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February 15, 2006

QUARTERLY GROUNDWATER MONITORING REPORT  
JANUARY 2006 GROUNDWATER SAMPLING  
ASE JOB NO. 3412

at  
Yee Property  
726 Harrison Street  
Oakland, CA 94602

Prepared by:  
AQUA SCIENCE ENGINEERS, INC.  
208 W. El Pintado, Suite C  
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## **1.0 INTRODUCTION**

### Site Location (Site), See Figure 1

Yee Property  
(Previously Former Chan's Shell Station)  
726 Harrison Street  
Oakland, CA 94602  
(510) 444-6583

### Responsible Party

Peter Yee  
1000 San Antonio Avenue  
Alameda, CA 94501

### Environmental Consulting Firm

Aqua Science Engineers, Inc. (ASE)  
208 W. El Pintado  
Danville, CA 94526  
Contact: Robert Kitay, Senior Geologist  
(925) 820-9391

### Agency Review

Alameda County Health  
Care Services Agency (ACHCSA)  
1131 Harbor Bay Pkwy  
Suite 250  
Alameda, CA 94502  
Contact: Mr. Barney Chan  
(510) 567-6700

California Regional Water  
Quality Control Board (RWQCB)  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
Contact: Ms. Betty Graham  
(510) 622-2433

The following is a report detailing the results of the January 2006 quarterly groundwater sampling at the Yee Property, previously referred to as the former Chan's Shell Station. This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Peter Yee, the current responsible party, who purchased the property from Kin Chan. This report is intended to supplement the ASE report: "Report of Soil and Groundwater Assessment" dated January 8, 1999.

## **2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT**

On January 23, 2006, ASE measured the depth to groundwater in all five site monitoring wells using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. No free-floating hydrocarbons were observed in any site well. A sheen was noted on the surface of groundwater taken from monitoring well MW-1. ASE coordinated this groundwater sampling with Cambria Environmental Technology, Inc., (Cambria), who is investigating the adjacent property, located at 706 Harrison Street, referred to in this report as the former ARCO station, and groundwater elevation levels were measured on the same day. Groundwater elevation data for both sites are presented in Tables One and Two. A groundwater potentiometric surface map illustrating groundwater elevation contours is presented as Figure 2. The groundwater flow direction below the site is generally to the south-west at a gradient of 0.012 feet/foot.

## **3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS**

On January 24, 2006, ASE collected groundwater samples from monitoring wells MW-1, MW-3, MW-4 and MW-5. With ACHCSA approval, quarterly groundwater sampling of MW-2 and extraction well EW-1 has been suspended. Prior to sampling, each well was purged of three well casing volumes of groundwater using disposable polyethylene bailers. Petroleum hydrocarbon odors were noted during the purging and sampling of all sampled monitoring wells. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Groundwater samples were collected from each well using disposable polyethylene bailers and were decanted from the bottom of the bailers using low-flow emptying devices into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid. The samples were capped without headspace, labeled, and placed in coolers with wet ice for transport to Severn Trent Laboratories (STL) San Francisco of Pleasanton, California (ELAP #2496) under appropriate chain-of-custody documentation. Well sampling field logs are presented in Appendix A.

The well purge water was placed into a 55-gallon steel drum, labeled, and staged on-site for temporary storage until proper off-site disposal could be arranged.

The groundwater samples were analyzed by STL San Francisco for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015, and benzene, toluene, ethylbenzene and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. The analytical results for this and previous sampling periods are presented in Table Three. The certified analytical report and chain-of-custody documentation are included as Appendix B. Previous analytical data for the former ARCO station is summarized in Table Four.

## **4.0 CONCLUSIONS**

- Concentrations of TPH-G, benzene, and MTBE in samples taken from monitoring well MW-1 decreased significantly.
- Concentrations of TPH-G decreased slightly, while concentrations of MTBE increased slightly in groundwater samples taken from monitoring well MW-3.
- Concentrations of MTBE decreased slightly in groundwater samples taken from monitoring well MW-4.
- Concentrations of TPH-G and BTEX decreased significantly in groundwater samples taken from monitoring well MW-5.
- Unless otherwise stated, detected compounds in groundwater samples remain relatively unchanged compared to previous analytical results.

The following groundwater sample concentrations remain in excess of Environmental Screening Levels (ESLs) as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated February 2005

- Monitoring wells MW-1, MW-3, MW-4, and MW-5 contained concentrations of TPH-G and MTBE in excess of the ESLs.
- Monitoring well MW-1 contained concentrations of benzene in excess of the ESL.
- Monitoring well MW-5 contained concentrations of benzene, ethyl benzene, toluene and xylene in excess of the ESLs.

## **5.0 RECOMMENDATIONS**

ASE recommends continued groundwater monitoring on a quarterly basis. The next groundwater sampling is scheduled for April 2006.

Additionally, ASE has received approval from the ACHCSA for a workplan to conduct in-situ chemical oxidation of hydrocarbons in the soil and groundwater below the site. The property has recently been purchased, and the remediation work will begin upon authorization by the new owner.

## **6.0 REPORT LIMITATIONS**

The results presented in this report represent the conditions at the time of the groundwater sampling, at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

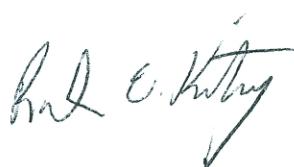
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



David Rains  
Project Geologist



Robert E. Kitay, P.G., R.E.A.  
Senior Geologist



Attachments: Figures 1 and 2  
Appendices A and B

cc: Mr. Barney Chan, Alameda County Health Care Services  
Ms. Betty Graham, RWQCB, San Francisco Bay Region

## **FIGURES**



NORTH

BBQ

BBQ



Lake Merritt  
Channel Park



### LOCATION MAP

YEE PROPERTY  
726 HARRISON STREET  
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS

FIGURE 1

# 8TH STREET

Approx. Groundwater Flow Direction



NORTH

SCALE

1" = 30'

HARRISON STREET



## SUBJECT PROPERTY

MW-4 (14.49')

FORMER USTS & OVEREXCAVATION BOUNDARY

14:0'  
13.5'

MW-1  
BH-C (3.18)\*

MW-3 (12.83')  
MW-5 (13.78)

ARCO MW-4 (13.54')

ARCO MW-2 (13.33')

ARCO MW-1 (12.90')

FORMER ARCO STATION

13.5'  
13.0'

12.5'

SIDEWALK

12.0'

ARCO MW-5 (11.95')

○  
ARCO  
MW-7  
(12.71')

○  
ARCO  
MW-6  
(12.11')

FORMER  
USTS/  
OVEREXCAVATIONS

13.5'

13.0'

12.5'

SIDEWALK

12.0'

ARCO  
MW-5  
(11.95')

