

R0303



Shell Oil Products US

February 14, 2005

Roseanna Garcia-La Grille  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Alameda County  
FEB 18 2005  
Environmental Health

**Subject: Shell-branded Service Station**  
230 West MacArthur Boulevard  
Oakland, California

Dear Ms. Garcia-La Grille:

Attached for your review and comment is a copy of the *Third Quarter 2004 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

A handwritten signature in cursive script that reads "Karen Petryna".

Karen Petryna  
Sr. Environmental Engineer

February 14, 2005

Roseanna Garcia-La Grille  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **Third Quarter 2004 Monitoring Report**  
Shell-branded Service Station  
230 West MacArthur Boulevard  
Oakland, California  
Incident # 98995741  
Cambria Project # 247-0902-002



Dear Ms. Garcia-La Grille:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

## **THIRD QUARTER 2004 ACTIVITIES**

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged all site wells, sampled selected site wells, calculated groundwater elevations, and compiled the analytical data. Cambria coordinated groundwater monitoring with the adjacent Oakland Auto Works site at 240 West MacArthur. Cambria prepared a site vicinity map that includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the analytical laboratory reports, is included as Attachment A. Attachment B includes data that Stellar Environmental Solutions of Berkeley, California provided for 240 West MacArthur.

**Additional Oxygenate Analysis:** At Shell's request, in addition to methyl tertiary butyl ether, all samples were also analyzed for the oxygenate compounds tertiary butyl alcohol, tert amyl methyl ether, di-isopropyl alcohol, and ethyl tertiary butyl ether. None of the additional target analytes was detected in the groundwater samples.

**ANTICIPATED FOURTH QUARTER 2004 ACTIVITIES**

**Groundwater Monitoring:** Blaine will gauge all wells, sample selected wells, and tabulate the data. Cambria will coordinate monitoring with the adjacent Oakland Auto Works site at 240 West MacArthur Boulevard. Cambria will prepare a monitoring report that includes a groundwater contour map based on the coordinated monitoring data.

**Subsurface Investigation Report:** Cambria submitted the July 2, 2004 *Subsurface Investigation Report*. To date, no agency response or comment has been received.

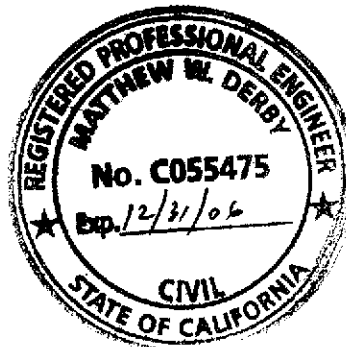
**CLOSING**

We appreciate the opportunity to work with you on this project. Please call David Gibbs at (510) 420-3363 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

