

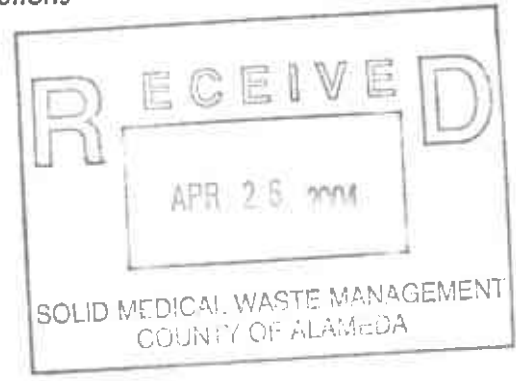
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# TRC

Customer-Focused Solutions

March 24, 2004

ConocoPhillips Company  
76 Broadway  
Sacramento, CA 95818



ATTN: MR. THOMAS H. KOSEL  
  
SITE: 76 STATION 1156  
4276 MACARTHUR BOULEVARD  
OAKLAND, CALIFORNIA  
  
RE: QUARTERLY MONITORING REPORT  
JANUARY THROUGH MARCH 2004

Dear Mr. Kosel:

Please find enclosed our Quarterly Monitoring Report for 76 Station 1156, located 4276 MacArthur Boulevard, Oakland, California. If you have any questions regarding this report, please call us at (949) 753-0101.

Sincerely,

TRC

A handwritten signature in cursive script that reads "Anju Farfan".

Anju Farfan  
QMS Operations Manager

CC: Ms. Eva Chu, Alameda County Health Care Services  
Mr. Bob Hale, Alameda County Public Works Agency  
Mr. Dave Vossler, Miller Brooks Environmental

Enclosures  
20-0400/1156R02.QMS





Customer-Focused Solutions

**FIRST QUARTER 2004  
FLUID LEVEL MONITORING AND  
GROUNDWATER SAMPLING REPORT**  
March 24, 2004

76 STATION 1156  
4276 MacArthur Boulevard  
Oakland, California

Prepared For:

Mr. Thomas H. Kosel  
CONOCOPHILLIPS COMPANY  
76 Broadway  
Sacramento, California 95818

By:



Senior Project Geologist, Irvine Operations

## GROUNDWATER MONITORING REPORT

<b>LIST OF ATTACHMENTS</b>	
Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key Table 1: Summary of Groundwater Levels and Chemical Analysis Results Table 2: Historic Groundwater Levels and Chemical Analysis Results Table 3: Summary of Additional Chemical Analysis Results
Coordinated Event Data	Well Concentrations (Shell-branded Service Station)
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase Hydrocarbon Concentration Map
Graphs	Benzene Concentrations vs. Time Hydrographs
Field Activities	General Field Procedures Groundwater Sampling Field Notes
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statement	Purge Water Transport and Disposal Limitations

**Summary of Gauging and Sampling Activities  
January 2004 through March 2004  
76 Station 1156  
4276 MacArthur  
Oakland, CA**

**Site Information:**

Site:	76 Station 4276 MacArthur Oakland, CA
Project Coordinator/Phone Number:	Thomas Kosel/916-558-7666
Groundwater wells onsite:	7
Groundwater wells offsite:	0

**Field Activity:**

Sampling consultant:	TRC
Date(s) sampled:	1/14/2004
Groundwater wells gauged:	7
Groundwater wells sampled:	7
Purging method:	diaphragm pump
Treatment/disposal method during sampling event:	Onyx/Rodeo Unit 100
Free product pumpouts other than sampling event:	No
Treatment/Disposal method during free product pumpouts:	N/A

**Site Hydrogeology:**

Minimum depth to groundwater (feet bgs):	2
Maximum depth to groundwater (feet bgs):	6.97
Average groundwater elevation (feet relative to mean sea level):	168.81
Average change in groundwater elevations since previous event (feet):	1.31
Groundwater gradient and flow direction:	0.046 ft/ft, west
Previous gradient and/or flow direction (and date):	0.004 ft/ft, southwest (10/9/2003)

**Groundwater Condition (Benzene Maximum Contaminant Level [MCL] = 1.0 µg/l)**

Wells with benzene concentrations below MCL:	4
Wells with benzene concentrations at or above MCL:	3
Minimum benzene concentration (µg/l):	ND
Maximum benzene concentration (µg/l):	8000 (MW-1)
Minimum MTBE concentration (µg/l):	ND
Maximum MTBE concentration (µg/l):	25000 (MW-7)
Minimum TPH-G concentration (µg/l):	ND
Maximum TPH-G concentration (µg/l):	98000 (MW-1)
Groundwater wells with free product:	0
Minimum free product thickness (feet):	0
Maximum free product thickness (feet):	0

**Additional Information:**

This report presents the results of groundwater monitoring and sampling activities performed by TRC. Please contact the primary consultant for other specific information on this site.

# TABLES

## TABLE KEY

### ABBREVIATIONS / SYMBOLS

LPH	=	liquid-phase hydrocarbons
µg/l	=	micrograms per liter
mg/l	=	milligrams per liter
ND	=	not detected at or above laboratory detection limit
DTSC	=	Department of Toxic Substances Control
N/A	=	not applicable
Trace	=	less than 0.01 foot of LPH in well
USTs	=	underground storage tanks
--	=	not analyzed, measured, or collected
TPH-G	=	total petroleum hydrocarbons with gasoline distinction
BTEX	=	benzene, toluene, ethylbenzene, and total xylenes
TPH-D	=	total petroleum hydrocarbons with diesel distinction
TRPH	=	total recoverable petroleum hydrocarbons
MTBE	=	methyl tertiary butyl ether
TAME	=	tertiary amyl methyl ether
ETBE	=	ethyl tertiary butyl ether
DIPE	=	di-isopropyl ether
TBA	=	tertiary butyl alcohol
1,1-DCA	=	1,1-Dichloroethane
1,2-DCA	=	1,2-Dichloroethane
1,1-DCE	=	1,1-Dichloroethene
1,2-DCE	=	cis- and trans-1,2-Dichloroethene
PCE	=	tetrachloroethene
TCA	=	trichloroethane
TCE	=	trichloroethene
PCB	=	polychlorinated biphenyls
TPPH	=	total purgeable petroleum hydrocarbons

### NOTES

Elevations are in feet above mean sea level.

Groundwater elevation for wells with LPH is calculated as follows:

$$\text{Surface elevation} - \text{depth to water} + (0.75 \times \text{LPH thickness}).$$

Concentration Graphs have been modified to plot non-detect results at the reporting limit stated in the official laboratory report. All non-detect results prior to the Second Quarter 2000 were plotted at 0.1 µg/l for graphical display.

J = estimated concentration, value is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL)

### REFERENCE

TRC began groundwater monitoring and sampling activities in October 2003. Historical data 76 Station 1156 was provided by Gettler-Ryan Inc., Dublin, California, in an excel table received in September 2003.

**Table 1**  
**SUMMARY OF GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS**  
**January 14, 2004**  
**76 Station 1156**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>MW-1</b>	<b>(Screen Interval in feet: 5.0-25.0)</b>													
1/14/04	177.54	6.69	0.00	170.85	1.16	98000	--	8000	21000	2600	15000	ND<1300	ND<800	
<b>MW-2</b>	<b>(Screen Interval in feet: 5.0-25.0)</b>													
1/14/04	173.50	5.53	0.00	167.97	1.63	3200	--	ND<25	ND<25	ND<25	ND<25	2600	3200	
<b>MW-3</b>	<b>(Screen Interval in feet: 5.0-25.0)</b>													
1/14/04	178.13	6.86	0.00	171.27	2.53	5100	--	120	240	310	720	190	230	
<b>MW-4</b>	<b>(Screen Interval in feet: 5.0-25.0)</b>													
1/14/04	178.96	6.30	0.00	172.66	1.67	530	--	88	4.1	9.9	11	150	180	
<b>MW-5</b>	<b>(Screen Interval in feet: DNA)</b>													
1/14/04	169.18	2.00	0.00	167.18	0.72	560	--	ND<2.5	ND<2.5	ND<2.5	ND<2.5	670	760	
<b>MW-6</b>	<b>(Screen Interval in feet: DNA)</b>													
1/14/04	169.04	2.00	0.00	167.04	0.71	ND<50	--	ND<0.50	0.57	ND<0.50	0.64	ND<5.0	ND<2.0	
<b>MW-7</b>	<b>(Screen Interval in feet: DNA)</b>													
1/14/04	171.64	6.97	0.00	164.67	0.75	19000	--	ND<100	ND<100	ND<100	ND<100	20000	25000	

**Table 2**  
**HISTORIC GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS**

July 1999 Through January 2004

76 Station 1156

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>MW-1 (Screen Interval in feet: 5.0-25.0)</b>														
1/7/00	174.86	9.05	0.02	165.82	--	7870	--	7410	13900	2070	9620	ND	--	GWE corrected
3/31/00	174.86	7.18	0.00	167.68	1.86	3600	--	10000	23000	3200	14000	ND	--	
7/14/00	174.86	7.68	0.00	167.18	-0.50	8580	--	8250	18700	3750	17800	ND	--	
10/3/00	174.86	7.99	0.00	166.87	-0.31	9260	--	8,760	20,000	3,350	15,600	ND	--	
1/3/01	174.86	9.18	0.00	165.68	-1.19	11000	--	5,800	13,000	1,700	8,100	2,200	--	
4/4/01	174.86	8.05	0.00	166.81	1.13	14000	--	7780	18500	2470	11800	ND	481	
7/17/01	174.86	7.01	0.00	167.85	1.04	2,200	--	5,600	11,000	2,800	12,000	ND	230	
10/3/01	177.54	7.89	0.00	169.65	1.80	--	--	8200	18000	3000	16000	ND<2,500	--	
10/5/01	177.54	7.91	0.00	169.63	-0.02	13000	--	--	--	--	--	--	--	
1/28/02	177.54	5.98	0.00	171.56	1.93	4400	--	8900	19000	2600	12000	3000	440	
4/25/02	177.54	6.19	0.00	171.35	-0.21	9,000	--	8100	18000	3000	15000	810	670	
7/18/02	177.54	6.99	0.00	170.55	-0.80	9,200	--	5,400	10,000	2,100	10,000	ND<500	620	
10/7/02	177.54	7.73	0.00	169.81	-0.74	3,400	--	9,200	20,000	2,600	13,000	1,300	760	
1/6/03	177.54	5.48	0.00	172.06	2.25	5,100	--	6,500	18,000	2,700	11,000	ND<1,000	790	
4/7/03	177.54	6.30	0.00	171.24	-0.82	2,800	--	7,000	15,000	2,400	11,000	1,000	800	
7/7/03	177.54	6.47	0.00	171.07	-0.17	7,000	--	6,400	11,000	2,600	11,000	600	530	
10/9/03	177.54	7.85	0.00	169.69	-1.38	91000	81000	8100	17000	3200	14000	--	660	Sampled for TPH-G by 8015M on 11/14/03.
1/14/04	177.54	6.69	0.00	170.85	1.16	98000	--	8000	21000	2600	15000	ND<1300	ND<800	
<b>MW-2 (Screen Interval in feet: 5.0-25.0)</b>														
7/20/99	173.01	5.40	--	167.61	--	--	--	ND	ND	ND	ND	4500	11,000	
9/28/99	173.01	5.60	0.00	167.41	-0.20	--	--	124	ND	62.9	43.1	5280	6150	
1/7/00	173.01	5.92	0.00	167.09	-0.32	--	--	99	ND	23.8	16	33100	--	
3/31/00	173.01	5.23	0.00	167.78	0.69	--	--	42	ND	ND	ND	17000	--	
7/14/00	173.01	5.52	0.00	167.49	-0.29	--	--	44.7	ND	ND	ND	66,500	--	



Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>MW-2 continued</b>														
10/3/00	173.01	6.04	0.00	166.97	-0.52	--	--	56.7	ND	ND	ND	57,500	--	
1/3/01	173.01	6.42	0.00	166.59	-0.38	--	--	ND	ND	ND	ND	49,000	--	
4/4/01	173.01	6.14	0.00	166.87	0.28	--	--	ND	ND	ND	ND	38700	37800	
7/17/01	173.01	5.30	0.00	167.71	0.84	--	--	ND	ND	ND	ND	65000	56000	
10/3/01	173.50	7.38	0.00	166.12	-1.59	--	--	2.7	ND<2.5	ND<2.5	ND<2.5	14000	18000	
1/28/02	173.50	5.68	0.00	167.82	--	--	--	2.5	4.4	2.8	7.4	11000	10000	
4/25/02	173.50	5.82	0.00	167.68	-0.14	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	8400	8100	
7/18/02	173.50	6.90	0.00	166.60	-1.08	--	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	4300	8800	
10/7/02	173.50	7.54	0.00	165.96	-0.64	--	--	ND<10	27	21	75	7100	5900	
1/6/03	173.50	6.79	0.00	166.71	0.75	--	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	31000	35000	
4/7/03	173.50	6.49	0.00	167.01	0.30	--	--	ND<10	14	11	38	2000	1500	
7/7/03	173.50	6.72	0.00	166.78	-0.23	--	--	ND<25	ND<25	ND<25	ND<25	5500	8300	
10/9/03	173.50	7.16	0.00	166.34	-0.44	3500	ND<5000	ND<50	ND<50	ND<50	ND<100	--	8500	Sampled for TPH-G by 8015M on 11/14/03.
1/14/04	173.50	5.53	0.00	167.97	1.63	3200	--	ND<25	ND<25	ND<25	ND<25	2600	3200	
<b>MW-3 (Screen Interval in feet: 5.0-25.0)</b>														
7/20/99	178.44	8.50	--	169.94	--	--	--	76	52	79	76	330	--	
9/28/99	178.44	8.31	0.00	170.13	0.19	--	--	174	95.4	71.8	135	443	288	
1/7/00	178.44	8.56	0.00	169.88	-0.25	--	--	2450	3090	1560	3910	1940	--	
3/31/00	178.44	8.42	0.00	170.02	0.14	--	--	1300	2900	2600	3500	2800	--	
7/14/00	178.44	8.61	0.00	169.83	-0.19	--	--	1850	2630	2750	3900	548	--	
10/3/00	178.44	9.14	0.00	169.30	-0.53	--	--	1,910	2,020	2,400	2,680	965	--	
1/3/01	178.44	9.06	0.00	169.38	0.08	--	--	1,600	1,100	2,300	1,400	3,300	--	
4/4/01	178.44	8.98	0.00	169.46	0.08	--	--	1150	1470	2100	1820	1050	450	
7/17/01	178.44	7.46	0.00	170.98	1.52	--	--	1,500	2,100	2,100	3,400	ND	350	
10/3/01	178.13	9.81	0.00	168.32	-2.66	--	--	830	1,900	1,700	3,000	ND<1,000	--	
1/28/02	178.13	7.39	0.00	170.74	--	--	--	880	2,600	1,800	4,300	3200	210	
4/25/02	178.13	7.86	0.00	170.27	-0.47	--	--	500	2,000	1,300	3,800	500	260	
7/18/02	178.13	8.83	0.00	169.30	-0.97	--	--	1,800	3,800	2,200	8,000	ND<250	270	

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>MW-3 continued</b>														
10/7/02	178.13	9.71	0.00	168.42	-0.88	--	--	600	2,000	1,800	6,400	ND<120	ND<200	
1/6/03	178.13	7.40	0.00	170.73	2.31	--	--	800	2,100	2,000	6,400	440	110	
4/7/03	178.13	8.17	0.00	169.96	-0.77	--	--	660	2,200	1,900	6,300	440	100	
7/7/03	178.13	8.35	0.00	169.78	-0.18	--	--	1,200	2,500	2,700	8,300	280	100	
10/9/03	178.13	9.39	0.00	168.74	-1.04	3800	6000	120	260	390	1200	--	190	Sampled for TPH-G by 8015M on 11/14/03.
1/14/04	178.13	6.86	0.00	171.27	2.53	5100	--	120	240	310	720	190	230	
<b>MW-4 (Screen Interval in feet: 5.0-25.0)</b>														
7/20/99	179.10	7.40	--	171.70	--	--	--	2.7	0.77	ND	7.1	100	--	
9/28/99	179.10	7.19	0.00	171.91	0.21	--	--	1250	72	51.3	133	416	459	
1/7/00	179.10	8.98	0.00	170.12	-1.79	--	--	2260	167	271	276	764	--	
3/31/00	179.10	7.26	0.00	171.84	1.72	--	--	1800	230	330	400	1000	--	
7/14/00	179.10	7.67	0.00	171.43	-0.41	--	--	2810	332	450	247	1530	--	
10/3/00	179.10	8.12	0.00	170.98	-0.45	--	--	3,110	437	519	816	1,040	--	
1/3/01	179.10	9.10	0.00	170.00	-0.98	--	--	2,500	340	480	960	850	--	
4/4/01	179.10	8.63	0.00	170.47	0.47	--	--	2380	126	416	725	1140	819	
7/17/01	179.10	6.49	0.00	172.61	2.14	--	--	2,300	110	410	800	1200	900	
10/3/01	178.96	7.01	0.00	171.95	-0.66	--	--	2,100	85	380	390	580	820	
1/28/02	178.96	6.21	0.00	172.75	--	--	--	2,100	130	350	670	1100	500	
4/25/02	178.96	5.49	0.00	173.47	0.72	--	--	1,300	42	270	250	680	600	
7/18/02	178.96	8.28	0.00	170.68	-2.79	--	--	1,300	71	290	220	530	760	
10/7/02	178.96	7.49	0.00	171.47	0.79	--	--	1,400	110	330	380	650	540	
1/6/03	178.96	6.36	0.00	172.60	1.13	--	--	1,100	57	260	320	370	520	
4/7/03	178.96	6.24	0.00	172.72	0.12	--	--	1,100	55	190	370	550	420	
7/7/03	178.96	6.43	0.00	172.53	-0.19	--	--	920	28	170	330	480	450	
10/9/03	178.96	7.97	0.00	170.99	-1.54	530	700	100	2.2	5.4	14	--	270	Sampled for TPH-G by 8015M on 11/14/03.
1/14/04	178.96	6.30	0.00	172.66	1.67	530	--	88	4.1	9.9	11	150	180	
<b>MW-5 (Screen Interval in feet: DNA)</b>														
10/3/01	169.18	2.81	0.00	166.37	--	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1800	2100	