## LEGEND

Approx. Groundwater Flow Direction

MW-1 ASE Monitoring Well

○ MW-1 Former ARCO Monitoring Well

(12.39') Groundwater elevation, relative to MSL

Groundwater elevation contour

\* Anomalous data - Not used for contouring

GROUNDWATER ELEVATION  
CONTOUR MAP - 1/23/06

YEE PROPERTY  
726 HARRISON STREET  
OAKLAND, CALIFORNIA

## **TABLES**

**TABLE ONE**  
**Groundwater Elevation Data**  
**Yee Property**  
**726 Harrison St., Oakland, CA**

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	12/15/98	31.95*	17.32	14.63
	3/4/99		15.52	16.43
	6/17/99		16.9	15.05
	8/27/99		17.39	14.56
	12/9/99		18.03	13.92
	3/7/00		15.11	16.84
	6/7/00		16.66	15.29
	10/11/00		18.08	13.87
	1/18/01		17.96	13.99
	4/5/01		16.35	15.60
	7/17/01		16.94	15.01
	10/5/01		17.35	11.63
	1/18/02		15.40	13.58
	4/11/02		15.76	13.22
	7/8/02		16.17	12.81
	10/9/02		16.72	12.26
	1/29/03		16.26	12.72
	4/11/03		16.56	12.42
	7/18/03		16.42	12.56
	10/9/03		16.88	12.10
	1/28/04		16.10	12.88
	4/7/04		15.43	13.55
	7/23/04		16.41	12.57
	10/12/04		17.73	11.25
MW-2	1/29/05		15.02	13.96
	4/28/05		14.99	13.99
	7/19/05		16.36	12.62
	10/18/05		17.82	11.16
	1/23/06		15.80	13.18
	12/15/98	32.40*	18.03	14.37
	3/4/99		16.11	16.29
	6/17/99		17.72	14.68
	8/27/99		Inaccessible	
	12/9/99		Inaccessible	
	3/7/00		Inaccessible	
	6/7/00		17.67	14.73
	10/11/00		18.91	13.49
	1/18/01		18.66	13.74
	4/5/01		16.97	15.43
	7/17/01		17.54	14.86
	10/5/01		17.98	11.46
	1/18/02		15.87	13.57
	4/11/02		16.36	13.08
	7/8/02		16.72	12.72
	10/9/02		17.33	12.11
	1/29/03		16.82	12.62
	4/11/03		17.15	12.29
	7/18/03		17.05	12.39
	10/9/03		17.52	11.92
	1/28/04		16.70	12.74
	4/7/04		16.02	13.42
	7/23/04	Inaccessible		
	10/12/04		17.31	12.13
	1/29/05		15.46	13.98
	4/28/05		15.79	13.65
	7/19/05		17.25	12.19
	10/18/05		17.72	11.72
	1/23/05		15.65	13.79

**TABLE ONE**  
**Groundwater Elevation Data**  
**Yee Property**  
**726 Harrison St., Oakland, CA**

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
<b>MW-3</b>	12/15/98	31.61*	17.26	14.35
	3/4/99		15.47	16.14
	6/17/99		16.92	14.69
	8/27/99		17.40	14.21
	12/9/99		18.01	13.60
	3/7/00		16.15	15.46
	6/7/00		16.85	14.76
	10/11/00		18.07	13.54
	1/18/01		17.89	13.72
	4/5/01		16.21	15.40
	7/17/01		16.90	14.71
	10/5/01	28.64	17.32	11.32
	1/18/02		15.35	13.29
	4/11/02		15.82	12.82
	7/8/02		16.15	12.49
	10/9/02		16.67	11.97
	1/29/03		16.19	12.45
	4/11/03		16.49	12.15
	7/18/03		16.42	12.22
	10/9/03		16.80	11.84
	1/28/03		15.94	12.70
	4/7/04		15.28	13.36
	7/23/04		16.15	12.49
	10/12/04		16.63	12.01
	1/29/05		16.15	12.49
	4/28/05		14.94	13.70
	7/19/05		16.25	12.39
	10/18/05		16.76	11.88
	1/23/06		15.81	12.83
<b>MW-4</b>	12/15/98	32.53*	17.59	14.94
	3/4/99		15.88	16.65
	6/17/99		17.14	15.39
	8/27/99		17.65	14.88
	12/9/99		18.28	14.25
	3/7/00		15.41	17.12
	6/7/00		17.09	15.44
	10/11/00		18.33	14.20
	1/18/01		18.23	14.30
	4/5/01		16.69	15.84
	7/17/01		17.32	15.21
	10/5/01	29.58	17.71	11.87
	1/18/02		15.85	13.73
	4/11/02		16.14	13.44
	7/8/02		16.56	13.02
	10/9/02		17.09	12.49
	1/29/03		16.65	12.93
	4/11/03		16.93	12.65
	7/18/03		16.78	12.80
	10/9/03		17.26	12.32
	1/28/04		16.38	13.20
	4/7/04		15.64	13.94
	7/23/04		16.58	13.00
	10/12/04	Inaccessible		
	1/29/05		14.90	14.68
	4/28/05		15.18	14.40
	7/19/05		16.48	13.10
	10/18/05		16.99	12.59
	1/23/06		15.09	14.49

**TABLE ONE**  
**Groundwater Elevation Data**  
**Yee Property**  
**726 Harrison St., Oakland, CA**

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-5	8/29/01	29.06	17.42	11.64
	1/18/02		15.68	13.38
	4/11/02		16.17	12.89
	7/8/02		16.51	12.55
	10/9/02		17.10	11.96
	1/29/03		16.58	12.48
	4/11/03		16.87	12.19
	7/18/03		16.77	12.29
	10/9/03		17.21	11.85
	1/28/04		16.34	12.72
	4/7/04		15.38	13.68
	7/23/04		16.55	12.51
	10/12/04		17.02	12.04
	1/29/05		15.23	13.83
	4/28/05		15.41	13.65
	7/19/05		16.79	12.27
	10/18/05		17.28	11.78
	1/23/06		<b>15.28</b>	<b>13.78</b>

\* Top of casing elevation relative to arbitrary project datum

**TABLE TWO**  
**Groundwater Elevation Data**  
**Former ARCO Station**  
**706 Harrison St., Oakland, CA**

Well ID	Date of Measurement	Top of Casing Elevation* (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
<b>MW-1</b>	7/18/03	29.15	14.50	14.65
	10/9/03	26.17	13.81	12.36
	1/28/04		13.09	13.08
	4/7/04		14.97	11.20
	7/23/04		14.15	12.02
	10/12/04		16.30	9.87
	4/27/05		13.35	12.82
	7/19/05		14.68	11.49
	10/18/05		15.15	11.02
	1/23/06		<b>13.27</b>	<b>12.90</b>
<b>MW-2</b>	7/18/03	30.51	16.84	13.67
	10/9/03	27.53	16.05	11.48
	1/28/04		15.39	12.14
	4/7/04		16.01	11.52
	7/23/04		15.30	12.23
	10/12/04		17.87	9.66
	4/27/05		14.63	12.90
	7/19/05		15.60	11.93
	10/18/05		16.08	11.45
	1/23/06		<b>14.20</b>	<b>13.33</b>
<b>MW-3</b>	7/18/03	29.77	14.80	14.97
	10/9/03	26.79	14.13	12.66
	1/28/04		13.47	13.32
	4/7/04		15.41	11.38
	7/23/04		14.54	12.25
	10/12/04		16.58	10.21
	4/27/05		13.68	13.11
	7/19/05		15.15	11.64
	10/18/05		15.60	11.19
	1/23/06		<b>13.65</b>	<b>13.14</b>
<b>MW-4</b>	7/18/03	31.18	17.08	14.10
	10/9/03	28.20	16.25	11.95
	1/28/04		15.65	12.55
	4/7/04		16.49	11.71
	7/23/04		15.86	12.34
	10/12/04		18.05	10.15
	4/27/05		14.20	14.00
	7/19/05		16.08	12.12
	10/18/05		16.55	11.65
	1/23/06		<b>14.66</b>	<b>13.54</b>

**TABLE TWO**  
**Groundwater Elevation Data**  
**Former ARCO Station**  
**706 Harrison St., Oakland, CA**

Well ID	Date of Measurement	Top of Casing Elevation* (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
<b>MW-5</b>	7/18/03	28.04	14.28	13.76
	10/9/03	25.07	13.36	11.71
	1/28/04		12.68	12.39
	4/7/04		14.71	10.36
	7/23/04		13.49	11.58
	10/12/04		15.88	9.19
	4/27/05		13.40	11.67
	7/19/05		14.21	10.86
	10/18/05		14.79	10.28
	1/23/06		13.12	11.95
<b>MW-6</b>	7/18/03	29.10	15.47	13.63
	10/9/03	26.13	14.73	11.40
	1/28/04		14.05	12.08
	4/7/04		14.41	11.72
	7/23/04		15.15	10.98
	10/12/04		17.27	8.86
	4/27/05		14.10	12.03
	7/19/05		15.18	10.95
	10/18/05		15.65	10.48
	1/23/06		14.02	12.11
<b>MW-7</b>	7/18/03	29.67	15.19	14.48
	10/9/03	26.70	14.45	12.25
	1/28/04		13.88	12.82
	4/7/04		15.71	10.99
	7/23/04		14.85	11.85
	10/12/04		16.90	9.80
	4/27/05		13.75	12.95
	7/19/05		14.91	11.79
	10/18/05		15.40	11.30
	1/23/06		13.99	12.71

