

C A M B R I A

December 29, 2004

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

RECEIVED

1:53 pm, May 06, 2008

Alameda County
Environmental Health

Re: **Groundwater Monitoring Report – Fourth Quarter 2004**
1137-1167 65th Street
Oakland, California
Case No. RO0000082

Dear Mr. Chan:



On behalf of Mr. John Nady, Cambria Environmental Technology, Inc. is submitting the *Groundwater Monitoring Report – Fourth Quarter 2004*. Presented in this report is a summary of the field activities and a presentation of the results for the fourth quarter 2004 groundwater monitoring event.

If you have any questions, please feel free to call me at (510) 420-3338.

Sincerely,
Cambria Environmental Technology, Inc.

Jason D. Olson, E.I.T.
Project Manager

Attachment: *Groundwater Monitoring Report – Fourth Quarter 2004*

cc: Mr. Frederic Schrag, 6701 Shellmound Street, Emeryville, California 94608

**Cambria
Environmental
Technology, Inc.**

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GROUNDWATER MONITORING REPORT – FOURTH QUARTER 2004

1137-1167 65th Street
Oakland, California 94608
Case No.: RO0000082

December 29, 2004

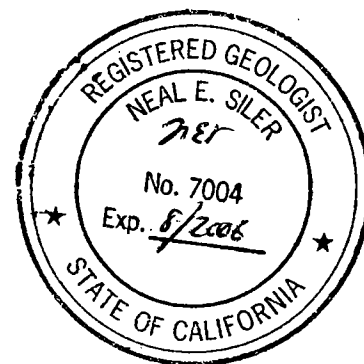


Prepared for Submittal to:

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

Prepared by:

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
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Senior Project Geologist

GROUNDWATER MONITORING REPORT – FOURTH QUARTER 2004

1137-1167 65th Street
Oakland, California 94608
Case No.: RO0000082

DECEMBER 29, 2004



INTRODUCTION

This report describes the fourth quarter 2004 groundwater monitoring activities performed at 1137-1167 65th Street, Oakland, California (Figure 1). This groundwater monitoring event was conducted at the direction of the Alameda County Health Care Services Agency, Environmental Health Division (ACHCSA). This report presents a summary of the monitoring activities and results for the fourth quarter 2004. In addition, this report contains recommendations for investigative activities for the first quarter 2005.

MONITORING ACTIVITIES

On November 23, 2004, Cambria conducted quarterly groundwater monitoring activities at the site. Cambria measured groundwater levels and collected groundwater samples from monitoring wells MW-1A through MW-4A, MW-6A, MW-1B, MW-4B, MW-5B, MW-6B, MW-1C, MW-4C, and MW-6C (Figure 2). Well MW-7A was inaccessible during fourth quarter 2004 groundwater monitoring activities. Copies of the field data sheets are included as Appendix A.

Water Level Measurements: Depth to groundwater measurements were recorded to the nearest 0.01-foot, relative to a previously established reference elevation. Measurements were collected using an electric, conductance-actuated well sounder. The groundwater level measurement data are summarized in Table 1.

Groundwater Sampling: Cambria collected groundwater samples from wells MW-1A through MW-4A, MW-6A, MW-1B, MW-4B, MW-5B, MW-6B, MW-1C, MW-4C, and MW-6C. Field activities associated with the sampling event included well purging, field water quality measurements, sample collection, and equipment decontamination.

Prior to sampling, the wells were purged to remove standing water in the well casings and promote the inflow of representative groundwater from the surrounding formation. The wells were purged by repeated bailing using a disposable Teflon™ bailer. Field measurements of the pH, specific conductance, and temperature of the purged groundwater were measured initially and after the extraction of each successive casing volume or at regular volume intervals. Casing volumes were calculated based on the well diameter and the height of the water column in the well casing. Typically, well purging continued consecutive pH, specific conductance, and temperature measurements were within 10 percent. Field water quality measurements, purge volumes and sample collection data were recorded on field sampling data forms (Appendix A).




Groundwater samples were collected from each of the wells using disposable bailers. The samples were decanted from the bailers into 40-ml glass containers supplied by McCampbell Analytical, Inc. (McCampbell) of Pacheco, California. Immediately after collection, the sample containers were labeled and placed on ice in a cooler. Chain-of-custody procedures were followed at all times from sample collection to transfer to McCampbell (Appendix B).

To minimize the potential for cross-contamination, the groundwater monitoring equipment was decontaminated prior to being deployed in the first monitoring well and between successive wells. The probe of the electric well sounder used for water level measurements was rinsed thoroughly with distilled water prior to first use and between subsequent water level measurements. The disposable bailers were discarded after use at each well.

Groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as motor oil (TPHmo), and total petroleum hydrocarbons as stoddard solvent (TPHss) by modified United States Environmental Protection Agency (EPA) Method 8015C, aromatic hydrocarbon compounds (benzene, toluene, ethylbenzene, xylenes [BTEX]) and methyl tertiary-butyl ether (MTBE) by EPA Method 8021B, and volatile organic compounds (VOCs) by EPA Method 8260B. Samples marked for TPHd and TPHmo analysis were subjected to silica gel cleanup prior to analysis. Laboratory analytical reports are included in Appendix B. Analytical results are summarized on Figures 2, 3, and 4 and in Tables 1 and 2.

RESULTS



Groundwater Flow Direction and Gradient: Depth-to-water measurements collected on November 23, 2004 ranged from 1.58 to 13.26 feet below top of casing. Groundwater elevations were calculated by subtracting the depth to water measurements from the surveyed top of casing elevations. The groundwater elevations for A, B, and C-zone aquifers were each plotted on a site plan and contoured. The groundwater in the A-zone flowed towards the southwest with a gradient of approximately 0.038 feet per foot (ft/ft) (Figure 2). The groundwater in the B-zone flowed towards the southeast with a gradient of approximately 0.031 ft/ft (Figure 3). The groundwater in the C-zone aquifer flowed towards the southwest with a gradient of approximately 0.019 ft/ft (Figure 4). These groundwater flow directions and gradients are consistent with previous investigation results. Depth-to-water and groundwater elevation data for the site are summarized in Table 1.

Chemicals Detected in the A-Zone Aquifer: Petroleum hydrocarbons were detected in the A-zone aquifer monitoring wells MW-1A, MW-3A, MW-4A, and MW-6A. Maximum TPHd, TPHg, and TPHss concentrations were detected in well MW-3A at 22,000 micrograms per liter ($\mu\text{g/L}$), 3,800 $\mu\text{g/L}$ and 5,700 $\mu\text{g/L}$, respectively. Benzene, ethylbenzene and MTBE were only detected in monitoring well MW-1A at concentrations of 0.64 $\mu\text{g/L}$, 2.5 $\mu\text{g/L}$, and 6.8 $\mu\text{g/L}$, respectively. Xylenes were detected in monitoring wells MW-1A and MW-6A at concentrations of 9.7 $\mu\text{g/L}$ and 3.0 $\mu\text{g/L}$, respectively. VOCs were detected in the A-zone aquifer in monitoring wells MW-1A and MW-4A. Tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride were detected in monitoring well MW-1A at concentrations of 38 $\mu\text{g/L}$, 11 $\mu\text{g/L}$, 51 $\mu\text{g/L}$, and 9.5 $\mu\text{g/L}$, respectively. PCE was detected in monitoring well MW-4A at a concentration of 1.9 $\mu\text{g/L}$. Groundwater analytical data is summarized in Tables 1 and 2 and presented on Figure 2.

Chemicals Detected in the B-Zone Aquifer: TPHd, TPHg, and TPHss were only detected in well MW-6B at concentrations of 280 $\mu\text{g/L}$, 500 $\mu\text{g/L}$, and 700 $\mu\text{g/L}$, respectively. Xylenes were detected in monitoring well MW-6B (1.6 $\mu\text{g/L}$) and were the only aromatic hydrocarbon compounds detected in the B-zone aquifer. VOCs were detected in B-zone aquifer monitoring wells MW-1B and MW-6B. The maximum concentration of cis-1,2-DCE (2.5 $\mu\text{g/L}$) was detected in well MW-1B. Chloroform, cis-1,2-DCE, 1,1-dichloroethane (1,1-DCA), and 1,2-dichloroethane (1,2-DCA) were also detected in well MW-1B at concentrations of 6.2 $\mu\text{g/L}$, 2.5 $\mu\text{g/L}$, 8.4 $\mu\text{g/L}$, and 8.8 $\mu\text{g/L}$, respectively. 1,1-DCA was detected in well MW-6B at a concentration of 0.89 $\mu\text{g/L}$. Groundwater analytical data is summarized in Tables 1 and 2 and presented on Figure 3.

Chemicals Detected in the C-Zone Aquifer: Chloroform was the only VOC detected in the C-zone aquifer monitoring wells at a concentration of 0.56 µg/L (MW-1C). No petroleum hydrocarbons, BTEX, or MTBE were detected at or above laboratory reporting limits in any of the C-zone aquifer monitoring wells. Groundwater analytical data is summarized in Tables 1 and 2 and presented on Figure 4.