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>MW-5 continued</b>														
1/28/02	169.18	1.88	0.00	167.30	--	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	650	550	
4/25/02	169.18	1.99	0.00	167.19	-0.11	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2200	2400	
7/18/02	169.18	2.49	0.00	166.69	-0.50	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	530	690	
10/7/02	169.18	2.80	0.00	166.38	-0.31	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	300	330	
1/6/03	169.18	1.86	0.00	167.32	0.94	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	410	350	
4/7/03	169.18	2.15	0.00	167.03	-0.29	--	--	0.53	ND<0.50	ND<0.50	ND<0.50	450	420	
7/7/03	169.18	2.26	0.00	166.92	-0.11	--	--	ND<1.2	ND<1.2	ND<1.2	ND<1.2	220	200	
10/9/03	169.18	2.72	0.00	166.46	-0.46	560	210	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	290	Sampled for TPH-G by 8015M on 11/14/03.
1/14/04	169.18	2.00	0.00	167.18	0.72	560	--	ND<2.5	ND<2.5	ND<2.5	ND<2.5	670	760	
<b>MW-6 (Screen Interval in feet: DNA)</b>														
10/3/01	169.04	2.87	0.00	166.17	--	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	200	270	
1/28/02	169.04	1.82	0.00	167.22	--	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
4/25/02	169.04	2.01	0.00	167.03	-0.19	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/18/02	169.04	2.44	0.00	166.60	-0.43	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<2.0	
10/7/02	169.04	2.72	0.00	166.32	-0.28	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<2.0	
1/6/03	169.04	1.90	0.00	167.14	0.82	--	--	0.62	1.2	1.2	3.5	ND<2.0	ND<2.0	
4/7/03	169.04	2.02	0.00	167.02	-0.12	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	46	--	
7/7/03	169.04	2.21	0.00	166.83	-0.19	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	ND<2.0	
10/9/03	169.04	2.71	0.00	166.33	-0.50	ND<50	ND<50	0.95	3.0	1.4	5.5	--	ND<2.0	Sampled for TPH-G by 8015M on 11/14/03.
1/14/04	169.04	2.00	0.00	167.04	0.71	ND<50	--	ND<0.50	0.57	ND<0.50	0.64	ND<5.0	ND<2.0	
<b>MW-7 (Screen Interval in feet: DNA)</b>														
10/3/01	171.64	7.62	0.00	164.02	--	--	--	210	ND<50	ND<50	800	35000	40000	
1/28/02	171.64	7.21	0.00	164.43	--	--	--	ND<10	ND<10	ND<10	ND<10	42000	38000	
4/25/02	171.64	7.25	0.00	164.39	-0.04	--	--	660	ND<50	ND<50	ND<50	42000	45000	
7/18/02	171.64	8.12	0.00	163.52	-0.87	--	--	130	ND<50	ND<50	ND<50	51000	53000	
10/7/02	171.64	7.71	0.00	163.93	0.41	--	--	ND<50	ND<50	ND<50	ND<50	33000	38000	
1/6/03	171.64	7.63	0.00	164.01	0.08	ND<50	--	0.61	1.0	0.89	2.9	3900	3100	
4/7/03	171.64	7.58	0.00	164.06	0.05	--	--	ND<20	ND<20	ND<20	ND<20	32000	28000	

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>MW-7 continued</b>														
7/7/03	171.64	7.56	0.00	164.08	0.02	--	--	8.2	ND<0.50	1.2	ND<0.50	36000	45000	
10/9/03	171.64	7.72	0.00	163.92	-0.16	6800	ND<13000	ND<130	ND<130	ND<130	ND<250	--	20000	Sampled for TPH-G by 8015M on 11/14/03.
1/14/04	171.64	6.97	0.00	164.67	0.75	19000	--	ND<100	ND<100	ND<100	ND<100	20000	25000	

**Table 3**  
**SUMMARY OF ADDITIONAL CHEMICAL ANALYSIS RESULTS**  
**76 Station 1156**

Date Sampled	TPH-D (µg/l)	EDC (µg/l)	Chloro-benzene (µg/l)	cis-1,2-DCE (µg/l)	EDB (µg/l)	Naphth-alene (µg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8015B (mg/l)	Ethanol 8260B (µg/l)	Bis(2-ethylhexyl)-phthalate (µg/l)	2-Methyl-phenol (µg/l)	4-Methyl-phenol (µg/l)
<b>MW-1</b>															
1/7/00	72700	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/31/00	92000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/14/00	108000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/3/00	96000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/3/01	37000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/4/01	86900	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
7/17/01	79,000	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
10/3/01	99000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/28/02	110000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/25/02	93000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/18/02	69,000	--	5.9	1.3	ND<10	910	ND<10	ND<100	ND<10	ND<10	ND<2,500	--	120	13	25
10/7/02	82,000	--	--	--	ND<200	--	ND<200	ND<10,000	ND<200	ND<200	ND<50,000	--	--	--	--
1/6/03	82,000	--	--	--	ND<400	--	ND<400	ND<20,000	ND<400	ND<400	ND<100,000	--	--	--	--
4/7/03	74,000	--	--	--	ND<200	--	ND<200	ND<10,000	ND<200	ND<200	ND<50,000	--	--	--	--
7/7/03	60,000	--	ND<120	ND<120	ND<500	850	ND<500	ND<25,000	ND<500	ND<500	ND<120,000	--	70	ND<5.0	22
10/9/03	4300	ND<400	--	--	ND<400	--	ND<400	ND<20000	ND<400	ND<400	--	ND<100000	--	--	--
1/14/04	6200	ND<800	--	--	ND<800	--	ND<800	ND<40000	ND<800	ND<800	--	ND<200000	--	--	--
<b>MW-2</b>															
7/20/99	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9/28/99	1390	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--
1/7/00	1450	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/31/00	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/14/00	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/3/00	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/3/01	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/4/01	ND	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--

Date Sampled	TPH-D (µg/l)	EDC (µg/l)	Chloro- benzene (µg/l)	cis-1,2- DCE (µg/l)	EDB (µg/l)	Naphth- alene (µg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8015B (mg/l)	Ethanol 8260B (µg/l)	Bis(2- ethylhexyl) - phthalate (µg/l)	2-Methyl- phenol (µg/l)	4-Methyl- phenol (µg/l)
<b>MW-2 continued</b>															
7/17/01	ND	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
10/3/01	ND<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/28/02	ND<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/25/02	ND<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/18/02	ND<500	--	--	--	ND<100	--	ND<100	ND<1,000	ND<100	ND<100	ND<25,000	--	--	--	--
10/7/02	4,300	--	--	--	ND<400	--	ND<400	ND<20,000	ND<400	ND<400	ND<100,000	--	--	--	--
1/6/03	5,900	--	--	--	ND<1,000	--	ND<1,000	ND<50,000	ND<1,000	ND<1,000	ND<250,000	--	--	--	--
4/7/03	1,500	--	--	--	ND<40	--	ND<40	ND<2,000	ND<40	ND<40	ND<10,000	--	--	--	--
7/7/03	ND<2,500	--	--	--	ND<100	--	ND<100	ND<5,000	ND<100	ND<100	ND<25,000	--	--	--	--
10/9/03	--	ND<200	--	--	ND<200	--	ND<200	ND<10000	ND<200	ND<200	--	ND<50000	--	--	--
1/14/04	--	ND<50	--	--	ND<50	--	ND<50	ND<2500	ND<50	ND<50	--	ND<13000	--	--	--
<b>MW-3</b>															
7/20/99	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9/28/99	1860	--	--	--	--	--	8.8	ND	ND	ND	--	--	--	--	--
1/7/00	28400	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/31/00	26000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/14/00	24500	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/3/00	22000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/3/01	14000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/4/01	19600	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
7/17/01	26000	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
10/3/01	22000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/28/02	30000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/25/02	18,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/18/02	37,000	--	--	--	ND<5.0	--	ND<5.0	ND<50	ND<5.0	ND<5.0	ND<1,200	--	--	--	--
10/7/02	26,000	--	--	--	ND<200	--	ND<200	ND<10,000	ND<200	ND<200	ND<50,000	--	--	--	--
1/6/03	27,000	--	--	--	ND<80	--	ND<80	ND<4,000	ND<80	ND<80	23000	--	--	--	--
4/7/03	28,000	--	--	--	ND<80	--	ND<80	ND<4,000	ND<80	ND<80	ND<20,000	--	--	--	--
7/7/03	33,000	--	--	--	ND<40	--	ND<40	ND<2,000	ND<40	ND<40	ND<10,000	--	--	--	--

Date Sampled	TPH-D (µg/l)	EDC (µg/l)	Chloro- benzene (µg/l)	cis-1,2- DCE (µg/l)	EDB (µg/l)	Naphth- alene (µg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8015B (mg/l)	Ethanol 8260B (µg/l)	Bis(2- ethylhexyl) - phthalate (µg/l)	2-Methyl- phenol (µg/l)	4-Methyl- phenol (µg/l)
<b>MW-3 continued</b>															
10/9/03	--	ND<20	--	--	ND<20	--	ND<20	ND<1000	ND<20	ND<20	--	ND<5000	--	--	--
1/14/04	--	ND<20	--	--	ND<20	--	ND<20	ND<1000	ND<20	ND<20	--	ND<5000	--	--	--
<b>MW-4</b>															
7/20/99	69	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9/28/99	4050	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--
1/7/00	7010	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/31/00	5500	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/14/00	7940	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/3/00	11400	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/3/01	8600	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/4/01	9950	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
7/17/01	10000	--	--	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
10/3/01	7800	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/28/02	12000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/25/02	3,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/18/02	4,800	--	--	--	ND<10	--	ND<10	ND<100	ND<10	ND<10	ND<2,500	--	--	--	--
10/7/02	5,100	--	--	--	ND<200	--	ND<200	ND<10,000	ND<200	ND<200	ND<50,000	--	--	--	--
1/6/03	5,600	--	--	--	ND<20	--	ND<20	ND<1,000	ND<20	ND<20	ND<5,000	--	--	--	--
4/7/03	5,100	--	--	--	ND<20	--	ND<20	ND<1,000	ND<20	ND<20	ND<5,000	--	--	--	--
7/7/03	3,000	--	--	--	ND<20	--	ND<20	ND<1,000	ND<20	ND<20	ND<5,000	--	--	--	--
10/9/03	--	ND<4.0	--	--	ND<4.0	--	ND<4.0	ND<200	ND<4.0	ND<4.0	--	ND<1000	--	--	--
1/14/04	--	6.5	--	--	ND<4.0	--	ND<4.0	ND<200	ND<4.0	ND<4.0	--	ND<1000	--	--	--
<b>MW-5</b>															
10/3/01	ND<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/28/02	ND<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/25/02	ND<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/18/02	ND<50	--	--	--	ND<2.0	--	ND<2.0	ND<20	ND<2.0	ND<2.0	ND<500	--	--	--	--
10/7/02	140	--	--	--	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--	--	--
1/6/03	120	--	ND<0.50	ND<0.50	ND<2.0	ND<10	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	ND<5.0	ND<5.0	ND<5.0

Date Sampled	TPH-D (µg/l)	EDC (µg/l)	Chloro- benzene (µg/l)	cis-1,2- DCE (µg/l)	EDB (µg/l)	Naphth- alene (µg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8015B (mg/l)	Ethanol 8260B (µg/l)	Bis(2- ethylhexyl) - phthalate (µg/l)	2-Methyl- phenol (µg/l)	4-Methyl- phenol (µg/l)
<b>MW-5 continued</b>															
4/7/03	220	--	--	--	ND<10	--	ND<10	ND<500	ND<10	ND<10	ND<2,500	--	--	--	--
7/7/03	120	--	--	--	ND<4.0	--	ND<4.0	ND<200	ND<4.0	ND<4.0	ND<1,000	--	--	--	--
10/9/03	--	ND<4.0	--	--	ND<4.0	--	ND<4.0	ND<200	ND<4.0	ND<4.0	--	ND<1000	--	--	--
1/14/04	--	ND<40	--	--	ND<40	--	ND<40	ND<2000	ND<40	ND<40	--	ND<10000	--	--	--
<b>MW-6</b>															
10/3/01	ND<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/28/02	ND<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/25/02	ND<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/18/02	ND<50	--	--	--	ND<2.0	--	ND<2.0	ND<20	ND<2.0	ND<2.0	ND<500	--	--	--	--
10/7/02	ND<50	--	--	--	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--	--	--
1/6/03	ND<50	--	--	--	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--	--	--
4/7/03	ND<50	--	--	--	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--	--	--
7/7/03	ND<50	--	--	--	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--	--	--
10/9/03	--	ND<2.0	--	--	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	--	ND<500	--	--	--
1/14/04	--	ND<2.0	--	--	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	--	ND<500	--	--	--
<b>MW-7</b>															
10/3/01	10000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/28/02	ND<1,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/25/02	ND<5,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/18/02	ND<5,000	--	--	--	ND<20	--	ND<20	33,000	ND<20	ND<20	ND<5,000	--	--	--	--
10/7/02	18,000	--	--	--	ND<400	--	ND<400	26,000	ND<400	ND<400	ND<100,000	--	--	--	--
1/6/03	410	--	ND<50	ND<50	ND<200	ND<10	ND<200	ND<10,000	ND<200	ND<200	ND<50,000	--	ND<5.0	ND<5.0	ND<5.0
4/7/03	13,000	--	--	--	ND<800	--	ND<800	ND<40,000	ND<800	ND<800	ND<200,000	--	--	--	--
7/7/03	990	--	--	--	ND<400	--	ND<400	27,000	ND<400	ND<400	ND<100,000	--	--	--	--
10/9/03	--	ND<500	--	--	ND<500	--	ND<500	ND<25000	ND<500	ND<500	--	ND<130000	--	--	--
1/14/04	--	ND<800	--	--	ND<800	--	ND<800	ND<40000	ND<800	ND<800	--	ND<200000	--	--	--



**Table 3b**  
**SUMMARY OF ADDITIONAL CHEMICAL ANALYSIS RESULTS**  
**76 Station 1156**

Date Sampled	1,2 DCE  (µg/l)	2- Methylnap h-thalene  (µg/l)
<b>MW-1</b>		
1/7/00	--	--
3/31/00	--	--
7/14/00	--	--
10/3/00	--	--
1/3/01	--	--
4/4/01	ND	--
7/17/01	ND	--
10/3/01	--	--
1/28/02	--	--
4/25/02	--	--
7/18/02	ND<1.6	420
10/7/02	ND<200	--
1/6/03	ND<400	--
4/7/03	ND<200	--
7/7/03	ND<120	260
10/9/03	--	--
1/14/04	--	--
<b>MW-2</b>		
7/20/99	--	--
9/28/99	--	--
1/7/00	--	--
3/31/00	--	--
7/14/00	--	--
10/3/00	--	--
1/3/01	--	--
4/4/01	ND	--

Date Sampled	1,2 DCE (µg/l)	2- Methylnap h-thalene (µg/l)
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**MW-2 continued**

7/17/01	ND	--
10/3/01	--	--
1/28/02	--	--
4/25/02	--	--
7/18/02	ND<100	--
10/7/02	ND<400	--
1/6/03	ND<1,000	--
4/7/03	ND<40	--
7/7/03	ND<100	--
10/9/03	--	--
1/14/04	--	--

**MW-3**

7/20/99	--	--
9/28/99	--	--
1/7/00	--	--
3/31/00	--	--
7/14/00	--	--
10/3/00	--	--
1/3/01	--	--
4/4/01	ND	--
7/17/01	ND	--
10/3/01	--	--
1/28/02	--	--
4/25/02	--	--
7/18/02	ND<5.0	--
10/7/02	ND<200	--
1/6/03	ND<80	--
4/7/03	ND<80	--
7/7/03	ND<40	--

Date Sampled	1,2 DCE (µg/l)	2-Methylnap h-thalene (µg/l)
<b>MW-3 continued</b>		
10/9/03	--	--
1/14/04	--	--
<b>MW-4</b>		
7/20/99	--	--
9/28/99	--	--
1/7/00	--	--
3/31/00	--	--
7/14/00	--	--
10/3/00	--	--
1/3/01	--	--
4/4/01	ND	--
7/17/01	ND	--
10/3/01	--	--
1/28/02	--	--
4/25/02	--	--
7/18/02	49	--
10/7/02	ND<200	--
1/6/03	ND<20	--
4/7/03	ND<20	--
7/7/03	ND<20	--
10/9/03	--	--
1/14/04	--	--
<b>MW-5</b>		
10/3/01	--	--
1/28/02	--	--
4/25/02	--	--
7/18/02	ND<2.0	--
10/7/02	ND<2.0	--
1/6/03	1.4	ND<5.0