\* Survey data updated on 10/27/2003

**TABLE THREE**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Yee Property**  
**726 Harrison St., Oakland, CA**  
**All results are in parts per billion (ppb)**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-1</b>						
7/3/97	18,000	2,700	350	450	900	7,400
12/5/98	18,000	1,500	270	260	560	14,000
3/4/99	44,000	2,800	400	440	960	43,000
6/17/99	33,000	2,200	250	460	660	25,000
8/27/99	6,000	1,000	97	190	230	14,000/ 16,000*
12/9/99	15,000	1,500	160	220	420	17,000
3/7/00	9,300	1,500	210	66	530	12,000
6/7/00	26,000**	1,700	< 250	360	580	30,000
10/11/00	13,000**	1,600	< 100	140	160	19,000
1/18/01	14,000**	450	< 100	110	230	9,600
4/5/01	38,000	2,200	180	290	590	35,000
7/17/01	35,000**	1,800	< 100	300	170	35,000
10/5/01	17,000	1,500	210	420	790	27,000
1/18/02	18,000	1,500	120	160	220	22,000
4/11/02	41,000	2,700	210	340	380	30,000
7/8/02	36,000	2,800	140	360	300	31,000
10/9/02	30,000	1,700	310	< 100	< 100	19,000
1/29/03	26,000	2,400	< 100	310	520	20,000
4/11/03	22,000	1,700	< 100	270	580	16,000
7/18/03	40,000	3,200	290	480	830	39,000
10/9/03	54,000**	3,300	< 130	350	310	49,000
1/28/04	26,000***	3,000	310	420	800	31,000
4/7/04	33,000***	2,800	130	310	310	39,000
7/23/04	56,000***	4,500	< 250	390	< 500	53,000
10/12/04	25,000***	1,400	< 250	< 250	< 500	25,000
1/29/05	24,000	1,600	< 100	160	< 200	19,000
4/28/05	< 10,000	2,000	< 100	160	100	34,000
7/19/05	37,000	2,100	83	210	230	28,000
10/18/05	37,000	1,300	< 250	< 250	< 250	23,000
1/24/06	23,000	780	< 100	160	260	11,000

**TABLE THREE**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Yee Property**  
**726 Harrison St., Oakland, CA**  
**All results are in parts per billion (ppb)**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-2</b>						
12/5/98	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
3/4/99		Inaccessible due to car parked over well				
6/17/99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
8/27/99		Inaccessible due to car parked over well				
12/9/99		Inaccessible due to car parked over well				
3/7/00		Inaccessible due to car parked over well				
6/7/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/11/00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/18/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
4/5/01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/17/01			No longer sampled			

**TABLE THREE**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Yee Property**  
**726 Harrison St., Oakland, CA**  
**All results are in parts per billion (ppb)**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-3</b>						
12/5/98	6,500***	< 50	50	60	50	3,900
3/4/99	2,800	< 25	< 25	< 25	< 25	1,600
6/17/99	1,000	< 10	< 10	< 10	< 10	1,400
8/27/99	230	< 0.5	0.51	0.5	1	1,500/ 1,600*
12/9/99	870**	< 0.5	< 0.5	< 0.5	< 0.5	2,100
3/7/00	150**	4	< 0.5	< 0.5	< 0.5	830
6/7/00	140**	< 0.5	< 0.5	< 0.5	< 0.5	1,100
10/11/00	620**	< 5.0	< 5.0	< 5.0	< 5.0	1,500
1/18/01	1,200**	< 5.0	< 5.0	< 5.0	< 5.0	1,000
4/5/01	1,700**	< 5.0	< 5.0	< 5.0	< 5.0	1,900
7/17/01	1,400**	< 10	< 10	< 10	< 10	1,700
10/5/01	< 1,000	< 10	< 10	< 10	< 10	1,700
1/18/02	1,600	26	20	16	54	2,100
4/11/02	2,600	21	16	< 10	21	2,300
7/8/02	2,800	< 10	< 10	< 10	< 10	3,800
10/9/02	6,000	< 50	< 50	< 50	< 50	4,900
1/29/03	1,800	< 10	< 10	< 10	< 10	2,300
4/11/03	2,900	< 25	< 25	< 25	< 25	3,100
7/18/03	3,400	< 10	< 10	< 10	< 10	3,200
10/9/03	2,300	< 10	< 10	< 10	< 10	2,700
1/28/03	1,700**	< 10	< 10	< 10	< 10	2,900
4/7/04	2,700**	< 10	< 10	< 10	< 20	3,600
7/23/04	4,200**	< 25	< 25	< 25	< 50	4,900
10/12/04	5,000**	< 50	< 50	< 50	< 100	5,900
1/29/05	< 1,000	< 10	< 10	< 10	< 20	3,100
4/28/05	< 200	< 2.0	< 2.0	< 2.0	< 2.0	1,300
7/19/05	4,400	< 20	< 20	< 20	< 40	3,000
10/18/05	18,000	< 50	< 50	< 50	< 50	6,800
1/24/06	17,000	< 100	< 100	< 100	< 200	7,000

**TABLE THREE**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Yee Property**  
**726 Harrison St., Oakland, CA**  
**All results are in parts per billion (ppb)**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-4</b>						
12/5/98	880	3	< 0.5	< 0.5	< 0.5	950
3/4/99	3,800	< 25	< 25	< 25	< 25	3,700
6/17/99	2,700	< 25	< 25	< 25	< 25	2,700
8/27/99	440	4.7	1.1	0.58	1.3	1,600/ 1,700*
12/9/99	1,100**	< 2.5	< 2.5	< 2.5	< 2.5	1,700
3/7/00	< 250	< 2.5	< 2.5	< 2.5	< 2.5	1,700
6/7/00	530**	8.8	< 2.5	< 2.5	< 2.5	440
10/11/00	700**	3.9	< 2.5	< 2.5	< 2.5	680
1/18/01	2,000**	< 2.5	< 2.5	< 2.5	< 2.5	780
4/5/01	810**	< 2.5	< 2.5	< 2.5	< 2.5	620
7/17/01	880**	< 2.5	< 2.5	< 2.5	< 2.5	570
10/5/01	550**	< 2.5	< 2.5	< 2.5	< 2.5	710
1/18/02	960**	< 5.0	< 5.0	< 5.0	< 5.0	1,300
4/11/02	1,100**	< 5.0	< 5.0	< 5.0	< 5.0	550
7/8/02	1,200**	< 5.0	< 5.0	< 5.0	< 5.0	890
10/9/02	1,300**	< 5.0	< 5.0	< 5.0	< 5.0	880
1/29/03	530**	< 1.0	< 1.0	< 1.0	< 1.0	190
4/11/03	690**	< 2.5	< 2.5	< 2.5	< 2.5	310
7/18/03	1,600**	< 10	< 10	< 10	< 10	1,300
10/9/03	1500***	< 10	< 10	< 10	< 10	1,400
1/28/04	1,200**	< 10	< 10	< 10	< 10	1,900
4/7/04	1,900**	< 10	< 10	< 10	< 20	2,200
7/23/04	1,800**	< 10	< 10	< 10	< 20	1,600
10/12/04	Inaccessible due to car parked over well					
1/29/05	< 1,300	< 13	< 13	< 13	< 25	3,900
4/28/05	510	< 1.5	< 1.5	< 1.5	< 1.5	510
7/19/05	5,400	< 50	< 50	< 50	< 100	2,700
10/18/05	10,000	< 50	< 50	< 50	< 50	9,000
1/24/06	10,000	< 100	< 100	< 100	< 200	8,300

