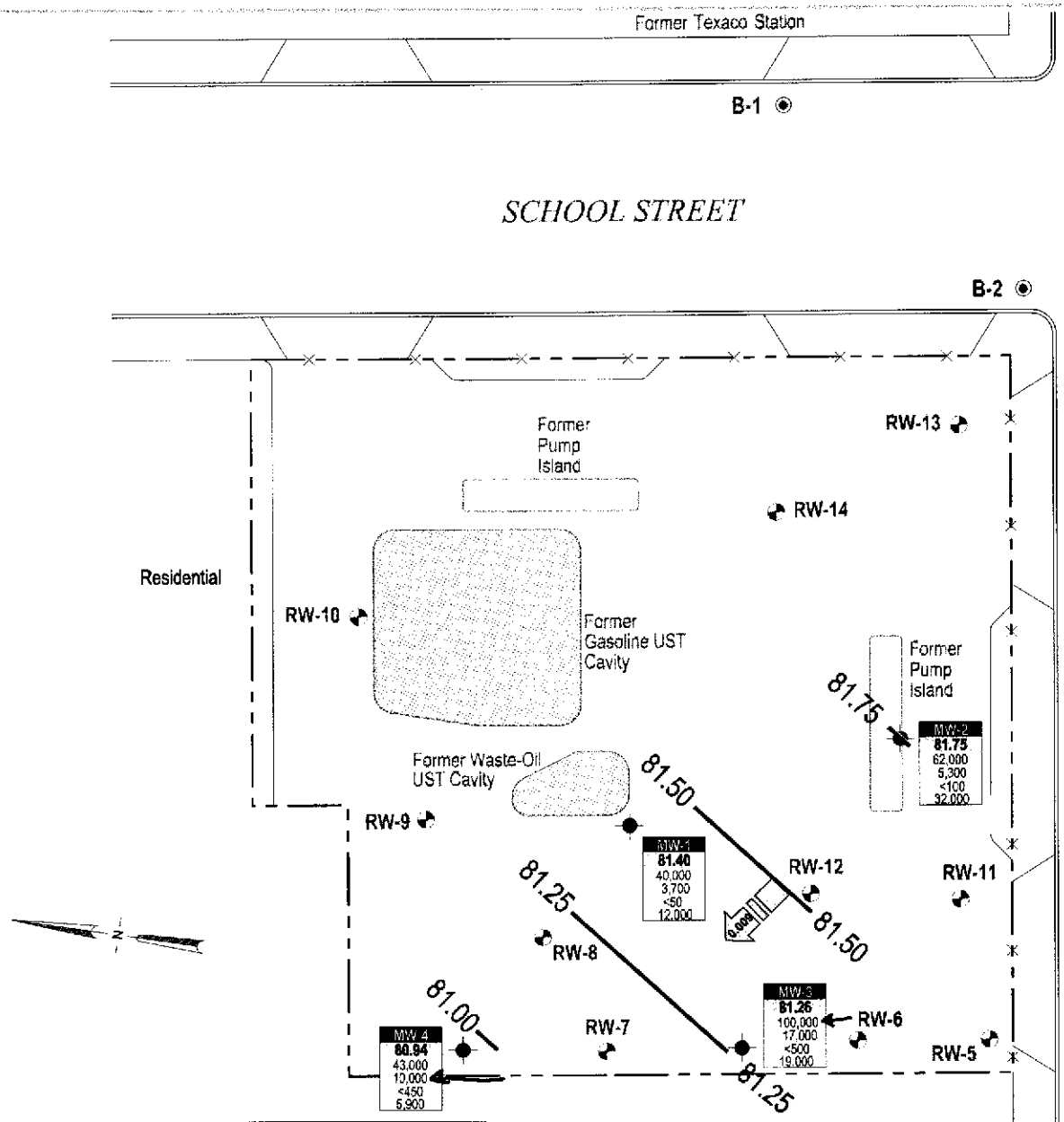
Cambria will gauge the depth to water in site wells, check the wells for SPH, and collect groundwater samples on a quarterly basis. Cambria will also analyze, tabulate, and report the data in a groundwater monitoring report.

Corrective Action Activities

Cambria plans to operate the remediation system through the fourth quarter, 2000. System operation and maintenance data will be collected in accordance with the system's sewer and air permits. Preparation of a Quarterly System Progress Report will be initiated.