David Gibbs  
Project Geologist

Matthew W. Derby, P.E.  
Senior Project Engineer

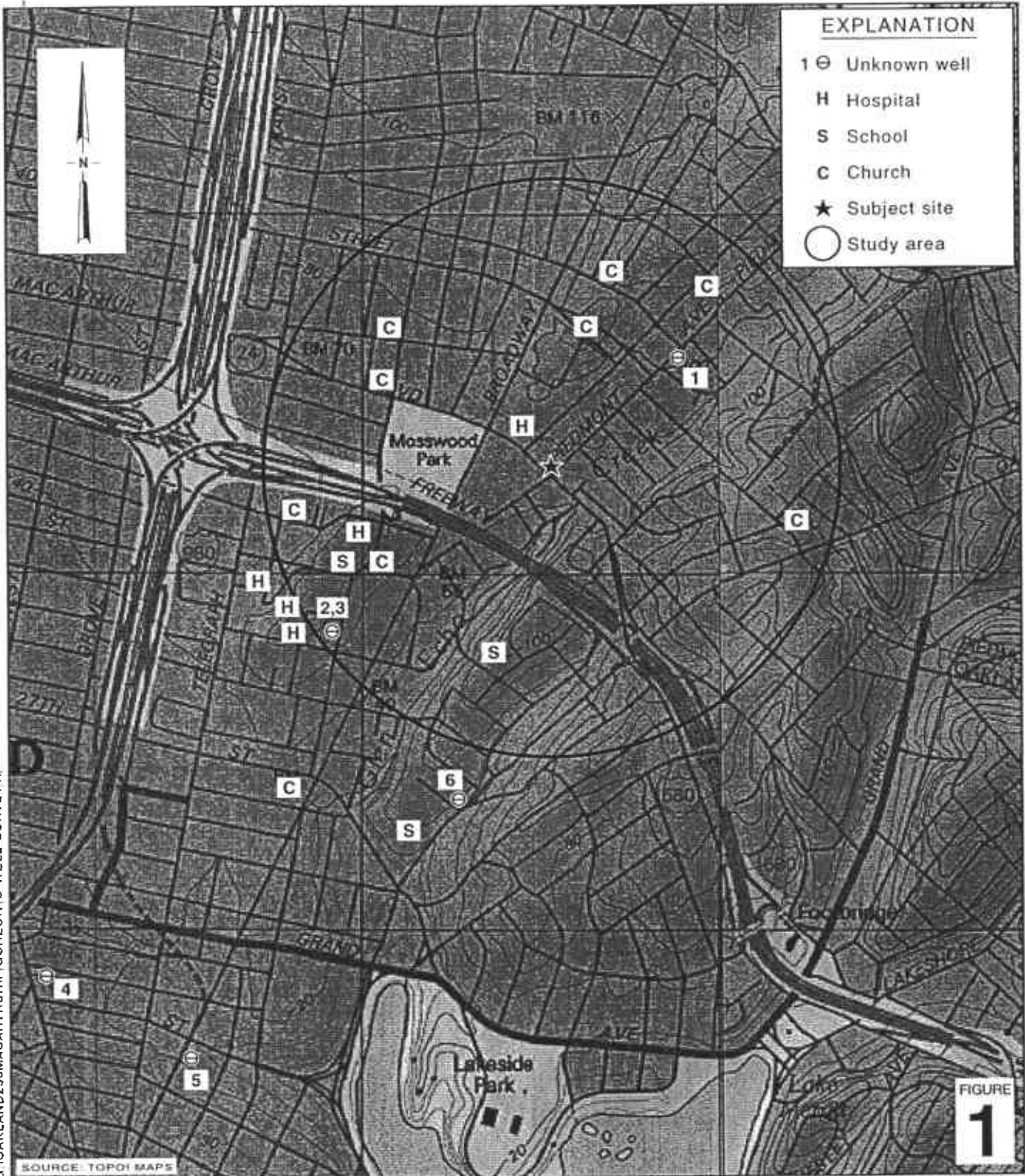


Figures: 1 - Vicinity/Area Well Survey Map  
2 - Groundwater Elevation Contour Map

Attachments: A - Blaine Groundwater Monitoring Report  
B - Groundwater Monitoring Data – 240 West MacArthur

cc: Karen Petryna, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810  
Bruce Ruttger, Stellar Environmental Solutions, 2198 6th Street, Berkeley, CA 94710

G:\Oakland 230 MacArthur\QM\3q04\3q04qm.doc



G:\OAKLAND\230MACARTHUR\FIGURES\VIC-WELL-SURVEY.A1

### Shell-branded Service Station

230 West MacArthur Boulevard  
Oakland, California  
Incident #98995741



C A M B R I A

### Vicinity/Area Well Survey Map

(1/2-Mile Radius)

Groundwater Elevation Contour Map

September 13, 2004

C A M B R I A

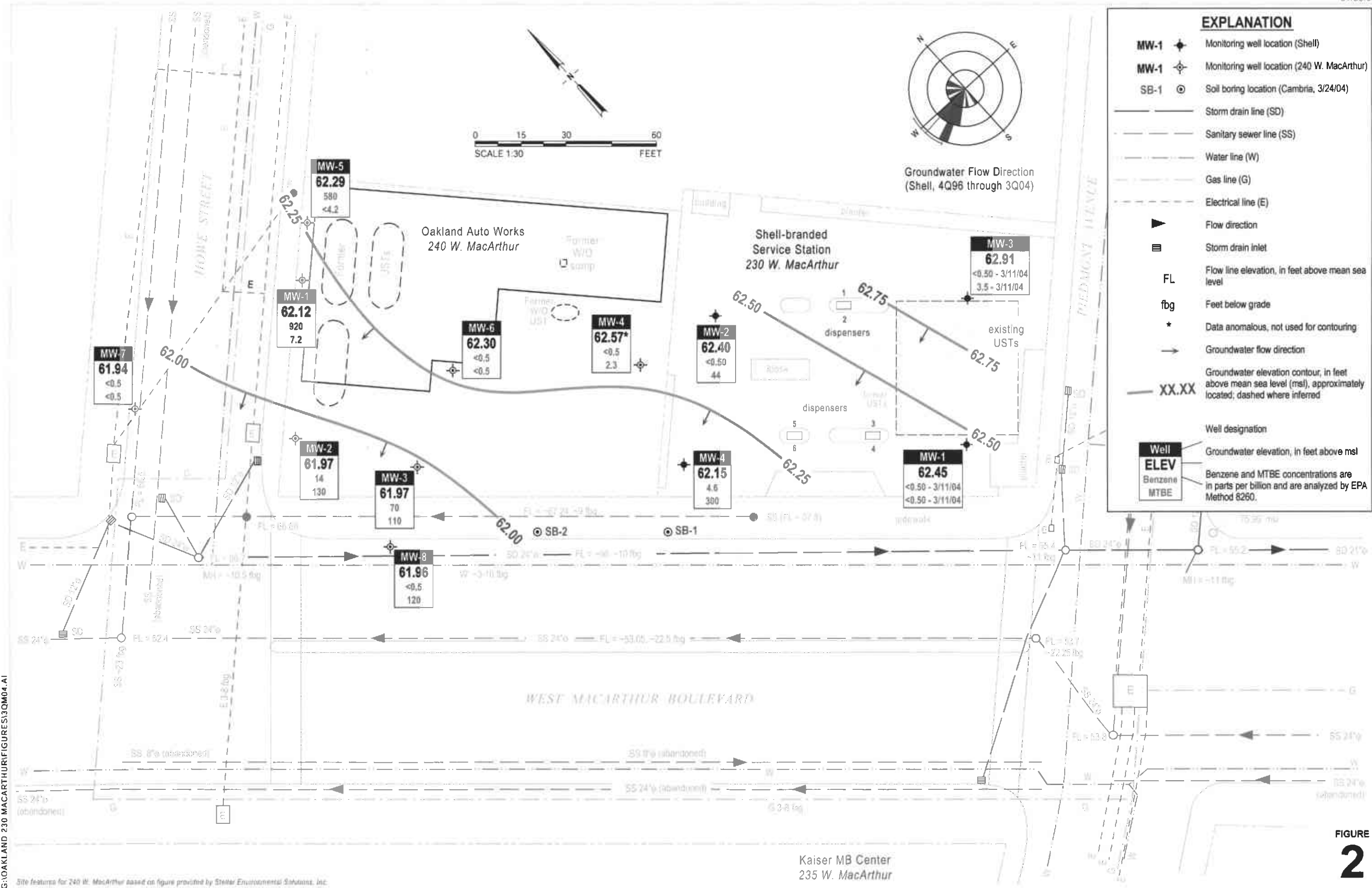


FIGURE 2

**Shell-branded Service Station**  
 230 West MacArthur Boulevard  
 Oakland, California  
 Incident #98995741

G:\OAKLAND 230 MACARTHUR\FIGURES\3QM04.AI

Site features for 240 W. MacArthur based on figure provided by Stetter Environmental Solutions, Inc.