**TABLE THREE**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Yee Property**  
**726 Harrison St., Oakland, CA**  
**All results are in parts per billion (ppb)**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-5</b>						
8/29/01	14,000	1,300	470	230	800	14,000
1/18/02	24,000	3,200	1,300	390	1,500	5,700
4/11/02	23,000	2,700	980	38	950	4,300
7/8/02	19,000	3,300	25	360	1,100	2,100
10/9/02	24,000	2,800	990	360	820	2,400
1/29/03	17,000	2,100	1,400	380	1,400	< 250
4/11/03	26,000	2,900	2,200	590	2,200	630
7/18/03	26,000	3,500	1,700	480	1,300	1,300
10/9/03	27,000	3,800	1,900	510	1,700	1,200
1/28/04	29,000	4,800	2,900	770	2,300	3,300
4/7/04	23,000	4,400	2,700	720	2,200	1,700
7/23/04	29,000	5,200	2,200	810	1,400	2,200
10/12/04	26,000	4,300	2,000	670	1,300	2,200
1/29/05	29,000	4,600	2,500	750	1,400	2,200
4/28/05	32,000	3,300	2,300	530	2,100	4,100
7/19/05	39,000	4,300	2,300	690	1,500	5,400
10/18/05	110,000	3,400	1,900	540	1,600	13,000
1/24/06	21,000	1,800	1,200	270	820	13,000
ESL	400	46	130	290	13	1,800

Notes:

\* EPA Method 8020/EPA Method 8260 (MTBE confirmation)

\*\* Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard

\*\*\* Sample contains a discrete peak in addition to gasoline

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Most current data is in **Bold**

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory method reporting limit.

**TABLE FOUR**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Former ARCO Station**  
**706 Harrison St., Oakland, CA**  
**All results are in parts per billion (ppb)**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-1</b>						
7/18/03	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/9/03	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/28/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
4/7/04	180	60	0.56	1.9	< 0.5	< 5.0
7/23/04	130	36	< 0.5	0.65	< 0.5	< 5.0
10/12/04	< 50	2.5	1.5	< 0.5	0.86	< 5.0
4/27/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/19/05	4,500	1400	6.5	160	58	630
10/18/05	1,700	3400	< 5.0	28	< 5.0	8,000/7,200
1/23/06	3,100	790	6.5	79	32	4,200/5,100
<b>MW-2</b>						
7/18/03	57,000	2,100	8,700	2,200	10,000	< 50*
10/9/03	49,000	1,800	7,000	1,700	7,600	< 1,500/26
1/28/04	550	21	33	3	61	< 100
4/7/04	41,000	2,500	11,000	1,900	8,000	< 2,000
7/23/04	81,000	2,000	12,000	2,500	12,000	< 2,000
10/12/04	75,000	2,600	13,000	2,300	11,000	< 1,300
4/27/05	61,000	2,800	11,000	1,600	7,000	< 2,700
7/19/05	90,000	3,700	14,000	2,600	10,000	< 7,000
10/18/05	77,000	3,300	14,000	2,400	11,000	7,900/6,400
1/23/06	54,000	1,600	8,000	1,600	7	6,600/7,000
<b>MW-3</b>						
7/18/03	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/28/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/23/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
2/14/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/19/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/23/06	< 50	< 0.5	< 0.5	< 0.5	< 0.5	270/260
<b>MW-4</b>						
7/18/03	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.74*
10/9/03	210	5	0.57	1.6	1.1	< 10/10
1/28/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
4/12/04	770	56	3.2	7.0	6.5	120/160
7/23/04	1100	130	11	17.0	17	790/800
10/12/04	150	0.86	< 0.5	< 0.5	0.97	< 10
4/27/05	3,000	520	100	27	86	600/480
7/19/05	1,800	310	16	36	25	1,000/1,100
10/18/05	2,500	450	28	47	51	3,800/4,500
1/23/06	1,300	170	13	14	14	2,500/3,300

**TABLE FOUR**  
**Summary of Analytical Results for GROUNDWATER Samples**  
**Former ARCO Station**  
**706 Harrison St., Oakland, CA**  
**All results are in parts per billion (ppb)**

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-5</b>						
7/18/03	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/28/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/23/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
2/14/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/19/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/23/05	<b>&lt; 50</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 5.0</b>
<b>MW-6</b>						
7/18/03	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/28/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/23/04	3,300	1,300	< 5.0	52	9.7	< 50
4/27/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0/<0.5
7/19/05	110	15	< 0.5	0.62	< 0.5	< 5.0
10/18/05	<b>&lt; 50</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 5.0/0.87</b>
1/23/06	<b>&lt; 50</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 5.0/0.50</b>
<b>MW-7</b>						
7/18/03	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/28/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/23/04	< 50	< 0.5	< 0.5	< 0.5	< 0.5	130/120
4/27/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0/1.3
7/19/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	65/66
10/18/05	< 50	< 0.5	< 0.5	< 0.5	< 0.5	12/15
1/23/06	<b>&lt; 50</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 0.5</b>	<b>&lt; 5.0/2.2</b>
ESL	400	46	130	290	13	1,800

Notes:

\* Indicates EPA Method 8260

Concentrations separated by a "/" indicate results by both EPA Methods 8020/8260

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Most current data is in **Bold**

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory method reporting limit.

## **APPENDIX A**

### Well Sampling Field Logs

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Yee		
JOB NUMBER	DATE OF SAMPLING		
WELL ID.	<i>MW-1</i>	SAMPLER	
TOTAL DEPTH OF WELL	<i>27.2</i>	WELL DIAMETER	
DEPTH TO WATER PRIOR TO PURGING	<i>15.80</i>		
PRODUCT THICKNESS	<i>6</i>		
DEPTH OF WELL CASING IN WATER	<i>11.4</i>		
NUMBER OF GALLONS PER WELL CASING VOLUME	<i>1.074</i>		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	<i>3</i>		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	<i>5.21</i>		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	<i>8:14</i>	TIME EVACUATION COMPLETED	<i>8:25</i>
TIME SAMPLES WERE COLLECTED	<i>8:26</i>		
DID WELL GO DRY	<i>No</i>	AFTER HOW MANY GALLONS	<i>n/a</i>
VOLUME OF GROUNDWATER PURGED	<i>5.81</i>		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	<i>clear</i>	ODOR/SEDIMENT	<i>w/c - sleek / no</i>

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	<i>40.9</i>	<i>7.12</i>	<i>270</i>
2	<i>40.5</i>	<i>7.11</i>	<i>510</i>
3	<i>42.6</i>	<i>7.03</i>	<i>515</i>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<i>MW-1</i>	<i>3</i>	<i>40ml VOA</i>	<i>6/BETX/IMPE</i>	<i>Y</i>

*MW-2 dept to water : 15.65*

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Yee
JOB NUMBER	DATE OF SAMPLING
WELL ID.	SAMPLER
TOTAL DEPTH OF WELL	WELL DIAMETER
DEPTH TO WATER PRIOR TO PURGING	15.81
PRODUCT THICKNESS	13.34
DEPTH OF WELL CASING IN WATER	13.39
NUMBER OF GALLONS PER WELL CASING VOLUME	2.28
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	6.83
EQUIPMENT USED TO PURGE WELL	disposable bailer
TIME EVACUATION STARTED	8:34
TIME EVACUATION COMPLETED	8:48
TIME SAMPLES WERE COLLECTED	8:49
DID WELL GO DRY	no
AFTER HOW MANY GALLONS	/
VOLUME OF GROUNDWATER PURGED	7
SAMPLING DEVICE	disposable bailer
SAMPLE COLOR	clear
ODOR/SEDIMENT	no/no

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	59.9	6.87	47378
2	63.3	7.00	509
3	62.5	7.01	512