RECOMMENDED FIRST QUARTER 2005 ACTIVITIES

Cambria makes the following recommendations:

- Conduct a quarterly groundwater monitoring event during the first quarter 2005. A report detailing the activities and findings of the first quarter 2005 event should be submitted to ACHCSA by April 30, 2005.
- Pending State Water Resources Control Board approval, subsequent groundwater analytical and well gauging data should be uploaded to GeoTracker in compliance with California State Assembly Bill 592.

ATTACHMENTS

Figure 1 – Site Vicinity Map

Figure 2 – Groundwater Flow and Chemical Concentrations – A Zone

Figure 3 – Groundwater Flow and Chemical Concentrations – B Zone

Figure 4 – Groundwater Flow and Chemical Concentrations – C Zone

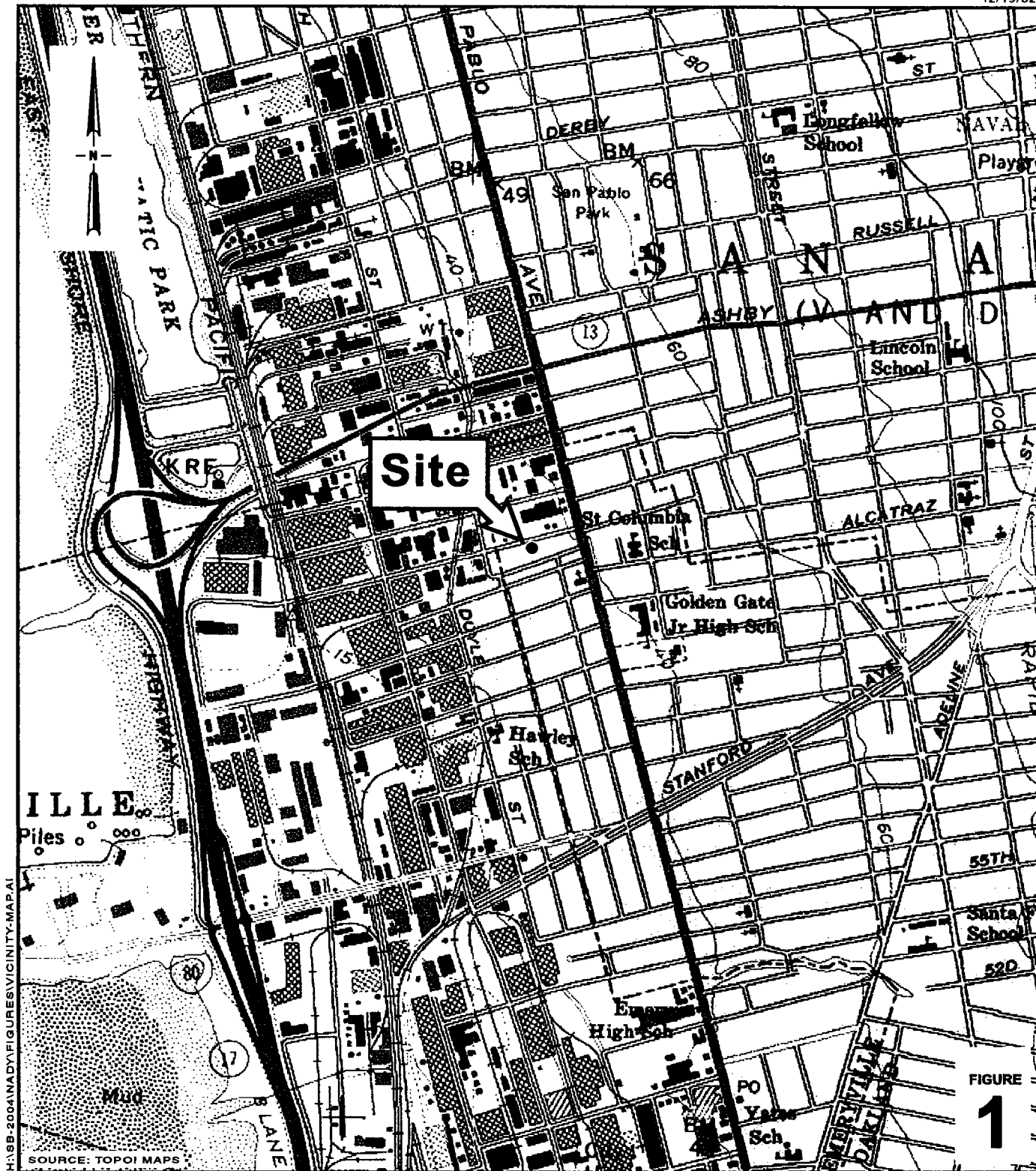
Table 1 – Groundwater Analytical and Elevation Data: Petroleum Hydrocarbons

Table 2 – Groundwater Analytical and Elevation Data: Halogenated Volatile Organic
Compounds

Appendix A –Field Data Sheets

Appendix B – Laboratory Analytical Reports

FIGURES



H:\SB-2004\NAD\FIGURES\VICINITY-MAP.A1

SOURCE: TOPOI MAPS

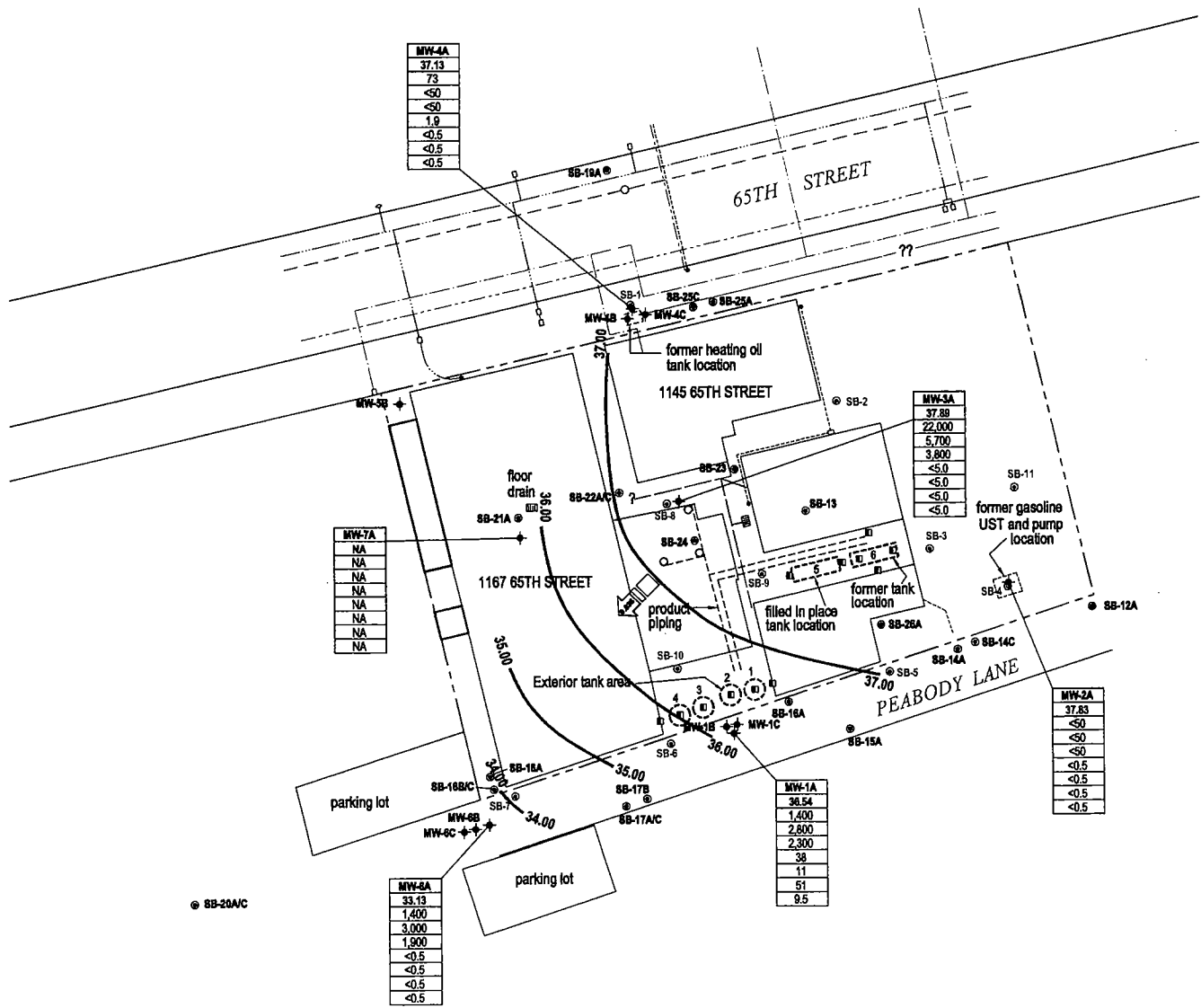
0 1/8 1/4 1/2 1
SCALE : 1" = 1/4 MILE



Vicinity Map

1137 - 1167 65th Street
Oakland, California

C A M B R I A



MW-4A
37.13
73
<5.0
<5.0
1.9
<0.5
<0.5
<0.5

MW-5A
37.88
22,000
5,700
3,800
<5.0
<5.0
<5.0

MW-7A
NA
NA
NA
NA
NA
NA
NA
NA
NA

MW-1A
36.54
1,400
2,800
2,300
38
11
51
9.5

MW-8A
33.13
1,400
3,000
1,900
<0.5
<0.5
<0.5
<0.5

MW-2A
37.83
<5.0
<5.0
<5.0
<0.5
<0.5
<0.5

EXPLANATION

- MW-1A + Monitoring well location
- SB-12 ● Soil boring location
- SB-1 ⊙ Cambria soil boring/temporary well location
- SCI soil sample location
- 1 ⊙ Former tank location and tank nomenclature
- - - Product piping
- Product piping stub-ups
- Electrical line
- - - Storm drain
- - - Sanitary sewer line
- - - Water line
- - - Gas line
- - - Communications line
- 35.00 — Groundwater elevation contour line in feet above mean sea level (MSL)
- ← Groundwater flow direction and gradient
- NA Not Available