Kaiser MB Center  
235 W. MacArthur

**ATTACHMENT A**  
**Blaine Groundwater Monitoring Report**

---

**BLAINE**  
**TECH SERVICES** INC.

---

GROUNDWATER SAMPLING SPECIALISTS  
SINCE 1985

October 19, 2004

Karen Petryna  
Shell Oil Products US  
P.O. Box 7869  
Burbank, CA 92510-7869

Third Quarter 2004 Groundwater Monitoring at  
Shell-branded Service Station  
230 West MacArthur Boulevard  
Oakland, CA

Monitoring performed on September 13, 2004

---

**Groundwater Monitoring Report 040913-MD-3**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart  
Project Coordinator

LG/ks

attachments: Cumulative Table of WELL CONCENTRATIONS  
Certified Analytical Report  
Field Data Sheets

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
Emeryville, CA 94608



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	07/14/1988	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.30	60.59
MW-1	10/04/1988	ND	8	4.3	ND	9	NA	NA	NA	NA	NA	NA	73.89	13.65	60.24
MW-1	11/10/1988	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.55	60.34
MW-1	12/09/1988	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.22	60.67
MW-1	01/10/1989	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	73.89	12.86	61.03
MW-1	01/20/1989	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	73.89	12.91	60.98
MW-1	02/06/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	12.94	60.95
MW-1	03/10/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	12.59	61.30
MW-1	06/06/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.05	59.84
MW-1	09/07/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.92	58.97
MW-1	12/18/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.88	59.01
MW-1	03/08/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.08	59.81
MW-1	06/07/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.89	60.00
MW-1	09/05/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.83	59.06
MW-1	12/03/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	15.05	58.84
MW-1	03/01/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.34	59.55
MW-1	06/03/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.16	59.73
MW-1	09/04/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.60	59.29
MW-1	03/13/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.40	60.49
MW-1	06/03/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.76	60.13
MW-1	08/19/1992	87	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.57	59.32
MW-1	11/16/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.78	59.11
MW-1	02/18/1993	59a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	12.14	61.75
MW-1	06/01/1993	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.30	60.59
MW-1	08/30/1993	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.32	59.57
MW-1	12/13/1993	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.06	59.83
MW-1	03/03/1994	100	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.12	60.77

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	06/06/1994	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.20	59.69
MW-1	09/12/1994	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	15.72	58.17
MW-1	12/15/1994	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	12.98	60.91
MW-1	3/13/1995 b	60	4.7	9.8	ND	2.9	NA	NA	NA	NA	NA	NA	73.89	11.74	62.15
MW-1	04/21/1995	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	NA	NA
MW-1	06/26/1995	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	13.00	60.89
MW-1	09/12/1995	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.89	14.14	59.75
MW-1	03/21/1996	<50	<0.5	<0.5	<0.5	<0.5	ND	NA	NA	NA	NA	NA	73.89	11.03	62.86
MW-1	06/28/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA	NA	NA	73.89	13.53	60.36
MW-1	09/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA	NA	NA	73.89	14.33	59.56
MW-1	12/19/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	13.20	60.69
MW-1	12/05/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	12.39	61.50
MW-1	12/24/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	13.59	60.30
MW-1	12/23/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	15.63	58.26
MW-1	12/11/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	15.36	58.53
MW-1	12/27/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	12.09	61.80
MW-1	03/12/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	12.33	61.56
MW-1	03/14/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	73.89	12.08	61.81
MW-1	06/13/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.89	13.47	60.42
MW-1	09/09/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.92	14.30	62.62
MW-1	12/12/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.92	14.48	62.44
MW-1	03/10/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	76.92	12.76	64.16
MW-1	06/10/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.92	13.17	63.75
MW-1	09/16/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.92	14.10	62.82
MW-1	12/03/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.92	13.93	62.99
MW-1	03/11/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	76.92	12.04	64.88
MW-1	06/17/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.92	13.75	63.17
MW-1	09/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.92	14.47	62.45

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-2	07/14/1988	ND	7.9	2.6	1.1	4	NA	NA	NA	NA	NA	NA	75.24	15.18	60.06
MW-2	10/04/1988	90	ND	1.3	2.3	12	NA	NA	NA	NA	NA	NA	75.24	15.30	59.94
MW-2	11/10/1988	ND	ND	ND	ND	2	NA	NA	NA	NA	NA	NA	75.24	15.17	60.07
MW-2	12/09/1988	ND	ND	0.6	ND	3	NA	NA	NA	NA	NA	NA	75.24	14.82	60.42
MW-2	01/20/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	14.54	60.70
MW-2	02/06/1989	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	14.59	60.65
MW-2	03/10/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	14.88	60.36
MW-2	06/06/1989	ND	ND	0.5	ND	ND	NA	NA	NA	NA	NA	NA	75.24	15.30	59.94
MW-2	09/07/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.76	58.48
MW-2	12/18/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.65	58.59
MW-2	03/08/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	15.92	59.32
MW-2	06/07/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.10	59.14
MW-2	09/05/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.61	58.63
MW-2	12/03/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	17.06	58.18
MW-2	03/01/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.62	58.62
MW-2	06/03/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.65	58.59
MW-2	09/04/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.57	58.67
MW-2	03/13/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	14.66	60.58
MW-2	06/03/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	15.90	59.34
MW-2	08/19/1992	67	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.72	58.52
MW-2	11/16/1992	50	ND	ND	ND	1.2	NA	NA	NA	NA	NA	NA	75.24	16.66	58.58
MW-2	02/18/1993	52a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	13.88	61.36
MW-2 (D)	02/18/1993	52a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	13.88	61.36
MW-2	06/01/1993	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	14.74	60.50
MW-2	08/30/1993	70a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	15.85	59.39
MW-2	12/13/1993	68a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	15.83	59.41
MW-2	03/03/1994	280a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	14.80	60.44