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-3	5 3	40ml VOA	6/DETAILED	Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Yee		
JOB NUMBER	DATE OF SAMPLING		
WELL ID.	<i>MW -4</i>	SAMPLER	
TOTAL DEPTH OF WELL	<i>29.7</i>	WELL DIAMETER	
DEPTH TO WATER PRIOR TO PURGING	<i>15.09</i>		
PRODUCT THICKNESS	<i>6</i>		
DEPTH OF WELL CASING IN WATER	<i>21 14.61</i>		
NUMBER OF GALLONS PER WELL CASING VOLUME	<i>2.48</i>		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	<i>7.45</i>		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	<i>750</i>	TIME EVACUATION COMPLETED	<i>807</i>
TIME SAMPLES WERE COLLECTED	<i>804</i>		
DID WELL GO DRY	<i>no</i>	AFTER HOW MANY GALLONS	
VOLUME OF GROUNDWATER PURGED	<i>7.5</i>		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	<i>clear</i>	ODOR/SEDIMENT	<i>h.e / no</i>

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	<i>64.0</i>	<i>6.76</i>	<i>727</i>
2			
3	<i>62.5</i>	<i>6.87</i>	<i>550</i>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<i>MW -4</i>	<i>63</i>	<i>40ml VOA</i>	<i>G/NETX-MTS</i>	<i>Y</i>

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	Yee		
JOB NUMBER	DATE OF SAMPLING 1-24-06		
WELL ID.	MW-5	SAMPLER	dr
TOTAL DEPTH OF WELL	28.5	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	15.28		
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	13.22		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.25		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4.75		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	8:54	TIME EVACUATION COMPLETED	9:15
TIME SAMPLES WERE COLLECTED	9:16		
DID WELL GO DRY	no	AFTER HOW MANY GALLONS	n/a
VOLUME OF GROUNDWATER PURGED	4.75		
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	clear	ODOR/SEDIMENT	n/c /n/o

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	63.9	6.57	611
2	63.1	6.61	660
3	63.3	6.65	667

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-5	1 3	40ml VOA	6-BETX-MAE	Y

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation

## **ANALYTICAL REPORT**

Job Number: 720-1685-1

Job Description: Yee Oakland

For:

Aqua Science Engineers Inc  
208 West El Pintado Road  
Danville, CA 94526

Attention: Dave Allen

*Surinder Sidhu*

---

Surinder Sidhu  
Project Manager I  
[ssidhu@stl-inc.com](mailto:ssidhu@stl-inc.com)  
02/08/2006

## METHOD SUMMARY

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS Purge-and-Trap	STL-SF STL-SF	SW846 8260B SW846 5030B	

### LAB REFERENCES:

STL-SF = STL-San Francisco

### METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986  
And Its Updates.

## SAMPLE SUMMARY

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-1685-1	MW-1	Water	01/24/2006 0826	01/25/2006 0955
720-1685-2	MW-3	Water	01/24/2006 0849	01/25/2006 0955
720-1685-3	MW-4	Water	01/24/2006 0809	01/25/2006 0955
720-1685-4	MW-5	Water	01/24/2006 0916	01/25/2006 0955

## Analytical Data

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

Client Sample ID: MW-1

Lab Sample ID: 720-1685-1

Date Sampled: 01/24/2006 0826

Client Matrix: Water

Date Received: 01/25/2006 0955

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-5240	Instrument ID:	Varian 3900C
Preparation:	5030B			Lab File ID:	c:\saturnnws\data\200602\02
Dilution:	200			Initial Weight/Volume:	10 mL
Date Analyzed:	02/03/2006 0344			Final Weight/Volume:	10 mL
Date Prepared:	02/03/2006 0344				

Analyte	Result (ug/L)	Qualifier	RL
Benzene	780		100
Ethylbenzene	160		100
Toluene	ND		100
MTBE	11000		100
Xylenes, Total	260		200
Gasoline Range Organics (GRO)-C5-C12	23000		10000
Surrogate	%Rec		Acceptance Limits
Toluene-d8	98		77 - 121
1,2-Dichloroethane-d4	92		73 - 130

## Analytical Data

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

Client Sample ID: MW-3

Lab Sample ID: 720-1685-2

Client Matrix: Water

Date Sampled: 01/24/2006 0849

Date Received: 01/25/2006 0955

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-5240	Instrument ID:	Varian 3900C
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200602\02
Dilution:	200			Initial Weight/Volume:	10 mL
Date Analyzed:	02/03/2006 0408			Final Weight/Volume:	10 mL
Date Prepared:	02/03/2006 0408				

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		100
Ethylbenzene	ND		100
Toluene	ND		100
MTBE	7000		100
Xylenes, Total	ND		200
Gasoline Range Organics (GRO)-C5-C12	17000		10000
Surrogate	%Rec		Acceptance Limits
Toluene-d8	94		77 - 121
1,2-Dichloroethane-d4	97		73 - 130

## Analytical Data

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

Client Sample ID: MW-4

Lab Sample ID: 720-1685-3

Client Matrix: Water

Date Sampled: 01/24/2006 0809

Date Received: 01/25/2006 0955

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-5240	Instrument ID:	Varian 3900C
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200602\02
Dilution:	200			Initial Weight/Volume:	10 mL
Date Analyzed:	02/03/2006 0432			Final Weight/Volume:	10 mL
Date Prepared:	02/03/2006 0432				

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		100
Ethylbenzene	ND		100
Toluene	ND		100
MTBE	8300		100
Xylenes, Total	ND		200
Gasoline Range Organics (GRO)-C5-C12	10000		10000
Surrogate	%Rec		Acceptance Limits
Toluene-d8	99		77 - 121
1,2-Dichloroethane-d4	97		73 - 130

## Analytical Data

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

Client Sample ID: MW-5

Lab Sample ID: 720-1685-4

Client Matrix: Water

Date Sampled: 01/24/2006 0916

Date Received: 01/25/2006 0955

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-5240	Instrument ID:	Varian 3900C
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200602\02
Dilution:	200			Initial Weight/Volume:	10 mL
Date Analyzed:	02/03/2006 0456			Final Weight/Volume:	10 mL
Date Prepared:	02/03/2006 0456				

Analyte	Result (ug/L)	Qualifier	RL
Benzene	1800		100
Ethylbenzene	270		100
Toluene	1200		100
MTBE	13000		100
Xylenes, Total	820		200
Gasoline Range Organics (GRO)-C5-C12	21000		10000
Surrogate	%Rec	Acceptance Limits	
Toluene-d8	96	77 - 121	
1,2-Dichloroethane-d4	96	73 - 130	

## Quality Control Results

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>				
<b>Analysis Batch:720-5240</b>				
LCS 720-5240/14	Lab Control Spike	Water	8260B	
LCSD 720-5240/13	Lab Control Spike Duplicate	Water	8260B	
MB 720-5240/15	Method Blank	Water	8260B	
720-1685-1	MW-1	Water	8260B	
720-1685-2	MW-3	Water	8260B	
720-1685-3	MW-4	Water	8260B	
720-1685-4	MW-5	Water	8260B	

## Quality Control Results

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

### Method Blank - Batch: 720-5240

Lab Sample ID: MB 720-5240/15  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 02/02/2006 2139  
Date Prepared: 02/02/2006 2139

Analysis Batch: 720-5240  
Prep Batch: N/A  
Units: ug/L

**Method: 8260B**  
**Preparation: 5030B**

Instrument ID: Varian 3900C  
Lab File ID: c:\saturnws\data\200602\02  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
MTBE	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8	96	77 - 121	
1,2-Dichloroethane-d4	94	73 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

### Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-5240

LCS Lab Sample ID: LCS 720-5240/14  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 02/02/2006 2050  
Date Prepared: 02/02/2006 2050

Analysis Batch: 720-5240  
Prep Batch: N/A  
Units: ug/L

Method: 8260B  
Preparation: 5030B

Instrument ID: Varian 3900C  
Lab File ID: c:\saturnws\data\200602\02  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-5240/13  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 02/02/2006 2115  
Date Prepared: 02/02/2006 2115

Analysis Batch: 720-5240  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900C  
Lab File ID: c:\saturnws\data\200602\02  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Benzene	103	101	69 - 129	2	25	
Toluene	97	98	70 - 130	1	25	
MTBE	99	100	65 - 165	1	25	
Surrogate		LCS % Rec		LCSD % Rec		Acceptance Limits
Toluene-d8		94		96		77 - 121
1,2-Dichloroethane-d4		91		97		73 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.