Well ID
ELEV.
TPHd
TPHs
TPHt
PCE
TCE
chl-1,2,0,0
Vinyl Chloride

Monitoring Well Designation

Groundwater elevation in feet above mean sea level (MSL)

Concentrations in groundwater in parts per billion

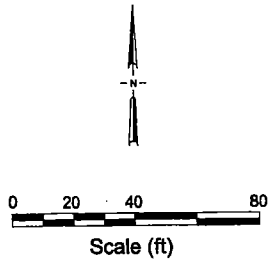
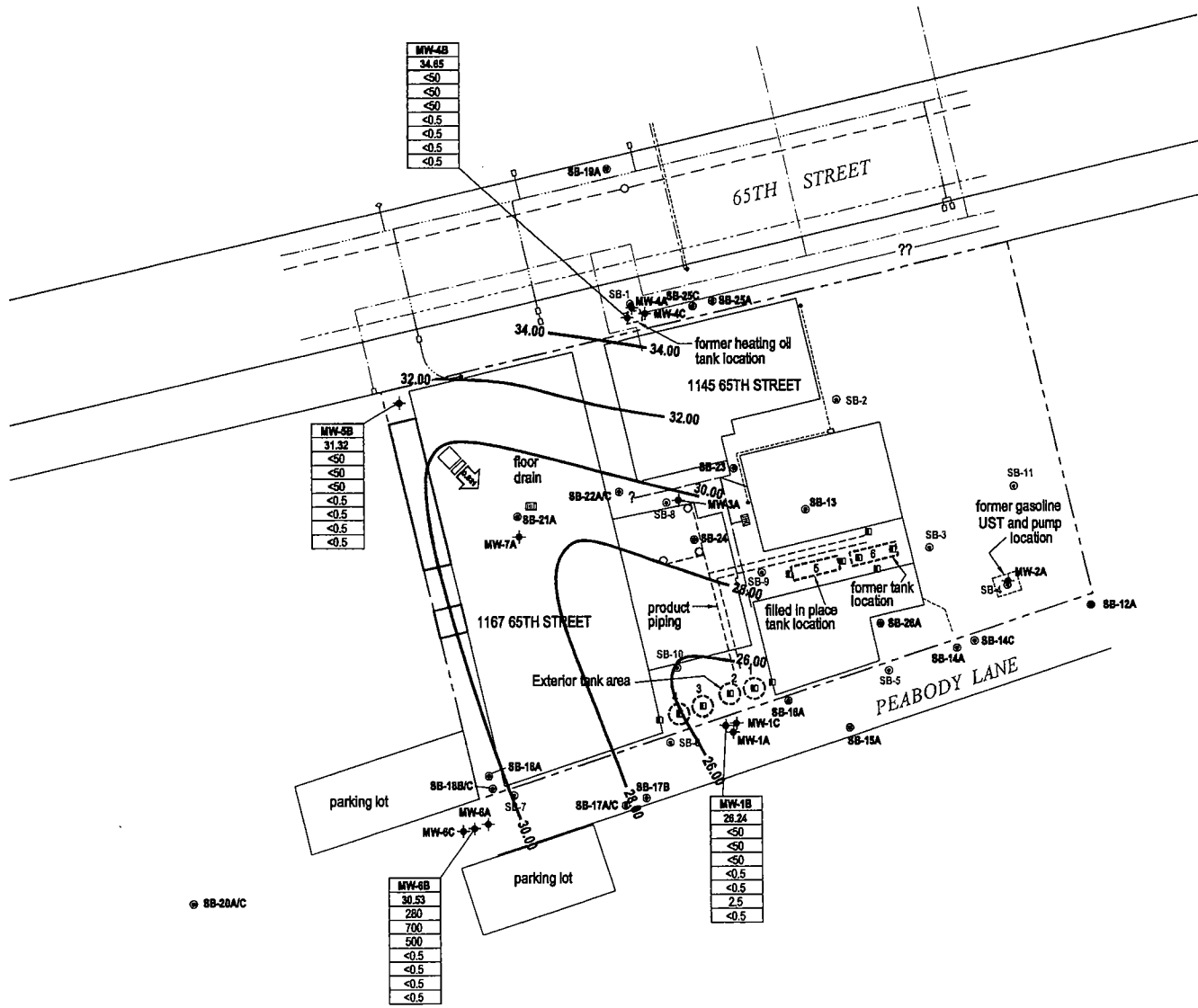


FIGURE
2



EXPLANATION

- MW-1A + Monitoring well location
- SB-12 ● Soil boring location
- SB-1 ⊙ Cambria soil boring/temporary well location
- SCI soil sample location
- 1 ○ Former tank location and tank nomenclature
- - - Product piping
- Product piping stub-ups
- - - Electrical line
- - - Storm drain
- - - Sanitary sewer line
- - - Water line
- - - Gas line
- - - Communications line
- 30.00 — Groundwater elevation contour line in feet above mean sea level (MSL)
- ← [arrow] Groundwater flow direction and gradient

Well ID
ELEV.
TPHd
TPHs
TPHg
PCE
TCE
de-1,2-DCE
Vinyl Chloride

Monitoring Well Designation

Groundwater elevation in feet above mean sea level (MSL)

Concentrations in groundwater in parts per billion

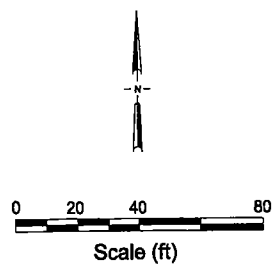
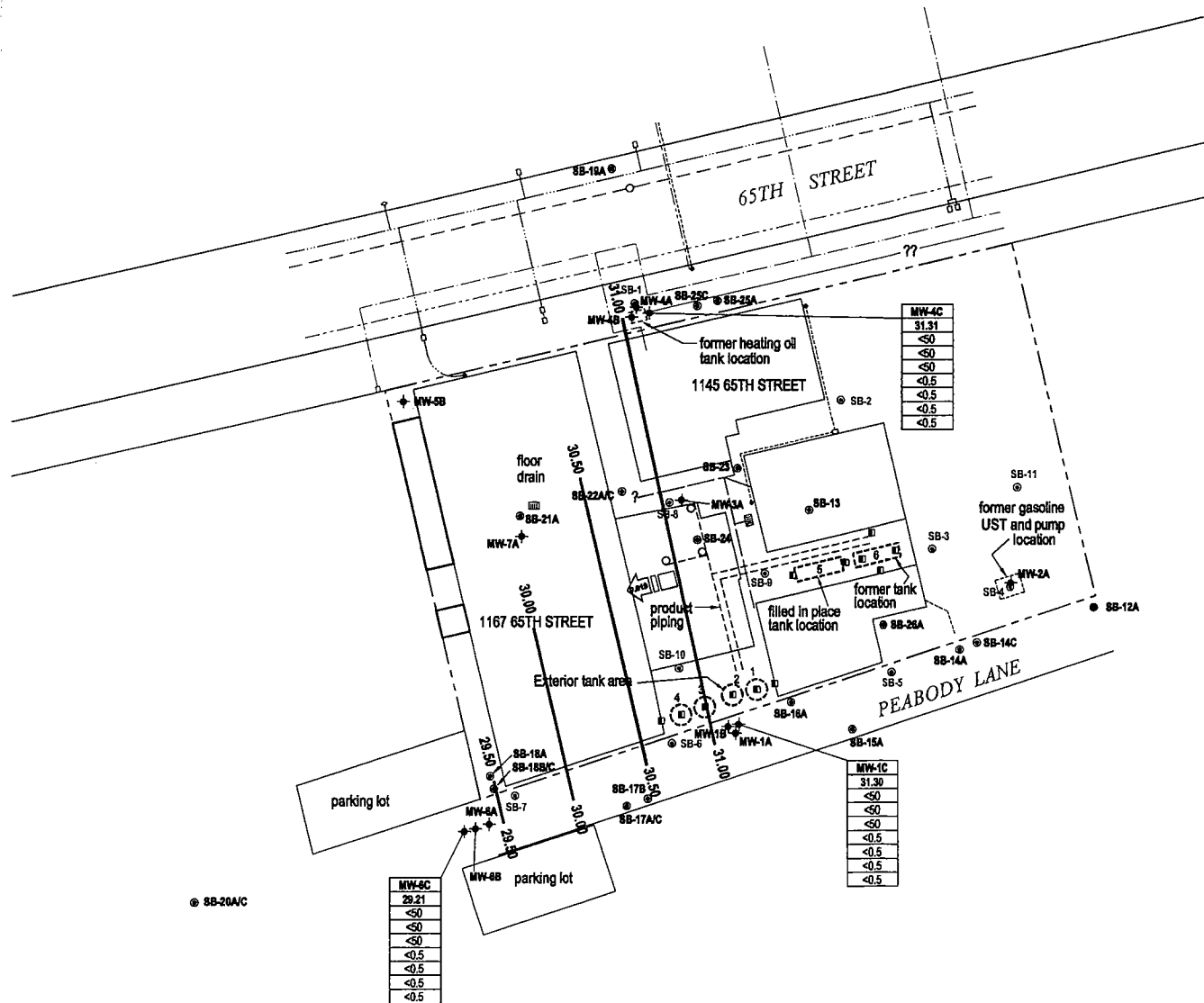