Date Sampled	1,2 DCE (µg/l)	2-Methylnap h-thalene (µg/l)
<b>MW-5 continued</b>		
4/7/03	ND<10	--
7/7/03	ND<4.0	--
10/9/03	--	--
1/14/04	--	--
<b>MW-6</b>		
10/3/01	--	--
1/28/02	--	--
4/25/02	--	--
7/18/02	ND<2.0	--
10/7/02	ND<2.0	--
1/6/03	ND<2.0	--
4/7/03	ND<2.0	--
7/7/03	ND<2.0	--
10/9/03	--	--
1/14/04	--	--
<b>MW-7</b>		
10/3/01	--	--
1/28/02	--	--
4/25/02	--	--
7/18/02	ND<20	--
10/7/02	ND<400	--
1/6/03	ND<50	ND<5.0
4/7/03	ND<800	--
7/7/03	ND<400	--
10/9/03	--	--
1/14/04	--	--

# COORDINATED EVENT DATA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**4255 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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-1	11/17/1993	410	21	11	7.9	47	NA	NA	NA	NA	NA	NA	NA	175.79	8.59	NA	167.20	NA	NA	NA
MW-1	01/20/1994	1,200	180	19	48	47	NA	NA	NA	NA	NA	NA	NA	175.79	8.22	NA	167.57	NA	NA	NA
MW-1	04/25/1994	3,100	610	<10	130	27	NA	NA	NA	NA	NA	NA	NA	175.79	7.63	NA	168.16	NA	NA	NA
MW-1	07/07/1994	2,400	1,000	10	250	20	NA	NA	NA	NA	NA	NA	NA	175.79	8.31	NA	167.48	NA	NA	NA
MW-1	10/27/1994	2,200	500	3.1	72	1.8	NA	NA	NA	NA	NA	NA	NA	175.79	8.84	NA	166.95	NA	NA	NA
MW-1	11/17/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	175.79	7.60	NA	168.19	NA	NA	NA
MW-1	11/28/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	175.79	7.56	NA	168.23	NA	NA	NA
MW-1	01/13/1995	570	75	2.5	6.7	11	NA	NA	NA	NA	NA	NA	NA	175.79	7.11	NA	168.68	NA	NA	NA
MW-1	04/12/1995	1,800	480	<5.0	79	<5.0	NA	NA	NA	NA	NA	NA	NA	175.79	7.08	NA	168.71	NA	NA	NA
MW-1	07/25/1995	120	15	1.1	2.1	2.9	NA	NA	NA	NA	NA	NA	NA	175.79	7.73	NA	168.06	NA	NA	NA
MW-1 (D)	07/25/1995	300	88	2.4	11	6.5	NA	NA	NA	NA	NA	NA	NA	175.79	7.73	NA	168.06	NA	NA	NA
MW-1	10/18/1995	130	9.5	0.8	1.3	1.7	NA	NA	NA	NA	NA	NA	NA	175.79	8.42	NA	167.37	NA	NA	NA
MW-1 (D)	10/18/1995	120	11	0.8	1.4	1.8	NA	NA	NA	NA	NA	NA	NA	175.79	8.42	NA	167.37	NA	NA	NA
MW-1	01/17/1996	250	22	0.9	1.6	2.3	NA	NA	NA	NA	NA	NA	NA	175.79	7.83	NA	167.96	NA	NA	NA
MW-1	04/25/1996	<50	4.6	<0.5	<0.5	0.6	500b	NA	NA	NA	NA	NA	NA	175.79	7.35	NA	168.44	NA	NA	NA
MW-1	07/17/1996	<250	15	<2.5	<2.5	<2.5	540	NA	NA	NA	NA	NA	NA	175.79	7.70	NA	168.09	NA	NA	NA
MW-1	10/01/1996	1,200	500	12	57	82	1,900	NA	NA	NA	NA	NA	NA	175.79	8.07	NA	167.72	NA	NA	NA
MW-1	01/22/1997	640	170	4.3	33	33	1,200	NA	NA	NA	NA	NA	NA	175.79	7.21	NA	168.58	NA	NA	NA
MW-1	04/08/1997	<200	34	<2.0	3.3	4.3	950	NA	NA	NA	NA	NA	NA	175.79	7.75	NA	168.04	NA	NA	NA
MW-1 (D)	04/08/1997	<200	66	<2.0	6.4	8	740	NA	NA	NA	NA	NA	NA	175.79	7.75	NA	168.04	NA	NA	NA
MW-1	07/08/1997	190	49	1.2	5.8	8.6	560	NA	NA	NA	NA	NA	NA	175.79	8.01	NA	167.78	NA	NA	NA
MW-1	10/08/1997	<100	7	<1.0	<1.0	<1.0	620	NA	NA	NA	NA	NA	NA	175.79	8.10	NA	167.69	NA	NA	NA
MW-1	01/09/1998	970	390	12	48	71	1,200	NA	NA	NA	NA	NA	NA	175.79	7.14	NA	168.65	NA	NA	NA
MW-1	04/13/1998	<50	136	<0.50	1.5	1.8	170	NA	NA	NA	NA	NA	NA	175.79	6.78	NA	169.01	NA	NA	NA
MW-1	07/17/1998	2,500	750	11	88	67	150	NA	NA	NA	NA	NA	NA	175.79	7.28	NA	168.51	NA	NA	NA
MW-1	10/02/1998	8,000	970	36	270	440	35	NA	NA	NA	NA	NA	NA	175.79	7.77	NA	168.02	NA	NA	NA
MW-1	02/03/1999	210	56	0.82	<0.50	3.2	220	NA	NA	NA	NA	NA	NA	175.79	7.45	NA	168.34	NA	1.4	NA
MW-1	04/29/1999	<50	4.5	<0.50	0.56	<0.50	140	196	NA	NA	NA	NA	NA	175.79	7.58	NA	168.21	NA	1.2	140
MW-1	07/23/1999	<50.0	<0.500	<0.500	<0.500	<0.500	120	111*	NA	NA	NA	NA	NA	175.79	8.51	NA	167.28	NA	1.0	NA
MW-1	11/01/1999	<50.0	<0.500	<0.500	<0.500	<0.500	2.90	NA	NA	NA	NA	NA	NA	175.79	8.30	NA	167.49	NA	1.4	-71
MW-1	01/17/2000	<50	<0.50	<0.50	<0.50	<0.50	3.30	NA	NA	NA	NA	NA	NA	175.79	8.04	NA	167.75	NA	16.9	64
MW-1	04/17/2000	<50.0	1.08	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	175.79	8.00	NA	167.79	NA	1.8	112
MW-1	07/26/2000	125	54.3	2.16	5.45	9.86	33.1	NA	NA	NA	NA	NA	NA	175.79	7.52	NA	166.27	NA	13.2	-140
MW-1	10/12/2000	101	40.7	2.68	3.00	5.18	25.0	NA	NA	NA	NA	NA	NA	175.79	7.71	NA	168.08	NA	>20	534

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**4255 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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-1	01/15/2001	<50.0	0.633	<0.500	0.505	1.74	<2.50	NA	NA	NA	NA	NA	NA	175.79	7.33	NA	168.46	NA	16.9	-127
MW-1	04/09/2001	<50.0	<0.500	<0.500	<0.500	0.927	<2.50	NA	NA	NA	NA	NA	NA	175.79	7.68	NA	168.11	NA	12.8	-117
MW-1	07/24/2001	<50	4.0	0.65	0.53	1.3	NA	<5.0	NA	NA	NA	NA	NA	175.79	8.00	NA	167.79	NA	>20	43
MW-1	10/31/2001	<50	4.4	<0.50	<0.50	0.98	NA	<5.0	NA	NA	NA	NA	NA	175.79	7.94	NA	167.85	NA	13.6	123
MW-1	01/10/2002	<50	2.2	<0.50	<0.50	1.2	NA	6.1	NA	NA	NA	NA	NA	175.79	7.63	NA	168.16	NA	0.1	63
MW-1	04/25/2002	<50	2.0	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	175.79	7.76	NA	168.03	NA	0.3	54
MW-1	07/18/2002	<50	6.1	<0.50	<0.50	0.98	NA	<5.0	NA	NA	NA	NA	NA	175.79	8.29	NA	167.50	NA	1.1	32
MW-1	10/07/2002	500	17	14	11	60	NA	9.0	NA	NA	NA	NA	NA	175.76	8.34	NA	167.42	NA	2.8	-26
MW-1	01/06/2003	<50	12	<0.50	0.73	0.58	NA	14	NA	NA	NA	NA	NA	175.76	7.18	NA	168.58	NA	0.5	-22
MW-1	04/07/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	12	NA	NA	NA	<5.0	NA	175.76	7.75	NA	168.01	NA	0.7	-24
MW-1	07/07/2003	<50	6.6	<0.50	<0.50	<1.0	NA	8.1	NA	NA	NA	<5.0	NA	175.76	7.75	NA	168.01	NA	0.5	16
MW-1	10/09/2003	<50	1.9	<0.50	<0.50	<1.0	NA	22	NA	NA	NA	<5.0	NA	175.76	8.45	NA	167.31	NA	0.7	80
MW-1	01/14/2004	<100	19	<1.0	<1.0	<2.0	NA	180	NA	NA	NA	63	NA	175.76	7.45	NA	168.31	NA	0.8	242
MW-2	11/17/1993	31,000	9,400	4,600	1,000	3,900	NA	NA	NA	NA	NA	NA	NA	170.91	12.31	NA	158.60	NA	NA	NA
MW-2	01/20/1994	40,000	6,900	5,600	780	4,100	NA	NA	NA	NA	NA	NA	NA	170.91	11.48	NA	159.43	NA	NA	NA
MW-2 (D)	01/20/1994	41,000	7,200	6,200	900	4,800	NA	NA	NA	NA	NA	NA	NA	170.91	11.48	NA	159.43	NA	NA	NA
MW-2	04/25/1994	60,000	9,300	6,100	1,400	6,200	NA	NA	NA	NA	NA	NA	NA	170.91	10.84	NA	160.07	NA	NA	NA
MW-2	07/07/1994	280,000a	40,000	26,000	8,100	32,000	NA	NA	NA	NA	NA	NA	NA	170.91	11.89	NA	159.02	NA	NA	NA
MW-2 (D)	07/07/1994	53,000	13,000	6,600	2,000	8,400	NA	NA	NA	NA	NA	NA	NA	170.91	11.89	NA	159.02	NA	NA	NA
MW-2	10/27/1994	130,000	14,000	12,000	2,400	13,000	NA	NA	NA	NA	NA	NA	NA	170.91	12.89	NA	158.02	NA	NA	NA
MW-2 (D)	10/27/1994	390,000	8,800	7,000	1,700	11,000	NA	NA	NA	NA	NA	NA	NA	170.91	12.89	NA	158.02	NA	NA	NA
MW-2	11/17/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	9.11	NA	161.80	NA	NA	NA
MW-2	11/28/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	9.22	NA	161.69	NA	NA	NA
MW-2	01/13/1995	75,000	5,900	12,000	3,100	17,000	NA	NA	NA	NA	NA	NA	NA	170.91	8.10	NA	162.81	NA	NA	NA
MW-2	04/12/1995	100,000	8,500	11,000	2,400	12,000	NA	NA	NA	NA	NA	NA	NA	170.91	10.12	NA	160.79	NA	NA	NA
MW-2 (D)	04/12/1995	80,000	4,200	9,300	2,500	12,000	NA	NA	NA	NA	NA	NA	NA	170.91	10.12	NA	160.79	NA	NA	NA
MW-2	07/25/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	11.53	NA	159.80	0.52	NA	NA
MW-2	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	14.02	NA	156.99	0.13	NA	NA
MW-2	01/17/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	10.27	NA	160.78	0.17	NA	NA
MW-2	04/25/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	11.68	NA	159.25	0.03	NA	NA
MW-2	07/17/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	12.78	NA	158.81	0.48	NA	NA
MW-2	10/01/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	14.21	NA	156.70	0.28	NA	NA
MW-2	01/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	10.92	NA	160.08	0.11	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**4255 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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-2	04/08/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	14.12	NA	156.95	0.20	NA	NA
MW-2	07/08/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	14.98	NA	156.08	0.19	NA	NA
MW-2	10/08/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	12.97	NA	157.98	0.05	NA	NA
MW-2	01/08/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	12.54	NA	158.43	0.08	NA	NA
MW-2	04/13/1998	180,000	2,800	5,200	2,400	13,000	71,000	NA	NA	NA	NA	NA	NA	170.91	10.05	NA	160.86	NA	NA	NA
MW-2	07/17/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	11.75	NA	159.24	0.10	NA	NA
MW-2	10/02/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	16.78	NA	154.22	0.11	NA	NA
MW-2	02/03/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	9.90	9.82	161.07	0.08	NA	NA
MW-2	04/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	9.86	9.81	161.09	0.05	NA	NA
MW-2	07/23/1999	65,800	6,500	4,480	1,960	8,960	46,600	58,500*	NA	NA	NA	NA	NA	170.91	14.45	NA	156.46	NA	1.4	NA
MW-2	11/01/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.91	11.84	11.81	159.09	0.03	NA	NA
MW-2	01/17/2000	46,000	6,000	2,400	1,500	5,500	50,000	31,000	NA	NA	NA	NA	NA	170.91	11.00	NA	159.91	NA	1.3	-54
MW-2	04/17/2000	96,300	8,150	10,200	2,820	14,900	112,000	108,000	NA	NA	NA	NA	NA	170.91	11.06	NA	159.85	NA	2.6	125
MW-2	07/26/2000	72,400	8,880	5,820	2,810	13,400	66,200	46,300	NA	NA	NA	NA	NA	170.91	12.82	NA	158.09	NA	2.2	113
MW-2	10/12/2000	63,200	5,840	4,180	2,310	11,100	61,200	66,600	NA	NA	NA	NA	NA	170.91	11.32	NA	159.59	NA	0.4	55
MW-2	01/15/2001	59,700	2,630	4,800	2,050	11,500	44,400	5,080	NA	NA	NA	NA	NA	170.91	10.19	NA	160.72	NA	1.1	-22
MW-2	04/09/2001	56,900	1,860	2,550	1,810	9,720	40,000	46,600	NA	NA	NA	NA	NA	170.91	11.15	NA	159.76	NA	1.0	-55
MW-2	07/24/2001	84,000	3,000	4,800	2,500	13,000	NA	41,000	NA	NA	NA	NA	NA	170.91	11.87	NA	159.24	NA	0.2	53
MW-2	10/31/2001	45,000	2,200	3,000	1,500	7,700	NA	29,000	<50	<50	<50	51,000	<500	170.91	11.04	NA	159.87	NA	1.2	-17
MW-2	01/10/2002	28,000	840	740	760	3,300	NA	32,000	NA	NA	NA	NA	NA	170.91	9.58	NA	161.33	NA	2.1	-76
MW-2	04/25/2002	41,000	1,900	2,000	1,200	6,900	NA	17,000	NA	NA	NA	NA	NA	170.91	11.40	NA	159.51	NA	0.8	-95
MW-2	07/18/2002	87,000	2,000	2,200	1,400	10,000	NA	19,000	NA	NA	NA	NA	NA	170.91	12.68	NA	158.23	NA	0.7	-34
MW-2	10/07/2002	110,000	3,900	6,700	2,700	15,000	NA	20,000	NA	NA	NA	NA	NA	170.88	11.58	NA	159.30	NA	1.4	-52
MW-2	01/06/2003	65,000	2,400	3,500	1,400	8,600	NA	26,000	NA	NA	NA	NA	NA	170.88	9.09	NA	161.79	NA	0.4	40
MW-2	04/07/2003	57,000	1,900	2,500	1,700	8,600	NA	37,000	NA	NA	NA	34,000	NA	170.88	11.08	NA	159.80	NA	1.0	60
MW-2	07/07/2003	34,000	4,000	4,200	1,600	8,500	NA	51,000	NA	NA	NA	44,000	NA	170.88	11.27	NA	159.61	NA	1.3	-17
MW-2	10/09/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.88	11.64	11.61	159.26	0.03	NA	NA
MW-2	10/20/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.88	11.88	11.84	159.03	0.04	NA	NA
MW-2	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170.88	10.96	10.95	159.93	0.01	NA	NA
MW-3	11/17/1993	18,000	5,400	660	720	2,200	NA	NA	NA	NA	NA	NA	NA	174.61	15.40	NA	159.21	NA	NA	NA
MW-3	01/20/1994	55,000	13,000	2,600	2,200	6,500	NA	NA	NA	NA	NA	NA	NA	174.61	14.61	NA	160.00	NA	NA	NA
MW-3	04/25/1994	96,000	11,000	1,600	3,100	9,900	NA	NA	NA	NA	NA	NA	NA	174.61	13.12	NA	161.49	NA	NA	NA
MW-3 (D)	04/25/1994	78,000	12,000	1,900	2,600	7,300	NA	NA	NA	NA	NA	NA	NA	174.61	13.12	NA	161.49	NA	NA	NA