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FAX (925) 837-4853

720-1685  
Chain of Custody

300

Analytical Laboratory Name: STL										Type of Analysis to be Performed		Other	
Project Name: Yee		Sample Location: Oakland, CA								TPH-G/MTBE & BETX		EPA 5030/8015-8020	
Sampled by: David Rains		Sampler Signature:											
Sample ID	Sample Type	Matrix			Method Preserved		Sampling			Date	Time		
	Grab	Composite	Water	Soil	Other	Cold (4°C)	HCl	HNO <sub>3</sub>	Other			Number of Containers	
MW-1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	1-24-06	824	<input checked="" type="checkbox"/>
MW-3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			849	<input type="checkbox"/>
MW-4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			809	<input type="checkbox"/>
MW-5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			916	<input type="checkbox"/>
Total # of containers: 12										Comments:			
Relinquished by:	Date	Time	Received by:			Date	Time						
J. Rains	1-25-0850	0850	CMM DT			1/25/06	0850						
1/17/06	1/25/06	0901	Jeanne Mullen			1/25/06	0955						

## LOGIN SAMPLE RECEIPT CHECK LIST

Client: Aqua Science Engineers Inc

Job Number: 720-1685-1

**Login Number: 1685**

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

# CAMBRIA

**Table 1. Groundwater Elevations and Analytical Data:** Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-1 29.15 Quarterly	8/13/1993	17.40	11.75	20,000	8,500	640	280	440	-	-	
	12/14/1993	17.27	11.88	17,000	9,200	1,200	4,400	540	-	-	
	4/15/1994	17.00	12.15	9,500	3,600	530	160	280	-	-	
	12/29/1994	16.40	12.75	-	-	-	-	-	-	-	
	7/19/1996	15.83	13.32	17,000	5,200	1,100	330	530	-	-	sheen/odor
	1/27/1997	13.58	15.57	30,000	9,800	1,300	790	880	400	-	b, sheen/odor
	6/18/1997	16.11	13.04	19,000	5,600	1,400	510	770	1,200	800	a, b
	9/18/1997	16.62	12.53	48,000	18,000	4,400	1,000	1,700	ND<640	-	b
	12/10/1997	15.93	13.22	22,000	4,900	1,300	580	650	460	260	a, b, odor
	2/18/1998	11.56	17.59	16,000	5,000	750	400	780	1,800	-	b
	5/12/1998	13.53	15.62	19,000	4,600	810	450	770	5,500	-	b, c
	8/18/1998	15.19	13.96	12,000	3,600	1,300	300	570	5,100	3,700	a, b
	11/24/1998	15.67	13.48	13,000	3,600	890	330	380	6,100	-	b
	2/4/1999	15.31	13.84	20,000	5,900	830	450	500	4,900	-	b
	5/18/1999	14.95	14.20	23,000	7,000	1,600	520	830	6,100	-	b
	8/27/1999	15.84	13.31	19,000	5,800	1,700	410	710	1,800	2,100	a, b
	11/18/1999	16.39	12.76	20,000	4,900	630	410	580	4,900	3,600	b
	2/29/2000	13.43	15.72	12,000	2,800	24	290	170	3,100	3,400	a
	5/25/2000	15.08	14.07	12,000	2,200	120	330	260	9,100	12,000	a, b
	8/9/2000	16.09	13.06	13,000	2,500	44	310	140	16,000	-	b
26.17	11/9/2000	15.90	13.25	11,000	2,500	140	380	150	11,000	12,000	b
	1/29/2001	16.05	13.10	9,600	3,100	100	77	200	2,600	2,400	b
	4/16/2001	16.90	12.25	3,300	1,200	4.4	2.7	28	900	940	b
	8/14/2001	17.13	12.02	2,000	500	3.4	24	7.8	68	53	a
	10/22/2001	16.11	13.04	220	83	0.63	2.8	ND<0.5	ND<10	5.7	a
	2/1/2002	16.93	12.22	640	220	1.7	4.7	0.57	ND<10	-	a
	5/10/2002	15.09	14.06	230	26	0.97	ND<0.5	ND<0.5	ND<5.0	-	a
	7/8/2002	15.20	13.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	
	10/2/2002	15.70	13.45	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	1/23/2003	15.09	14.06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	13.02	16.13	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	7/18/2003	14.50	11.67	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	13.81	12.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	1/28/2004	13.09	13.08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	14.97	11.20	180	60	0.56	1.9	ND<0.5	ND<5.0	-	a
	7/23/2004	14.15	12.02	130	36	ND<0.5	0.65	ND<0.5	ND<5.0	-	a
	10/12/2004	16.30	9.87	ND<50	2.5	1.5	ND<0.5	0.86	ND<5.0	-	
	2/14/2005	13.85	12.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/27/2005	13.35	12.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	7/19/2005	14.68	11.49	4,500	1,400	6.5	160	58	630	-	a
	10/18/2005	15.15	11.02	1,700	340	ND<5.0	28	ND<5.0	8,000	7,200	a
	1/23/2006	13.27	12.90	3,100	790	6.5	79	32	4,200	5,100	a

# CAMBRIA

**Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California**

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-2	8/13/1993	17.05	13.46	34,000	6,800	10,000	740	3,900	-	-	
30.51	12/14/1993	18.28	12.23	16,000	3,200	4,200	500	1,700	-	-	
Quarterly	4/15/1994	18.10	12.41	23,000	2,500	4,200	470	1,800	-	-	
	12/29/1994	17.40	13.11	-	-	-	-	-	-	-	
	7/19/1996	16.72	13.79	90,000	7,300	14,000	1,600	7,300	-	-	odor
	1/27/1997	14.89	15.62	63,000	7,100	13,000	1,600	7,100	500	-	b, odor
	6/18/1997	17.12	13.39	52,000	5,100	10,000	1,400	6,000	ND<200	-	b
	9/18/1997	17.63	12.88	110,000	9,400	23,000	2,600	13,000	ND<890	-	b, sheen/odor
	12/10/1997	16.98	13.53	39,000	2,600	5,300	940	3,900	780	320	b, odor
	2/18/1998	12.61	17.90	85,000	9,000	19,000	2,300	11,000	2,400	-	b
	5/12/1998	14.45	16.06	110,000	9,500	21,000	2,500	12,000	ND<1,200	-	b
	8/18/1998	16.14	14.37	64,000	6,000	13,000	1,700	7,800	2,000	1,300	a, b
	11/24/1998	16.70	13.81	78,000	5,300	14,000	2,300	11,000	ND<2,000	-	b, g
	2/4/1999	18.39	12.12	66,000	5,800	16,000	2,600	12,000	3,000	-	b, g
	5/18/1999	15.90	14.61	78,000	6,700	17,000	2,400	10,000	4,300	-	b
	8/27/1999	16.79	13.72	91,000	7,400	17,000	2,300	11,000	1,200	1,000	a, b
	11/18/1999	17.32	13.19	180,000	7,000	20,000	3,300	16,000	ND<6,000	1,700	b,g
	2/29/2000	14.37	16.14	86,000	5,500	13,000	2,000	9,500	3,500	4,700	a
	5/25/2000	16.01	14.50	110,000	6,300	14,000	2,400	10,000	7,500	6,500	a, b, g
	8/9/2000	17.02	13.49	77,000	5,000	13,000	2,000	8,600	5,900	-	b
	11/9/2000	17.00	13.51	70,000	4,800	12,000	1,900	8,000	9,400	8,300	b
	1/29/2001	18.31	12.20	110,000	8,200	21,000	2,800	13,000	2,500	1,900	b,g
	4/16/2001	18.59	11.92	97,000	7,400	15,000	2,500	12,000	ND<3,000	ND<50	b,g
	8/14/2001	18.74	11.77	97,000	6,200	14,000	2,400	13,000	ND<250	ND<50	a,j
	10/22/2001	18.27	12.24	71,000	5,900	15,000	2,400	12,000	ND<1,400	150	a
	2/1/2002	18.05	12.46	1,400	11	88	44	210	ND<5.0	-	a
	5/10/2002	17.15	13.36	97,000	4,500	15,000	2,500	12,000	ND<3,000	-	a,g
	7/8/2002	15.30	15.21	42,000	2,100	6,500	2,200	8,800	ND<1,000	65	a
	10/2/2002	15.89	14.62	70,000	1,700	5,700	1,900	8,300	ND<1,700	-	a
	1/23/2003	17.51	13.00	40,000	1,900	7,800	1,200	5,600	ND<1,000	-	a
	4/29/2003	15.31	15.20	82,000	2,500	11,000	2,200	9,400	ND<2,000	-	a
27.53	7/18/2003	16.84	10.69	57,000	2,100	8,700	2,200	10,000	-	ND<50	a
	10/9/2003	16.05	11.48	49,000	1,800	7,000	1,700	7,600	ND<1,500	26	a
	1/28/2004	15.39	12.14	550	21	33	3.0	61	ND<100	-	a
	4/7/2004	16.01	11.52	41,000	2,500	11,000	1,900	8,000	ND<2,000	-	a
	7/23/2004	15.30	12.23	81,000	2,000	12,000	2,500	12,000	ND<2,000	-	a,h
	10/12/2004	17.87	9.66	75,000	2,600	13,000	2,300	11,000	ND<1,300	-	a
	2/14/2005	14.80	12.73	75,000	2,600	12,000	2,400	10,000	ND<1,800	-	a,h
	4/27/2005	14.63	12.90	61,000	2,800	11,000	1,600	7,000	ND<2,700	-	a
	7/19/2005	15.60	11.93	90,000	3,700	14,000	2,600	10,000	ND<7,000	-	a
	10/18/2005	16.08	11.45	77,000	3,300	14,000	2,400	11,000	7,900	6,400	a
	1/23/2006	14.20	13.33	54,000	1,600	8,000	1,600	6,700	6,600	7,000	a