FIGURE
3



EXPLANATION

- MW-1A + Monitoring well location
- SB-12 ● Soil boring location
- SB-1 ⊙ Cambria soil boring/temporary well location
- SCI soil sample location
- 1 ○ Former tank location and tank nomenclature
- - - Product piping
- Product piping stub-ups
- - - Electrical line
- - - Storm drain
- - - Sanitary sewer line
- - - Water line
- - - Gas line
- - - Communications line
- 30.00 — Groundwater elevation contour line in feet above mean sea level (MSL)
- ← Groundwater flow direction and gradient

Well ID	ELEV.	TPHd	TPHs	TPHq	PCE	TCE	di-1,2-DCE	Vinyl Chloride
MW-4C	31.31	<50	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-1C	31.30	<50	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-8C	29.21	<50	<50	<50	<0.5	<0.5	<0.5	<0.5

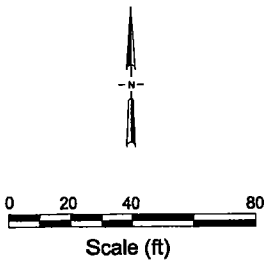


FIGURE
4



TABLES

CAMBRIA

Table 1. Groundwater Analytical and Elevation Data: Petroleum Hydrocarbons - 1137-1167 65th Street, Oakland, California

Well ID TOC (#*)	Date Sampled	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	TPHmo	TPHss	µg/L					Notes
								Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	
California MCLs				--	--	--	--	1.0	150	300	1,750	13	
ESL - Not a Potential Drinking Water Source				640	500	640	500	46	130	290	13	1,800	
MW-1A 39.64	6/3/2004 11/23/2004	35.00 36.54	4.50 3.10	1,300 1,400	1,400 2,300	260 <250	2,500 2,800	<0.5 0.64	<0.5 <0.5	2.0 2.5	11 9.7	<5.0 6.8	a,b,c
MW-1B 39.50	6/3/2004 11/23/2004	25.09 26.24	14.40 13.26	<50 <50	<50 <50	<250 <250	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<5.0 <5.0	
MW-1C 39.49	6/3/2004 11/23/2004	31.30 31.30	9.42 8.19	<50 <50	<50 <50	<250 <250	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<5.0 <5.0	
MW-2A 40.72	6/3/2004 11/23/2004	36.64 37.83	4.24 2.89	2,900 <50	1,700 <50	<250 <250	3,500 <50	<0.5 <0.5	3.5 <0.5	4.9 <0.5	5.1 <0.5	<5.0 <5.0	
MW-3A 40.88	6/3/2004 11/23/2004	34.39 37.89	4.32 2.99	90,000 22,000	4,800 3,800	6,000 <2,500	12,000 5,700	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	a,c,d
MW-4A 38.71	6/3/2004 11/23/2004	36.09 37.13	2.45 1.58	270 73	<50 <50	440 <250	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<5.0 <5.0	d
MW-4B 38.54	6/3/2004 11/23/2004	33.48 34.65	5.02 3.89	<50 <50	<50 <50	<250 <250	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<5.0 <5.0	
MW-4C 38.50	6/3/2004 11/23/2004	30.58 31.31	8.40 7.19	<50 <50	<50 <50	<250 <250	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<5.0 <5.0	
MW-5B 38.98	6/3/2004 11/23/2004	29.16 31.32	8.82 7.66	<50 <50	<50 <50	<250 <250	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<5.0 <5.0	

CAMBRIA

Table 1. Groundwater Analytical and Elevation Data: Petroleum Hydrocarbons - 1137-1167 65th Street, Oakland, California

Well ID TOC (ft*)	Date Sampled	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	TPHmo	TPHss	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
								←----- μg/L -----→					
California MCLs				--	--	--	--	1.0	150	300	1,750	13	
ESL - Not a Potential Drinking Water Source				640	500	640	500	46	130	290	13	1,800	
MW-6A 37.98	6/3/2004 11/23/2004	31.66 33.13	6.00 4.85	3,500 1,400	970 1,900	340 <250	2,400 3,000	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	2.1 3.0	<5.0 <5.0	a,c
MW-6B 37.66	6/3/2004 11/23/2004	29.29 30.53	8.30 7.13	2,300 280	1,100 500	<250 <250	2,900 700	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	1.4 1.6	<5.0 <5.0	a,c
MW-6C 37.59	6/3/2004 11/23/2004	30.88 29.21	9.70 8.38	240 <50	160 <50	<250 <250	340 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	1.1 <0.5	<5.0 <5.0	
MW-7A 40.58	6/3/2004 11/23/2004	36.08 --	4.50 --	-- --	3,900 --	-- --	9,900 --	<5.0 --	<5.0 --	<5.0 --	6.6 --	<5.0 --	

Abbreviations:

TOC (ft*) = Top of casing elevation in feet above mean sea level
 μg/L = micrograms per liter - approximately equal to parts per billion = ppb
 TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015C with silica gel cleanup.
 TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015C.
 TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015C with silica gel cleanup.
 TPHss = Total petroleum hydrocarbons as stoddard solvent by modified EPA Method 8015C.
 Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B.
 MTBE = Methyl tertiary-butyl ether by EPA Method 8021B (EPA Method 8260).
 California MCLs = California Department of Health Services Maximum Contaminant Levels; Drinking water standards established by the
 Department of Health Services. Title 22 California, Code of Regulations, Section 64444, Table 64444-A.
 ESL = Not A Potential Drinking Water Source IV, Table B. [Screening for Environments Concerns at Site With Contaminated Soil
 and Groundwater, Volumes 1 and 2. Interim Final. California Regional Water Quality Control Board - San Francisco Bay Region.] July 2001.
 -- = Not available

Notes:

a = TPH pattern that does not appear to be derived from gasoline (stoddard solvent/mineral spirit?).
 b = No recognizable pattern.
 c = Stoddard solvent/mineral spirit.
 d = Diesel range compounds are significant; no recognizable pattern.

CAMBRIA

Table 2. Groundwater Analytical and Elevation Data: Halogenated Volatile Organic Compounds - 1137-1167 65th Street, Oakland, California

Well ID TOC (#)	Date Sampled	Groundwater Elevation (ft)	Depth to Water (ft)	µg/L											Notes
				Chloroethane	Chloroform	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Trichloroethene	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	Vinyl Chloride	
California MCLs				--	100 (a)	1	5	5	600	6	10	5	0.5	0.5	
ESL - Not a Potential Drinking Water Source				12	340	190	120	360	14	590	590	47	200	4.0	
MW-1A 39.64	6/3/2004 11/23/2004	35.14 36.24	4.50 3.10	<2.5 <1.0	<2.5 <1.0	<2.5 <1.0	55 38	16 11	<2.5 <1.0	36 51	<2.5 2.4	<2.5 2.8	<2.5 <1.0	6.3 9.5	
MW-1B 39.50	6/3/2004 11/23/2004	25.10 26.24	14.40 13.26	<0.5 <0.5	8.3 6.2	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	3.9 2.5	<0.5 <0.5	8.1 8.4	7.9 8.8	<0.5 <0.5	
MW-1C 39.49	6/3/2004 11/23/2004	30.07 31.30	9.42 8.19	<0.5 <0.5	0.57 0.56	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	
MW-2A 40.72	6/3/2004 11/23/2004	36.48 37.83	4.24 2.89	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	
MW-3A 40.88	6/3/2004 11/23/2004	36.56 37.89	4.32 2.99	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	
MW-4A 38.71	6/3/2004 11/23/2004	36.26 37.13	2.45 1.58	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	1.7 1.9	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	
MW-4B 38.54	6/3/2004 11/23/2004	33.52 34.65	5.02 3.89	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	
MW-4C 38.50	6/3/2004 11/23/2004	30.10 31.31	8.40 7.19	<0.5 <0.5	0.84 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	
MW-5B 38.98	6/3/2004 11/23/2004	30.16 31.32	8.82 7.66	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	
MW-6A 37.98	6/3/2004 11/23/2004	31.98 33.13	6.00 4.85	4.7 <0.5	0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	1.8 <0.5	2.1 <0.5	<0.5 <0.5	6.7 <0.5	
MW-6B 37.66	6/3/2004 11/23/2004	29.36 30.53	8.30 7.13	0.65 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 0.89	<0.5 <0.5	<0.5 <0.5	
MW-6C 37.59	6/3/2004 11/23/2004	27.89 29.21	9.70 8.38	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	2.8 <0.5	<0.5 <0.5	0.61 <0.5	<0.5 <0.5	<0.5 <0.5	
MW-7A 40.58	6/3/2004 11/23/2004	36.08 --	4.50 --	<0.5 --	<0.5 --	<0.5 --	<0.5 --	<0.5 --	2.0 --	<0.5 --	<0.5 --	<0.5 --	<0.5 --	<0.5 --	