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-2	06/06/1994	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.65	58.59
MW-2	09/12/1994	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	16.72	58.52
MW-2	12/15/1994	230a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	15.25	59.99
MW-2	03/13/1995	ND	2.9	6.3	ND	2.7	NA	NA	NA	NA	NA	NA	75.24	15.32	59.92
MW-2	04/21/1995	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	NA	NA
MW-2	06/26/1995	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	14.65	60.59
MW-2	09/12/1995	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	75.24	15.78	59.46
MW-2	03/21/1996	<50	<0.5	<0.5	<0.5	<0.5	ND	NA	NA	NA	NA	NA	75.24	12.72	62.52
MW-2	06/28/1996	<50	<0.5	<0.5	<0.5	<0.5	160	NA	NA	NA	NA	NA	75.24	14.95	60.29
MW-2	09/19/1996	<50	<0.5	<0.5	<0.5	<0.5	27	NA	NA	NA	NA	NA	75.24	15.64	59.60
MW-2	12/19/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.24	14.47	60.77
MW-2	12/05/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.24	14.22	61.02
MW-2	12/24/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.24	14.97	60.27
MW-2	12/23/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.24	16.07	59.17
MW-2	12/11/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.24	15.78	59.46
MW-2	12/27/2001	NA	NA	NA	NA	NA	NA	95	NA	NA	NA	NA	75.24	14.25	60.99
MW-2	03/14/2002	120	<0.50	<0.50	<0.50	<0.50	NA	31	NA	NA	NA	NA	75.24	14.59	60.65
MW-2	06/13/2002	100	<0.50	<0.50	<0.50	<0.50	NA	32	NA	NA	NA	NA	75.24	14.58	60.66
MW-2	09/09/2002	90	<0.50	<0.50	<0.50	<0.50	NA	54	NA	NA	NA	NA	78.25	15.49	62.76
MW-2	12/12/2002	92	<0.50	<0.50	<0.50	<0.50	NA	21	NA	NA	NA	NA	78.25	16.21	62.04
MW-2	03/10/2003	110	<0.50	<0.50	<0.50	<0.50	NA	33	NA	NA	NA	NA	78.25	14.33	63.92
MW-2	06/10/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	49	NA	NA	NA	NA	78.25	14.48	63.77
MW-2	09/16/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	39	NA	NA	NA	NA	78.25	15.45	62.80
MW-2	12/03/2003	56 a	<0.50	<0.50	<0.50	<1.0	NA	3.6	NA	NA	NA	NA	78.25	15.60	62.65
MW-2	03/11/2004	58 a	<0.50	<0.50	<0.50	<1.0	NA	67	NA	NA	NA	NA	78.25	13.78	64.47
MW-2	06/17/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	40	NA	NA	NA	NA	78.25	14.87	63.38
MW-2	09/13/2004	68 d	<0.50	<0.50	<0.50	<1.0	NA	44	<2.0	<2.0	<2.0	<5.0	78.25	15.85	62.40

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	07/14/1988	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.05	60.63
MW-3	10/04/1988	ND	ND	ND	ND	5	NA	NA	NA	NA	NA	NA	74.68	14.60	60.08
MW-3	11/10/1988	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.35	60.33
MW-3	12/09/1988	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.04	60.64
MW-3	01/10/1989	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	74.68	13.70	60.98
MW-3	01/20/1989	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.72	60.96
MW-3	02/06/1989	70	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.75	60.93
MW-3	03/10/1989	150	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.42	61.26
MW-3	06/06/1989	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.52	60.16
MW-3	09/07/1989	ND	0.65	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.52	59.16
MW-3	12/18/1989	46	1.3	ND	0.44	0.66	NA	NA	NA	NA	NA	NA	74.68	19.59	55.09
MW-3	03/08/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.72	59.96
MW-3	06/07/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.65	60.03
MW-3	09/05/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.51	59.17
MW-3	12/03/1990	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.85	59.83
MW-3	03/01/1991	1.9	59	ND	22	ND	NA	NA	NA	NA	NA	NA	74.68	14.92	59.76
MW-3	06/03/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.75	59.93
MW-3	09/04/1991	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.14	59.54
MW-3	03/13/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.50	61.18
MW-3	06/03/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.39	60.29
MW-3	08/19/1992	92	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.08	59.60
MW-3 (D)	08/19/1992	76	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.08	59.60
MW-3	11/16/1992	200a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.43	59.25
MW-3 (D)	11/16/1992	140a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.43	59.25
MW-3	02/18/1993	680a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	12.96	61.72
MW-3	06/01/1993	160a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.98	60.70
MW-3 (D)	06/01/1993	150a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.98	60.70
MW-3	08/30/1993	110a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.82	59.86