ATTACHMENTS:

Figure 1- Groundwater Elevation Contours
Table 1 - Groundwater Elevation and Analytical Data
Appendix A - Field Data Sheets
Appendix B - Laboratory Analytical Report



EXPLANATION

- MW-1 — Monitoring well location
- B-1 — Soil boring location
- RW-6 — Remediation well location
- XX.XX — Groundwater elevation contour, in feet above mean sea level (msl), dashed where inferred
- Groundwater flow direction and gradient
- Well designation
  - ELEV — Groundwater elevation (msl)
  - TPHg / Benzene / MTBE / TPHd — Hydrocarbon concentrations in groundwater, in ug/l

FIGURE **1**

H:\SS-2001\OAK-002\FIGURES\3QM00-MP.DWG

Former Exxon Station
3055 35th Avenue
Oakland, California

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Groundwater Elevation Contour Map
September 7, 2000

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Table 1. Groundwater Elevation 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)
					<---------- Concentrations in parts per billion (µg/L) ---------->								
MW-1	05/25/94	16.79	Sheen	84.06	120,000	25,000	<50,000	22,000	17,000	2,800	16,000	---	---
100.85	07/19/94	20.77	---	80.08	---	---	---	---	---	---	---	---	---
	08/18/94	21.04	Sheen	79.81	925,000	---	---	16,500	6,200	1,000	9,400	---	---
	11/11/94	15.80	---	85.05	57,000	---	---	14,000	4,400	1,400	6,400	---	---
	02/27/95	15.53	---	85.32	45,000	---	---	2,900	2,500	760	4,100	---	---
	05/23/95	15.29	---	85.56	22,000	---	---	9,900	990	790	2,000	---	---
	08/22/95	20.90	---	79.95	23,000	---	---	6,900	340	1,200	1,900	---	---
	11/29/95	22.19	---	78.66	37,000	---	---	9,900	530	1,600	2,900	---	---
	02/21/96	11.69	---	89.16	33,000	4,300	---	10,000	480	1,000	1,800	3,300	---
	05/21/96	14.62	---	86.23	36,000	8,500	---	8,500	1,400	1,300	2,800	1,900	---
	08/22/96	22.30	---	78.55	41,000	6,200	---	8,600	1,300	1,500	2,900	<200	8.0
	11/27/96	17.24	Sheen	83.61	38,000	6,100	---	9,600	950	1,600	3,100	<400	5.6
	03/20/97	16.65	---	84.20	33,000	10,000	---	6,100	560	970	2,200	<400	8.5
	06/25/97	19.77	---	81.08	31,000	7,400[a]	---	7,400	440	890	1,800	<400	3.7
	09/17/97	20.12	---	80.73	32,000[d]	3,500[e]	---	9,100	550	1,000	2,000	<1,000	2.1
	12/22/97	12.95	---	87.90	26,000[d]	5,800[e]	---	7,900	370	920	1,500	<790	0.7
	03/18/98	12.34	Sheen	88.51	30,000[d]	4,200[e,f]	---	7,800	820	840	2,000	<1,100	1.3
	07/14/98	17.34	---	83.51	41,000[d]	8,900[e,f]	---	8,200	1,100	1,200	3,000	<200	1.8
	09/30/98	19.90	---	80.95	37,000	3,300	---	11,000	950	1,200	2,800	<20	2.0
	12/08/98	15.62	---	85.23	22,000	3,700	---	3,000	1,200	730	3,100	<900	---
	03/29/99	11.98	---	88.87	36,000[d]	6,800[e]	---	12,000	750	1,300	2,400	950	0.50
	06/29/99	20.77	---	80.08	28,000[d]	3,500[e]	---	7,300	420	810	1,700	<1,300	0.10
	09/28/99	19.68	---	81.17	13,000[d]	3,600[e,f]	---	3,200	130	320	1,100	<210	0.55
	12/10/99	17.02	---	83.83	25,000[d]	2,900[e,f]	---	5,400	130	620	1,400	<1,000	1.03
	03/23/00	12.76	---	88.09	21,000[d]	3,300[f]	---	4,700	140	470	1,100	<350	---
	09/07/00	**19.45**	? ---	**81.40**	**40,000[d,g]**	**12,000[e,g]**	**---**	**3,700**	**1,400**	**910**	**4,900**	**<50**	**0.17**
MW-2	05/25/94	15.65	---	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	---	---
100.00	07/19/94	19.81	---	80.19	---	---	---	---	---	---	---	---	---
	08/18/94	20.37	---	79.63	88,000	---	---	10,750	10,500	1,850	9,600	---	---

Sampling sheet says SPH observed.