CAMBRIA

Table 2. Groundwater Analytical and Elevation Data: Halogenated Volatile Organic Compounds - 1137-1167 65th Street, Oakland, California

Well ID TOC (#)	Date Sampled	Groundwater Elevation (ft)	Depth to Water (ft)	Chloroethane	Chloroform	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Trichloroethene	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	Vinyl Chloride	Notes
				←----- μg/L -----→											
California MCLs				--	100 (a)	1	5	5	600	6	10	5	0.5	0.5	
ESL - Not a Potential Drinking Water Source				12	340	190	120	360	14	590	590	47	200	4.0	

Abbreviations:

TOC (#) = Top of casing elevation in feet above mean sea level

μg/L = micrograms per liter - approximately equal to parts per billion = ppb

Halogenated Volatile Organic Compounds analyzed by EPA Method 8260B.

California MCLs = California Department of Health Services Maximum Contaminant Levels; Drinking water standards established by the Department of Health Services, Title 22 California, Code of Regulations, Section 64444, Table 64444-A.

ESL = Not A Potential Drinking Water Source IV, Table B. [Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater, Volumes 1 and 2, Interim Final. California Regional Water Quality Control Board - San Francisco Bay Region. July 2001.

-- = Not available

Notes:

a = Total Trihalomethanes

b = Sample diluted due to high organic content

APPENDIX A

Field Data Sheets

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	Comments
MW-1A	7:55		3.10	14.07				
MW-1B	7:50		13.26	19.53				
MW-1C	7:45		8.19	34.40				
MW-2A	8:50		2.89	18.82				
MW-3A	8:30		2.99	13.40				
MW-4A	8:55		1.58	12.40				
MW-4B	8:50		3.89	20.61				
MW-4C	8:45		7.19	31.85				
MW-5B	9:00		7.66	22.75				
MW-6A	8:15		4.85	14.25				
MW-6B	8:10		7.13	21.80				
MW-6C	8:05		8.38	33.70				
MW-7A		Inaccessible						

Project Name: Nady

Project Number/Task: 522-100

Technician: L. Miller

Date: 11-23-04

WELL SAMPLING FORM

Project Name: <i>Nady</i>	Cambria Mgr: <i>JO</i>	Well ID: <i>MW-1A</i>
Project Number: <i>522-1000</i>	Date: <i>11-23-04</i>	Well Yield:
Site Address: <i>1137-1887 65th St Oakland, CA</i>	Sampling Method: <i>disposable bailer</i>	Well Diameter: <i>2</i> pvc
		Technician(s): <i>SG</i>
Initial Depth to Water: <i>3.10</i>	Total Well Depth: <i>14.07</i>	Water Column Height: <i>10.97</i>
Volume/ft: <i>0.16</i>	1 Casing Volume: <i>1.75</i>	Casing Volumes: <i>1.75</i> <i>9.26</i>
Purging Device: <i>disposable bailer</i>	Did Well Dewater?: <i>no</i>	Total Gallons Purged: <i>7.5</i>
Start Purge Time: <i>1:55</i>	Stop Purge Time: <i>2:24</i>	Total Time: <i>29 mins</i>

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
<i>2:05</i>	<i>1.5</i>	<i>19.1</i>	<i>7.12</i>	<i>629</i>	
<i>2:15</i>	<i>2</i>	<i>18.9</i>	<i>7.05</i>	<i>748</i>	
<i>2:25</i>	<i>2.5</i>	<i>18.8</i>	<i>7.08</i>	<i>770</i>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<i>MW-1A</i>	<i>11-24-04</i>	<i>2:30</i>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>JO</u>	Well ID: <u>MW-1B</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St.</u> <u>Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SG</u>
Initial Depth to Water: <u>13.26</u>	Total Well Depth: <u>19.53</u>	Water Column Height: <u>6.27</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>1.00</u>	Casing Volumes: <u>1</u>
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>1.5</u>
Start Purge Time: <u>12:55</u>	Stop Purge Time: <u>1:24</u>	Total Time: <u>29 mins</u>

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
<u>1:05</u>	<u>1.00</u>	<u>18.9</u>	<u>7.24</u>	<u>862</u>	
<u>1:15</u>	<u>1.25</u>	<u>18.9</u>	<u>7.18</u>	<u>920</u>	
<u>1:25</u>	<u>1.50</u>	<u>18.9</u>	<u>7.13</u>	<u>993</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-1B</u>	<u>11-24-04</u>	<u>1:30</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>SO</u>	Well ID: <u>MW-1C</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St.</u> <u>Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SG</u>
Initial Depth to Water: <u>8.19</u>	Total Well Depth: <u>34.40</u>	Water Column Height: <u>26.21</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>4.19</u>	3 Casing Volumes:
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>6</u>
Start Purge Time: <u>11:55</u>	Stop Purge Time: <u>12:24</u>	Total Time: <u>29 mins</u>

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
<u>12:05</u>	<u>4</u>	<u>18.8</u>	<u>7.03</u>	<u>870</u>	
<u>12:15</u>	<u>5</u>	<u>19.4</u>	<u>6.98</u>	<u>833</u>	
<u>12:25</u>	<u>6</u>	<u>19.2</u>	<u>6.95</u>	<u>869</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-1C</u>	<u>11-24-04</u>	<u>12:30</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>50</u>	Well ID: <u>MW-2A</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St. Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>4</u> <input type="checkbox"/> pvc
		Technician(s): <u>SG</u>
Initial Depth to Water: <u>2.89</u>	Total Well Depth: <u>18.82</u>	Water Column Height: <u>15.93</u>
Volume/ft: <u>0.65</u>	1 Casing Volume: <u>10.35</u>	3 Casing Volumes:
Purging Device: <u>4" PVC bailer</u>	Did Well Dewater?: <u>NO</u>	Total Gallons Purged: <u>12</u>
Start Purge Time: <u>1:10</u>	Stop Purge Time: <u>1:39</u>	Total Time: <u>49 mins</u>

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
<u>1:20</u>	<u>10</u>	<u>18.3</u>	<u>6.92</u>	<u>570</u>	
<u>1:30</u>	<u>11</u>	<u>18.6</u>	<u>6.99</u>	<u>710</u>	
<u>1:40</u>	<u>12</u>	<u>18.5</u>	<u>7.04</u>	<u>693</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-2A</u>	<u>11-23-04</u>	<u>1:45</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>SO</u>	Well ID: <u>MW-3A</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St</u> <u>Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SC</u>
Initial Depth to Water: <u>2.99</u>	Total Well Depth: <u>13.40</u>	Water Column Height: <u>10.41</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>1.66</u>	3 Casing Volumes:
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>NO</u>	Total Gallons Purged: <u>2.5</u>
Start Purge Time: <u>12:10</u>	Stop Purge Time: <u>12:39</u>	Total Time: <u>39mins</u>

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
<u>12:20</u>	<u>1.5</u>	<u>18.7</u>	<u>6.84</u>	<u>682</u>	
<u>12:30</u>	<u>2.0</u>	<u>18.9</u>	<u>6.90</u>	<u>910</u>	
<u>12:40</u>	<u>2.5</u>	<u>19.2</u>	<u>6.93</u>	<u>943</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-3A</u>	<u>11-23-04</u>	<u>12:45</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>SO</u>	Well ID: <u>MW-4A</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St.</u> <u>Oakland CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SG</u>
Initial Depth to Water: <u>1.58</u>	Total Well Depth: <u>12.40</u>	Water Column Height: <u>10.82</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>1.73</u>	3 Casing Volumes:
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>2.5</u>
Start Purge Time: <u>9:10</u>	Stop Purge Time: <u>9:39</u>	Total Time: <u>29 mins</u>

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
<u>9:20</u>	<u>1.5</u>	<u>17.5</u>	<u>6.99</u>	<u>889</u>	
<u>9:30</u>	<u>2.0</u>	<u>18.0</u>	<u>7.07</u>	<u>913</u>	
<u>9:40</u>	<u>2.5</u>	<u>18.2</u>	<u>7.10</u>	<u>926</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-4A</u>	<u>11-23-04</u>	<u>9:45</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>SO</u>	Well ID: <u>MW-4B</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St. Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SA</u>
Initial Depth to Water: <u>3.89</u>	Total Well Depth: <u>20.61</u>	Water Column Height: <u>16.72</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>2.67</u>	3 Casing Volumes:
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>3.5</u>
Start Purge Time: <u>10:10</u>	Stop Purge Time: <u>10:39</u>	Total Time: <u>29 mins</u>