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	12/13/1993	140a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.70	59.98
MW-3 (D)	12/13/1993	110a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.70	59.98
MW-3	03/03/1994	61a	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.92	60.76
MW-3	06/06/1994	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.73	59.95
MW-3	09/12/1994	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	15.42	59.26
MW-3	12/15/1994	ND	ND	0.9	ND	0.6	NA	NA	NA	NA	NA	NA	74.68	13.80	60.88
MW-3	03/13/1995	100a	7.9	17	0.7	6.1	NA	NA	NA	NA	NA	NA	74.68	12.41	62.27
MW-3	04/21/1995	60	0.9	1.1	ND	1	NA	NA	NA	NA	NA	NA	74.68	NA	NA
MW-3	06/26/1995	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	13.79	60.89
MW-3	09/12/1995 b	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	74.68	14.77	59.91
MW-3	03/21/1996	<50	<0.5	<0.5	<0.5	<0.5	17	NA	NA	NA	NA	NA	74.68	11.80	62.88
MW-3	06/28/1996	<50	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	74.68	14.19	60.49
MW-3	09/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA	NA	NA	74.68	14.85	59.83
MW-3	12/19/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	13.61	61.07
MW-3	12/05/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	13.16	61.52
MW-3	12/24/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	14.08	60.60
MW-3	12/23/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	15.92	58.76
MW-3	12/11/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	15.31	59.37
MW-3	12/27/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	12.84	61.84
MW-3	03/12/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	12.54	62.14
MW-3	03/14/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	40	NA	NA	NA	NA	74.68	12.78	61.90
MW-3	06/13/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.68	14.06	60.62
MW-3	09/09/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.69	14.77	62.92
MW-3	12/12/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.69	15.11	62.58
MW-3	03/10/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	5.4	NA	NA	NA	NA	77.69	13.52	64.17
MW-3	06/10/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.69	13.82	63.87
MW-3	09/16/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.69	14.60	63.09
MW-3	12/03/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.69	14.53	63.16

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	03/11/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	3.5	NA	NA	NA	NA	77.69	12.38	65.31
MW-3	06/17/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.69	14.28	63.41
MW-3	09/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.69	14.78	62.91
MW-4	01/23/1990	1,600	100	10	30	20	NA	NA	NA	NA	NA	NA	73.83	14.68	59.15
MW-4	03/08/1990	4,200	260	18	88	39	NA	NA	NA	NA	NA	NA	73.83	14.38	59.45
MW-4	06/07/1990	2,000	150	6.9	14	17	NA	NA	NA	NA	NA	NA	73.83	14.27	59.56
MW-4	09/05/1990	1,700	130	10	7.2	19	NA	NA	NA	NA	NA	NA	73.83	15.40	58.43
MW-4	12/03/1990	2,600	108	41	17	59	NA	NA	NA	NA	NA	NA	73.83	15.90	57.93
MW-4	06/03/1991	2,800	160	15	8.8	32	NA	NA	NA	NA	NA	NA	73.83	14.60	59.23
MW-4	09/04/1991	Sheen	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.83	15.25	58.58
MW-4	03/13/1992	2,700	180	70	5.9	29	NA	NA	NA	NA	NA	NA	73.83	12.72	61.11
MW-4	06/03/1992	1,700	190	ND	30	23	NA	NA	NA	NA	NA	NA	73.83	14.33	59.50
MW-4	08/19/1992	170	4.2	ND	0.6	1	NA	NA	NA	NA	NA	NA	73.83	15.18	58.65
MW-4	11/16/1992	2,600	92	49	50	81	NA	NA	NA	NA	NA	NA	73.83	15.39	58.44
MW-4	02/18/1993	7,400	120	38	51	87	NA	NA	NA	NA	NA	NA	73.83	12.62	61.21
MW-4	06/01/1993	7,000	1,800	1,700	1,600	1,700	NA	NA	NA	NA	NA	NA	73.83	13.68	60.15
MW-4	08/30/1993	2,100	80	11	ND	11	NA	NA	NA	NA	NA	NA	73.83	14.83	59.00
MW-4 (D)	08/30/1993	2,100	77	5.6	ND	5.5	NA	NA	NA	NA	NA	NA	73.83	14.83	59.00
MW-4	12/13/1993	2,000a	20	ND	21	52	NA	NA	NA	NA	NA	NA	73.83	14.50	59.33
MW-4	03/03/1994	3,500	150	86	85	90	NA	NA	NA	NA	NA	NA	73.83	13.48	60.35
MW-4 (D)	03/03/1994	3,200	130	73	74	76	NA	NA	NA	NA	NA	NA	73.83	13.48	60.35
MW-4	06/06/1994	590	25	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.83	14.26	59.57
MW-4 (D)	06/06/1994	400	16	ND	ND	ND	NA	NA	NA	NA	NA	NA	73.83	14.26	59.57
MW-4	09/12/1994	1,800	42	ND	3.7	4.7	NA	NA	NA	NA	NA	NA	73.83	15.42	58.41
MW-4 (D)	09/12/1994	2,000	40	ND	5.7	8	NA	NA	NA	NA	NA	NA	73.83	15.42	58.41
MW-4	12/15/1994	2,900	78	14	94	17	NA	NA	NA	NA	NA	NA	73.83	13.43	60.40
MW-4 (D)	12/15/1994	2,900	90	7	96	18	NA	NA	NA	NA	NA	NA	73.83	13.43	60.40