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Table 1. Groundwater Elevation 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)
					<---------- Concentrations in parts per billion (µg/L) ---------->								
MW3	08/22/95	17.10	---	79.77	74,000	---	---	14,000	13,000	1,900	11,000	---	---
	11/29/95	16.34	---	80.53	220,000	---	---	25,000	25,000	3,500	19,000	---	---
	02/21/96	7.92	---	88.95	60,000	---	---	10,000	7,800	1,500	8,800	3,400	---
	05/21/96	10.86	Sheen	86.01	69,000	13,000	---	17,000	9,400	1,700	9,400	2,600	---
	08/22/96	16.50	---	80.37	94,000	16,000	---	17,000	15,000	2,100	12,000	330	2.0
	11/27/96	13.47	Sheen	83.40	82,000	24,000	---	14,000	13,000	2,400	13,000	<1,000	2.4
	03/20/97	12.86	---	84.01	56,000	11,000	---	9,900	6,900	1,300	8,000	3,500	9.0
	06/25/97	15.98	---	80.89	49,000	7,700[b]	---	9,700	7,100	1,300	7,000	220	5.8
	09/17/97	16.34	Sheen	80.53	78,000[d]	15,000[e]	---	11,000	9,900	1,800	10,000	<1,200	0.7
	12/22/97	10.71	Sheen	86.16	49,000[d]	14,000[e]	---	7,300	5,300	1,400	7,500	<1,100	3.1
	03/18/98	8.41	Sheen	88.46	120,000[d]	20,000[e,f]	---	21,000	19,000	2,600	15,000	<1,600	1.6
	07/14/98	13.51	---	83.36	94,000[d,g]	65,000[e,f,g]	---	18,000	14,000	1,900	11,000	<1,400	1.8
	09/30/98	16.14	---	80.73	91,000	9,800	---	17,000	13,000	2,100	12,000	<1300	2.0
	12/08/98	11.20	---	85.67	51,000	4,200	---	8,000	6,800	1,400	7,500	<1,100	---
	03/29/99	7.95	---	88.92	39,000[d]	4,600[e]	---	8,900	4,400	940	4,500	810	0.56
	06/29/99	16.98	---	79.89	71,000[d]	6,900[e]	---	12,000	7,300	1,400	8,400	<1,700	0.19
	09/28/99	15.99	---	80.88	60,000[d]	7,800[e]	---	9,400	9,200	1,000	9,900	200	0.53
	12/10/99	13.31	---	83.56	53,000[d]	5,300[e,f]	---	8,000	6,400	1,100	8,100	<200	0.48
	03/23/00	8.98	---	87.89	77,000[d,g]	11,000[g,j]	---	10,000	9,400	1,600	11,000	<430	---
	09/07/00	**15.61**	**---**	**81.26**	**100,000[d,g]**	**19,000[e,f,g]**	**---**	**17,000**	**12,000**	**1,600**	**11,000**	**<500**	---
MW-4	03/20/97	13.75	---	83.59	47,000	3,100	---	11,000	4,500	1,100	5,200	3,400	8.4
97.34	06/25/97	16.15	---	81.19	61,000	5,800[b]	---	16,000	6,100	1,500	5,900	780[c]	1.4
	09/17/97	17.10	---	80.24	60,000[d]	4,400[e]	---	17,000	4,900	1,500	5,700	<1,500	1.5
	12/22/97	9.21	---	88.13	43,000[d]	3,100[e]	---	13,000	3,900	1,100	4,200	<960	3.7
	03/18/98	9.54	---	87.80	58,000[d]	5,500[e,f]	---	14,000	4,700	1,400	5,700	<1,200	0.8
	07/14/98	14.15	---	83.19	73,000[d]	2,900[e,f]	---	22,000	7,000	1,800	7,300	<200	1.0
	09/30/98	16.84	---	80.50	39,000	2,100	---	12,000	2,700	1,000	3,400	510	1.1
	12/08/98	13.45	---	83.89	27,000	1,600	---	8,900	1,600	730	2,300	<1,500	---
	03/29/99	9.10	---	88.24	48,000[d]	2,400[e,f,h]	---	15,000	3,000	1,300	5,000	1,300	1.32