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**4255 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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-3	07/07/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	14.54	NA	160.07	0.02	NA	NA
MW-3	10/27/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	15.62	NA	159.03	0.05	NA	NA
MW-3	11/17/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	13.83	NA	160.78	NA	NA	NA
MW-3	11/28/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	14.02	NA	160.59	NA	NA	NA
MW-3	01/13/1995	180,000	3,200	2,700	1,700	5,200	NA	NA	NA	NA	NA	NA	NA	174.61	12.13	NA	162.48	NA	NA	NA
MW-3 (D)	01/13/1995	23,000	4,000	690	960	3,000	NA	NA	NA	NA	NA	NA	NA	174.61	12.13	NA	162.48	NA	NA	NA
MW-3	04/12/1995	56,000	8,700	1,500	2,100	6,300	NA	NA	NA	NA	NA	NA	NA	174.61	12.96	NA	161.65	NA	NA	NA
MW-3	07/25/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	14.28	NA	160.38	0.06	NA	NA
MW-3	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	15.88	NA	158.77	0.05	NA	NA
MW-3	01/17/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	13.86	NA	160.94	0.24	NA	NA
MW-3	04/25/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	13.82	NA	160.81	0.02	NA	NA
MW-3	07/17/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	16.11	NA	158.52	0.03	NA	NA
MW-3	10/01/1996	48,000	7,300	530	1,700	3,900	3,200	NA	NA	NA	NA	NA	NA	174.61	16.56	NA	158.05	NA	NA	NA
MW-3 (D)	10/01/1996	47,000	7,100	530	1,700	4,000	2,900	NA	NA	NA	NA	NA	NA	174.61	16.56	NA	158.05	NA	NA	NA
MW-3	01/22/1997	82,000	5,200	1,300	2,800	8,900	1,100	NA	NA	NA	NA	NA	NA	174.61	13.07	NA	161.54	NA	NA	NA
MW-3 (D)	01/22/1997	61,000	8,400	1,100	2,300	7,000	2,700	NA	NA	NA	NA	NA	NA	174.61	13.07	NA	161.54	NA	NA	NA
MW-3	04/08/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.61	17.09	NA	157.54	0.03	NA	NA
MW-3	07/08/1997	56,000	8,800	580	2,000	4,900	2,800	NA	NA	NA	NA	NA	NA	174.61	15.85	NA	158.76	NA	NA	NA
MW-3	10/08/1997	48,000	8,000	590	1,700	3,400	5,100	NA	NA	NA	NA	NA	NA	174.61	16.22	NA	158.39	NA	NA	NA
MW-3	01/08/1998	47,000	9,400	810	2,300	4,700	6,300	NA	NA	NA	NA	NA	NA	174.61	13.80	NA	160.81	NA	NA	NA
MW-3 (D)	01/08/1998	48,000	8,100	750	2,000	4,100	5,800	NA	NA	NA	NA	NA	NA	174.61	13.80	NA	160.81	NA	NA	NA
MW-3	04/13/1998	32,000	6,800	540	1,400	3,400	4,000	NA	NA	NA	NA	NA	NA	174.61	12.97	NA	161.64	NA	NA	NA
MW-3 (D)	04/13/1998	36,000	7,300	660	1,600	3,700	4,000	NA	NA	NA	NA	NA	NA	174.61	12.97	NA	161.64	NA	NA	NA
MW-3	07/17/1998	71,000	11,000	590	2,200	6,900	3,900	NA	NA	NA	NA	NA	NA	174.61	11.51	NA	163.10	NA	NA	NA
MW-3 (D)	07/17/1998	76,000	12,000	700	2,600	8,000	3,000	NA	NA	NA	NA	NA	NA	174.61	11.51	NA	163.10	NA	NA	NA
MW-3	10/02/1998	66,000	8,900	510	2,000	4,900	4,600	NA	NA	NA	NA	NA	NA	174.61	16.50	NA	158.11	NA	NA	NA
MW-3 (D)	10/02/1998	59,000	9,400	460	2,000	4,900	4,700	NA	NA	NA	NA	NA	NA	174.61	16.50	NA	158.11	NA	NA	NA
MW-3	02/03/1999	36,000	6,800	300	1,600	2,900	18,000	NA	NA	NA	NA	NA	NA	174.61	15.21	NA	159.40	NA	1.3	NA
MW-3	04/29/1999	45,000	8,100	580	2,200	5,800	4,700	5,150	NA	NA	NA	NA	NA	174.61	15.43	NA	159.18	NA	1.5	-68
MW-3	07/23/1999	29,400	3,540	215	810	3,800	4,720	6,950*	NA	NA	NA	NA	NA	174.61	14.95	NA	159.66	NA	1.3	NA
MW-3	11/01/1999	20,000	4,190	294	1,060	1,740	5,540	8,590	NA	NA	NA	NA	NA	174.61	14.66	NA	159.95	NA	0.6	-110
MW-3	01/17/2000	17,000	3,900	89	1,100	1,200	7,900	NA	NA	NA	NA	NA	NA	174.61	13.94	NA	160.67	NA	1.3	-40
MW-3	04/17/2000	28,100	5,240	247	1,540	2,750	16,800	NA	NA	NA	NA	NA	NA	174.61	14.00	NA	160.61	NA	1.1	-86
MW-3	07/26/2000	24,300	6,680	159	1,610	1,640	17,100	NA	NA	NA	NA	NA	NA	174.61	13.72	NA	160.89	NA	0.9	-70

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**4255 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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-3	10/12/2000	14,300	2,630	86.7	241	1,360	16,300	NA	NA	NA	NA	NA	NA	174.61	14.15	NA	160.46	NA	0.9	50
MW-3	01/15/2001	22,100	4,400	266	977	2,990	13,200	NA	NA	NA	NA	NA	NA	174.61	13.05	NA	161.56	NA	1.3	-40
MW-3	04/09/2001	33,800	7,100	147	1,700	2,660	13,000	NA	NA	NA	NA	NA	NA	174.61	13.59	NA	161.02	NA	0.6	-56
MW-3	07/24/2001	220,000	5,600	1,900	4,400	19,000	NA	12,000	NA	NA	NA	NA	NA	174.61	14.43	NA	160.18	NA	0.4	29
MW-3	10/31/2001	65,000	2,700	510	1,800	7,200	NA	9,800	<20	<20	<20	5,200	<500	174.61	14.59	NA	160.02	NA	0.9	-27
MW-3	01/10/2002	66,000	2,400	490	1,700	6,600	NA	5,500	NA	NA	NA	NA	NA	174.61	12.65	NA	161.96	NA	1.7	-76
MW-3	04/25/2002	55,000	4,600	460	2,400	6,900	NA	8,100	NA	NA	NA	NA	NA	174.61	14.13	NA	160.48	NA	1.2	-96
MW-3	07/16/2002	56,000	3,300	270	1,700	5,000	NA	8,400	NA	NA	NA	NA	NA	174.61	15.48	15.45	159.15	0.03	0.8	-41
MW-3	10/07/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.59	14.60	14.40	160.15	0.20	NA	NA
MW-3	01/06/2003	57,000	3,200	330	1,800	5,400	NA	5,100	NA	NA	NA	NA	NA	174.59	11.62	11.60	162.99	0.02	0.4	33
MW-3	04/07/2003	57,000	6,200	500	2,400	6,700	NA	8,200	NA	NA	NA	3,900	NA	174.59	13.80	NA	160.79	NA	0.5	61
MW-3	07/07/2003	28,000	4,900	300	1,500	4,100	NA	7,900	NA	NA	NA	4,700	NA	174.59	14.00	NA	160.59	NA	1.0	-11
MW-3	10/09/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.59	14.44	14.36	160.21	0.08	NA	NA
MW-3	10/20/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.59	14.68	14.61	159.97	0.07	NA	NA
MW-3	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174.59	12.47	12.45	162.14	0.02	NA	NA
MW-4	11/17/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	164.06	6.62	NA	157.44	NA	NA	NA
MW-4	11/28/1994	2,900	200	17	76	260	NA	NA	NA	NA	NA	NA	NA	164.06	6.11	NA	157.95	NA	NA	NA
MW-4	01/13/1995	1,900	130	5.6	13	40	NA	NA	NA	NA	NA	NA	NA	164.06	6.05	NA	158.01	NA	NA	NA
MW-4	04/12/1995	680	150	<2.0	10	13	NA	NA	NA	NA	NA	NA	NA	164.06	6.31	NA	157.75	NA	NA	NA
MW-4	07/25/1995	340	100	0.8	8.8	3	NA	NA	NA	NA	NA	NA	NA	164.06	7.36	NA	156.70	NA	NA	NA
MW-4	10/18/1995	150	31	<0.5	3.5	0.8	NA	NA	NA	NA	NA	NA	NA	164.06	8.54	NA	155.52	NA	NA	NA
MW-4	01/17/1996	290	14	<0.5	1.8	0.8	NA	NA	NA	NA	NA	NA	NA	164.06	8.48	NA	155.58	NA	NA	NA
MW-4	04/25/1996	<500	65	<5	<5	<5	1,700	NA	NA	NA	NA	NA	NA	164.06	7.40	NA	156.66	NA	NA	NA
MW-4 (D)	04/25/1996	<500	66	<5	8.7	<5	1,500	NA	NA	NA	NA	NA	NA	164.06	7.40	NA	156.66	NA	NA	NA
MW-4	07/17/1996	<500	84	<5.0	6.5	<5.0	1,500	NA	NA	NA	NA	NA	NA	164.06	7.75	NA	156.31	NA	NA	NA
MW-4 (D)	07/17/1996	<500	54	<5.0	<5.0	<5.0	1,700	2,100	NA	NA	NA	NA	NA	164.06	7.75	NA	156.31	NA	NA	NA
MW-4	10/01/1996	<500	1.9	<5.0	<5.0	<5.0	3,000	NA	NA	NA	NA	NA	NA	164.06	8.82	NA	155.24	NA	NA	NA
MW-4	01/22/1997	580	130	<2.5	18	5.2	1,200	NA	NA	NA	NA	NA	NA	164.06	7.51	NA	156.55	NA	NA	NA
MW-4	04/08/1997	770	200	7	26	55	1,500	8	NA	NA	NA	NA	NA	164.06	7.18	NA	156.88	NA	NA	NA
MW-4	07/08/1997	570	78	<5.0	14	11	1,200	NA	NA	NA	NA	NA	NA	164.06	9.00	NA	155.06	NA	NA	NA
MW-4 (D)	07/08/1997	640	81	<5.0	16	19	1,600	NA	NA	NA	NA	NA	NA	164.06	9.00	NA	155.06	NA	NA	NA
MW-4	10/08/1997	<500	40	<5.0	7.4	5.4	1,400	NA	NA	NA	NA	NA	NA	164.06	8.97	NA	155.09	NA	NA	NA
MW-4 (D)	10/08/1997	<500	36	<5.0	5.9	<5.0	1,400	NA	NA	NA	NA	NA	NA	164.06	8.97	NA	155.09	NA	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
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**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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-4	01/08/1998	<1,000	55	<10	13	<10	2,000	NA	NA	NA	NA	NA	NA	164.06	7.90	NA	156.16	NA	NA	NA
MW-4	04/13/1998	350	110	2.4	20	26	<2.5	NA	NA	NA	NA	NA	NA	164.06	7.35	NA	156.71	NA	NA	NA
MW-4	07/17/1998	210	66	0.78	5.4	9.8	1,700	NA	NA	NA	NA	NA	NA	164.06	6.95	NA	157.11	NA	NA	NA
MW-4	10/02/1998	<50	0.69	<0.50	<0.50	<0.50	2,900	NA	NA	NA	NA	NA	NA	164.06	7.35	NA	156.71	NA	NA	NA
MW-4	02/03/1999	560	120	2.5	29	34	6,800	NA	NA	NA	NA	NA	NA	164.06	7.71	NA	156.35	NA	0.9	NA
MW-4	04/29/1999	390	80	1.9	13	19	7,000	8,360	NA	NA	NA	NA	NA	164.06	7.83	NA	156.23	NA	1.1	-125
MW-4	07/23/1999	460	93.6	8.40	25.2	28.8	3,760	6,000*	NA	NA	NA	NA	NA	164.06	11.33	NA	152.73	NA	0.9	NA
MW-4	11/01/1999	77.3	0.520	<0.500	<0.500	<0.500	539	NA	NA	NA	NA	NA	NA	164.06	10.66	NA	153.40	NA	2.8	3
MW-4	01/17/2000	160	27	<0.50	12	6.3	12,000	NA	NA	NA	NA	NA	NA	164.06	10.15	NA	153.91	NA	3.9	-17
MW-4	04/17/2000	<500	26	6.38	9.35	10.4	9,070	NA	NA	NA	NA	NA	NA	164.06	10.10	NA	153.96	NA	1.7	-129
MW-4	07/26/2000	<500	22.7	<5.00	7.59	6.96	7,660	NA	NA	NA	NA	NA	NA	164.06	10.09	NA	153.97	NA	1.4	-137
MW-4	10/12/2000	172	19.8	<0.500	7.47	4.50	8,290	NA	NA	NA	NA	NA	NA	164.06	9.35	NA	154.71	NA	3.5	529
MW-4	01/15/2001	53.6	1.50	<0.500	2.45	1.80	9,260	NA	NA	NA	NA	NA	NA	164.06	8.77	NA	155.29	NA	2.3	53
MW-4	04/09/2001	<500	<5.00	<5.00	<5.00	5.52	10,300	NA	NA	NA	NA	NA	NA	164.06	7.75	NA	156.31	NA	1.0	-133
MW-4	07/24/2001	58	3.8	<0.50	3.2	2.9	NA	1,700	NA	NA	NA	NA	NA	164.06	10.07	NA	153.99	NA	0.5	106
MW-4	10/31/2001	<1,000	<10	<10	<10	<10	NA	7,400	NA	NA	NA	NA	NA	164.06	9.97	NA	154.09	NA	0.8	22
MW-4	01/10/2002	<2,000	<20	<20	<20	<20	NA	12,000	NA	NA	NA	NA	NA	164.06	8.53	NA	155.53	NA	8.9	224
MW-4	04/25/2002	<2,000	<20	<20	<20	<20	NA	7,900	NA	NA	NA	NA	NA	164.06	7.33	NA	156.73	NA	3.6	-84
MW-4	07/18/2002	<2,000	<20	<20	<20	<20	NA	7,200	NA	NA	NA	NA	NA	164.06	9.05	NA	155.01	NA	1.7	120
MW-4	10/07/2002	<1,000	<10	<10	<10	<10	NA	3,300	NA	NA	NA	NA	NA	164.03	9.06	NA	154.97	NA	2.5	33
MW-4	01/06/2003	<500	21	<5.0	<5.0	<5.0	NA	2,500	NA	NA	NA	NA	NA	164.03	7.09	NA	156.94	NA	0.5	55
MW-4	04/07/2003	<2,500	<25	<25	<25	<50	NA	1,700	NA	NA	NA	5,900	NA	164.03	8.26	NA	155.77	NA	1.2	69
MW-4	07/07/2003	<2,500	<25	<25	<25	<50	NA	860	NA	NA	NA	6,900	NA	164.03	8.92	NA	155.11	NA	0.5	-3
MW-4	10/09/2003	<500	<5.0	<5.0	<5.0	<10	NA	420	NA	NA	NA	6,700	NA	164.03	8.91	NA	155.12	NA	0.7	171
MW-4	01/14/2004	<1,000	24	<10	<10	<20	NA	500	NA	NA	NA	7,200	NA	164.03	8.34	NA	155.69	NA	1.2	140
MW-5	01/04/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.62	NA	NA	NA	NA	NA
MW-5	01/10/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	110	NA	NA	NA	NA	NA	164.06	5.88	NA	158.18	NA	3.3	172
MW-5	04/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	73	NA	NA	NA	NA	NA	164.06	6.81	NA	157.25	NA	0.3	-44
MW-5	07/18/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	75	NA	NA	NA	NA	NA	164.06	7.38	NA	156.68	NA	0.4	170
MW-5	10/07/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	41	NA	NA	NA	NA	NA	164.14	6.75	NA	157.39	NA	1.5	16
MW-5	01/06/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	81	NA	NA	NA	NA	NA	164.14	5.96	NA	158.18	NA	0.6	166
MW-5	04/07/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	77	NA	NA	NA	28	NA	164.14	6.51	NA	157.63	NA	0.8	174
MW-5	07/07/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	32	NA	NA	NA	23	NA	164.14	6.44	NA	157.70	NA	0.3	-17