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
<u>10:20</u>	<u>2.5</u>	<u>18.3</u>	<u>6.99</u>	<u>1236</u>	
<u>10:30</u>	<u>3.0</u>	<u>18.9</u>	<u>6.95</u>	<u>1295</u>	
<u>10:40</u>	<u>3.5</u>	<u>18.7</u>	<u>6.92</u>	<u>1240</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-4B</u>	<u>11-23-04</u>	<u>10:45</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>SO</u>	Well ID: <u>MW-4C</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St.</u> <u>Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SG</u>
Initial Depth to Water: <u>7.19</u>	Total Well Depth: <u>31.85</u>	Water Column Height: <u>24.66</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>3.94</u>	3 Casing Volumes:
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>no</u>	Total Gallons Purged: <u>6</u>
Start Purge Time: <u>11:10</u>	Stop Purge Time: <u>11:39</u>	Total Time: <u>29 mins</u>

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
<u>11:20</u>	<u>4</u>	<u>19.6</u>	<u>7.08</u>	<u>1009</u>	
<u>11:30</u>	<u>5</u>	<u>18.8</u>	<u>7.14</u>	<u>962</u>	
<u>11:40</u>	<u>6</u>	<u>19.0</u>	<u>7.16</u>	<u>989</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-4C</u>	<u>11-23-04</u>	<u>11:45</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>JD</u>	Well ID: <u>MW-5B</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St</u> <u>Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SH</u>
Initial Depth to Water: <u>7.66</u>	Total Well Depth: <u>22.75</u>	Water Column Height: <u>15.09</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>2.41</u>	3 Casing Volumes:
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>NO</u>	Total Gallons Purged: <u>3.5</u>
Start Purge Time: <u>2:55</u>	Stop Purge Time: <u>3:24</u>	Total Time: <u>29mins</u>

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
<u>3:05</u>	<u>2.5</u>	<u>19.0</u>	<u>7.06</u>	<u>1210</u>	
<u>3:15</u>	<u>3.0</u>	<u>19.3</u>	<u>7.13</u>	<u>1130</u>	
<u>3:25</u>	<u>3.6</u>	<u>19.5</u>	<u>7.16</u>	<u>1168</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-5B</u>	<u>11-24-04</u>	<u>3:30</u>				

WELL SAMPLING FORM

Project Name: <u>Nady</u>	Cambria Mgr: <u>SO</u>	Well ID: <u>MW-6A</u>
Project Number: <u>522-1000</u>	Date: <u>11-23-04</u>	Well Yield:
Site Address: <u>1137-1167 65th St. Oakland, CA</u>	Sampling Method: <u>disposable bailer</u>	Well Diameter: <u>2" pvc</u>
		Technician(s): <u>SA</u>
Initial Depth to Water: <u>4.85</u>	Total Well Depth: <u>14.25</u>	Water Column Height: <u>9.40</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>1.50</u>	3 Casing Volumes:
Purging Device: <u>disposable bailer</u>	Did Well Dewater?: <u>NO</u>	Total Gallons Purged: <u>2.5</u>
Start Purge Time: <u>3:55</u>	Stop Purge Time: <u>4:24</u>	Total Time: <u>29mins</u>

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
<u>4:05</u>	<u>1.5</u>	<u>19.0</u>	<u>6.99</u>	<u>658</u>	
<u>4:15</u>	<u>2.0</u>	<u>19.5</u>	<u>7.10</u>	<u>723</u>	
<u>4:25</u>	<u>2.5</u>	<u>19.3</u>	<u>7.07</u>	<u>771</u>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW-6A</u>	<u>11-24-04</u>	<u>4:30</u>				

WELL SAMPLING FORM

Project Name: <i>Nady</i>	Cambria Mgr: <i>SO</i>	Well ID: <i>MW-6B</i>
Project Number: <i>522-1000</i>	Date: <i>11-23-04</i>	Well Yield:
Site Address: <i>1137-1167 65th St. Oakland, CA</i>	Sampling Method: <i>disposable bailer</i>	Well Diameter: <i>2" pvc</i>
		Technician(s): <i>SG</i>
Initial Depth to Water: <i>7.13</i>	Total Well Depth: <i>21.80</i>	Water Column Height: <i>14.67</i>
Volume/ft: <i>0.16</i>	1 Casing Volume: <i>2.34</i>	3 Casing Volumes:
Purging Device: <i>disposable bailer</i>	Did Well Dewater?: <i>no</i>	Total Gallons Purged: <i>3.5</i>
Start Purge Time: <i>4:55</i>	Stop Purge Time: <i>5:24</i>	Total Time: <i>29mins</i>

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
<i>5:05</i>	<i>2.5</i>	<i>19.9</i>	<i>7.03</i>	<i>836</i>	
<i>5:15</i>	<i>3.0</i>	<i>19.2</i>	<i>6.97</i>	<i>940</i>	
<i>5:25</i>	<i>3.5</i>	<i>19.5</i>	<i>6.95</i>	<i>970</i>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<i>MW-6B</i>	<i>11-24-04</i>	<i>5:30</i>				

WELL SAMPLING FORM

Project Name: <i>Nady</i>	Cambria Mgr: <i>SO</i>	Well ID: <i>MW-6C</i>
Project Number: <i>533-1000</i>	Date: <i>11-23-04</i>	Well Yield:
Site Address: <i>1137-1167 65th St Oakland, CA</i>	Sampling Method: <i>disposable bailer</i>	Well Diameter: <i>2" pvc</i>
		Technician(s): <i>SG</i>
Initial Depth to Water: <i>8.38</i>	Total Well Depth: <i>37.70</i>	Water Column Height: <i>29.32</i>
Volume/ft: <i>0.16</i>	1 Casing Volume: <i>4.69</i>	3 Casing Volumes:
Purging Device: <i>disposable bailer</i>	Did Well Dewater?: <i>NO</i>	Total Gallons Purged: <i>6.5</i>
Start Purge Time: <i>5:55</i>	Stop Purge Time: <i>6:24</i>	Total Time: <i>29 mins</i>

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
<i>6:05</i>	<i>5</i>	<i>19.2</i>	<i>7.12</i>	<i>625</i>	
<i>6:15</i>	<i>6</i>	<i>19.5</i>	<i>7.19</i>	<i>830</i>	
<i>6:25</i>	<i>6.5</i>	<i>19.7</i>	<i>7.24</i>	<i>895</i>	

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

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<i>MW-6C</i>	<i>11-24-04</i>	<i>6:30</i>				

APPENDIX B

Laboratory Analytical Report



McC Campbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #522-1000-027; Nady	Date Sampled: 11/23/04
		Date Received: 11/24/04
	Client Contact: Jason Olson	Date Reported: 12/02/04
	Client P.O.:	Date Completed: 12/02/04

WorkOrder: 0411335

December 02, 2004

Dear Jason:

Enclosed are:

- 1). the results of 12 analyzed samples from your #522-1000-027; Nady 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. McC Campbell 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



McC Campbell Analytical, Inc.

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

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #522-1000-027; Nady	Date Sampled: 11/23/04-11/24/04
		Date Received: 11/24/04
	Client Contact: Jason Olson	Date Extracted: 11/25/04-11/29/04
	Client P.O.:	Date Analyzed: 11/25/04-11/29/04

Gasoline Range (C6-C12), Stoddard Solvent Range (C9-C12) Volatile Hydrocarbons with BTEX & MTBE*

Extraction Method: SW5030B

Analytical Method: SW8021B/8015Cm

Work Order: 0411335

Lab ID	0411335-001A	0411335-002A	0411335-003A	0411335-004A	Reporting Limit for DF =1	
Client ID	MW-1A	MW-1B	MW-1C	MW-2A		
Matrix	W	W	W	W		
DF	1	1	1	1		

Compound	Concentration				ug/kg	µg/L
TPH(g)	2300	ND	ND	ND	NA	50
TPH(ss)	2800	ND	ND	ND	NA	50
MTBE	6.8	ND	ND	ND	NA	5.0
Benzene	0.64	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Ethylbenzene	2.5	ND	ND	ND	NA	0.5
Xylenes	9.7	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS:	---#	113	111	115	
------	------	-----	-----	-----	--

Comments e,m

* 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 McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



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Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #522-1000-027; Nady	Date Sampled: 11/23/04-11/24/04
		Date Received: 11/24/04
	Client Contact: Jason Olson	Date Extracted: 11/25/04-11/29/04
	Client P.O.:	Date Analyzed: 11/25/04-11/29/04

Gasoline Range (C6-C12), Stoddard Solvent Range (C9-C12) Volatile Hydrocarbons with BTEX & MTBE*

Extraction Method: SW5030B

Analytical Method: SW8021B/8015Cm

Work Order: 0411335

Lab ID	0411335-005A	0411335-006A	0411335-007A	0411335-008A	Reporting Limit for DF =1	
Client ID	MW-3A	MW-4A	MW-4B	MW-5B		
Matrix	W	W	W	W		
DF	10	1	1	1		