# CAMBRIA

**Table 1. Groundwater Elevations and Analytical Data:** Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-3	8/13/1993	17.05	12.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	-	-	
29.77	12/14/1993	17.70	12.07	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	-	-	
Semi-annually	4/15/1994	17.40	12.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	12/29/1994	16.80	12.97	-	-	-	-	-	-	-	
	7/19/1996	16.28	13.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	1/27/1997	13.83	15.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	6/18/1997	16.53	13.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	9/18/1997	17.07	12.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/10/1997	16.15	13.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	11.80	17.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	13.85	15.92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	15.57	14.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	16.04	13.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/4/1999	17.80	11.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	15.29	14.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/27/1999	16.15	13.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	16.77	13.00	-	-	-	-	-	-	-	
	2/29/2000	13.71	16.06	ND<50	2	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/25/2000	15.46	14.31	-	-	-	-	-	-	-	
	8/9/2000	16.46	13.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	16.25	13.52	-	-	-	-	-	-	-	
	1/29/2001	16.52	13.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	16.95	12.82	-	-	-	-	-	-	-	
	8/14/2001	17.11	12.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	16.50	13.27	-	-	-	-	-	-	-	
	2/1/2002	16.90	12.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/10/2002	15.03	14.74	-	-	-	-	-	-	-	
	7/8/2002	14.45	15.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	15.03	14.74	-	-	-	-	-	-	-	
	1/23/2003	15.48	14.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	12.49	17.28	-	-	-	-	-	-	-	
26.79	7/18/2003	14.80	11.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	14.13	12.66	-	-	-	-	-	-	-	
	1/28/2004	13.47	13.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	15.41	11.38	-	-	-	-	-	-	-	
	7/23/2004	14.54	12.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/12/2004	16.58	10.21	-	-	-	-	-	-	-	
	2/14/2005	14.19	12.60	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/27/2005	13.68	13.11	-	-	-	-	-	-	-	
	7/19/2005	15.15	11.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/18/2005	15.60	11.19	-	-	-	-	-	-	-	
	1/23/2006	13.65	13.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	270	260	

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**Table 1. Groundwater Elevations and Analytical Data:** Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-4 <i>31.18</i>	12/16/1994	18.10	13.08	2,500	32	6.5	4.5	17	-	-	
	12/29/1994	17.95	13.23	-	-	-	-	-	-	-	
Quarterly	7/19/1996	17.38	13.80	3,300	520	39	67	60	-	-	
	1/27/1997	15.25	15.93	4,500	860	55	100	91	1,100	-	b
	6/18/1997	17.61	13.57	2,700	700	52	81	76	2,200	2,300	a, b
	9/18/1997	18.01	13.17	3,900	760	38	56	64	ND<170	-	b
	12/10/1997	17.45	13.73	12,000	1,800	120	210	210	2,900	2,600	a, b
	2/18/1998	13.09	18.09	1,700	210	8	6.7	16	200	-	b
	5/12/1998	14.78	16.40	2,100	300	15	36	34	920	-	b, c
	8/18/1998	16.59	14.59	4,700	1,000	130	110	150	5,200	4,900	a, b
	11/24/1998	17.18	14.00	3,000	810	44	76	94	4,800	-	b
	2/4/1999	18.90	12.28	2,800	770	50	69	69	3,100	-	b
	5/18/1999	16.30	14.88	4,000	780	57	7.7	79	4,800	-	b
	8/27/1999	17.21	13.97	4,100	870	51	74	99	3,300	4,100	a, b
	11/18/1999	17.77	13.41	3,000	760	43	67	65	5,100	5,400	b
	2/29/2000	14.85	16.33	4,600	1,000	64	94	170	4,100	4,600	a
	5/25/2000	16.45	14.73	2,600	540	39	59	41	3,500	5,300	b
	8/9/2000	17.47	13.71	4,400	930	66	98	79	9,400	-	b
	11/9/2000	17.45	13.73	4,200	630	34	54	44	7,800	9,400	b
	1/29/2001	18.90	12.28	3,100	710	34	66	51	9,400	8,000	b
28.20	4/16/2001	19.17	12.01	160	1.2	1.3	ND<0.5	12	22	20	b
	8/14/2001	19.20	11.98	1,700	190	11	35	13	300	250	b
	10/22/2001	18.95	12.23	1,100	120	3.7	29	7.9	ND<25	16	a
	2/1/2002	19.05	12.13	2,600	25	43	21	280	ND<5.0	-	a
	5/10/2002	17.69	13.49	490	3.5	2.0	2.1	2.2	ND<5.0	-	a
	7/8/2002	15.75	15.43	170	0.51	0.62	1.6	1.2	ND<5.0	2.0	m
	10/2/2002	16.30	14.88	240	1.7	2.0	2.2	0.88	ND<5.0	-	a
	1/23/2003	17.74	13.44	ND<50	0.52	4.1	ND<0.5	1.9	ND<5.0	-	
	4/29/2003	15.47	15.71	1,300	75	4.8	21	7.3	130	120	a
	7/18/2003	17.08	11.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	0.74	a
	10/9/2003	16.25	11.95	210	4.7	0.57	1.6	1.1	ND<10	10	a
	1/28/2004	15.65	12.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	a
	4/7/2004	16.49	11.71	-	-	-	-	-	-	-	
	4/12/2004	-	-	770	56	3.2	7.0	6.5	120	160	a
	7/23/2004	15.86	12.34	1,100	130	11	17	17	790	800	a
	10/12/2004	18.05	10.15	150	0.86	ND<0.5	ND<0.5	0.97	ND<10	-	a
	2/14/2005	15.30	12.90	1,500	200	16	30	31	420	550	a
	4/27/2005	14.20	14.00	3,000	520	100	27	86	600	480	a
	7/19/2005	16.08	12.12	1,800	310	16	36	25	1,000	1,100	a
	10/18/2005	16.55	11.65	2,500	450	28	47	51	3,800	4,500	a
	1/23/2006	14.66	13.54	1,300	170	13	14	14	2,500	3,300	a