**WELL CONCENTRATIONS**  
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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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-5	10/09/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	59	NA	NA	NA	40	NA	164.14	7.05	NA	157.09	NA	0.9	17
MW-5	01/14/2004	<50	<0.50	0.76	<0.50	<1.0	NA	47	NA	NA	NA	17	NA	164.14	6.29	NA	157.85	NA	1.6	209
TB-1	04/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.00	NA	NA	NA	3.8	-132
TB-1	11/01/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.65	NA	NA	NA	0.2	-165
TB-1	01/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.72	NA	NA	NA	0.8	-178
TB-1	04/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.65	NA	NA	NA	0.5	-152
TB-1	07/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.13	NA	NA	NA	1.0	-124
TB-1	10/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.20	NA	NA	NA	0.7	-73
TB-1	01/15/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.09	NA	NA	NA	1.2	-118
TB-1	04/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.96	NA	NA	NA	1.0	-72
TB-1	07/24/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.03	NA	NA	NA	1.4	31
TB-1	10/31/2001	1,000	85	<10	<10	42	NA	4,100	NA	NA	NA	NA	NA	NA	5.89	NA	NA	NA	1.8	88
TB-1	01/10/2002	5,000	410	390	65	620	NA	9,000	NA	NA	NA	NA	NA	NA	7.47	NA	NA	NA	2.0	95
TB-1	04/25/2002	5,000	780	60	49	91	NA	6,000	NA	NA	NA	NA	NA	NA	11.71	NA	NA	NA	1.7	-136
TB-1	07/18/2002	Insufficient water		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.50	NA	NA	NA	NA	NA
TB-1	10/07/2002	4,600	480	36	98	200	NA	4,000	NA	NA	NA	NA	NA	NA	12.95	NA	NA	NA	1.6	-48
TB-1	01/06/2003	130	30	<0.50	<0.50	0.78	NA	330	NA	NA	NA	NA	NA	NA	5.56	NA	NA	NA	0.4	-20
TB-2	04/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.76	NA	NA	NA	4.2	-108
TB-2	11/01/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.33	NA	NA	NA	0.5	-148
TB-2	01/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.79	NA	NA	NA	0.7	-162
TB-2	04/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.75	NA	NA	NA	0.9	-121
TB-2	07/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.73	NA	NA	NA	0.9	-85
TB-2	10/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.05	NA	NA	NA	0.6	-47
TB-2	01/15/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.87	NA	NA	NA	0.7	-91
TB-2	04/09/2001	46,600	1,240	1,310	1,110	12,100	31,300	NA	NA	NA	NA	NA	NA	NA	3.76	NA	NA	NA	0.8	-24
TB-2	07/24/2001	11,000	630	<25	310	200	NA	11,000	NA	NA	NA	NA	NA	NA	4.75	NA	NA	NA	0.4	-51
TB-2	10/31/2001	7,500	530	1,500	100	500	NA	2,500	NA	NA	NA	NA	NA	NA	4.24	NA	NA	NA	0.6	-7
TB-2	01/10/2002	<5,000	480	47	34	110	NA	12,000	NA	NA	NA	NA	NA	NA	6.26	NA	NA	NA	1.3	-81
TB-2	04/25/2002	4,700	470	140	<20	80	NA	7,400	NA	NA	NA	NA	NA	NA	11.78	NA	NA	NA	0.9	-107
TB-2	07/18/2002	7,500	630	650	<25	390	NA	44,000	NA	NA	NA	NA	NA	NA	12.34	NA	NA	NA	0.9	-67
TB-2	10/07/2002	<10,000	580	<100	<100	180	NA	30,000	NA	NA	NA	NA	NA	NA	11.62	NA	NA	NA	1.0	-41
TB-2	01/06/2003	120	4.8	<0.50	<0.50	2.0	NA	220	NA	NA	NA	NA	NA	NA	4.35	NA	NA	NA	0.5	-515

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**4255 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)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
---------	------	----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	----------------	----------------	----------------	---------------	-------------------	--------------	----------------------------	--------------------------	--------------------------	---------------------------	------------------------	------------------------

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to July 24, 2001, analyzed by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to July 24, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

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

ETBE = Ethyl tert-butyl ether, analyzed by EPA Method 8260

TAME = Tert-amyl methyl ether, analyzed by EPA Method 8260

TBA = Tert-butyl alcohol, analyzed by EPA Method 8260

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

DO = Dissolved Oxygens

ppm = Parts per million

ORP = Oxidation Reduction Potential

mV = Millivolts

Notes:

\* = Sample analyzed outside the EPA recommended holding time.

a = Ground water surface had a sheen when sampled.

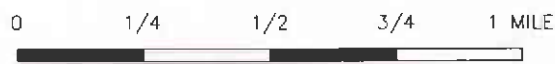
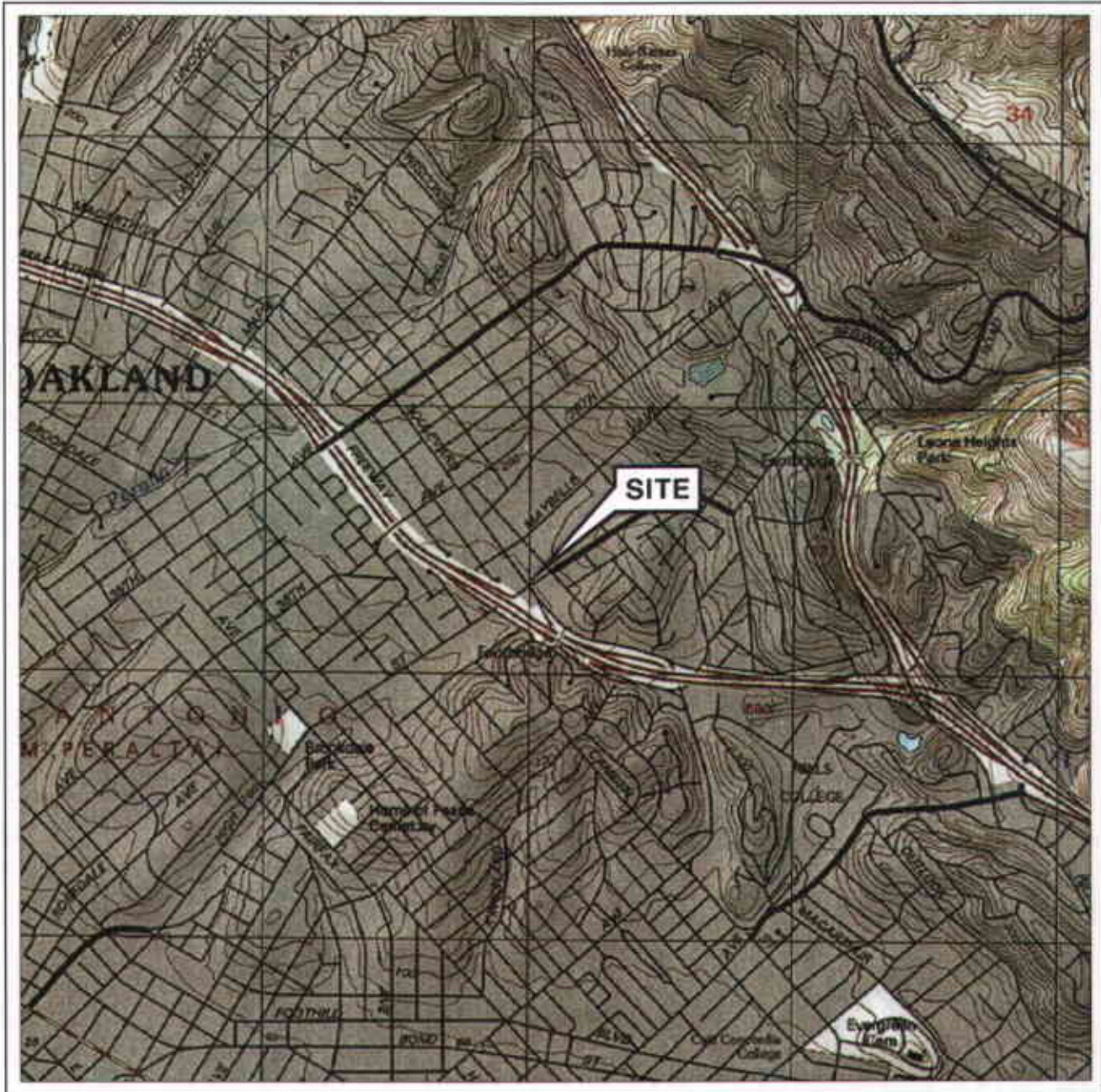
b = MTBE value is estimated by Sequoia Analytical of Redwood City, California.

Site surveyed March 14, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

When separate-phase hydrocarbons are present, ground water elevation is adjusted using the relation:

Corrected ground water elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).

# FIGURES



SCALE 1: 24,000



**VICINITY MAP**

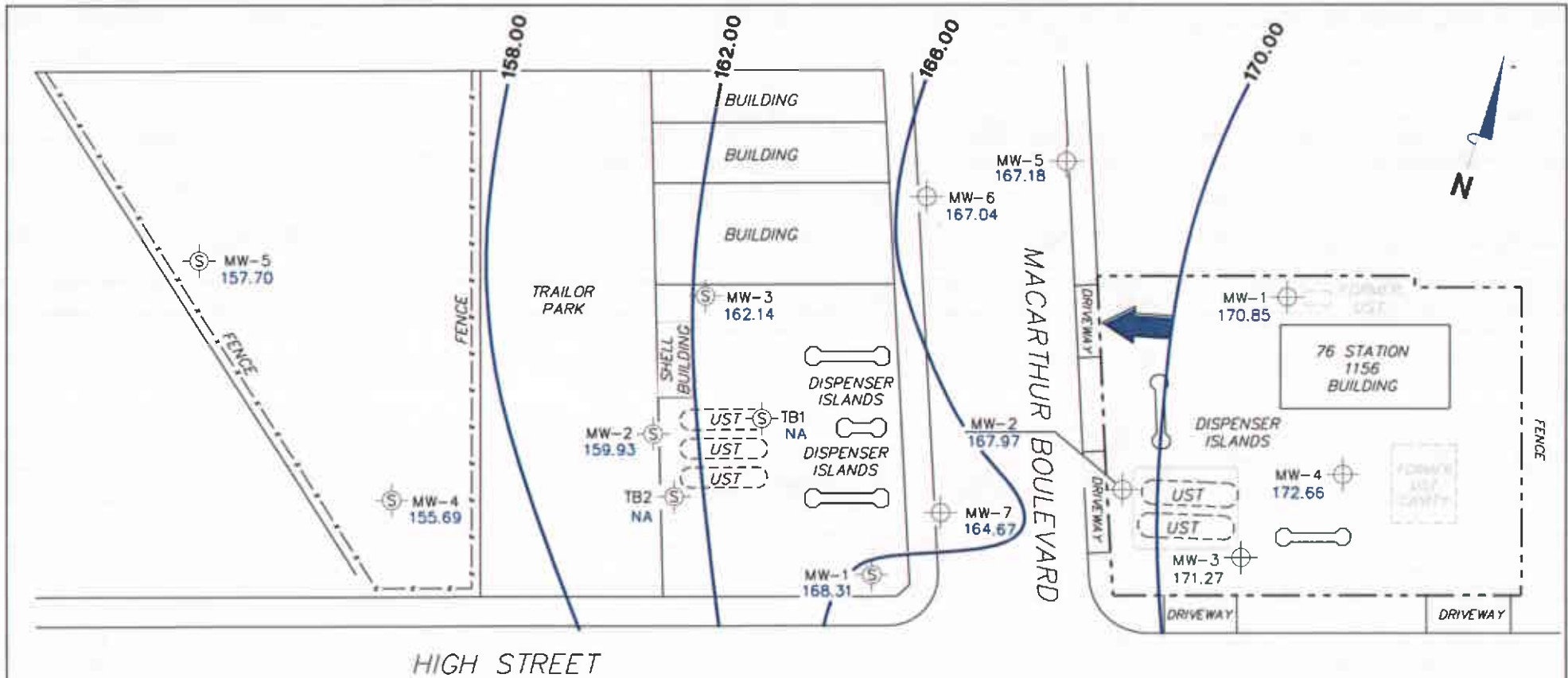
76 Station 1156  
 4276 MacArthur Boulevard  
 Oakland, California

**SOURCE:**

United States Geological Survey  
 7.5 Minute Topographic Map:  
 Oakland East Quadrangle



**FIGURE 1**



HIGH STREET

**NOTES:**

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank. Shell data provided by Bloine Tech. Services. NA = not analyzed, measured, or collected.

**LEGEND**

- MW-7 Monitoring Well with Groundwater Elevation (feet)
- MW-14 Shell Monitoring Well with Groundwater Elevation
- 170.00 Groundwater Elevation Contour
- General Direction of Groundwater Flow

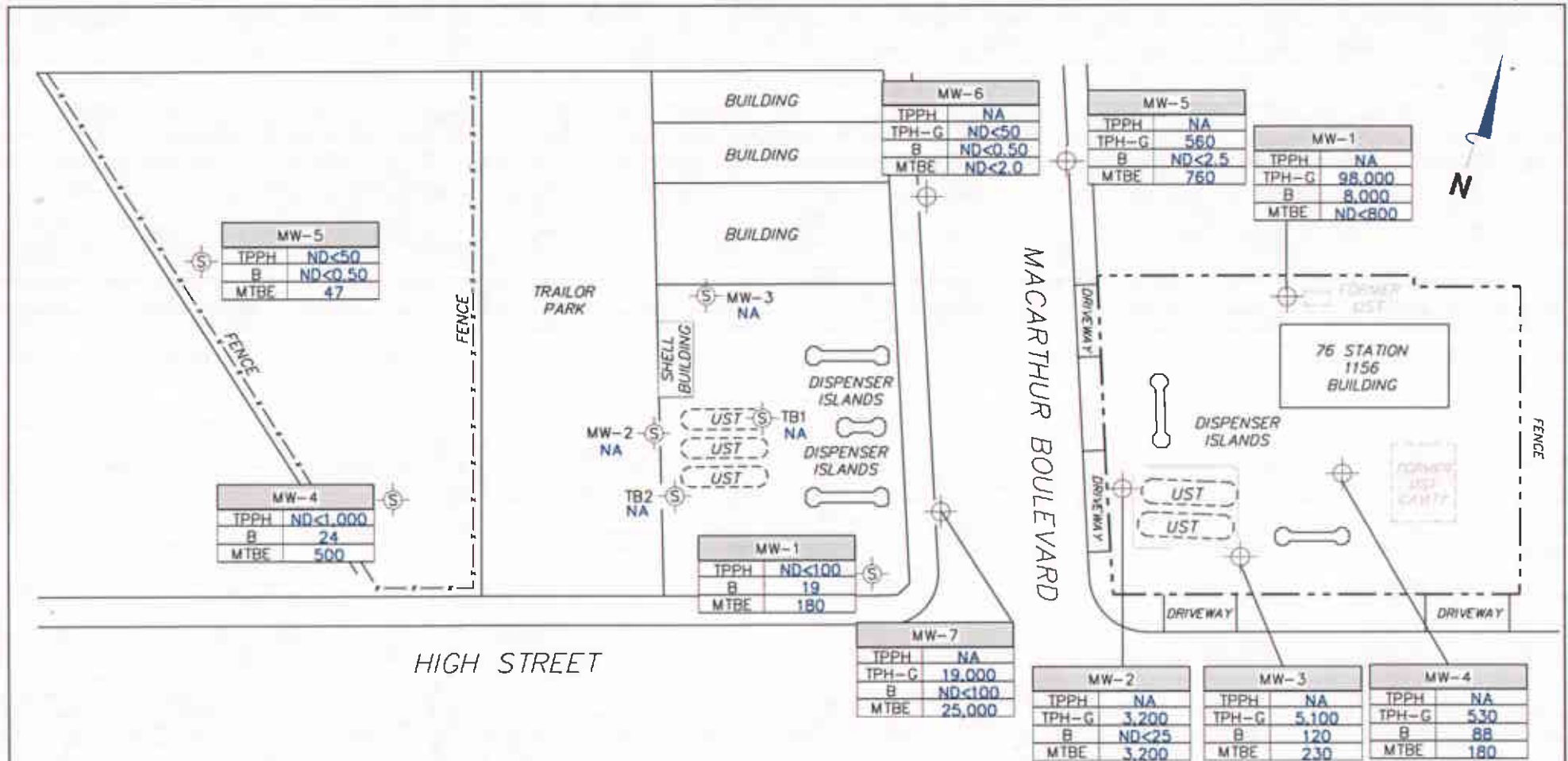
**GROUNDWATER ELEVATION CONTOUR MAP**  
January 14, 2004

76 Station 1156  
4276 MacArthur Boulevard  
Oakland, California

**FIGURE 2**







**NOTES:**

TPPH = total purgeable petroleum hydrocarbons.  
 TPH-G = total petroleum hydrocarbons as gasoline.  
 B = benzene. MTBE = methyl tertiary butyl ether.  
 µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. NA = not analyzed, measured, or collected. UST = underground storage tank. TPPH and MTBE results obtained using EPA Method 8260B. TPH-G results obtained using EPA Method 8015. Shell Station results provided by Blaine Tech. Services.