Table 1. Groundwater Elevation 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)
					<---------- Concentrations in parts per billion (µg/L) ---------->								
	11/11/94	15.52	---	84.48	54,000	---	---	5,900	6,700	1,300	7,500	---	---
	02/27/95	14.46	Sheen	85.54	44,000	---	---	5,100	5,300	930	6,400	---	---
	05/23/95	14.17	---	85.83	33,000	---	---	8,200	5,600	900	6,600	---	---
	08/22/95	19.80	---	80.20	38,000	---	---	6,400	5,000	1,100	5,600	---	---
	11/29/95	21.05	---	78.95	46,000	---	---	7,100	5,300	1,300	6,000	---	---
	02/21/96	10.53	---	89.47	59,000	---	---	8,000	6,000	1,800	8,900	4,500	---
	05/21/96	13.47	---	86.53	51,000	3,400	---	8,200	5,200	1,300	6,600	2,400	---
	08/22/96	19.12	---	80.88	37,000	5,700	---	5,100	3,500	960	4,500	<200	3.0
	11/27/96	16.61	Sheen	83.39	54,000	10,000	---	9,800	7,000	1,800	7,900	<2,000	3.1
	03/20/97	15.39	---	84.61	27,000	6,100	---	3,700	2,300	580	2,800	<400	8.1
	06/25/97	18.62	---	81.38	42,000	7,800[b]	---	7,400	3,800	1,200	5,700	<200	0.9
	09/17/97	19.05	Sheen	80.95	41,000[d]	8,900[e]	---	5,200	3,400	1,300	5,900	<700	1.2
	12/22/97	14.09	---	85.91	47,000[d]	6,100[e]	---	8,500	4,600	1,800	8,400	<1,200	1.2
	03/18/98	10.83	Sheen	89.17	58,000[d]	7,000[e,f]	---	9,300	6,100	1,800	8,200	<1,100	1.1
	07/14/98	16.07	---	83.93	42,000[d]	5,300[e,f]	---	6,000	3,000	1,000	4,800	<200	1.5
	09/30/98	18.71	---	81.29	22,000	2,400	---	3,600	1,300	720	3,200	<30	1.8
	12/08/98	14.80	---	85.20	32,000	3,100	---	9,200	680	1,100	2,300	<2,000	---
	03/29/99	11.81	---	88.19	28,000[d]	7,500[e,f]	---	4,400	1,600	950	4,100	410	1.86
	06/29/99	19.54	---	80.46	28,000[d]	3,300[e]	---	3,500	1,100	690	3,100	<1,000	0.41
	09/28/99	18.61	---	81.39	15,000[d]	3,400[e,f]	---	1,200	540	230	2,300	<36	1.18
	12/10/99	16.53	---	83.47	17,000[d]	2,500[e,f]	---	1,300	780	420	2,700	<40	0.17
	03/23/00	13.56	---	86.44	25,000[d]	3,100[i]	---	1,900	1,100	660	3,700	<500	---
	09/07/00	**18.25**	**---**	**81.75**	**62,000[d,g]**	**32,000[e,g]**	**---**	**5,300**	**2,300**	**1,500**	**8,400**	**<100**	**0.39**
MW-3	05/25/94	13.93	Sheen	82.94	56,000	14,000	<50,000	14,000	14,000	1,300	11,000	---	---
96.87	07/19/94	17.04	---	79.83	---	---	---	---	---	---	---	---	---
	08/18/94	17.75	---	79.12	116,000	---	---	28,300	26,000	2,400	15,000	---	---
	11/11/94	17.80	---	79.07	89,000	---	---	1,600	1,900	1,900	14,000	---	---
	02/27/95	11.86	Sheen	85.01	250,000	---	---	22,000	26,000	7,800	21,000	---	---
	05/23/95	11.60	Sheen	85.27	310,000	---	---	18,000	17,000	4,500	2,800	---	---

Sampling sheet reports SPH.

Table 1. Groundwater Elevation 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)
					<---------- Concentrations in parts per billion (µg/L) ---------->								
MW-4	06/29/99*	---	---	---	---	---	---	---	---	---	---	---	---
	09/28/99	16.58	---	80.76	24,000[d]	3,200[e,f]	---	7,500	1,200	190	2,200	210	14.29[#]
	12/10/99	13.99	---	83.35	47,000[d]	3,100[e,f]	---	12,000	1,800	1,000	4,400	<100	0.62
	03/23/00	10.22	---	87.12	40,000[d]	3,100[e,f]	---	11,000	1,600	910	3,100	690	---
	09/07/00	**16.40**	**---**	**80.94**	**43,000[d]**	**5,900[e]**	**---**	**10,000**	**1,100**	**1,100**	**3,400**	**<450**	**1.04**
Trip Blank	07/14/98	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---
	09/30/98	---	---	---	<50	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	---
	12/08/98	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---
	03/29/99	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---
	06/29/99	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---
	03/23/00	---	---	---	<50	---	---	<0.5	<0.5	<0.5	<0.5	<5.0	---
	09/07/00	**---**	**---**	**---**	**<50**	**---**	**---**	**<0.5**	**1.1**	**<0.5**	**1.1**	**<5.0**	**---**