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-4	03/13/1995	2,700	240	24	99	34	NA	NA	NA	NA	NA	NA	73.83	12.13	61.70
MW-4 (D)	03/13/1995	2,500	300	24	140	28	NA	NA	NA	NA	NA	NA	73.83	12.13	61.70
MW-4	06/25/1995	2,100	87	10	67	25	NA	NA	NA	NA	NA	NA	73.83	13.26	60.57
MW-4 (D)	06/25/1995	2,300	92	12	74	26	NA	NA	NA	NA	NA	NA	73.83	13.26	60.57
MW-4	09/12/1995 b	1,300	33	13	9.3	15	NA	NA	NA	NA	NA	NA	73.83	14.64	59.19
MW-4 (D)	09/12/1995 b	1,500	2.1	16	11	17	NA	NA	NA	NA	NA	NA	73.83	14.64	59.19
MW-4	03/21/1996	2,100	50	3.2	40	5.4	ND	NA	NA	NA	NA	NA	73.83	11.55	62.28
MW-4 (D)	03/21/1996	1,700	24	<0.5	39	7.2	740	NA	NA	NA	NA	NA	73.83	11.55	62.28
MW-4	06/28/1996	1,300	61	6.2	53	11	1,000	NA	NA	NA	NA	NA	73.83	13.86	59.97
MW-4 (D)	06/28/1996	1,200	29	6.2	50	8.3	1,000	NA	NA	NA	NA	NA	73.83	13.86	59.97
MW-4	09/19/1996	820	12	<2.5	2.8	4.3	720	NA	NA	NA	NA	NA	73.83	14.72	59.11
MW-4 (D)	09/19/1996	580	9.6	<2.5	<2.5	<2.5	760	1,200	NA	NA	NA	NA	73.83	14.72	59.11
MW-4	12/19/1996	1,200	28	<5.0	<5.0	<5.0	<25	NA	NA	NA	NA	NA	73.83	13.06	60.77
MW-4	12/05/1997	1,900	36	9	16	18	630	NA	NA	NA	NA	NA	73.83	12.89	60.94
MW-4	12/24/1998	1,100	23	5.3	38	7.9	1,100	NA	NA	NA	NA	NA	73.83	13.92	59.91
MW-4	12/17/1999	1,100	22	21	13	11	3,800	3,200	NA	NA	NA	NA	73.83	14.28	59.55
MW-4	12/23/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.83	16.24	57.59
MW-4	12/11/2000	975	25.0	11.3	<5.00	<5.00	1960	1730c	NA	NA	NA	NA	73.83	14.15	59.68
MW-4	12/27/2001	2,000	9.9	<5.0	18	<5.0	NA	1,400	NA	NA	NA	NA	73.83	12.61	61.22
MW-4	03/14/2002	1,700	6.6	<2.0	2.1	2.1	NA	1,100	NA	NA	NA	NA	73.83	12.35	61.48
MW-4	06/13/2002	1,200	4.7	<2.0	<2.0	<2.0	NA	1,100	NA	NA	NA	NA	73.83	13.72	60.11
MW-4	09/09/2002	620	3.7	<2.0	<2.0	<2.0	NA	760	NA	NA	NA	NA	76.82	14.56	62.26
MW-4	12/12/2002	1,500	3.9	<2.0	<2.0	<2.0	NA	880	NA	NA	NA	NA	76.82	14.82	62.00
MW-4	03/10/2003	2,300	5.7	0.95	3.8	0.63	NA	1,200	NA	NA	NA	NA	76.82	13.63	63.19
MW-4	06/10/2003	2,200	5.3	<5.0	<5.0	<10	NA	880	NA	NA	NA	NA	76.82	13.68	63.14
MW-4	09/16/2003	1,400	<5.0	<5.0	<5.0	<10	NA	420	NA	NA	NA	NA	76.82	14.35	62.47
MW-4	12/03/2003	2,600	5.0	<5.0	<5.0	<10	NA	840	NA	NA	NA	NA	76.82	14.27	62.55
MW-4	03/11/2004	1900 a	6.3	<5.0	<5.0	<10	NA	800	NA	NA	NA	NA	76.82	12.62	64.20



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**230 West MacArthur Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-4	06/17/2004	1,000	7.4	<2.5	<2.5	<5.0	NA	460	NA	NA	NA	NA	76.82	13.90	62.92
MW-4	09/13/2004	1,100	4.6	<2.5	<2.5	<5.0	NA	300	<10	<10	<10	160	76.82	14.67	62.15

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to December 27, 2001, by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to December 27, 2001, by EPA Method 8020.

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B

TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260B

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

(D) = Duplicate sample

ND = Not detected at or above the quantitative limit.

NA = Not applicable

Notes:

a = Chromatogram pattern indicates the presence of an unidentified hydrocarbon/Hydrocarbon does not match pattern of laboratory's standard.

b = The laboratory noted the sample was analyzed after the method specified holding time.

c = This sample was analyzed outside of EPA recommended hold time.

d = Sample contains discrete peak in gasoline range.

Site surveyed January 30, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

**Blaine Tech Services, Inc.**

September 28, 2004

1680 Rogers Avenue  
San Jose, CA 95112-1105  
Attn.: Leon Gearhart  
Project#: 040913-MD3  
Project: 98995741  
Site: 230 W. MacArthur Blvd., Oakland

Dear Mr. Gearhart,

Attached is our report for your samples received on 09/14/2004 12:40  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

The report contains a Case Narrative detailing sample receipt and analysis.

Please note that any unused portion of the samples will be discarded after  
10/29/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: [mbrewer@stl-inc.com](mailto:mbrewer@stl-inc.com)

Sincerely,



Melissa Brewer  
Project Manager

**Blaine Tech Services, Inc.**

September 28, 2004

1680 Rogers Avenue  
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 040913-MD3

Project: 98995741

Site: 230 W. MacArthur Blvd., Oakland

Case Narrative

General and Sample Comments

We (STL San Francisco) received 2 Water samples , on Tuesday, September 14, 2004 12:40 PM.

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

DP flag denotes the presence of cis 1,2- DCE, PCE, and siloxanes.

Analysis Comments and Flags by QC Batch

Selectable Gas/BTEX Fuel Oxygenates by 8260B	Water	QC Batch#: 200409232A68
--	-------	-------------------------

MW-2 2004-09-0415-001

Compound Flag(s)

dp Sample contains discrete peak in gasoline range.