Compound	Concentration				ug/kg	µg/L
TPH(g)	3800	ND	ND	ND	NA	50
TPH(ss)	5700	ND	ND	ND	NA	50
MTBE	ND<50	ND	ND	ND	NA	5.0
Benzene	ND<5.0	ND	ND	ND	NA	0.5
Toluene	ND<5.0	ND	ND	ND	NA	0.5
Ethylbenzene	ND<5.0	ND	ND	ND	NA	0.5
Xylenes	ND<5.0	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS:	91	109	111	113	
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Comments

e

* 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 McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



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Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #522-1000-027; Nady	Date Sampled: 11/23/04-11/24/04
		Date Received: 11/24/04
	Client Contact: Jason Olson	Date Extracted: 11/25/04-11/29/04
	Client P.O.:	Date Analyzed: 11/25/04-11/29/04

Gasoline Range (C6-C12), Stoddard Solvent Range (C9-C12) Volatile Hydrocarbons with BTEX & MTBE*

Extraction Method: SW5030B

Analytical Method: SW8021B/8015Cm

Work Order: 0411335

Lab ID	0411335-009A	0411335-010A	0411335-011A	0411335-012A	Reporting Limit for DF = 1	
Client ID	MW-6A	MW-6B	MW-6C	MW-4C		
Matrix	W	W	W	W		
DF	1	1	1	1		

Compound	Concentration				ug/kg	µg/L
TPH(g)	1900	500	ND	ND	NA	50
TPH(ss)	3000	700	ND	ND	NA	50
MTBE	ND	ND	ND	ND	NA	5.0
Benzene	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Xylenes	3.0	1.6	ND	ND	NA	0.5

Surrogate Recoveries (%)


%SS:	83	94	108	113
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Comments: e e

* 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 McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

 Angela Rydelius, Lab Manager



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Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #522-1000-027; Nady	Date Sampled: 11/23/04-11/24/04
	Client Contact: Jason Olson	Date Received: 11/24/04
	Client P.O.:	Date Extracted: 11/24/04
		Date Analyzed: 11/25/04-12/01/04

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C

Analytical methods: SW8015C

Work Order: 0411335

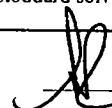
Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0411335-001B	MW-1A	W	1400,n	ND	1	107
0411335-002B	MW-1B	W	ND	ND	1	102
0411335-003B	MW-1C	W	ND	ND	1	107
0411335-004B	MW-2A	W	ND	ND	1	108
0411335-005B	MW-3A	W	22,000,n,b	ND<2500	10	120
0411335-006B	MW-4A	W	73,b	ND	1	89
0411335-007B	MW-4B	W	ND	ND	1	83
0411335-008B	MW-5B	W	ND	ND	1	83
0411335-009B	MW-6A	W	1400,n	ND	1	84
0411335-010B	MW-6B	W	280,n	ND	1	86
0411335-011B	MW-6C	W	ND	ND	1	87
0411335-012B	MW-4C	W	ND	ND	1	116

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* 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; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell 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 (asphalt); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

 Angela Rydelius, Lab Manager



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Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #522-1000-027; Nady	Date Sampled: 11/23/04-11/24/04
		Date Received: 11/24/04
	Client Contact: Jason Olson	Date Extracted: 11/24/04-11/29/04
	Client P.O.:	Date Analyzed: 11/24/04-11/29/04

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0411335

Lab ID	0411335-001C	0411335-002C	0411335-003C	0411335-004C	Reporting Limit for DF = 1	
Client ID	MW-1A	MW-1B	MW-1C	MW-2A		
Matrix	W	W	W	W		
DF	2	1	1	1		

Compound	Concentration				µg/kg	µg/L
Bromodichloromethane	ND<1.0	ND	ND	ND	NA	0.5
Bromoform	ND<1.0	ND	ND	ND	NA	0.5
Bromomethane	ND<1.0	ND	ND	ND	NA	0.5
Carbon Tetrachloride	ND<1.0	ND	ND	ND	NA	0.5
Chlorobenzene	ND<1.0	ND	ND	ND	NA	0.5
Chloroethane	ND<1.0	ND	ND	ND	NA	0.5
2-Chloroethyl Vinyl Ether	ND<1.0	ND	ND	ND	NA	0.5
Chloroform	ND<1.0	6.2	0.56	ND	NA	0.5
Chloromethane	ND<1.0	ND	ND	ND	NA	0.5
Dibromochloromethane	ND<1.0	ND	ND	ND	NA	0.5
1,2-Dichlorobenzene	ND<1.0	ND	ND	ND	NA	0.5
1,3-Dichlorobenzene	ND<1.0	ND	ND	ND	NA	0.5
1,4-Dichlorobenzene	ND<1.0	ND	ND	ND	NA	0.5
Dichlorodifluoromethane	ND<1.0	ND	ND	ND	NA	0.5
1,1-Dichloroethane	2.8	8.4	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<1.0	8.8	ND	ND	NA	0.5
1,1-Dichloroethene	ND<1.0	ND	ND	ND	NA	0.5
cis-1,2-Dichloroethene	51	2.5	ND	ND	NA	0.5
trans-1,2-Dichloroethene	2.4	ND	ND	ND	NA	0.5
1,2-Dichloropropane	ND<1.0	ND	ND	ND	NA	0.5
cis-1,3-Dichloropropene	ND<1.0	ND	ND	ND	NA	0.5
trans-1,3-Dichloropropene	ND<1.0	ND	ND	ND	NA	0.5
Methylene chloride	ND<1.0	ND	ND	ND	NA	0.5
1,1,2,2-Tetrachloroethane	ND<1.0	ND	ND	ND	NA	0.5
Tetrachloroethene	38	ND	ND	ND	NA	0.5
1,1,1-Trichloroethane	ND<1.0	ND	ND	ND	NA	0.5
1,1,2-Trichloroethane	ND<1.0	ND	ND	ND	NA	0.5
Trichloroethene	11	ND	ND	ND	NA	0.5
Trichlorofluoromethane	ND<1.0	ND	ND	ND	NA	0.5
Vinyl Chloride	9.5	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	95	104	98	97
%SS2:	98	101	103	105
%SS3:	97	104	108	106
Comments				

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content; k) reporting limit raised due to insufficient sample amount.

Angela Rydelius, Lab Manager



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		Date Received: 11/24/04
	Client Contact: Jason Olson	Date Extracted: 11/24/04-11/29/04
	Client P.O.:	Date Analyzed: 11/24/04-11/29/04

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0411335

Lab ID	0411335-005C	0411335-006C	0411335-007C	0411335-008C	Reporting Limit for DF =1	
Client ID	MW-3A	MW-4A	MW-4B	MW-5B		
Matrix	W	W	W	W		
DF	10	1	1	1		

Compound	Concentration				µg/kg	µg/L
Bromodichloromethane	ND<5.0	ND	ND	ND	NA	0.5
Bromoform	ND<5.0	ND	ND	ND	NA	0.5
Bromomethane	ND<5.0	ND	ND	ND	NA	0.5
Carbon Tetrachloride	ND<5.0	ND	ND	ND	NA	0.5
Chlorobenzene	ND<5.0	ND	ND	ND	NA	0.5
Chloroethane	ND<5.0	ND	ND	ND	NA	0.5
2-Chloroethyl Vinyl Ether	ND<5.0	ND	ND	ND	NA	0.5
Chloroform	ND<5.0	ND	ND	ND	NA	0.5
Chloromethane	ND<5.0	ND	ND	ND	NA	0.5
Dibromochloromethane	ND<5.0	ND	ND	ND	NA	0.5
1,2-Dichlorobenzene	ND<5.0	ND	ND	ND	NA	0.5
1,3-Dichlorobenzene	ND<5.0	ND	ND	ND	NA	0.5
1,4-Dichlorobenzene	ND<5.0	ND	ND	ND	NA	0.5
Dichlorodifluoromethane	ND<5.0	ND	ND	ND	NA	0.5
1,1-Dichloroethane	ND<5.0	ND	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<5.0	ND	ND	ND	NA	0.5
1,1-Dichloroethene	ND<5.0	ND	ND	ND	NA	0.5
cis-1,2-Dichloroethene	ND<5.0	ND	ND	ND	NA	0.5
trans-1,2-Dichloroethene	ND<5.0	ND	ND	ND	NA	0.5
1,2-Dichloropropane	ND<5.0	ND	ND	ND	NA	0.5
cis-1,3-Dichloropropene	ND<5.0	ND	ND	ND	NA	0.5
trans-1,3-Dichloropropene	ND<5.0	ND	ND	ND	NA	0.5
Methylene chloride	ND<5.0	ND	ND	ND	NA	0.5
1,1,2,2-Tetrachloroethane	ND<5.0	ND	ND	ND	NA	0.5
Tetrachloroethene	ND<5.0	1.9	ND	ND	NA	0.5
1,1,1-Trichloroethane	ND<5.0	ND	ND	ND	NA	0.5
1,1,2-Trichloroethane	ND<5.0	ND	ND	ND	NA	0.5
Trichloroethene	ND<5.0	ND	ND	ND	NA	0.5
Trichlorofluoromethane	ND<5.0	ND	ND	ND	NA	0.5
Vinyl Chloride	ND<5.0	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	101	106	95	93
%SS2:	98	105	108	107
%SS3:	110	107	110	111
Comments	j			

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content; k) reporting limit raised due to insufficient sample amount.