**LEGEND**

Well No.	
TPPH	µg/l
TPH-G	µg/l
B	µg/l
MTBE	µg/l

Monitoring Well with Dissolved-Phase Hydrocarbon Concentrations (µg/l)

MW-1 Shell Monitoring Well with Dissolved-Phase Hydrocarbon Concentrations (µg/l)

**DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS MAP**  
 January 14, 2004

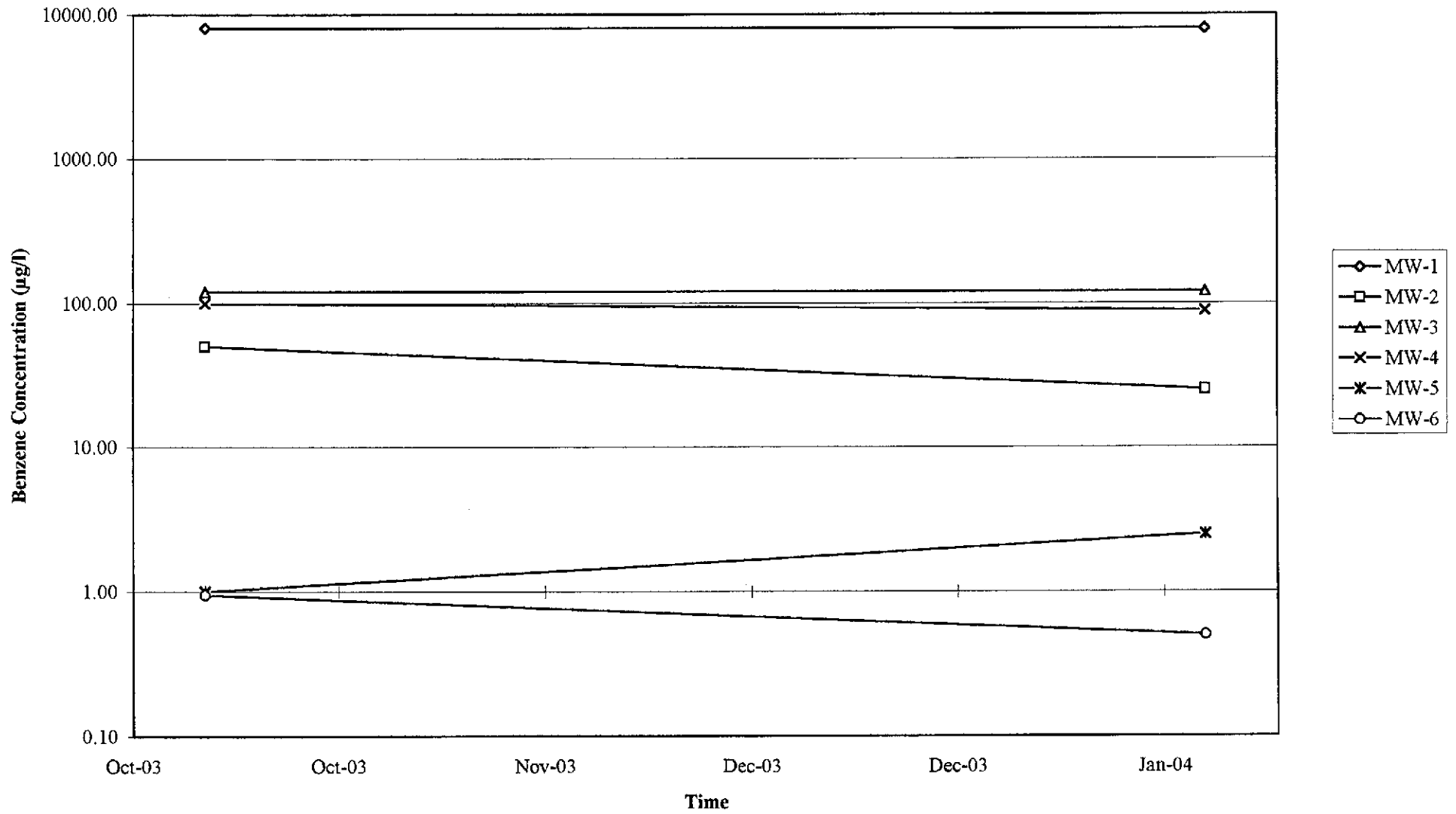
76 Station 1156  
 4276 MacArthur Boulevard  
 Oakland, California

**FIGURE 3**



# GRAPHS

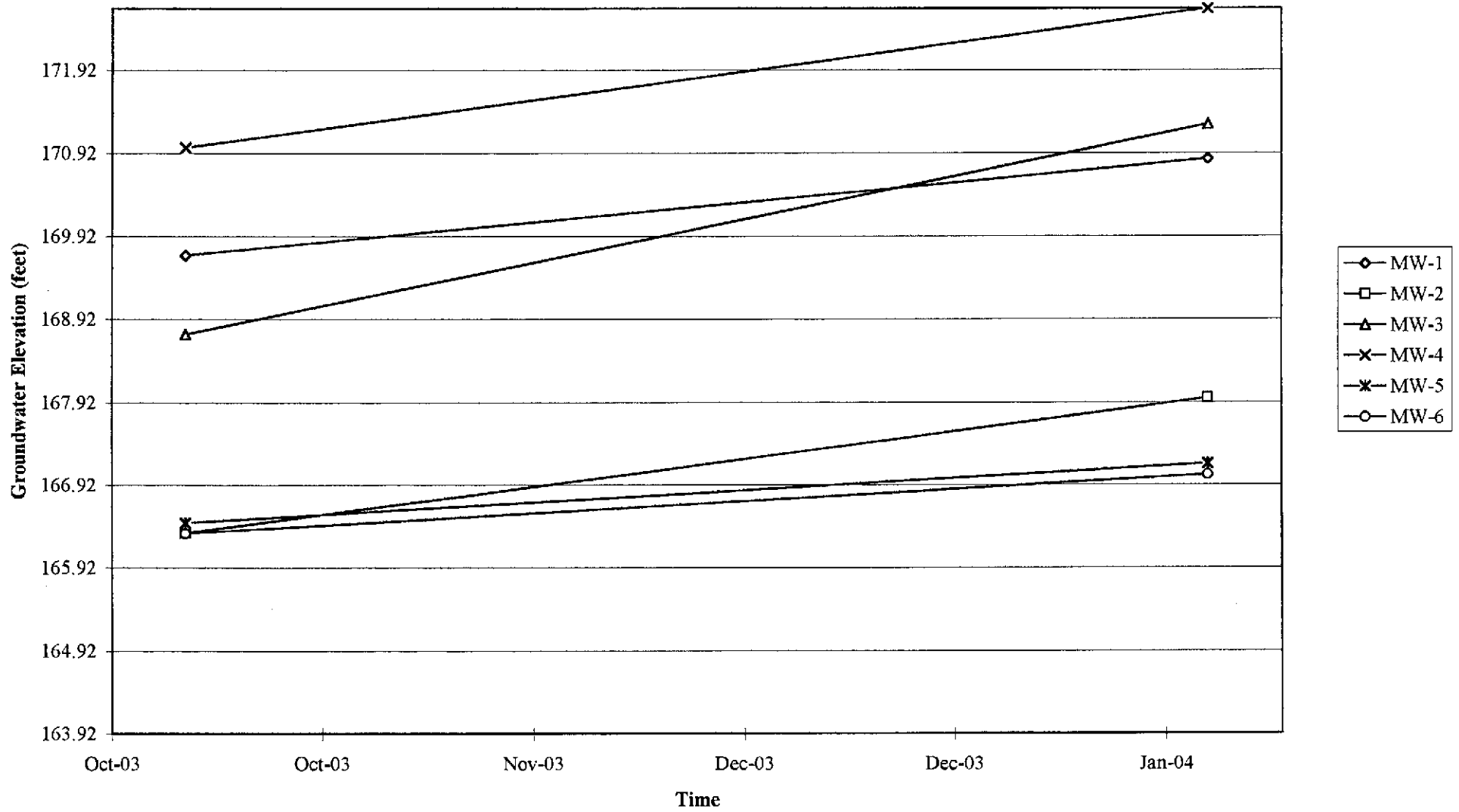
Graph 1  
Benzene Concentrations vs. Time  
76 Station 1156



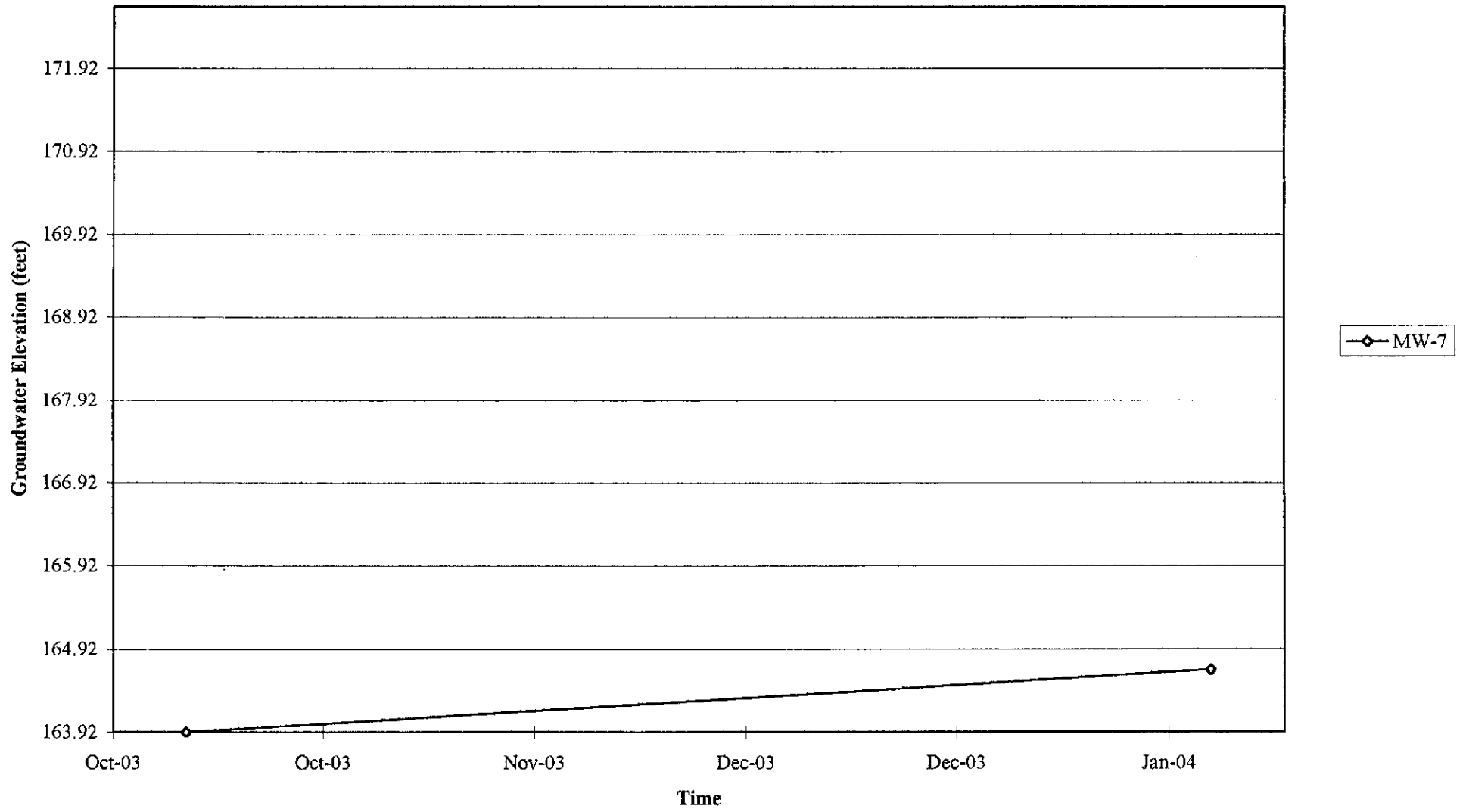
Graph 2  
Benzene Concentrations vs. Time  
76 Station 1156



Graph 3  
Hydrograph  
76 Station 1156



Graph 4  
Hydrograph  
76 Station 1156



## GENERAL FIELD PROCEDURES

### Groundwater Monitoring and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater monitoring and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

### Fluid Level Measurements

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage, or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Wells that are found to contain LPH are not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed. Bailed fluids are placed in a container separate from normal purge water, and properly disposed.

### Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurement are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously until they become stable in general accordance with EPA guidelines.

Purge water is generally collected in labeled drums for disposal. Drums may be left on site for disposal by others, or transported to a collection location for eventual transfer to a licensed treatment or recycling facility. In some cases, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

### **Groundwater Sample Collection**

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

Samples are collected by lowering a new, disposable, ½-inch to 4-inch polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

After filling, all containers are labeled with project number (or site number), well designation, sample date, and the samplers initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

### **Sequence of Gauging, Purging, and Sampling**

The sequence in which monitoring activities are conducted are specified on the TSR. In general, wells are gauged beginning with the least-affected well and ending with the well that has highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected well to the most-affected well.

### **Decontamination**

In order to reduce the possibility of cross-contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated to a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liqui-nox and water and rinsing twice. The final rinse is in deionized water.

### **Exceptions**

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, and noted on the site TSR, are documented in field notes on the following pages.



# FIELD MONITORING DATA SHEET

Technician: UNOAL

Job #/Task #: 41050001

Date: 1/14/09

Site # 1156

Project Manager Kathie Deskin

Page 1 of 1

Well #	Grade	TOC	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-1		✓	25.05	6.69	0	0	0844	2"
MW-2		✓	25.13	5.53	0	0	0943	2"
MW-3		✓	24.71	6.86	0	0	0908	2"
MW-4		✓	25.24	6.30	0	0	0928	2"
MW-5		✓	25.26	2.40	0	0	0820	2"
MW-6		✓	24.87	2.06	0	0	1072	2"
MW-7		✓	25.44	6.97	0	0	1110	2"
FIELD DATA COMPLETE		QA/QC	C/C		WELL BOX CONDITION SHEETS			
WTT CERTIFICATE		MANIFEST		DRUM INVENTORY		TRAFFIC CONTROL		

# GROUNDWATER SAMPLING FIELD NOTES

Technician: UNDELL

Site: 1156

Project No.: 41050001

Date: 1/14/04

Well No.: MWD-6  
 Depth to Water (feet): 2.00  
 Total Depth (feet): 24.87  
 Water Column (feet): 22.87  
 80% Recharge Depth (feet): 4.57

Purge Method: 0  
 Depth to Product (feet): 0  
 LPH & Water Recovered (gallons): 0  
 Casing Diameter (Inches): 2'  
 1 Well Volume (gallons): 4

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F.C)	pH	Turbidity	D.O.
1000			4	713	14.1	7.57		
			8	679	15.6	7.43		
	1007		12	670	14.5	7.41		
Static at Time Sampled		Total Gallons Purged			Time Sampled			
5.73		12			1022			
Comments: .								

Well No.: MWD-7  
 Depth to Water (feet): 6.97  
 Total Depth (feet): 25.41  
 Water Column (feet): 18.47  
 80% Recharge Depth (feet): 10.66

Purge Method: 0  
 Depth to Product (feet): 0  
 LPH & Water Recovered (gallons): 0  
 Casing Diameter (Inches): 2'  
 1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F.C)	pH	Turbidity	D.O.
1033			3	903	15.3	7.40		
			6	904	15.7	7.36		
	1039		9	905	15.7	7.34		
Static at Time Sampled		Total Gallons Purged			Time Sampled			
10.65		9			110			
Comments: <u>WAIT FOR WELL TO RECHARGE 21 min.</u>								

# GROUNDWATER SAMPLING FIELD NOTES

Technician: WADAL  
 Site: 1156 Project No.: 11650001 Date: 1/14/09  
 Well No.: MW-1 Purge Method: 0  
 Depth to Water (feet): 6.69 Depth to Product (feet): 0  
 Total Depth (feet): 25.05 LPH & Water Recovered (gallons): 0  
 Water Column (feet): 18.36 Casing Diameter (Inches): 2"  
 80% Recharge Depth (feet): 10.36 1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F.C)	pH	Turbidity	D.O.
0657			3	1036	14.7	7.08		
			6	1047	15.3	7.07		
	0706		9	1095	14.3	7.10		
Static at Time Sampled			Total Gallons Purged		Time Sampled			
9.03			9		0849			
Comments:								

Well No.: MW-2 Purge Method: 0  
 Depth to Water (feet): 5.53 Depth to Product (feet): 0  
 Total Depth (feet): 25.13 LPH & Water Recovered (gallons): 0  
 Water Column (feet): 19.6 Casing Diameter (Inches): 2"  
 80% Recharge Depth (feet): 9.95 1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F.C)	pH	Turbidity	D.O.
0714			3	765	11.5	7.21		
			6	769	15.0	7.16		
	0720		9	788	15.9	7.16		
Static at Time Sampled			Total Gallons Purged		Time Sampled			
11:22			9		0743			
Comments: <u>DID NOT REFLOW WITHIN 2 HRS.</u>								

## GROUNDWATER SAMPLING FIELD NOTES

Technician: LYDEN  
 Site: 1156 Project No.: 41030001 Date: 11/14/03  
 Well No.: MW-5 Purge Method: 0  
 Depth to Water (feet): 200 Depth to Product (feet): 0  
 Total Depth (feet): 25.24 LPH & Water Recovered (gallons): 0  
 Water Column (feet): 23.24 Casing Diameter (Inches): 2"  
 80% Recharge Depth (feet): 6.65 1 Well Volume (gallons): 9

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F.C)	pH	Turbidity	D.O.
0803			4	800	12.1	7.33		
			8	806	15.7	7.29		
	0810		12	815	17.4	7.27		
Static at Time Sampled			Total Gallons Purged		Time Sampled			
5.10			12		0820			
Comments:								

Well No.: \_\_\_\_\_ Purge Method: \_\_\_\_\_  
 Depth to Water (feet): \_\_\_\_\_ Depth to Product (feet): \_\_\_\_\_  
 Total Depth (feet): \_\_\_\_\_ LPH & Water Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): \_\_\_\_\_ Casing Diameter (Inches): \_\_\_\_\_  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F.C)	pH	Turbidity	D.O.
Static at Time Sampled			Total Gallons Purged		Time Sampled			
Comments:								

# METER CALIBRATION LOG

CLIENT NAME: CONOCO PHILLIPS

SITE #: 115L

CALIBRATED BY: LYDELL

LOCATION: 4276 M MARTINE BLVD.  
OAKLAND

DATE: 1/14/04

METER BRAND NAME: DAKTON

METER BRAND NAME: —

METER MODEL #: 35130-62

METER MODEL #: —

ALTON METER #: 0971

ALTON METER #: —

CALIBRATION STANDARD EXP. DATE: Feb 04

CALIBRATION STANDARD EXP. DATE: —

SITE INITIAL CALIBRATION			POST-SAMPLING STANDARD MEASUREMENTS		
	Standard	Final Calibrated Values		Standard	Measured Values
pH	4.00	4.20	pH	4.00	—
pH	7.00	7.11	pH	7.00	—
pH	10.00	10.00	pH	10.00	—
Conductivity	1000	—	Conductivity	1000	—
Conductivity	10000	10000	Conductivity	10000	—
Turbidity	1.0	—	Turbidity	1.0	—
Turbidity	10.0	—	Turbidity	10.0	—

REMARKS:

SIGNATURE: 

STL-San Francisco

1220 Quarry Lane  
Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

# ConocoPhillips Chain Of Custody Record

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS  
Attn: Dee Hutchinson  
3611 South Harbor, Suite 200  
Santa Ana, CA. 92704