MW-4 2004-09-0415-002

Analysis Flag(s)

o Reporting limits were raised due to high level of analyte present in the sample.

**Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)**

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040913-MD3  
98995741

Received: 09/14/2004 12:40

Site: 230 W. MacArthur Blvd., Oakland

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-2	09/13/2004 12:10	Water	1
MW-4	09/13/2004 12:20	Water	2



**Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)**

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040913-MD3  
98995741

Received: 09/14/2004 12:40

Site: 230 W. MacArthur Blvd., Oakland

Prep(s): 5030B Test(s): 8260B  
 Sample ID: MW-4 Lab ID: 2004-09-0415 - 2  
 Sampled: 09/13/2004 12:20 Extracted: 9/23/2004 19:00  
 Matrix: Water QC Batch#: 2004/09/23-2A.68  
 Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1100	250	ug/L	5.00	09/23/2004 19:00	
Benzene	4.6	2.5	ug/L	5.00	09/23/2004 19:00	
Toluene	ND	2.5	ug/L	5.00	09/23/2004 19:00	
Ethylbenzene	ND	2.5	ug/L	5.00	09/23/2004 19:00	
Total xylenes	ND	5.0	ug/L	5.00	09/23/2004 19:00	
tert-Butyl alcohol (TBA)	160	25	ug/L	5.00	09/23/2004 19:00	
Methyl tert-butyl ether (MTBE)	300	2.5	ug/L	5.00	09/23/2004 19:00	
Di-isopropyl Ether (DIPE)	ND	10	ug/L	5.00	09/23/2004 19:00	
Ethyl tert-butyl ether (ETBE)	ND	10	ug/L	5.00	09/23/2004 19:00	
tert-Amyl methyl ether (TAME)	ND	10	ug/L	5.00	09/23/2004 19:00	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	113.7	76-130	%	5.00	09/23/2004 19:00	
Toluene-d8	97.3	78-115	%	5.00	09/23/2004 19:00	

**Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)**

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue  
San Jose, CA 95112-1105  
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040913-MD3  
98995741

Received: 09/14/2004 12:40

Site: 230 W. MacArthur Blvd., Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2004/09/23-2A.68

MB: 2004/09/23-2A.68-003

Date Extracted: 09/23/2004 18:03

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/23/2004 18:03	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	09/23/2004 18:03	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/23/2004 18:03	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	09/23/2004 18:03	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	09/23/2004 18:03	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	09/23/2004 18:03	
Benzene	ND	0.5	ug/L	09/23/2004 18:03	
Toluene	ND	0.5	ug/L	09/23/2004 18:03	
Ethylbenzene	ND	0.5	ug/L	09/23/2004 18:03	
Total xylenes	ND	1.0	ug/L	09/23/2004 18:03	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	94.6	76-130	%	09/23/2004 18:03	
Toluene-d8	96.2	78-115	%	09/23/2004 18:03	

**Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)**

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040913-MD3  
98995741

Received: 09/14/2004 12:40

Site: 230 W. MacArthur Blvd., Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/09/23-2A.68**

LCS 2004/09/23-2A.68-025

Extracted: 09/23/2004

Analyzed: 09/23/2004 17:25

LCSD 2004/09/23-2A.68-044

Extracted: 09/23/2004

Analyzed: 09/23/2004 17:44

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	25.7	27.4	25	102.8	109.6	6.4	65-165	20		
Benzene	26.0	25.3	25	104.0	101.2	2.7	69-129	20		
Toluene	25.1	26.6	25	100.4	106.4	5.8	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	436	458	500	87.2	91.6		76-130			
Toluene-d8	495	505	500	99.0	101.0		78-115			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

01/12/2005 09:10



**Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)**

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040913-MD3

98995741

Received: 09/14/2004 12:40

Site: 230 W. MacArthur Blvd., Oakland

---

**Legend and Notes**

---

**Report Comment**

DP flag denotes the presence of cis 1,2- DCE, PCE, and siloxanes.

**Analysis Flag**

o

Reporting limits were raised due to high level of analyte present in the sample.

**Result Flag**

dp

Sample contains discrete peak in gasoline range.

LAB: STL

# SHELL Chain Of Custody Record

88824

Lab Identification (if necessary)

Address

City, State, Zip

Shell Project Manager to be invoiced:

Karen Petryna

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRMT HOUSTON

## 2004-09-0415

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 4 1

SAP or CRMT NUMBER (TS/CRMT)

DATE: 9/15/04

PAGE: 1 of 1

Blaine Tech Services 1680 Rogers Avenue, San Jose, CA 95112 PROJECT CONTACT (if different from REP Report to): Leon Gearhart TELEPHONE: 408-573-0555 FAX: 408-573-7771 E-MAIL: lgearhart@blainetech.com		LAB CODE: BTSS	SITE ADDRESS (Street and City): 230 W. MacArthur Blvd., Oakland	LABORATORY NUMBER: T0600101240
PROJECT CONTACT (if different from REP Report to): Leon Gearhart TELEPHONE: 408-573-0555 FAX: 408-573-7771 E-MAIL: lgearhart@blainetech.com		EDF DELIVERABLE TO (Responsible Party or Department): Ann Kreml PHONE: (510) 420-3335 E-MAIL: ShellOaklandEDF@cambric-env.com	PROJECT NO.:	LABORATORY NUMBER (if different from REP Report to): 090913-MD3

TURNAROUND TIME (BUSINESS DAYS):  
 10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

LA - RWQCD REPORT FORMAT  LIST AGENCY: \_\_\_\_\_

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING: \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: \_\_\_\_\_ CHECK BOX IF EDD IS NOT NEEDED