Abbreviations:

TOC = Top of casing elevation relative to an aribitrary 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

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

APPENDIX A

Field Data Sheets

CAMBRIA

WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-1	7859		19.45		27.20	
MW-2	1:56		18.25		27.35	
MW-3	1:53		15.61		24.95	
MW-4	"		16.40		30.11	

Project Name: Worthington

Project Number: _____

Measured By: S Gill

Date: 09.07.00

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WELL SAMPLING FORM

Project Name: ~~Barsun~~ wathirsto	Cambria Mgr: RAS	Well ID: MW- 1
Project Number: ~~180-0214~~	Date: 09-07-00	Well Yield: --------
Site Address: 1~~432 Harrison~~ St O~~akland, CA~~	Sampling Method: **Disposable bailer**	Well Diameter: " pvc 4 Technician(s):
Initial Depth to Water: 19.45 (81.59)	Total Well Depth: 27.20	Water Column Height: 7.75
Volume/ft: 0.65	1 Casing Volume: 5.0	3 Casing Volumes: 15.0
Purging Device: **disposable bailer**	Did Well Dewater?: yes	Total Gallons Purged: 5
Start Purge Time: 3:23	Stop Purge Time: 3:25	Total Time: 3 mins

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
3:25	5	24.1	7.17	1394	
		well dewatered			
		SPH noticed when			DO = 0.39
	DTW = 23.15			bailed for a	
	DTP = 23.17			Sample	Sample was taken

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 1	09-07-00	3:57	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE* Confirm MTBE**	**8020 8015 8260**
			1 Amber			

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NSM 5/31/94

CAMBRIA

WELL SAMPLING FORM

Project Name: ~~Mosuk~~ worthington	Cambria Mgr: **RAS**	Well ID: **MW-** 2
Project Number: ~~180-0214~~	Date: 09-07-00	Well Yield: --------
Site Address: ~~1432 Harrison St Oakland, CA.~~	Sampling Method: **Disposable bailer**	Well Diameter: **" pvc** 4
		Technician(s):
Initial Depth to Water: 18.25 81.56	Total Well Depth: 27.35	Water Column Height: 9.10
Volume/ft: 0.65	1 Casing Volume: 5.91	3 Casing Volumes: 17.7
Purging Device: **disposable bailer**	Did Well Dewater?: yes	Total Gallons Purged: 7
Start Purge Time: 3:00	Stop Purge Time: 3:09	Total Time: 9 mins

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
3:02	5	25.1	6.80	1236	Strong odor
nr	nr				
					DO = 0.17
DTW = 20.37					
DTP = 20.39					

well dewatered when waiting for a sample SPH was noticed

globule of SPH

visual inspection bailer covered with SPH (yellow color)

Fizzing when sample was taken

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 2	09-07-00	3:45	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE* Confirm MTBE**	**8020 8015 8260**
			1	Amber		

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NSM 5/31/94

CAMBRIA

WELL SAMPLING FORM

Project Name: Bottom Washington	Cambria Mgr: RAS	Well ID: MW- 3
Project Number: [illegible]	Date: 09.07.00	Well Yield: --------
Site Address: 1432 Harrison St Oakland, CA.	Sampling Method: Disposable bailer	Well Diameter: " pvc 2
		Technician(s):
Initial Depth to Water: 15.61 (81:53)	Total Well Depth: 24.95	Water Column Height: 9.34
Volume/ft: 0.16	1 Casing Volume: 1.49	3 Casing Volumes: 4.48
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 5
Start Purge Time: 2:35	Stop Purge Time: 2:38	Total Time: 3 mins

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
2:36	2.5	[illegible]	7.19	1269	
2:37	3.5	[illegible]	7.53	1265	
2:39	5	[illegible]	7.49	1261	
					DO = ppm

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 3	09.07.00	2:43	4 voa's	HCL	TPHg, BTEX, MTBE* Confirm MTBE	8020 8015 8260
				[illegible]		