ConocoPhillips Work Order Number

ConocoPhillips Cost Object

DATE: 1/14/04  
PAGE: 1 of 9

SAMPLING COMPANY: <b>TRC</b>		Valid Value ID:	CONOCOPHILLIPS SITE NUMBER <u>11572</u>		GLOBAL ID NO.:
ADDRESS: 21 Technology Drive, Irvine CA 92618		SITE ADDRESS (Street and City): <u>4276 MACARTHUR, OAKLAND</u>			CONOCOPHILLIPS SITE MANAGER:
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Anju Farfan</b>		EDF DELIVERABLE TO (RP or Designee): Peter Thomson, TRC		PHONE NO.: 949-341-7408	EMAIL:
TELEPHONE: 949-341-7440	FAX: 949-753-0111	E-MAIL: afarfan@trcsolutions.com		LAB USE ONLY	

SAMPLER NAME(S) (Print): <u>11001</u>	CONSULTANT PROJECT NUMBER 41050001/FA20	<b>REQUESTED ANALYSES</b>			
--	--	---------------------------	--	--	--

TURNAROUND TIME (CALENDAR DAYS): <input checked="" type="checkbox"/> 14 DAYS <input type="checkbox"/> 7 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS		<table border="1"> <tr> <td><input type="checkbox"/> 8015m - TPHd Extractable</td> <td><input type="checkbox"/> 8260B - TPHg/BTEX/MBE</td> <td><input type="checkbox"/> 8260B - TPHg / BTEX / 8 Oxygenates</td> <td><input type="checkbox"/> 8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)</td> <td><input type="checkbox"/> 8260B - Full Scan VOCs (does not include oxygenates)</td> <td><input type="checkbox"/> 8270C - Semi-Volatiles</td> <td><input type="checkbox"/> 8015M / 8021B - TPHg/BTEX/MBE</td> <td><input type="checkbox"/> Lead</td> <td><input type="checkbox"/> Total</td> <td><input type="checkbox"/> DTCLP</td> </tr> <tr> <td><u>TPHd 54 6015M</u></td> <td><u>TPHd 05 6015M</u></td> <td><u>BTEX / MBE 61 6021</u></td> <td><u>6 OXS 44 62100</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				<input type="checkbox"/> 8015m - TPHd Extractable	<input type="checkbox"/> 8260B - TPHg/BTEX/MBE	<input type="checkbox"/> 8260B - TPHg / BTEX / 8 Oxygenates	<input type="checkbox"/> 8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)	<input type="checkbox"/> 8260B - Full Scan VOCs (does not include oxygenates)	<input type="checkbox"/> 8270C - Semi-Volatiles	<input type="checkbox"/> 8015M / 8021B - TPHg/BTEX/MBE	<input type="checkbox"/> Lead	<input type="checkbox"/> Total	<input type="checkbox"/> DTCLP	<u>TPHd 54 6015M</u>	<u>TPHd 05 6015M</u>	<u>BTEX / MBE 61 6021</u>	<u>6 OXS 44 62100</u>						
<input type="checkbox"/> 8015m - TPHd Extractable	<input type="checkbox"/> 8260B - TPHg/BTEX/MBE					<input type="checkbox"/> 8260B - TPHg / BTEX / 8 Oxygenates	<input type="checkbox"/> 8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)	<input type="checkbox"/> 8260B - Full Scan VOCs (does not include oxygenates)	<input type="checkbox"/> 8270C - Semi-Volatiles	<input type="checkbox"/> 8015M / 8021B - TPHg/BTEX/MBE	<input type="checkbox"/> Lead	<input type="checkbox"/> Total	<input type="checkbox"/> DTCLP												
<u>TPHd 54 6015M</u>	<u>TPHd 05 6015M</u>	<u>BTEX / MBE 61 6021</u>	<u>6 OXS 44 62100</u>																						
SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED <input checked="" type="checkbox"/>		<p style="text-align: center;"><b>FIELD NOTES:</b> Container/Preservative or PID Readings or Laboratory Notes</p>																							
* Field Point name only required if different from Sample ID																									

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	REQUESTED ANALYSES										TEMPERATURE ON RECEIPT C°							
		DATE	TIME			8015m - TPHd Extractable	8260B - TPHg/BTEX/MBE	8260B - TPHg / BTEX / 8 Oxygenates	8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/MBE	Lead	Total	DTCLP								
	MW-1	1/14/04	0844	EW	10																		
	MW-2		0948		9																		
	MW-3		0908																				
	MW-4		0528																				
	MW-5		0820																				
	MW-6		1022																				
	MW-7		1110																				

Relinquished by: (Signature) 	Received by: (Signature) 	Date: <u>1/15/04</u>	Time: <u>9:40</u>
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

TRC Alton Geoscience

January 28, 2004

21 Technology Drive  
Irvine, CA 92718

Attn.: Anju Farfan

Project#: 41050001FA20

Project: Conoco Phillips # 1156

Site: 4276 Mac Arthur, Oakland

Attached is our report for your samples received on 01/15/2004 17:45

This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 02/29/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

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

Sincerely,



Dimple Sharma  
Project Manager

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](http://www.stl-inc.com) \* CA DHS ELAP# 2496

**Gas/BTEX Fuel Oxygenates by 8260B**

TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/14/2004 08:44	Water	1
MW-2	01/14/2004 09:43	Water	2
MW-3	01/14/2004 09:08	Water	3
MW-4	01/14/2004 09:28	Water	4
MW-5	01/14/2004 08:20	Water	5
MW-6	01/14/2004 10:22	Water	6
MW-7	01/14/2004 11:10	Water	7

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01/28/2004 11:50



**Gas/BTEX Fuel Oxygenates by 8260B**

TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030B                      Test(s): 8260FAB  
Sample ID: **MW-1**                      Lab ID: 2004-01-0430 - 1  
Sampled: 01/14/2004 08:44                      Extracted: 1/26/2004 23:13  
Matrix: Water                      QC Batch#: 2004/01/26-2B.66  
Analysis Flag: Irrn ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	40000	ug/L	400.00	01/26/2004 23:13	
Methyl tert-butyl ether (MTBE)	ND	800	ug/L	400.00	01/26/2004 23:13	
Di-isopropyl Ether (DIPE)	ND	800	ug/L	400.00	01/26/2004 23:13	
Ethyl tert-butyl ether (ETBE)	ND	800	ug/L	400.00	01/26/2004 23:13	
tert-Amyl methyl ether (TAME)	ND	800	ug/L	400.00	01/26/2004 23:13	
1,2-DCA	ND	800	ug/L	400.00	01/26/2004 23:13	
EDB	ND	800	ug/L	400.00	01/26/2004 23:13	
Ethanol	ND	200000	ug/L	400.00	01/26/2004 23:13	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	110.0	76-114	%	400.00	01/26/2004 23:13	
Toluene-d8	100.2	88-110	%	400.00	01/26/2004 23:13	

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-2	Lab ID: 2004-01-0430 - 2
Sampled: 01/14/2004 09:43	Extracted: 1/27/2004 16:17
Matrix: Water	QC Batch#: 2004/01/27-1B.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	2500	ug/L	25.00	01/27/2004 16:17	
Methyl tert-butyl ether (MTBE)	3200	50	ug/L	25.00	01/27/2004 16:17	
Di-isopropyl Ether (DIPE)	ND	50	ug/L	25.00	01/27/2004 16:17	
Ethyl tert-butyl ether (ETBE)	ND	50	ug/L	25.00	01/27/2004 16:17	
tert-Amyl methyl ether (TAME)	ND	50	ug/L	25.00	01/27/2004 16:17	
1,2-DCA	ND	50	ug/L	25.00	01/27/2004 16:17	
EDB	ND	50	ug/L	25.00	01/27/2004 16:17	
Ethanol	ND	13000	ug/L	25.00	01/27/2004 16:17	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	110.4	76-114	%	25.00	01/27/2004 16:17	
Toluene-d8	99.9	88-110	%	25.00	01/27/2004 16:17	

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**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030B Test(s): 8260FAB  
 Sample ID: MW-3 Lab ID: 2004-01-0430 - 3  
 Sampled: 01/14/2004 09:08 Extracted: 1/27/2004 00:01  
 Matrix: Water QC Batch#: 2004/01/26-2B.66  
 Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	1000	ug/L	10.00	01/27/2004 00:01	
Methyl tert-butyl ether (MTBE)	230	20	ug/L	10.00	01/27/2004 00:01	
Di-isopropyl Ether (DIPE)	ND	20	ug/L	10.00	01/27/2004 00:01	
Ethyl tert-butyl ether (ETBE)	ND	20	ug/L	10.00	01/27/2004 00:01	
tert-Amyl methyl ether (TAME)	ND	20	ug/L	10.00	01/27/2004 00:01	
1,2-DCA	ND	20	ug/L	10.00	01/27/2004 00:01	
EDB	ND	20	ug/L	10.00	01/27/2004 00:01	
Ethanol	ND	5000	ug/L	10.00	01/27/2004 00:01	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	112.8	76-114	%	10.00	01/27/2004 00:01	
Toluene-d8	103.0	88-110	%	10.00	01/27/2004 00:01	

**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030B Test(s): 8260FAB  
 Sample ID: MW-4 Lab ID: 2004-01-0430 - 4  
 Sampled: 01/14/2004 09:28 Extracted: 1/27/2004 00:25  
 Matrix: Water QC Batch#: 2004/01/26-2B.66  
 Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	200	ug/L	2.00	01/27/2004 00:25	
Methyl tert-butyl ether (MTBE)	180	4.0	ug/L	2.00	01/27/2004 00:25	
Di-isopropyl Ether (DIPE)	ND	4.0	ug/L	2.00	01/27/2004 00:25	
Ethyl tert-butyl ether (ETBE)	ND	4.0	ug/L	2.00	01/27/2004 00:25	
tert-Amyl methyl ether (TAME)	ND	4.0	ug/L	2.00	01/27/2004 00:25	
1,2-DCA	6.5	4.0	ug/L	2.00	01/27/2004 00:25	
EDB	ND	4.0	ug/L	2.00	01/27/2004 00:25	
Ethanol	ND	1000	ug/L	2.00	01/27/2004 00:25	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	109.0	76-114	%	2.00	01/27/2004 00:25	
Toluene-d8	99.1	88-110	%	2.00	01/27/2004 00:25	

**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030B Test(s): 8260FAB  
 Sample ID: MW-5 Lab ID: 2004-01-0430 - 5  
 Sampled: 01/14/2004 08:20 Extracted: 1/27/2004 00:49  
 Matrix: Water QC Batch#: 2004/01/26-2B.66  
 Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	2000	ug/L	20.00	01/27/2004 00:49	
Methyl tert-butyl ether (MTBE)	760	40	ug/L	20.00	01/27/2004 00:49	
Di-isopropyl Ether (DIPE)	ND	40	ug/L	20.00	01/27/2004 00:49	
Ethyl tert-butyl ether (ETBE)	ND	40	ug/L	20.00	01/27/2004 00:49	
tert-Amyl methyl ether (TAME)	ND	40	ug/L	20.00	01/27/2004 00:49	
1,2-DCA	ND	40	ug/L	20.00	01/27/2004 00:49	
EDB	ND	40	ug/L	20.00	01/27/2004 00:49	
Ethanol	ND	10000	ug/L	20.00	01/27/2004 00:49	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	108.6	76-114	%	20.00	01/27/2004 00:49	
Toluene-d8	97.0	88-110	%	20.00	01/27/2004 00:49	

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**Gas/BTEX Fuel Oxygenates by 8260B**

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Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-6	Lab ID: 2004-01-0430 - 6
Sampled: 01/14/2004 10:22	Extracted: 1/27/2004 01:13
Matrix: Water	QC Batch#: 2004/01/26-2B.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	100	ug/L	1.00	01/27/2004 01:13	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	01/27/2004 01:13	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/27/2004 01:13	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/27/2004 01:13	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/27/2004 01:13	
1,2-DCA	ND	2.0	ug/L	1.00	01/27/2004 01:13	
EDB	ND	2.0	ug/L	1.00	01/27/2004 01:13	
Ethanol	ND	500	ug/L	1.00	01/27/2004 01:13	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	111.5	76-114	%	1.00	01/27/2004 01:13	
Toluene-d8	100.1	88-110	%	1.00	01/27/2004 01:13	

**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030B                      Test(s): 8260FAB  
Sample ID: **MW-7**                      Lab ID: 2004-01-0430 - 7  
Sampled: 01/14/2004 11:10                      Extracted: 1/27/2004 16:41  
Matrix: Water                      QC Batch#: 2004/01/27-1B.66  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	40000	ug/L	400.00	01/27/2004 16:41	
Methyl tert-butyl ether (MTBE)	25000	800	ug/L	400.00	01/27/2004 16:41	
Di-isopropyl Ether (DIPE)	ND	800	ug/L	400.00	01/27/2004 16:41	
Ethyl tert-butyl ether (ETBE)	ND	800	ug/L	400.00	01/27/2004 16:41	
tert-Amyl methyl ether (TAME)	ND	800	ug/L	400.00	01/27/2004 16:41	
1,2-DCA	ND	800	ug/L	400.00	01/27/2004 16:41	
EDB	ND	800	ug/L	400.00	01/27/2004 16:41	
Ethanol	ND	200000	ug/L	400.00	01/27/2004 16:41	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	110.4	76-114	%	400.00	01/27/2004 16:41	
Toluene-d8	105.4	88-110	%	400.00	01/27/2004 16:41	

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**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/01/26-2B.66-021

Water

Test(s): 8260FAB

QC Batch # 2004/01/26-2B.66

Date Extracted: 01/26/2004 18:21

Compound	Conc.	RL	Unit	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	100	ug/L	01/26/2004 18:21	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	01/26/2004 18:21	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	01/26/2004 18:21	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	01/26/2004 18:21	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	01/26/2004 18:21	
1,2-DCA	ND	2.0	ug/L	01/26/2004 18:21	
EDB	ND	2.0	ug/L	01/26/2004 18:21	
Ethanol	ND	500	ug/L	01/26/2004 18:21	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	101.4	76-114	%	01/26/2004 18:21	
Toluene-d8	99.6	88-110	%	01/26/2004 18:21	



## Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

## Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2004/01/27-1B.66-012

Water

Test(s): 8260FAB

QC Batch # 2004/01/27-1B.66

Date Extracted: 01/27/2004 09:12

Compound	Conc.	RL	Unit	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	100	ug/L	01/27/2004 09:12	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	01/27/2004 09:12	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	01/27/2004 09:12	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	01/27/2004 09:12	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	01/27/2004 09:12	
1,2-DCA	ND	2.0	ug/L	01/27/2004 09:12	
EDB	ND	2.0	ug/L	01/27/2004 09:12	
Ethanol	ND	500	ug/L	01/27/2004 09:12	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	101.0	76-114	%	01/27/2004 09:12	
Toluene-d8	96.8	88-110	%	01/27/2004 09:12	

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**Gas/BTEX Fuel Oxygenates by 8260B**

TRC Alton Geoscience  
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Project: 41050001FA20  
Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/01/26-2B.66**

LCS 2004/01/26-2B.66-033  
LCSD 2004/01/26-2B.66-057

Extracted: 01/26/2004  
Extracted: 01/26/2004

Analyzed: 01/26/2004 17:33  
Analyzed: 01/26/2004 17:57

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	24.9	23.5	25	99.6	94.0	5.8	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	451	434	500	90.2	86.8		76-114			
Toluene-d8	513	491	500	102.6	98.2		88-110			

**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20  
Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/01/27-1B.66**

LCS 2004/01/27-1B.66-042

Extracted: 01/27/2004

Analyzed: 01/27/2004 10:10

LCSD 2004/01/27-1B.66-034

Extracted: 01/27/2004

Analyzed: 01/27/2004 10:34

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	23.8	22.2	25	95.2	88.8	7.0	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	487	460	500	97.4	92.0		76-114			
Toluene-d8	500	492	500	100.0	98.4		88-110			

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**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/01/26-2B.66**

MW-6 >> MS

Lab ID: 2004-01-0430 - 006

MS: 2004/01/26-2B.66-037

Extracted: 01/27/2004

Analyzed: 01/27/2004 01:37

Dilution: 1.00

MSD: 2004/01/26-2B.66-001

Extracted: 01/27/2004

Analyzed: 01/27/2004 02:01

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	26.9	25.6	ND	25	107.6	102.4	5.0	65-165	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	533	506		500	106.5	101.3		76-114			
Toluene-d8	491	509		500	98.3	101.7		88-110			

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**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

---

**Legend and Notes**

---

**Analysis Flag**

ln

Reporting limits raised due to high level of non-target analyte materials.

o

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

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**Diesel**

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Conoco Phillips # 1156

Received: 01/15/2004 17:45

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**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/14/2004 08:44	Water	1

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01/23/2004 14:35

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**Diesel**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 3510/8015M	Test(s): 8015M
Sample ID: MW-1	Lab ID: 2004-01-0430 - 1
Sampled: 01/14/2004 08:44	Extracted: 1/16/2004 12:20
Matrix: Water	QC Batch#: 2004/01/16-6A.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	6200	250	ug/L	5.00	01/21/2004 18:04	ndp
<i>Surrogate(s)</i>						
o-Terphenyl	NA	60-130	%	5.00	01/21/2004 18:04	sd

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**Diesel**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 3510/8015M

Method Blank

MB: 2004/01/16-6A.10-001

Water

Test(s): 8015M

QC Batch # 2004/01/16-6A.10

Date Extracted: 01/16/2004 12:20

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	01/19/2004 08:07	
<i>Surrogates(s)</i> o-Terphenyl	100.2	60-130	%	01/19/2004 08:07	



**Diesel**

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Project: 41050001FA20  
Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 3510/8015M

Test(s): 8015M

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/01/16-6A.10**

LCS 2004/01/16-6A.10-002

Extracted: 01/16/2004

Analyzed: 01/19/2004 08:38

LCSD 2004/01/16-6A.10-003

Extracted: 01/16/2004

Analyzed: 01/19/2004 09:08

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Diesel	990	990	1000	99.0	99.0	0.0	60-130	25		
<i>Surrogates(s)</i> o-Terphenyl	19.7	19.8	20.0	98.7	98.9		60-130			

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01/23/2004 14:35

**Diesel**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

---

**Legend and Notes**

---

**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

sd

Surrogate recovery not reportable due to required dilution.