REQUESTED ANALYSIS												FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
TPH - Gas, Purgeable	BTEX	MTBE (0021B - 5ppb RL)	MTBE (0260B - 0.5ppb RL)	Oxygenates (5) by (0260B)	Ethanol (0260B)	Methanol	EDB & 1,2-DCA (0260B)					
												TEMPERATURE ON RECEIPT C: 3

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (0021B - 5ppb RL)	MTBE (0260B - 0.5ppb RL)	Oxygenates (5) by (0260B)	Ethanol (0260B)	Methanol	EDB & 1,2-DCA (0260B)
	DATE	TIME												
	MW-2	9/14/04	1210	4	3	X	X	X	X					
	MW-4	9/14/04	1220	4	3	X	X	X	X					

Released by (Signature):	Received by (Signature):	Date: 9/14/04	Time: 12:40
Released by (Signature):	Received by (Signature):	Date: 9/14/04	Time: 15:00
Released by (Signature):	Received by (Signature):	Date:	Time:

**ATTACHMENT B**  
**Groundwater Monitoring Data**  
**240 West MacArthur**

**Table 1**  
**Groundwater Monitoring Well Construction and Groundwater Elevation Data**  
**240 W. MacArthur Boulevard, Oakland, California**

Well	Well Depth (feet bgs)	Well Screened Interval		Groundwater Level Depth <sup>(a)</sup> September 13, 2004	Groundwater Elevation <sup>(b)</sup> September 13, 2004
		Depth (feet)	Elevation (feet)		
MW-1	25	19.5 to 24.5	54.5 to 49.5	17.03	62.12
MW-2	25	14.5 to 24.5	64.2 to 54.2	16.48	61.97
MW-3	25	14.5 to 24.5	63.4 to 53.4	15.61	61.97
MW-4	25	14.5 to 24.5	63.6 to 53.6	15.17	62.57
MW-5	20	9 to 19	70.6 to 60.6	17.07	62.29
MW-6	20	9 to 19	69.7 to 59.7	16.13	62.3
MW-7	20	9 to 19	69.6 to 59.6	16.33	61.94
MW-8	20	9 to 19	67.7 to 57.7	14.43	61.96

Notes:

<sup>(a)</sup> Pre-purge measurement, feet below top of well casing.

<sup>(b)</sup> Pre-purge measurement, feet above mean sea level.

**Table 2**  
**Groundwater Sample Analytical Results – September 13, 2004**  
**Hydrocarbons, BTEX and MTBE <sup>(a)</sup>**  
**240 W. MacArthur Boulevard, Oakland, California**

Well	TVHg	TEHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-1	9,100	97	920	19	82	201	7.2
MW-2	1,500	280	14	< 0.5	< 0.5	0.6	130
MW-3	5,400	1,500	70	3.2	16	12.7	110
MW-4	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.3
MW-5	13,000	1,900	580	240	260	1,260	< 4.2
MW-6	350	600	< 0.5	2.4	< 0.5	< 0.5	< 0.5
MW-7	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	280	2,600	< 0.5	< 0.5	< 0.5	< 0.5	120
<b>RWQCB Environmental Screening Levels <sup>(b)</sup></b>							
	NLP	NLP	1.0	40	30	20	5.0
<b>Drinking Water Standards <sup>(c)</sup></b>							
	100	100	1.0 <sup>(d)</sup>	40	30	13	5.0

Notes:

<sup>(a)</sup> All concentrations in micrograms per liter (µg/L), equivalent to parts per billion (ppb).

<sup>(b)</sup> For commercial/industrial sites where known or potential drinking water resource is threatened.

<sup>(c)</sup> Drinking water standards are State of California Secondary Maximum Contaminant Levels (MCLs) – Proposed, unless specified otherwise.

<sup>(d)</sup> State of California Primary MCL.

MTBE = Methyl *tertiary*-butyl ether

TEHd = Total extractable hydrocarbons - diesel range

TVHg = Total volatile hydrocarbons - gasoline range

NA = Not analyzed for this contaminant

NLP = No level published.

**Table 3**  
**Groundwater Sample Analytical Results – September 13, 2004**  
**Lead Scavengers and Fuel Oxygenates <sup>(a)</sup>**  
**240 W. MacArthur Boulevard, Oakland, California**

Well	EDC	EDB	TBA	DIPE
MW-1	< 5.0	< 5.0	120	< 5.0
MW-2	1.2	< 0.5	130	0.9
MW-3	< 0.5	< 0.5	82	1.5
MW-4	< 0.5	< 0.5	< 10	< 0.5
MW-5	18	< 4.2	87	< 4.2
MW-6	31	< 0.5	43	1.0
MW-7	< 0.5	< 0.5	< 10	< 0.5
MW-8	< 1.0	< 1.0	96	1.1
<b>Drinking Water Standards <sup>(b)</sup></b>				
	NLP	NLP	NLP	NLP
<b>RWQCB Environmental Screening Levels <sup>(c)</sup></b>				
	0.5	0.05	12	NLP

Notes:

<sup>(a)</sup> All concentrations in micrograms per liter (µg/L), equivalent to parts per billion (ppb).

<sup>(b)</sup> Drinking water standards are State of California Secondary Maximum Contaminant Levels (MCLs) – Proposed, unless specified otherwise.

<sup>(c)</sup> For commercial/industrial sites where known/potential drinking water resource is threatened.

DIPE – Isopropyl Ether

EDB = Ethylene dibromide (1,2-dibromoethane)

EDC = Ethylene dichloride (1,2-dichloroethane)

TBA = *tertiary*-Butyl Alcohol

NA = Not analyzed for this contaminant

NLP = No level published.

Table includes only detected fuel oxygenates. Appendix C contains the full list of analytical compounds