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NSM 5/31/94

CAMBRIA

WELL SAMPLING FORM

Project Name: ~~Horsak~~ Worthington	Cambria Mgr: **RAS**	Well ID: MW- 4
Project Number: ~~98037~~ 0037	Date: 09-07-00	Well Yield: --------
Site Address: **1432 Harrison St Oakland, CA.**	Sampling Method: **Disposable bailer**	Well Diameter: " **pvc** 2
		Technician(s):
Initial Depth to Water: 16.40 @1:50	Total Well Depth: 30.11	Water Column Height: 13.71
Volume/ft: 0.16	1 Casing Volume: 2.19	3 Casing Volumes: 6.57
Purging Device: **disposable bailer**	Did Well Dewater?: no	Total Gallons Purged: 7
Start Purge Time: 2:16	Stop Purge Time: 2:20	Total Time: 4

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
2:17	2	26.1	7.43	1038	
2:18	4	24.9	7.16	1003	
2:21	7	23.0	7.03	1018	
					DO = 1.04 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 4	09-07-00	2:26	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE* Confirm MTBE**	**8020 8015 8260**
			1	Amber		

APPENDIX B

Laboratory Analytical Report

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 Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #130-0105; Worthington	Date Sampled: 09/07/2000
		Date Received: 09/11/2000
	Client Contact: Cathy Bell	Date Extracted: 09/11/2000
	Client P.O:	Date Analyzed: 09/11/2000

09/18/2000

Dear Cathy:

Enclosed are:

1). the results of **5** 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,

Edward Hamilton, Lab Director

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 Environmental Technology	Client Project ID: #130-0105; Worthington	Date Sampled: 09/07/2000
1144 65th Street, Suite C		Date Received: 09/11/2000
Oakland, CA 94608	Client Contact: Cathy Bell	Date Extracted: 09/12-09/15/2000
	Client P.O:	Date Analyzed: 09/12-09/15/2000

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
47171	MW-1	W	40,000,a,h	ND<50	3700	1400	910	4900	107
47172	MW-2	W	62,000,a,h	ND<100	5300	2300	1500	8400	104
47173	MW-3	W	100,000,a,h	ND<500	17,000	12,000	1600	11,000	100
47174	MW-4	W	43,000,a	ND<450	10,000	1100	1100	3400	98
47175	TB	W	ND	ND	ND	1.1	ND	1.1	115
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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

Cambria Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #130-0105; Worthington	Date Sampled: 09/07/2000
		Date Received: 09/11/2000
	Client Contact: Cathy Bell	Date Extracted: 09/12-09/13/2000
	Client P.O:	Date Analyzed: 09/12-09/13/2000

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

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
47171	MW-1	W	12,000,d,h	105
47172	MW-2	W	32,000,d,h	113
47173	MW-3	W	19,000,d,b,h	107
47174	MW-4	W	5900,d	111
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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

QC REPORT

Date: 09/12/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 40793				Instrument: GC-3			
Surrogate1	0.000	98.0	100.0	100.00	98	100	2.0
Xylenes	0.000	281.0	281.0	300.00	94	94	0.0
Ethyl Benzene	0.000	94.0	94.0	100.00	94	94	0.0
Toluene	0.000	96.0	98.0	100.00	96	98	2.1
Benzene	0.000	100.0	102.0	100.00	100	102	2.0
MTBE	0.000	102.0	105.0	100.00	102	105	2.9
GAS	0.000	838.8	825.9	1000.00	84	83	1.6
SampleID: 9800				Instrument: GC-2 A			
Surrogate1	0.000	110.0	105.0	100.00	110	105	4.7
TPH (diesel)	0.000	331.0	296.0	300.00	110	99	11.2
SampleID: 91200				Instrument: IR-1			
TRPH	0.000	27.8	28.7	23.70	117	121	3.2

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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McCAMPBELL ANALYTICAL INC.

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

CHAIN OF CUSTODY RECORD

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

Report To: Cathy Bell Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608

Tele: (510) 420-0700 Fax: (510) 420-9170

Project #: 130-0105 Project Name: Worthington

Project Location: 3055, 35th St. Oakland, Ca

Sampler Signature: S. Bell

SAMPLE ID	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
MW-1	—	09-07-00	357	5	VOAs, Vials	X								
MW-2	—	"	345	"	"	"								
MW-3	—	"	243	"	"	"								
MW-4	—	"	226	*	*	"								
TB	—	"		2	VOAs	"								

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

Other | Comments

47171 (+)
47172 (+)
47173 (+)
47174 +
47175 ✓

Relinquished By:	Date:	Time:	Received By:
S. Bell	9/11	1105	
	9/11	1143	

Remarks:

VOAS | O&G | METALS | OTHER

ICE/N ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

(9)