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		Date Received: 11/24/04
	Client Contact: Jason Olson	Date Extracted: 11/24/04-11/29/04
	Client P.O.:	Date Analyzed: 11/24/04-11/29/04

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0411335

Lab ID	0411335-009C	0411335-010C	0411335-011C	0411335-012C	Reporting Limit for DF =1	
Client ID	MW-6A	MW-6B	MW-6C	MW-4C		
Matrix	W	W	W	W		
DF	1	1	1	1		

Compound	Concentration				µg/kg	µg/L
Bromodichloromethane	ND	ND	ND	ND	NA	0.5
Bromoform	ND	ND	ND	ND	NA	0.5
Bromomethane	ND	ND	ND	ND	NA	0.5
Carbon Tetrachloride	ND	ND	ND	ND	NA	0.5
Chlorobenzene	ND	ND	ND	ND	NA	0.5
Chloroethane	ND	ND	ND	ND	NA	0.5
2-Chloroethyl Vinyl Ether	ND	ND	ND	ND	NA	0.5
Chloroform	ND	ND	ND	ND	NA	0.5
Chloromethane	ND	ND	ND	ND	NA	0.5
Dibromochloromethane	ND	ND	ND	ND	NA	0.5
1,2-Dichlorobenzene	ND	ND	ND	ND	NA	0.5
1,3-Dichlorobenzene	ND	ND	ND	ND	NA	0.5
1,4-Dichlorobenzene	ND	ND	ND	ND	NA	0.5
Dichlorodifluoromethane	ND	ND	ND	ND	NA	0.5
1,1-Dichloroethane	ND	0.89	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	NA	0.5
1,1-Dichloroethene	ND	ND	ND	ND	NA	0.5
cis-1,2-Dichloroethene	ND	ND	ND	ND	NA	0.5
trans-1,2-Dichloroethene	ND	ND	ND	ND	NA	0.5
1,2-Dichloropropane	ND	ND	ND	ND	NA	0.5
cis-1,3-Dichloropropene	ND	ND	ND	ND	NA	0.5
trans-1,3-Dichloropropene	ND	ND	ND	ND	NA	0.5
Methylene chloride	ND	ND	ND	ND	NA	0.5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	NA	0.5
Tetrachloroethene	ND	ND	ND	ND	NA	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	NA	0.5
1,1,2-Trichloroethane	ND	ND	ND	ND	NA	0.5
Trichloroethene	ND	ND	ND	ND	NA	0.5
Trichlorofluoromethane	ND	ND	ND	ND	NA	0.5
Vinyl Chloride	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	97	107	94	97
%SS2:	98	99	102	102
%SS3:	112	114	90	94
Comments				

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content; k) reporting limit raised due to insufficient sample amount.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0411335

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 14031		Spiked Sample ID: 0411326-039A				
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	85.3	84.9	0.478	99.5	100	0.719	70 - 130	70 - 130
MTBE	ND	10	114	108	5.32	89.8	93.5	3.96	70 - 130	70 - 130
Benzene	ND	10	117	109	7.43	113	111	1.95	70 - 130	70 - 130
Toluene	ND	10	114	108	6.11	110	108	1.79	70 - 130	70 - 130
Ethylbenzene	ND	10	118	111	6.53	111	112	0.957	70 - 130	70 - 130
Xylenes	ND	30	107	100	6.45	100	100	0	70 - 130	70 - 130
%SS:	118	10	105	106	1.29	114	114	0	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0411335

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 14043			Spiked Sample ID: 0411335-012A			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	103	104	0.999	102	105	3.13	70 - 130	70 - 130
MTBE	ND	10	118	118	0	86.2	85.9	0.336	70 - 130	70 - 130
Benzene	ND	10	108	113	4.53	109	106	2.34	70 - 130	70 - 130
Toluene	ND	10	107	111	3.44	108	104	3.49	70 - 130	70 - 130
Ethylbenzene	ND	10	107	111	3.42	111	108	2.38	70 - 130	70 - 130
Xylenes	ND	30	95.7	100	4.43	99.7	95.7	4.10	70 - 130	70 - 130
%SS:	113	10	105	108	2.50	113	111	2.05	70 - 130	70 - 130

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

NONE

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0411335

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 14038			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	7500	N/A	N/A	N/A	86.4	81.1	6.33	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	86	88	2.72	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0411335

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 14015			Spiked Sample ID: 0411326-033B		
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Chlorobenzene	ND	10	109	108	0.247	104	117	11.9	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	105	101	4.50	95.9	113	16.8	70 - 130	70 - 130
1,1-Dichloroethene	ND	10	115	115	0	104	113	7.61	70 - 130	70 - 130
Trichloroethene	3.578	10	99.7	97.7	1.43	91.1	101	10.2	70 - 130	70 - 130
%SS1:	91	10	101	100	0.281	99	97	2.10	70 - 130	70 - 130
%SS2:	104	10	95	96	0.723	97	94	3.03	70 - 130	70 - 130
%SS3:	102	10	108	107	0.212	112	110	1.75	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0411335

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 14044			Spiked Sample ID: 0411335-012C		
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Chlorobenzene	ND	10	105	112	6.99	108	108	0	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	101	108	6.92	101	108	6.97	70 - 130	70 - 130
1,1-Dichloroethene	ND	10	109	113	3.91	107	108	1.25	70 - 130	70 - 130
Trichloroethene	ND	10	95	98.8	3.87	94.8	95.7	0.874	70 - 130	70 - 130
%SS1:	97	10	101	101	0	97	99	2.34	70 - 130	70 - 130
%SS2:	102	10	93	94	1.15	94	94	0	70 - 130	70 - 130
%SS3:	94	10	111	107	3.78	113	109	3.48	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0411335

ClientID: CETE

Report to:

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

TEL: (510) 420-0700
 FAX: (510) 420-9170
 ProjectNo: #522-1000-027; Nady
 PO:

Bill to:

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

Requested TAT: 5 days

Date Received: 1:18 AM

Date Printed: 11/24/04

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	
0411335-001	MW-1A	Water	11/24/04 2:30:00	<input type="checkbox"/>	C	A	B													
0411335-002	MW-1B	Water	11/24/04 1:30:00	<input type="checkbox"/>	C	A	B													
0411335-003	MW-1C	Water	11/24/04 12:30:00	<input type="checkbox"/>	C	A	B													
0411335-004	MW-2A	Water	11/23/04 1:45:00	<input type="checkbox"/>	C	A	B													
0411335-005	MW-3A	Water	11/23/04 12:45:00	<input type="checkbox"/>	C	A	B													
0411335-006	MW-4A	Water	11/23/04 9:45:00	<input type="checkbox"/>	C	A	B													
0411335-007	MW-4B	Water	11/23/04 10:45:00	<input type="checkbox"/>	C	A	B													
0411335-008	MW-5B	Water	11/24/04 3:30:00	<input type="checkbox"/>	C	A	B													
0411335-009	MW-6A	Water	11/24/04 4:30:00	<input type="checkbox"/>	C	A	B													
0411335-010	MW-6B	Water	11/24/04 5:30:00	<input type="checkbox"/>	C	A	B													
0411335-011	MW-6C	Water	11/24/04 6:30:00	<input type="checkbox"/>	C	A	B													
0411335-012	MW-4C	Water	11/23/04 11:45:00	<input type="checkbox"/>	C	A	B													

Test Legend:

1	8010BMS_W	2	G-MBTEX_W	3	TPH(DMO)WSG_W	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments:

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

note -

0411335

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME:

RUSH 24 HOUR 48 HOUR 5 DAY

EDF Required? Yes No

Report To: Jason Olson Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology Inc.

5900 Hollis Street STE-A

Emeryville, CA 94608

E-mail:

Tele: 510-420-0700

Fax: 510-420-9170

Project #: 522-1000-027

Project Name: Nady

Project Location: 1137-1167 65th St. Oakland, CA

Sampler Signature: [Signature]

Analysis Request Other Comments

BTEX & TPH as Gas (602/8020 + 8015) / MTBE/SS
TPH as Diesel (8015)
Total Petroleum Oil & Grease (5520 E&F/B&F)
Total Petroleum Hydrocarbons (418.1)
EPA 601 / 8010
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 (7240/7421/7239-2/6010)
RCI
FIVOC 8010 List

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other

+
+
+
+
+
+
+
+
+
+
+
+

MW-1A		11-24-04	2:30	5	Voa Amb	X					X	X								
MW-1B		11-24-04	1:30																	
MW-1C		11-24-04	12:30																	
MW-2A		11-23-04	1:45																	
MW-3A		11-23-04	12:45																	
MW-4A		11-23-04	9:45																	
MW-4B		11-23-04	10:45																	
MW-5B		11-24-04	3:30																	
MW-6A		11-24-04	4:30																	
MW-6B		11-24-04	5:30																	
MW-6C		11-24-04	6:30																	
MW-4C		11-23-04	11:45	X	X					X	X		X	X						

Relinquished By: [Signature]	Date: 11/24/04	Time: 9:00 AM	Received By: [Signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks: ICE/GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ✓
APPROPRIATE CONTAINERS PRESERVED IN LAB ✓
PRESERVATION VOAG OAG METALS OTHER