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**Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California**

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-5 28.04 Semi-annually	12/16/1994	16.07	11.97	ND<50	1.1	ND<0.5	ND<0.5	2.4	-	-	
	12/29/1994	16.10	11.94	-	-	ND<0.5	ND<0.5	ND<0.5	-	-	
	7/19/1996	15.49	12.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	1/27/1997	13.60	14.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	6/18/1997	15.55	12.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	9/18/1997	16.16	11.88	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/10/1997	15.41	12.63	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	10.93	17.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	13.25	14.79	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	14.75	13.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	15.15	12.89	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/4/1999	14.61	13.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	14.15	13.89	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/27/1999	15.43	12.61	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	15.97	12.07	-	-	-	-	-	-	-	
	2/29/2000	13.16	14.88	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/25/2000	14.72	13.32	-	-	-	-	-	-	-	
	8/9/2000	15.68	12.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	15.39	12.65	-	-	-	-	-	-	-	
	1/29/2001	15.97	12.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	16.24	11.80	-	-	-	-	-	-	-	
	8/14/2001	17.39	10.65	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	15.90	12.14	-	-	-	-	-	-	-	
	2/1/2002	16.55	11.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/10/2002	15.12	12.92	-	-	-	-	-	-	-	
	7/8/2002	15.92	12.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	16.42	11.62	-	-	-	-	-	-	-	
	1/23/2003	14.90	13.14	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	12.05	15.99	-	-	-	-	-	-	-	
25.07	7/18/2003	14.28	10.79	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	13.36	11.71	-	-	-	-	-	-	-	
	1/28/2004	12.68	12.39	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	14.71	10.36	-	-	-	-	-	-	-	
	7/23/2004	13.49	11.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
	10/12/2004	15.88	9.19	-	-	-	-	-	-	-	
	2/14/2005	13.22	11.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
	4/27/2005	13.40	11.67	-	-	-	-	-	-	-	
	7/19/2005	14.21	10.86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
	10/18/2005	14.79	10.28	-	-	-	-	-	-	-	
	1/23/2006	13.12	11.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i

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Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-6 29.10 Quarterly	12/16/1994	17.74	11.36	-	-	-	-	-	-	-	
	12/29/1994	17.40	11.70	-	-	-	-	-	-	-	
	7/19/1996	16.60	12.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	1/27/1997	14.88	14.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	6/18/1997	16.73	12.37	51	22	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	c
	9/18/1997	17.24	11.86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/10/1997	16.56	12.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	12.93	16.17	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	14.35	14.75	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	15.94	13.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	16.46	12.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/4/1999	18.25	10.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	15.73	13.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/27/1999	15.64	13.46	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	17.04	12.06	-	-	-	-	-	-	-	
	2/29/2000	14.55	14.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/25/2000	15.86	13.24	-	-	-	-	-	-	-	
	8/9/2000	16.80	12.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	16.60	12.50	-	-	-	-	-	-	-	
	1/29/2001	17.00	12.10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	17.15	11.95	-	-	-	-	-	-	-	
	8/14/2001	17.30	11.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	17.13	11.97	-	-	-	-	-	-	-	
	2/1/2002	16.57	12.53	70	37	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	a
26.13	5/10/2002	15.25	13.85	-	-	-	-	-	-	-	
	7/8/2002	15.79	13.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	16.38	12.72	-	-	-	-	-	-	-	
	1/23/2003	16.03	13.07	ND<50	21	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	14.19	14.91	-	-	-	-	-	-	-	
	7/18/2003	15.47	10.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	14.73	11.40	-	-	-	-	-	-	-	
	1/28/2004	14.05	12.08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	14.41	11.72	-	-	-	-	-	-	-	
	7/23/2004	15.15	10.98	3,300	1,300	ND<5.0	52	9.7	ND<50	-	a
	10/12/2004	17.29	8.84	-	-	-	-	-	-	-	
	2/14/2005	14.60	11.53	350	160	ND<0.5	ND<0.5	ND<0.5	ND<25	2.0	a,i
	4/27/2005	14.10	12.03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	
	7/19/2005	15.18	10.95	110	15	ND<0.5	0.62	ND<0.5	ND<5.0	1.7	a,i
	10/18/2005	15.65	10.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	0.87	i
	1/23/2006	14.02	12.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	0.50	i

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Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-7 29.67 Quarterly	12/16/1994	17.07	12.60	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/29/1994	17.65	12.02	-	-	-	-	-	-	-	
	7/19/1996	16.44	13.23	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	1/27/1997	15.09	14.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	6/18/1997	16.59	13.08	73	ND<0.5	0.55	ND<0.5	ND<0.5	ND<5.0	-	d
	9/18/1997	17.06	12.61	94	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	b, f
	12/10/1997	16.58	13.09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	12.60	17.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	14.81	14.86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	15.67	14.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	16.30	13.37	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	d
	2/4/1999	15.99	13.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	15.42	14.25	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	d
	8/27/1999	16.35	13.32	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	16.81	12.86	--	--	--	--	--	--	--	
	2/29/2000	14.16	15.51	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	f
	5/25/2000	15.54	14.13	--	--	--	--	--	--	--	
	8/9/2000	16.56	13.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	16.45	13.22	-	-	-	-	-	-	-	
	1/29/2001	16.92	12.75	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	17.03	12.64	-	-	-	-	-	-	-	
	8/14/2001	17.27	12.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	16.95	12.72	-	-	-	-	-	-	-	
	2/1/2002	16.14	13.53	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/10/2002	15.30	14.37	-	-	-	-	-	-	-	
	7/8/2002	15.73	13.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	16.24	13.43	-	-	-	-	-	-	-	
	1/23/2003	15.70	13.97	ND<50	23	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	12.68	16.99	-	-	-	-	-	-	-	
26.70	7/18/2003	15.19	11.51	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	14.45	12.25	-	-	-	-	-	-	-	
	1/28/2004	13.88	12.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	15.71	10.99	-	-	-	-	-	-	-	
	7/23/2004	14.85	11.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130	120	
	10/12/2004	16.90	9.80	-	-	-	-	-	-	-	
	2/14/2005	14.42	12.28	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	190	200	
	4/27/2005	13.75	12.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	1.3	
	7/19/2005	14.91	11.79	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	65	66	
	10/18/2005	15.40	11.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	15	
	1/23/2006	13.99	12.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	2.2	

# CAMBRIA

**Table 1. Groundwater Elevations and Analytical Data:** Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Xylenes ( $\mu\text{g/L}$ )	MTBE by 8021B ( $\mu\text{g/L}$ )	MTBE by 8260B ( $\mu\text{g/L}$ )	Notes
VW-3	3/6/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
-	3/25/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
VW-4	3/6/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
-	3/25/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
Trip Blank	11/9/2000	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/14/2005	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	

**Abbreviations and Analyses:**

ND<0.5 = Not Detected (ND) above laboratory detection limit.

TOC = Top of casing elevation, measured in feet, relative to mean sea level

ft = Measured in feet

ft-msl = Elevation in feet relative to mean sea level

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C

Benzene, ethylbenzene, toluene and xylenes by EPA Method SW8021B.

MTBE = Methyl tertiary butyl ether by EPA Method SW8021B and/or SW8260B.

$\mu\text{g/L}$  = Micrograms per liter

- = Not sampled, not analyzed, or not applicable

Data prior to 12/16/94 provided by previous consultant.

Wells were re-surveyed on October 27, 2003 to City of Oakland Benchmark 25A.

**Analytical Laboratory Notes:**

a = "unmodified or weakly modified gasoline is significant"

b = "heavier gasoline range compounds are significant"

c = "lighter gasoline range compounds are significant"

d = "isolated peaks are present"

f = "hydrocarbons with no recognizable patterns are present"

g = "lighter than water immiscible sheen is present"

h = "lighter than water immiscible sheen/product is present"

i = "sample contains greater than ~1 vol. % sediment"

j = "sample was diluted due to high organic content"

m = "no recognizable pattern"