**Gas/BTEX Compounds by 8015M/8021**

TRC Alton Geoscience

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/14/2004 08:44	Water	1
MW-2	01/14/2004 09:43	Water	2
MW-3	01/14/2004 09:08	Water	3
MW-4	01/14/2004 09:28	Water	4
MW-5	01/14/2004 08:20	Water	5
MW-6	01/14/2004 10:22	Water	6
MW-7	01/14/2004 11:10	Water	7

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**Gas/BTEX Compounds by 8015M/8021**

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Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030 Test(s): 8015M  
5030 8021B  
Sample ID: MW-1 Lab ID: 2004-01-0430 - 1  
Sampled: 01/14/2004 08:44 Extracted: 1/24/2004 03:16  
Matrix: Water QC Batch#: 2004/01/23-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	98000	13000	ug/L	250.00	01/24/2004 03:16	
Benzene	8000	130	ug/L	250.00	01/24/2004 03:16	
Toluene	21000	130	ug/L	250.00	01/24/2004 03:16	
Ethyl benzene	2600	130	ug/L	250.00	01/24/2004 03:16	
Xylene(s)	15000	130	ug/L	250.00	01/24/2004 03:16	
MTBE	ND	1300	ug/L	250.00	01/24/2004 03:16	
<b>Surrogate(s)</b>						
Trifluorotoluene	94.4	58-124	%	250.00	01/24/2004 03:16	
4-Bromofluorobenzene-FID	65.4	50-150	%	250.00	01/24/2004 03:16	

**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>MW-2</b>	Lab ID: 2004-01-0430 - 2
Sampled: 01/14/2004 09:43	Extracted: 1/24/2004 03:47
Matrix: Water	QC Batch#: 2004/01/23-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3200	2500	ug/L	50.00	01/24/2004 03:47	g
Benzene	ND	25	ug/L	50.00	01/24/2004 03:47	
Toluene	ND	25	ug/L	50.00	01/24/2004 03:47	
Ethyl benzene	ND	25	ug/L	50.00	01/24/2004 03:47	
Xylene(s)	ND	25	ug/L	50.00	01/24/2004 03:47	
MTBE	2600	250	ug/L	50.00	01/24/2004 03:47	
<b>Surrogate(s)</b>						
Trifluorotoluene	99.5	58-124	%	50.00	01/24/2004 03:47	
4-Bromofluorobenzene-FID	68.9	50-150	%	50.00	01/24/2004 03:47	

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**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-3	Lab ID:	2004-01-0430 - 3
Sampled:	01/14/2004 09:08	Extracted:	1/24/2004 04:18
Matrix:	Water	QC Batch#:	2004/01/23-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	5100	250	ug/L	5.00	01/24/2004 04:18	
Benzene	120	2.5	ug/L	5.00	01/24/2004 04:18	
Toluene	240	2.5	ug/L	5.00	01/24/2004 04:18	
Ethyl benzene	310	2.5	ug/L	5.00	01/24/2004 04:18	
Xylene(s)	720	2.5	ug/L	5.00	01/24/2004 04:18	
MTBE	190	25	ug/L	5.00	01/24/2004 04:18	
<b>Surrogate(s)</b>						
Trifluorotoluene	94.0	58-124	%	5.00	01/24/2004 04:18	
4-Bromofluorobenzene-FID	68.3	50-150	%	5.00	01/24/2004 04:18	

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**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s):	5030 5030	Test(s):	8015M 8021B
Sample ID:	<b>MW-4</b>	Lab ID:	2004-01-0430 - 4
Sampled:	01/14/2004 09:28	Extracted:	1/24/2004 04:50
Matrix:	Water	QC Batch#:	2004/01/23-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	530	250	ug/L	5.00	01/24/2004 04:50	
Benzene	88	2.5	ug/L	5.00	01/24/2004 04:50	
Toluene	4.1	2.5	ug/L	5.00	01/24/2004 04:50	
Ethyl benzene	9.9	2.5	ug/L	5.00	01/24/2004 04:50	
Xylene(s)	11	2.5	ug/L	5.00	01/24/2004 04:50	
MTBE	150	25	ug/L	5.00	01/24/2004 04:50	
<b>Surrogate(s)</b>						
Trifluorotoluene	94.6	58-124	%	5.00	01/24/2004 04:50	
4-Bromofluorobenzene-FID	64.2	50-150	%	5.00	01/24/2004 04:50	

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**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: MW-5	Lab ID: 2004-01-0430 - 5
Sampled: 01/14/2004 08:20	Extracted: 1/24/2004 05:21
Matrix: Water	QC Batch#: 2004/01/23-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	560	250	ug/L	5.00	01/24/2004 05:21	g
Benzene	ND	2.5	ug/L	5.00	01/24/2004 05:21	
Toluene	ND	2.5	ug/L	5.00	01/24/2004 05:21	
Ethyl benzene	ND	2.5	ug/L	5.00	01/24/2004 05:21	
Xylene(s)	ND	2.5	ug/L	5.00	01/24/2004 05:21	
MTBE	670	25	ug/L	5.00	01/24/2004 05:21	
<b>Surrogate(s)</b>						
Trifluorotoluene	91.9	58-124	%	5.00	01/24/2004 05:21	
4-Bromofluorobenzene-FID	68.4	50-150	%	5.00	01/24/2004 05:21	



**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>MW-6</b>	Lab ID: 2004-01-0430 - 6
Sampled: 01/14/2004 10:22	Extracted: 1/24/2004 06:56
Matrix: Water	QC Batch#: 2004/01/23-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/24/2004 06:56	
Benzene	ND	0.50	ug/L	1.00	01/24/2004 06:56	
Toluene	0.57	0.50	ug/L	1.00	01/24/2004 06:56	
Ethyl benzene	ND	0.50	ug/L	1.00	01/24/2004 06:56	
Xylene(s)	0.64	0.50	ug/L	1.00	01/24/2004 06:56	
MTBE	ND	5.0	ug/L	1.00	01/24/2004 06:56	
<b>Surrogate(s)</b>						
Trifluorotoluene	117.4	58-124	%	1.00	01/24/2004 06:56	
4-Bromofluorobenzene-FID	85.2	50-150	%	1.00	01/24/2004 06:56	

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**Gas/BTEX Compounds by 8015M/8021**

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Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>MW-7</b>	Lab ID: 2004-01-0430 - 7
Sampled: 01/14/2004 11:10	Extracted: 1/26/2004 09:33
Matrix: Water	QC Batch#: 2004/01/26-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	19000	10000	ug/L	200.00	01/26/2004 09:33	g
Benzene	ND	100	ug/L	200.00	01/26/2004 09:33	
Toluene	ND	100	ug/L	200.00	01/26/2004 09:33	
Ethyl benzene	ND	100	ug/L	200.00	01/26/2004 09:33	
Xylene(s)	ND	100	ug/L	200.00	01/26/2004 09:33	
MTBE	20000	1000	ug/L	200.00	01/26/2004 09:33	
<b>Surrogate(s)</b>						
Trifluorotoluene	110.3	58-124	%	200.00	01/26/2004 09:33	
4-Bromofluorobenzene-FID	77.5	50-150	%	200.00	01/26/2004 09:33	

**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030

Method Blank

MB: 2004/01/23-02.05-036

Water

Test(s): 8015M

QC Batch # 2004/01/23-02.05

Date Extracted: 01/24/2004 00:38

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/24/2004 00:38	
Benzene	ND	0.5	ug/L	01/24/2004 00:38	
Toluene	ND	0.5	ug/L	01/24/2004 00:38	
Ethyl benzene	ND	0.5	ug/L	01/24/2004 00:38	
Xylene(s)	ND	0.5	ug/L	01/24/2004 00:38	
MTBE	ND	5.0	ug/L	01/24/2004 00:38	
<b>Surrogates(s)</b>					
Trifluorotoluene	114.7	58-124	%	01/24/2004 00:38	
4-Bromofluorobenzene-FID	83.9	50-150	%	01/24/2004 00:38	

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**Gas/BTEX Compounds by 8015M/8021**

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Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030

Method Blank

MB: 2004/01/26-01.05-003

Water

Test(s): 8015M

QC Batch # 2004/01/26-01.05

Date Extracted: 01/26/2004 06:40

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/26/2004 06:40	
Benzene	ND	0.5	ug/L	01/26/2004 06:40	
Toluene	ND	0.5	ug/L	01/26/2004 06:40	
Ethyl benzene	ND	0.5	ug/L	01/26/2004 06:40	
Xylene(s)	ND	0.5	ug/L	01/26/2004 06:40	
MTBE	ND	5.0	ug/L	01/26/2004 06:40	
<b>Surrogates(s)</b>					
Trifluorotoluene	115.5	58-124	%	01/26/2004 06:40	
4-Bromofluorobenzene-FID	86.7	50-150	%	01/26/2004 06:40	

**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/01/23-02.05**

LCS 2004/01/23-02.05-037

Extracted: 01/24/2004

Analyzed: 01/24/2004 01:09

LCSD 2004/01/23-02.05-038

Extracted: 01/24/2004

Analyzed: 01/24/2004 01:41

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	92.4	87.7	100.0	92.4	87.7	5.2	77-123	20		
Toluene	101	94.4	100.0	101.0	94.4	6.8	78-122	20		
Ethyl benzene	91.5	84.7	100.0	91.5	84.7	7.7	70-130	20		
Xylene(s)	294	276	300	98.0	92.0	6.3	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	532	483	500	106.4	96.6		58-124			

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**Gas/BTEX Compounds by 8015M/8021**

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Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/01/23-02.05**

LCS 2004/01/23-02.05-039

Extracted: 01/24/2004

Analyzed: 01/24/2004 02:13

LCSD 2004/01/23-02.05-040

Extracted: 01/24/2004

Analyzed: 01/24/2004 02:44

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	482	453	500	96.4	90.6	6.2	75-125	20		
<b>Surrogates(s)</b> 4-Bromofluorobenzene-FID	385	377	500	77.0	75.4		50-150			

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**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/01/26-01.05**

LCS 2004/01/26-01.05-004

Extracted: 01/26/2004

Analyzed: 01/26/2004 07:11

LCSD 2004/01/26-01.05-005

Extracted: 01/26/2004

Analyzed: 01/26/2004 07:42

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	83.7	85.8	100.0	83.7	85.8	2.5	77-123	20		
Toluene	90.5	93.0	100.0	90.5	93.0	2.7	78-122	20		
Ethyl benzene	84.9	88.3	100.0	84.9	88.3	3.9	70-130	20		
Xylene(s)	270	284	300	90.0	94.7	5.1	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	493	507	500	98.6	101.4		58-124			

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**Gas/BTEX Compounds by 8015M/8021**

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Attn.: Anju Farfan

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Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20  
Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/01/26-01.05**

LCS 2004/01/26-01.05-006

Extracted: 01/26/2004

Analyzed: 01/26/2004 08:14

LCSD 2004/01/26-01.05-007

Extracted: 01/26/2004

Analyzed: 01/26/2004 08:45

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	497	484	500	99.4	96.8	2.7	75-125	20		
<b>Surrogates(s)</b> 4-Bromofluorobenzene-FID	390	385	500	78.0	77.0		50-150			

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**Gas/BTEX Compounds by 8015M/8021**

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Project: 41050001FA20

Conoco Phillips # 1156

Received: 01/15/2004 17:45

Site: 4276 Mac Arthur, Oakland

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**Legend and Notes**

---

**Result Flag**

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

STL San Francisco

### Sample Receipt Checklist

Submission #: 2004- 01 - 0430

Checklist completed by: (initials) TZ Date: 01/16/04

Courier name:  STL San Francisco  Client \_\_\_\_\_

Custody seals intact on shipping container/samples Yes \_\_\_\_\_ No \_\_\_\_\_ Not Present

Chain of custody present? Yes  No \_\_\_\_\_

Chain of custody signed when relinquished and received? Yes  No \_\_\_\_\_

Chain of custody agrees with sample labels? Yes  No \_\_\_\_\_

Samples in proper container/bottle? Yes  No \_\_\_\_\_

Sample containers intact? Yes  No \_\_\_\_\_

Sufficient sample volume for indicated test? Yes  No \_\_\_\_\_

All samples received within holding time? Yes  No \_\_\_\_\_

Container/Temp Blank temperature in compliance ( $4^{\circ}C \pm 2$ )? Temp: 30.1 °C Yes  No \_\_\_\_\_

Ice Present Yes  No \_\_\_\_\_

Water - VOA vials have zero headspace? No VOA vials submitted Yes  No \_\_\_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~ O), M (medium ~ O) or L (large ~ O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc -Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: \_\_\_\_\_

\_\_\_\_\_

### Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_\_/\_\_\_\_\_/04

Client contacted:  Yes  No

Summary of discussion: \_\_\_\_\_

\_\_\_\_\_

Corrective Action (per PM/Client): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

STL-San Francisco

2004-01-0430

ConocoPhillips Chain Of Custody Record

82058

1220 Quarry Lane  
Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS  
Attn: Dee Hutchinson  
3611 South Harbor, Suite 200  
Santa Ana, CA. 92704

ConocoPhillips Work Order Number:

ConocoPhillips Cost Object:

DATE: 1/14/04  
PAGE: 1 of 1

SAMPLING COMPANY: TRC		Valid Value ID:	CONOCOPHILLIPS SITE NUMBER 1156		GLOBAL ID NO.:
ADDRESS: 21 Technology Drive, Irvine CA 92618			SITE ADDRESS (Street and City): 4276 MAR ARTAUR, OAKLAND		CONOCOPHILLIPS SITE MANAGER:
PROJECT CONTACT (Hardcopy or PDF Report to): Anju Farfan			EDF DELIVERABLE TO (RP or Designee): Peter Thomson, TRC pthomson@trcsolutions.com		PHONE NO.: 949-341-7408
TELEPHONE: 949-341-7440	FAX: 949-753-0111	E-MAIL: afarfan@trcsolutions.com	E-MAIL: LAB USE ONLY		

SAMPLER NAME(S) (Print): U002	CONSULTANT PROJECT NUMBER 41050001/FA20	REQUESTED ANALYSES
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TURNAROUND TIME (CALENDAR DAYS): <input checked="" type="checkbox"/> 14 DAYS <input type="checkbox"/> 7 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS		8015m - TPHd Extractable 8260B - TPHg/BTEX/MBE 8260B - TPHg / BTEX / 8 Oxygenates 8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M) 8260B - Full Scan VOCs (does not include oxygenates) 8270C - Semi-Volatiles 8015M / 8021B - TPHg/BTEX/MBE Lead <input type="checkbox"/> Total <input type="checkbox"/> STLC <input type="checkbox"/> TCLP TPHd 8015M TPHg 8015M BTEX/MBE 8015M 6 OXGS 8015M	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes  3-1
SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED <input checked="" type="checkbox"/>			TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015m - TPHd Extractable	8260B - TPHg/BTEX/MBE	8260B - TPHg / BTEX / 8 Oxygenates	8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/MBE	Lead <input type="checkbox"/> Total <input type="checkbox"/> STLC <input type="checkbox"/> TCLP	TPHd 8015M	TPHg 8015M	BTEX/MBE 8015M	6 OXGS 8015M								
		DATE	TIME																						
	MW-1	1/14/04	0844	EW	10									X	X	X	X								
	MW-2		0943		9																				
	MW-3		0905																						
	MW-4		0925																						
	MW-5		0820																						
	MW-6		1022																						
	MW-7		1110																						

Relinquished by: (Signature) 	Received by: (Signature) 	Date: 1/15/04	Time: 9:40
Relinquished by: (Signature) 	Received by: (Signature) 	Date: 1/15/04	Time: 1745
Relinquished by: (Signature) 	Received by: (Signature) 	Date: 1-15-04	Time: 1745

## **STATEMENTS**

### **Purge Water Transport and Disposal**

Non-hazardous groundwater produced during purging and sampling was accumulated at TRC's groundwater monitoring facility at Concord, California, for transportation by Onyx Transportation, Inc., to the ConocoPhillips Refinery at Rodeo, California. Disposal at the Rodeo facility was authorized by ConocoPhillips in accordance with "ESD Standard Operating Procedures – Water Quality and Compliance", as revised on February 7, 2003. Documentation of compliance with ConocoPhillips requirements is provided by an ESD Form R-149, which is on file at TRC's Concord Office. Purge water suspected of containing potentially hazardous material, such as liquid-phase hydrocarbons, was accumulated separately in a drum for transportation and disposal by Filter Recycling, Inc.

### **Limitations**

The fluid level monitoring and groundwater sampling activities summarized in this report have been performed under the responsible charge of a California Registered Geologist or Registered Civil Engineer and have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the conclusions and professional opinions presented in this report. The conclusions are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.